January 17, 2023

Mr. Jon Kent
Herring Homes
933 Old Knight Road
Knightdale, North Carolina 27545

Subject: **Summary of Foundation Bearing Material Evaluation & 3rd Party Inspection**
Lot No. 1 – (17 Drathaar Court)
Griffon Pointe Subdivision
Lillington, North Carolina
Permit Number: 2209-0021
SUMMIT Project Number: 0040.F0001 (37278-00)
Order No.: GPO 0001-0004

Dear Mr. Kent:

On January 5, 2023, a representative of SUMMIT Engineering, Laboratory and Testing, Inc. (**SUMMIT**) visited the subject site for the purpose of observing the near surface foundation bearing materials and to perform a third-party footing inspection for the proposed residential structure. The following is a summary of our onsite observations and evaluation.

The residential foundations were excavated approximately 18 inches wide and approximately 20 inches below the existing ground surface prior to our site visit. We observed that the exterior and interior wall foundations, rear deck footings, and lugs 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 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 were 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 between our hand auger boring locations.

The materials exposed at the bottom of the foundation excavations generally consisted of tan, silty-sand (residual soils) and were free of significant quantities of organics and debris. It should be noted that soft soils were encountered to an approximate depth of 8 inches below the planned foundation bearing elevation at a section of the rear exterior wall. The contractor was informed and **SUMMIT** recommended over-excavating to firm soils in the areas designated in marking

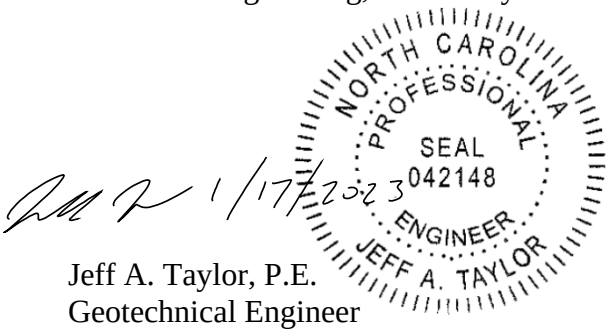
paint. **SUMMIT** remained onsite to observe that the recommended over-excavations had been completed. We recommend backfilling the over-excavated areas with compacted clean washed stone (NCDOT No. 57 stone or place full depth concrete. If additional testing for the purpose of estimating volumetric change (shrink/swell) potential or to estimate consolidation is desired, **SUMMIT** 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**. Concrete is ready to be placed for the foundation areas.

If foundation bearing materials are exposed to inclement weather or adverse construction activities, **SUMMIT** 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,
SUMMIT Engineering, Laboratory and Testing, Inc.



Jeff A. Taylor, P.E.
Geotechnical Engineer

Adam D. Perry, E.I.
Staff Professional