



SMITH ENGINEERING AND DESIGN, P.A.

December 16, 2024

Mr. Shane McLeod
STE General Contractors, LLC
PO Box 2364
Dunn, NC 28335

Re: Residential Structural Design
1268 Keith Hills Dr.
Lillington, NC 27546

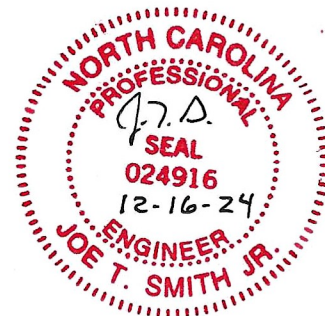
Dear Mr. McLeod:

Per your request, I have reviewed a portion of the structural elements of the residence at the above referenced address. The purpose of the review was to calculate the required structural member size to replace a portion of an existing load-bearing wall as part of a renovation of an existing residence. The residence is a 2-1/2 story structure constructed on a walk-out basement foundation with conventional wood framing and rafter roof system and is located within a 120-mph wind zone in Harnett County, NC. Please see the attached sketch for beam size and location. The beam is supporting a portion of a second floor bedroom and attic space with design loads of 30 pounds per square foot live load and 10 pounds per square foot dead load used in the analysis. A 2-ply 1-3/4" x 9-1/4" Laminated Veneer Lumber (LVL) beam was sized for the 10'-2" cased opening. The beam will be supported on each end with (3) 2"x 4" jacks that bear on an existing 4-ply 1-3/4" x 9-1/4" LVL at the first floor level.

Please note that all construction shall be completed in accordance with the North Carolina Residential Building Code. This letter and seal do not certify dimensional accuracy, architectural layout or state or local code compliance of the plans. If I may be of further assistance, please feel free to call me.

Respectfully,

Joe T. Smith, Jr, P.E.
SMITH ENGINEERING AND DESIGN, P.A.
NC Firm Lic. No: C-2241



Attach: Structural Member Sizes (1 page)

