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28 MARCH 2025

To: Whom It May Concern

Re: 4173 Benson Road Angier

Permit # JAMPE Job Number 2503-42

The following design and recommendation is based on the latest edition of the North Carolina Building Code and any local codes that may be in effect at the time of this letter.

Live Loads: Roof/Limited Storage- 20 psf Upper Floors- 40 psf Main floors- 40 psf
Dead loads as applicable. Allowable Soil Pressure- 2000psf Wind load- 27 psf.
Allowable Stress: #2 SPF- 875 psi #2 SYP- 1050 psi LVL- 2900 psi

Homeowner has requested verification of the following issues:

Verify Structural Integrity and Compliance with Code Requirements Code Used for Evaluation 2018 Residential Code Site Evaluation 1430 28 March 2025.

Century Old Home has been raised and new 16" x 8" Concrete footing retro-fitted to support pier and curtain original construction and new piers on level and properly sized pads.

Foundation is sufficient to support 30 foot by 30 foot structure and has code required two inch minimum projection and is located at mid-third of footing.

Floor system is supported by a centerline pier and dropped girder. Girder and Floor Joist Framing are "True" 2 x material and is sufficient for expected loads and soils conditions

Probe and Auger for verifying projection and footing size reveals native clay silts, silty clay and sandy loams. Maximum load - 1320 plf / 16 / 12 = 1000 psf and soils are sufficient for expected loads.

Crawl space has been converted to sealed conditioned space with insulated walls and fully encapsulated with recommended vapor, condensation, and moisture barrier. Conditioned source provided from heat pump servicing the home.

Wall construction is of true two by four material and has been retro-fitted with R-15 or above insulation. Sufficient bracing is provided by period appropriate let-in diagonal members and sheathing.

Roof construction meets or exceeds code requirements and my recommendations.

Home construction meets and often exceeds code requirements and my recommendations ON Site. Framing is in good condition or better and shows only minor signs of fungal growth (inert) (most likely prior to conditioning of space

Respectfully,

John A. McRae
NCPE 20081 (NC C-2298)

Questions or Comments John A McRae jampe86@gmail.com
Design and Soils Evaluation is to 2018 North Carolina Residential Code

