# ARCHITECTURAL INNOVATIONS, P.S.

Forward Thinking Design Solutions For Your Environment

January 18, 2021

City of Mercer Island Attn: Development Services Group 9611 SE 36<sup>th</sup> Street Mercer Island, WA 98040

RE: AI Job #19037

### Project Address: 7233 80<sup>th</sup> Ave SE Attn: Crystal Kolke Subject: Permit No. 2008-182

Note: In addition to the items below the clients made a few small revisions since the original submittal. The main floor stair window has been deleted. The bedroom 6 window and window well moved to the left to allow for and uncovered patio area. The rear dining room window was changed to a door. The energy and site calculations have been updated accordingly.

### Nonstructural

- 1. Added dimension for the wall on sheet A2.0 and added detail 15/SD-02. Per the added dimensions and the footing size from the detail no portion of the wall will extend past the property line.
- 2. I was holding the grade short to show the portion of the house beyond that is lower than the grade at the side of the garage. Per the rear elevation the grade slopes down along the rear of the garage. I revised the elevation to show the house beyond as hidden lines.
- 3. a. Corrected the detail reference.
  - b. Added detail 10/D1 and added references to the detail on sheets A.0 and A2.1.
- 4. The details on sheet SD.01 refer to the Architectural plans for waterproofing and drainage.
- 5. Revised the detail reference on sheet A2.2.
- 6. Noted the clearances to detail 9/D1.
- 7. Per IRC 506.2.3 exception 1 vapor retarders are not required at garages.
- 8. Added vapor retarder note to the partial deck section C/A9.
- 9. The notes have been removed from sheet A1 and added a reference to sheet S-0.0.
- 10. The cover sheet has been revised.

# **Energy & Ventilation**

1. Revised the skylight U-value note on sheet A9.

# Geotechnical

- 1. A copy of the report has been provided with the resubmittal.
- 2. Please see the plan review letter prepared by PanGEO dated February 3, 2021. Per his initial review comments 02700.1.A on sheet A1 was revised per their instructions. Also a drainage and waterproofing note was added to sheet A2.0 and references to the note was added to details 1 & 2/D1.

#### Structural

Please see the attached response letter from Mulhern+Kulp. Plans have been updated per the redlines provided by the engineer.

Respectfully, Scott McMillen, Project Manager Architectural Innovations, P.S.



7220 Trade Street, Suite 350, San Diego, CA 92121 > p 619-650-0010 > mulhernkulp.com

December 15, 2020

# Scott McMillan ARCHITECTURAL INNOVATIONS 14311 SE 16<sup>th</sup> St.

Bellevue, WA 98007

# PRATT PLAT – LOT 4

PLAN REVIEW COMMENTS

M+K Project #: 203-20001

#### Reference

Structural Plans, designed by Mulhern + Kulp, prepared by Architectural Innovations Structural Notes & Details, prepared by Mulhern + Kulp Structural Calculations, prepared by Mulhern + Kulp

Scott,

Pursuant to your request, we are providing this letter to address the structural items resulting from the above referenced plan review comments for the above referenced single-family home in the city of Mercer Island. Below, please find the review comment, followed by our response.

# **PLAN REVIEW COMMENTS**

Structural

- Comment 1: Provide a statement of special inspection as required in IBC 1704.3 on the drawings. Special inspection will be required for concrete (IBC 1705.3) and structural wood (IBC 1705.11.1).
  Response: Please see the updated notes and details file for the statement of Special Inspections.
- Comment 2: Fasteners for pressure-treated wood should be called out on the drawings as ZMAX hot-dipped galvanized (G185), stainless steel, or meet ASTM A 153 or A 653 standards or as otherwise specified in IBC 2304.10.5.1. The notes on Sheet S-0.0 are not complete.
  Response: Please see the updated sheet S-0.0 for the added fastener specification for use in pressure treated wood product.
- Comment 3: Specify the minimum dowel length into the retaining walls in Details 10, 11 & 12/SD-01 and 13, 14 & 16/SD.02.
  Response: The details in question all specify 48" extension of the specified dowels into the stem wall in the footing specification.
  Therefore, no further action is required.
- Comment 4: Detail 80/LB-2 is cut at the east wall of the Covered Patio, Sheet A2.2. The detail shows support by a flush beam, but the plan calls for a girder truss. Revise the detail to reflect the actual condition.
   Response: Please see the updated detail for the actual condition shown within the plan set.



- Comment 5: Detail 47/LB-1 is cut above shear wall 205 which shows a drag truss above the shear wall with A35 clips to the top plate. In plan, we find the design capacity for the drag truss, but the drag truss does not appear to be aligned over the wall. The engineer of record indicates that an additional roof drag truss will be provided above this shear wall. Provide a specific note on the Roof Framing Plan, Sheet A6, indicating this.
  Response: Please see the updated plans for the added drag truss note.
- Comment 6: Shear wall 102 is a double-sided shear wall with special detailing requirements for force-transfer around openings. The Main Floor Framing Plan, Sheet A2.2, shows the HD-7 from above and HD-1 at the base of wall to foundation. The call-out on Sheet A2.2 is slightly south of the wall above; please align the holdown with the end of the shear wall above as shown with the red arrow below:

Response: Please see the updated plans for the hold-down aligned with above on sheet A2.2.

Comment 7: Shear wall 107 has a total length of 36' with 10.8' for shear resistance in this force-transfer shear wall (see page 34 of the calculations). Detail 93/LB-2 is cut at the three large windows, but not at the window in the pantry. Please cut this detail at the pantry window as well.

Response: Please see the updated plans for detail 93/LB-2 specified at the window in the pantry.

Please feel free to call if you have any questions.

Respectfully,

# **MULHERN & KULP STRUCTURAL ENGINEERING, INC.**

Project Engineer

Richard J. Zabel, P.E.

Nicholas J. Martignetti, P.E.

Associate Owner + San Diego Office Director

