March 28, 2025

Mr. Donnie Bentley Dan Ryan Builders – North Carolina, LLC 1101 Slater Road, Suite 300 Durham, North Carolina 27703

Subject: Summary of Foundation Bearing Material Evaluation & 3<sup>rd</sup> Party Inspection Lot No. 29 – (426 Adams Pointe Court) Honeycutt Hills Subdivision Angier, North Carolina Permit Number: 2502-0021 Project Number: 3241-14R (42179-00) Order No.: N/A

Dear Mr. Bentley:

On March 13, 14, 19, 21, and 24, 2025, a representative of UES Professional Solutions 29, Inc. (**UES**) visited the subject site for the purpose of observing the near surface foundation bearing materials and to perform a third-party foundation inspection for the proposed residential structure. The following is a summary of our onsite observations and evaluation.

**UES** 

The residential footings were excavated approximately 16 inches wide and approximately 16 inches below the existing ground surface. We observed that the exterior and interior wall foundations and lugs, including the rear deck footings, were prepared per the structural plans provided onsite.

Our work included testing and bearing grade evaluations of the in-place soil at the bottom of the foundation excavations. Hand auger borings were incrementally advanced by manually twisting a sharpened steel auger into the soil at selected locations along the footing excavation. The soil consistency in the bottom of the excavation and at selected intervals below the bearing grade was evaluated by Dynamic Cone Penetrometer (DCP) testing. The conical point of the DCP was first seated to penetrate any loose 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 foundation support capability was determined based on the average blows per increment (bpi) over the last two increments to achieve this penetration. Additionally, the entire excavated foundation was evaluated by hand probing using a ½ inch diameter steel probe rod to check for soft areas at the surface intermediate of our hand auger boring locations.

The materials exposed at the bottom of excavations generally consisted of brown-tan, sandy-clay (residual soils) and were free of significant quantities of organics and debris. It should be noted that standing water and wet soils were observed during our first site visit. We recommended mucking out the footings and digging tail ditches to help de-water the footings. Additionally, soft soils were encountered to approximate depths ranging from 1 to 3 feet at the left and rear exterior wall footings lines, including lug footings. We returned on March 14, 19, and 21 and observed that remedial measures were still required. Each revisit we recommended mucking out the footings and installing rebar in accordance with the specified plans provided onsite. We

returned on March 24, 2025 and observed that the recommended remedial measures had been completed. If additional testing for the purpose of estimating volumetric change (shrink/swell) potential or to estimate consolidation of the tested soils is desired, **UES** can provide these services.

Based on the results of our DCP testing, the completed remedial measures, and our site observations, the soils encountered are suitable for support of the residential structure utilizing a net allowable soil bearing pressure of **2,000 pounds-per-square-foot**. The foundation bearing soils are in accordance with the HUD requirements.

If foundation bearing materials are exposed to inclement weather or adverse construction activities, **UES** should be contacted to re-evaluate the foundation bearing materials prior to concrete placement.

We appreciate the opportunity to assist you during this phase of the project. If you need further assistance or additional information please do not hesitate to contact us.

Sincerely,

UES Professional Solutions 29, Inc.



Adam D. Perry, E.I. Staff Professional



