

January 14, 2025

Mr. Jack Adcock Penny Road Developers, LLC <u>jadcock@randrdev.com</u>

> Summary of Observations and Testing Ballard Road Subdivision Smithfield, North Carolina Our Project Number 121-23-111900

Gentlemen:

As requested, representatives of NV5 Engineers & Consultants, Inc. have recently been periodically present at the above referenced subdivision to perform visual observations, hand rod probing, proofroll observations, and random soil density testing. This letter is intended to provide a summary of our observations and testing during grading operations performed on structural fill areas within the Ballard Road Subdivision, Lots 6 through 10. We note that surveying of lot corners and building envelopes is not part of our scope of services. All locations and elevations referenced herein were identified in the field by others.

As indicated in our previously provided correspondence, our representatives were present on a full-time basis during site grading operations to perform proofroll operations in the fill areas prior to fill placement. In areas that were not accessible to proofroll equipment, hand rod probing was performed prior to fill placement. After all visible topsoil and/or soft, wet soils were removed, the subgrade soils exhibited no excessive rutting or deflection beneath the proofroll load, and the areas were deemed suitably firm for fill placement. Suitable structural fill soils were then placed within Lots 6 through 10. Random density tests on the fill soils revealed that the soils were generally compacted to at least 95% of the standard Proctor maximum dry density in accordance with industry standard practice for a residential subdivision at the locations and final soil subgrade elevations tested at the time of our testing. The specific locations and results of our soil density testing will be provided under separate cover. Based on our experience, this compaction percentage indicates that the soils were properly placed and adequately compacted for support of the proposed residential structures on shallow foundations utilizing a maximum design soil bearing pressure of 2,000 pounds per square foot. Exposure to the environment may weaken the exposed subgrade soils.

Our scope of services did not include mechanically drilled test borings to evaluate deeper subsurface conditions that could affect foundation support. We recommend that footing excavation examinations be performed by a qualified representative of a licensed Geotechnical Engineer prior to concrete placement to identify any isolated areas of soils that do not meet the required bearing capacity.

Sincerely.

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

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