NC Registered Engineering Firm P-1855

10 October 2024

Allen Peterson Precision Custom Homes

Reference: Structural Evaluation

Magnolia Hills – Lot 4

Dear Allen Peterson:

OTG Consulting, PLLC (OTG) was requested to evaluate the planned footings at the garage door and determine the required sizes. OTG was provided a copy of building plans, truss layouts, and member design report. We understand that the garage header will span approximately 16 feet 10 inches and consist of a 2-ply 1 $\frac{3}{4}$ " x 20" LVL. The footing loads from the garage door header are 14,865# and 10,290#.

Based on the assumed allowable soil bearing pressure of 2,000 psf (pounds per square foot) and the above stated footing loads from the garage door header, OTG recommends that the footings on each side of the garage door header be 36" W by 36" L. The footing should be a minimum of 24 inches thick. The 28-day compressive strength for the footing concrete should be 3,000 psi. A bottom mat of #4 reinforcing steel (2- #4 bars ea way) should be placed in the bottom of the footing on rebar chairs providing a minimum of 3 inches of cover from the bottom of the footing. Contractor should also ensure a minimum cover of 1 1/2" of cover between the sides of the footing and the edges of the rebar.

Closing

If any of this information is inaccurate, either due to our interpretation of the documents provided or site or design changes that may occur later, OTG should be contacted immediately in order that we can review the report in light of the changes and provide additional or alternate recommendations as may be required.

Respectfully,

OTG Consulting, PLLC

10 Oct 2024

Scott G. Dowell, P.E.

President

NC Registration No. 037387