

April 22, 2022

Summit Homes  
 120 SE 30<sup>th</sup> St.  
 Lee's Summit, MO 64082

**RE: Field Issue of over-bored stud for Lot #136 Hawthorne Ridge – 3100 SW Arbortree Drive Lee's Summit, MO 64082 – Permit # PRRES20213952**

Findings:

- Stud adjacent to great room window has been over-bored.
- Stud was over-bored to allow for fireplace conduit.
  - Bore hole is outside of IRC limitations.

**Recommendations:**

- Install Simpson HSS2-3 -SDS3 stud shoe at over-bored hole in great room.
  - Install per manufacturers specifications below.

Many of these products are approved for installation with Strong-Drive® SD Connector screws.

Model No.	Stud Size	W (in.)	Fasteners (in.)	Allowable Loads <sup>1</sup>		
				DF/SP		
				Compression		Tension
Floor (100)	Roof (125)					
SS1.5	2x	1½	(12) 0.148 x 1½	500	500	—
SS2.5	3x	2½	(12) 0.148 x 1½	730	740	—
SS3	(2) 2x	3½	(12) 0.148 x 3	730	830	—
SS4.5	(3) 2x	4½	(14) 0.148 x 3	840	840	—
HSS2-SDS1.5	2x	1½	(12) ¼ x 1½ SDS	1,165	1,165	1,025
HSS2-2-SDS3	(2) 2x	3	(12) ¼ x 3 SDS	1,165	1,165	1,025
HSS2-3-SDS3	(3) 2x	4½	(12) ¼ x 3 SDS	990	990	960
HSS4-SDS3	4x	3½	(12) ¼ x 3 SDS	1,205	1,205	1,025

1. Roof loads are 125% of floor loads unless limited by other criteria. Floor loads may be adjusted for load durations according to the code provided they do not exceed those in the roof column.

2. Fasteners: Nail dimensions in the table are listed diameter by length. SDS screws are Simpson Strong-Tie® Strong-Drive® SDS Heavy-Duty Connector screws. For additional information, see [Fastener Types and Sizes Specified for Simpson Strong-Tie Connectors](#).

- Or replace over-bored stud with #2-2x4 full height stud.

Sincerely,



Bradley Huxol, PE

