543 Pylon Dr Raleigh, NC 27606 (919) 480-1075 info@jdsconsulting.net

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Date: 10/02/2024

To: Duane Morrow

KB Home 4506 S Miami Blvd Durham, NC 27703 dpmorrow@kbhome.com 919-610-7969

Re: Inspection Items

Location: Lot 25 Birchwood Grove (544 John Stark Dr, Fuquay-Varina, NC)

JDS Project No.: RDU2409847 Date of Inspection: 10/02/24

A representative of JDS Consulting arrived on site to observe the issues reported to us by the client, which are presented, along with our recommendations, in this report.

Observations

The client requests an evaluation of the following items:

- 1. The 6th BCI 5000S I-joist (double I-joist) from the rear garage wall has damage in multiple areas of the bottom chord on the rear face. The top chord is also damaged at the rear face.
- 2. The I-joist that bears upon the left rear exterior wall has plumbing penetration in the bottom chord and has holes in the web too close to the bottom chord.
- 3. The 2nd I-joist from the left rear exterior wall has a hole in the web that is too close to the bottom chord, and there is damage on the bottom flange near the rear wall.
- 4. The 3rd I-joist from the left rear exterior wall has a hole that is too close to the bottom flange.

Recommendations

Based on our on-site observations and review:

- 1. Pack out the web by 14' by full depth by 7/16" (or greater) OSB centered on the damage attached with structural adhesive and (3) rows of 6D nails spaced at 4" o.c. Then install a 14' 2x4 scab to the rear face flush with the bottom flange attached with (2) rows of 10D nails spaced at 4" o.c. with (1) row in the web and (1) row in the flange. Install a 4' 2x4 scab flush with the top flange centered on the damage attached with (2) rows of 10D nails spaced at 4" o.c. with (1) row in the web and (1) row in the flange. The client may tightly notch around penetrations as needed.
- 2. Pack out the web at both holes with 2' by full depth by 7/16" OSB centered on each hole attached with structural adhesive and (3) rows of 6D nails spaced at 4" o.c.
- 3. Pack out the web with 4' by full depth by 7/16" OSB on both sides centered on the hole attached with structural adhesive and (3) rows of 6D nails spaced at 4" o.c. The client may tightly notch around the penetration as needed.
- 4. Pack out the web with 4' by full depth by 7/16" OSB on both sides centered on the hole attached with structural adhesive and (3) rows of 6D nails spaced at 4" o.c. The client may tightly notch around the penetration as needed.

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If you have any questions or if I can be of further assistance to you on this project, please contact me at 984-344-4691

Respectfully Submitted, Patrick Ruff



Reviewing Engineer: Maxwell C. Danskin, PE