

April 12, 2023

Mr. Rich Sherman New Home Inc. rich.sherman@newhomeinc.com

> Report of Footing Examination Duncan's Creek – Lot 174 20 Duncan Creek Road Lillington, North Carolina Our Project Number 121-22-110410

## Gentlemen:

As requested, our representative was present onsite on April 5, 2023, to test the shallow subsurface soils of the footing excavations of Lot 174 (Permit #2301-0082) of the residential home located at 20 Duncan Creek Road in Lillington, North Carolina. Based upon our understanding of the planned residential construction, we have assumed an allowable soil bearing capacity of 2,000 pounds per square foot (psf).

Our testing consisted of visual observations, hand rod probing, and dynamic cone penetrometer testing in accordance with ASTM STP-399 at selected locations to a maximum depth of 3 feet below the bearing surface. Our scope did not include mechanically drilled soil test borings to evaluate deeper subsurface soil conditions that could affect foundation support. Deeper borings can be provided, if desired.

Based on our observations and the results of our testing, soft, wet soils were encountered to a depth of approximately 1 foot below the excavated foundation bearing surface along the right footing line (as viewed from the street). We recommended that the soft, wet soils be removed to a depth of 1 foot and backfilled with additional concrete. After these remedial measures are performed, the design bearing pressure of 2,000 pounds per square foot (psf) should be available at the locations and depths tested at the time of our investigation.

Exposure to the environment, especially rainfall, may weaken the soils at the foundation bearing surface, if they are exposed for extended periods of time prior to concrete placement. If the foundation bearing surface becomes softened due to exposure, the soft soils should be removed prior to placement of concrete.

If you have any questions concerning this information, please contact us.

Sincerely,

NV5 Engineers and Consultants, Inc. (F-1333)

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William M. Cruikshank, E.I.

Project Manager

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