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4-7-22

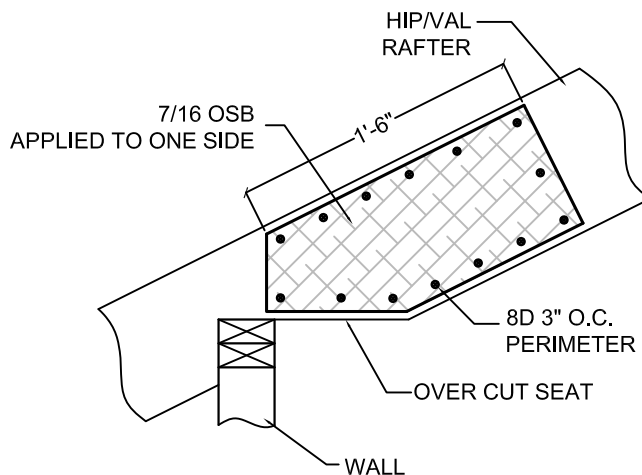
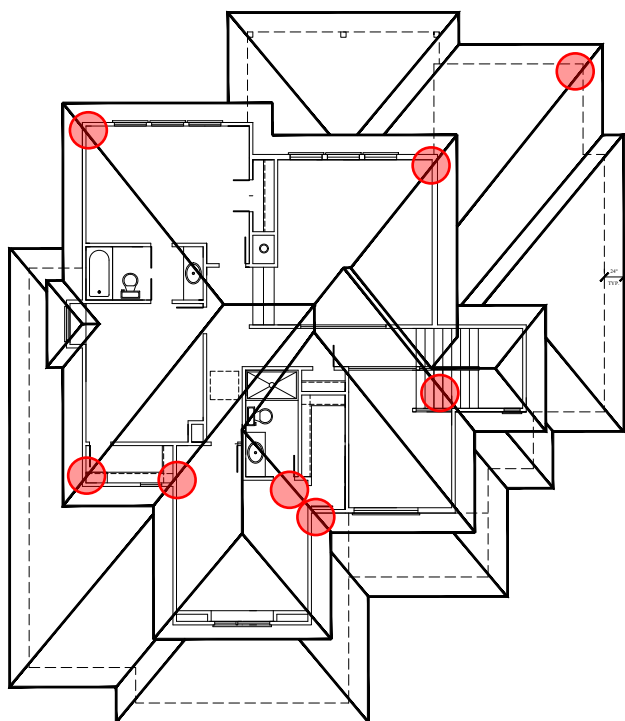
STEWART BUILDERS

RE: PRRES20212465
536 SE CARTER RD
LEE'S SUMMIT, MO.

Our firm has been asked to address rough framing inspection items for the home being built at the location listed above. At the time of inspection the home was in a rough framed state. Please find below the inspection item and our firms response.

- Provide engineer report or 75% bearing at all roof members on bearing walls
- Address notched valley rafter and bearing
- Address over notched hip and joist at bedroom 2

There are several locations where the hip and valley seat cuts have been over cut to allow clearance. After review of the roof loads our firm has identified the locations (see below marked in red) in need of additional reinforcing to ensure proper transfer of roof loads. The locations marked will be reinforced with a layer of 7/16 OSB attached as shown in the detail below.



HIP/VAL OVER CUT SEAT REINFORCING DETAIL

1" = 1'-0"

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PAGE TWO

RE: PRRES20212465
536 SE CARTER RD
LEE'S SUMMIT, MO.

-Double LVL over master tub over tapered

The double LVL beam has been clipped to allow framing clearance. The LVL has a 3.5" stand at the bearing line. The beam has an end reaction of 1500#. The shear stress at the end of the beam, for the given cross section, is 183.7psi, the allowable for the LVL is 285psi. Our firm recommends approval of this item as framed.

-Address rafter short of ridge above kitchen island

The framer has secured full depth blocking to the rafters for attachment to the ridge. The block attachment to the rafter and the block attachment to the ridge are adequate for transfer of loads imposed.

-Address double 2x10 in bed 2 tapered over 25%

The double 2x10 beam has been clipped to allow framing clearance. The beam has a 4" stand at the bearing line. The beam has an end reaction of 840#. The shear stress at the end of the beam, for the given cross section is 105psi, the allowable for the beam is 180psi. Our firm recommends approval of this item as framed.

-Address double 2x10 in bed 2 tapered over 25%

The framer has installed 3" schedule 40 pipe columns at the two 'C' pad locations in the lower level. The plans call for 3.5" columns at these locations. Our firm has reviewed the column loads and found them to be at 14.6K and 13.8K. The column label for the post selected show an allowable load of 25.6K for the unbraced length in place. Our firm recommends approval of these two columns for the current loading.



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STRUCTURAL REVIEW
HD ENGINEERING & DESIGN
HD: 41203 DATE: 4/7/2022

11656 W. 75th Street
Shawnee, KS 66214

913-631-2222
service@hdengineers.com