March 13, 2023

Mr. Bill Carr
Weaver Homes
350 Wagoner Drive
Fayetteville, North Carolina 28303

Subject: **Summary of Preliminary Subgrade Material Evaluations**
Lot No. 2
Lillington, North Carolina
Project Number: 8984.F0001 (37516-01)

Dear Mr. Carr:

As requested, Summit Engineering, Laboratory and Testing, Inc. (**SUMMIT**) has performed a preliminary subgrade material evaluation for Lot 2 in the Hales Farm Subdivision in Lillington, North Carolina. The purpose of our preliminary subgrade material evaluation was to provide recommendations with respect to building pad support for a typical residential structure. Following is a brief summary of our observations, subgrade testing and foundation recommendations.

Observations and Testing

On February 23, 2023, **SUMMIT** visited the subject site and performed hand auger borings and Dynamic Cone Penetrometer (DCP) testing (ASTM STP-399) after remedial measures had been performed on the proposed building pad. **SUMMIT** also performed hand probing evaluations with a T-handle 1/2-inch diameter steel probe rod adjacent to the existing foundation. We performed 2 hand auger borings within the proposed building pad.

Our work included testing and evaluations of the in-place soil at existing site grade. Hand auger borings were incrementally advanced by manually twisting a sharpened steel auger into the soil at the front and rear portions of the building pad. The soil consistency at the existing grade and at one-foot selected intervals below existing grades were evaluated by Dynamic Cone Penetrometer (DCP) testing (ASTM STP-399). The conical point of the DCP was first seated to penetrate any loose soil cuttings and then driven three additional 1-3/4-inch increments with blows from a 15-pound hammer falling 20 inches. The soil's strength characteristics and subgrade support capability was determined based on the average blows per increment (bpi) over the last two increments to achieve this penetration. Additionally, random locations on the building pad were evaluated by hand probing utilizing a ½ inch diameter steel probe rod to check for soft areas at the surface intermediate of our hand auger boring locations.

Based on the results of our hand auger borings and DCP testing, the soils encountered at the above-mentioned lot appeared suitable for support of a proposed residential structure.

Due to the wide spacing of the hand auger borings and the preliminary nature of our evaluation, the possibility of deleterious inclusions and variable density material within the in-place soils still exists. We recommend once footings are excavated that evaluations be performed by personnel from our office to determine if foundation support is available prior to concrete placement.

SUMMIT appreciates the opportunity to provide our professional services to you on this project. If you have any questions concerning the information in this report or if we can be of further service, please contact us.

Sincerely,
SUMMIT Engineering, Laboratory and Testing, Inc.

NORTH CAROLINA PROFESSIONAL SEAL 042148 ENGINEER JEFF A. TAYLOR

3/13/2023

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