October 13, 2025

Mr. Chris Hare
Mattamy Homes
1210 Trinity Road, Suite 102
Raleigh, North Carolina 27607

Subject: **Summary of Foundation Bearing Material Evaluation & 3rd Party Inspection**
Lot No. 31 – (296 Denali Drive)
Riverfall Subdivision
Angier, North Carolina
Permit Number: 2509-0038
Project Number: 1852-10R (43302-00)
Order No.: N/A

Dear Mr. Hare:

On September 24, 2025 and October 3 & 8, 2025, a representative of UES PROFESSIONAL SOLUTIONS 29, INC. (**UES**) visited the subject site for the purpose of observing and evaluating the near surface foundation bearing materials and to perform a third-party inspection for the proposed residential structure. The following is a summary of our onsite observations and evaluation.

UES returned on October 3, 2025 to perform a third-party footing inspection. It should be noted that the third-party footing inspection failed due to the minimum footing width not being met at the left exterior wall footing line and a utility line being installed within the right garage wall. The contractor was informed and **UES** recommended excavating the footings in accordance with the specified plans provided and re-locating the utility line in the right garage wall. We returned on October 8, 2025 and observed that the recommended remedial measures had been completed. The exterior and interior wall foundations, thickened slab sections, and lugs were prepared per the onsite structural plans. Based on our measurements, the footings are in compliance with the signed and sealed project structural foundation plans provided onsite and Chapter 4 of the 2018 North Carolina Residential code. Additionally, we observed that the vapor barrier was installed and that the foundation insulation had been placed along the exterior wall foundations.

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 were 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 tan and brown-orange, silty-sand and sandy-clay (residual soils) and were free of significant quantities of organics and debris. If additional testing for the purpose of estimating volumetric change (shrink/swell) potential or to estimate consolidation is desired, **UES** can provide these services.

Based on the results of our DCP testing, hand probing, 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**.

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.

UES 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,
UES PROFESSIONAL SOLUTIONS 29, INC.

10/13/25

NORTH CAROLINA PROFESSIONAL SEAL 042148 ENGINEER JEFF A. TAYLOR

Jeff A. Taylor, P.E.
Geotechnical Engineer

Adam D. Perry, E.I.
Staff Professional