January 3, 2023

Mr. Austin Brown
Starlight Homes
5711 Six Forks Road, Suite #200
Raleigh, North Carolina 27609

Subject: **Summary of Foundation Bearing Material Evaluation & 3rd Party Inspection**
Lot No. 157 – (357 Timber Skip Drive)
Anderson Creek Crossing Subdivision
Spring Lake, North Carolina
Permit Number: SFD-2205-0027
Project Number: 6033.500 (37214-00)

Dear Mr. Brown:

On December 28, 2022, 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 footings were excavated approximately 20 inches wide and approximately 24 inches below the existing ground surface. We observed that the exterior and interior wall foundations, and lugs, including the rear deck 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 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 encountered in our hand auger borings generally consisted of brown-tan, sandy-clay (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 12 inches below the foundation bearing elevation at a lug footing in the right rear portion of the proposed residential structure. The contractor was informed and **SUMMIT** recommended removing the soft soils prior to placing concrete. **SUMMIT** remained onsite and observed that our recommendations were completed. We recommend backfilling the over-excavated areas with full depth concrete or

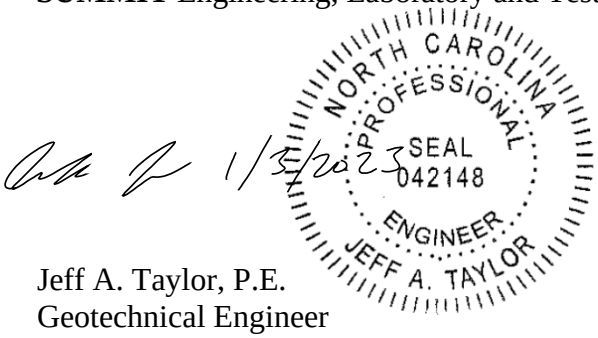
compacted NCDOT No. 57 washed stone. If additional testing for the purpose of estimating volumetric change (shrink/swell) potential or to estimate consolidation is desired, **SUMMIT** can provide these services.

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**.

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.

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.



Jeff A. Taylor, P.E.
Geotechnical Engineer

Adam D. Perry, E.I.
Staff Professional