



CIVIL ENGINEERING CONSULTANTS

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June 16, 2022

Attn: Brian Higginbotham
Kevin Higdon Construction
P.O. Box 847
Lee's Summit, MO 64063

RE: R.E.O. Project 21-002-32
MD2 Designs #: KH-6105 Lot 133 Napa
Permit #: PRRES20214938
1519 SW Blackstone Place
Lee's Summit, MO 64082

Dear Mr. Higginbotham,

We are providing herewith statement regarding field modifications to, and inspection comments for, the residential construction at the above referenced address. In the miscellaneous section, rafters on blocking or energy heel framing above the ceiling joists, without continuous exterior sheathing to the rafter seat, provide straps at 48 inches on center where rafters are constructed on blocking greater than three net top plates (including areas where ceiling joists are constructed as an energy heel). Straps shall be 1-1/4"x22 gauge and extend from the top of the rafter to 8 inches below the base of the top plate aligned with a stud in the wall construction. Seven (7) ~ 8d fasteners shall be connected to the stud with an additional seven (7) ~ 8d distributed between the rafter, blocking plates, and top plates. We consider the rafters constructed above an energy heel type blocking adequately tied. We consider the blocked-up rafters at the master bedroom tied with lookouts extending from the box-up ceiling to the top plate with the above described straps as adequately tied.

In several locations, hip/valley members are supported by blocking to the wall below. The blocks adequately transfer gravity loads to the wall. Each blocked hip shall have the same type of strap as described above fastened from the hip member to the main wall framing to adequately tie the member to the wall framing.

Also, in the miscellaneous section, in lieu of the specified continuously sheathed portal frame (CS-PF) at the rear breakfast wall, the sections on either side of the door shall be considered as continuously sheathed wood structural panels with fasteners installed at six inches on center at the perimeter of the panels; 12 inches on center spacing at the interior. This provides an adequate equivalent bracing method in lieu of the specified CS-PF.

At the covered deck, the rafter headers are supported at the main wall framing on blocks above the top of the main wall framing. These are anchored with 1-1/4" steel straps from the plates above the header to the blocking below the header. With discontinuous sheathing at the blocking / cripple wall plate, provide six-inch lag screws extending from the blocking through the main wall top plate. This will adequately anchor the rafter header against uplift loads.

Additionally at the covered porch, lookout ceiling joists from the main joists perpendicular to the rafter header are notched to sit on the header. The reduced effective section of these joists is adequate with no modifications required.

If there are any questions regarding this analysis, please contact our Offices

Very Truly Yours,

R.E.O. ENGINEERING, P.C.

By: , President
Aaron D. Obermiller, P.E.

