J.S. THOMPSON
ENGINEERING, INC
structural and geotechnical
custom residential design

August 17, 2020

DC Carter
Dan Ryan Builders NC, LLC
3000 RDU Center Drive
Suite 202
Morrisville, NC 27560

Dear Mr. Carter:

A site visit was made to lot #50 Olde Mill Village subdivision (540 Mill Bend Drive) in Harnett County, North Carolina to inspect the existing foundation to determine the necessary modifications to extend the front porch to the right side as required for elevation 4.

A 16" wide by 8" deep continuous footing is to be excavated at the right side of the existing porch foundation. At the intersection points with the existing footing, (2) #4 x 24" rebar dowels are to be embedded 4" with epoxy. A 26" x 26" x 10" lug is to be excavated at the front right corner for the pier. An 8" solid filled CMU wall is to be constructed with a 16" x 16" solid filled CMU pier at the front right corner. At the intersection points with the existing foundation walls, existing block is to be removed and the new block is to be woven in.

At the front inside corners of the existing porch foundation, 16" x 16" x 8" deep trenches are to be excavated the bottom of the existing footing. At each trench, (2) #4 x 12" rebar dowels are to be embedded into the side of the existing footing 4" with epoxy. 8" x 16" CMU solid filled pilasters are to be constructed at the front inside corners of the existing porch foundation and are to be secured to the existing foundation wall with walls ties at 16" o.c. each way. The pilasters are to be reinforced with (2) #4 vertical rebar embedded 4" into the top of the footing with epoxy. At the top course of the pilasters, (2) #4 rebar bent in an upside down "U" are to be installed to tie the pilasters to the foundation wall. The "U" shaped rebar is to be installed to extend a minimum of 4'-0" down into the existing foundation wall and pilasters. The pilasters are to be held below the slab and the slab is to be poured so that it turns down into the top course of the pilasters. The top course(s) of the foundation wall at the right side of the front porch are to be removed so that the wall is held below the slab.

CMU piers are <u>not</u> to be constructed above the slab height. The 4 x 4 treated posts are to be installed to extend to the slab and are to be secured at the bottom with a Simpson ABU44Z post base. A false pier with adhered stone is to be framed around the posts to meet the architectural specifications.

Footings are to be excavated to firm residual soils with a minimum required bearing capacity of two thousand pounds per square foot. Rebar installation is to be verified by a Harnett County inspector prior to concrete placement. This configuration will provide the required support for all applied loads.

Please call me if you have any questions.

Sincerely,

J.S. Thompson Engineering, Inc.
N.C. License No. C-1733

NORTH CAROLINA PROFESSIONAL SEAL 33736 ENGINEER MATTHEW G. STROTHER

8/17/2020

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