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Opinion Letter

September 6, 2018

From: Michael A. Cavnar P.E.

Engineer Consultant

To: Josh Nichols/James Ray American Ember

All copies to be distributed by Josh Nichols

Re: Inspection of water damage to walls and sub-floor

On September 5, 2018 at 3:00 pm a visual inspection of a bedroom, master bathroom was conducted at 80 Valley Pine Circle, Spring Lake, N.C. 2839 after the General Contractor found signs of moisture damage to wall and floor system. When the engineer arrived he observed the following: The walls around the shower and the shower sub-floor had already been demoed out to expose the framing wall studs (2 x 4's). All ceramic tile and sub-floor had been removed down to the damaged area of two top flanges of the engineered I-joist that runs under the master bathroom shower, The partition walls around the shower, bottom plates had rot damage.

My opinion is the following:

Install two new engineered I-joist on the right side of old existing, same size, same rating, match existing, approximately 12-13 feet in length, General Contractor to verify exact measurement. Use a filler blocking between the two I-joist, cover the web area entirely with the filler blocking. The new I-joist will be installed from the rim board under bathtub and run to the outside corner of the girder under shower. The X bracing resting over the girder will need to be modified to allow for new I-joist. General Contractor will field verify all placement of I-joist because of plumbing pipes ect... The interior partition wall bottom plates and some wall framing studs will need to be replaced before new walls are installed.

Cordially,

Michael A. Cavnar P.E. #026912