

PRELIMINARY SOIL & SITE EVALUATION

Dannie Thompson Lot
Manor Rd
Henderson, NC 27537

Prepared For:

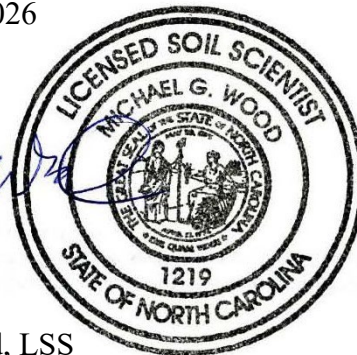
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March 29, 2026



Michael G. Wood, LSS

INTRODUCTION AND SITE DESCRIPTION

A Preliminary Soil & Site Evaluation was performed on the 4.00-acre Dannie Thompson Lot located at on Manor Road, Henderson, NC (Vance County PIN: 0351B01002). Wood Soil Consultants (WSC) was retained to evaluate the soil and site conditions and identify suitable areas for placement of on-site subsurface wastewater systems for single-family residences. The property was evaluated in accordance with the working copy of North Carolina statutes for waste disposal 15A NCAC 18E, effective September 11, 2024.

The study area is wooded. There is a drainageway in near Rice Road that is Unsuitable for subsurface septic systems due to topography and has been labeled as such on Figure 1.

INVESTIGATION METHODOLOGY

The field survey was conducted on March 10, 2026, by Michael G. Wood, LSS and Ethan T. Wood. Soil borings were advanced with hand-augers and soil color was determined using a Munsell Soil Color Chart. Observations of the landscape as well as soil properties (depths, texture, structure, soil wetness, restrictive horizons, etc.) were recorded. Soil borings were described per the USDA-NRCS, *Field Book for Describing and Sampling Soils, Version 3.0*. Soil borings and site features are noted in Figure 1.

FINDINGS

Six (6) soil borings were advanced and their placements located on Figure 1. They were placed into one of the following categories:

Provisionally Suitable for Conventional Type Systems. Borings Provisionally Suitable for Conventional Systems include Gravel, Accepted, Alternative, Shallow-Placed, and prefabricated permeable block panel systems (PPBPS). While the particulars and costs between the system types can vary considerably, these are generally the preferred system types. This soil appeared adequate to support a long-term acceptance rate (LTAR) of 0.30 to 0.35 GPD/sq-ft.

Provisionally Suitable for Low-profile Chamber Systems. Low-Profile Chamber systems are designed similarly to Conventional Type systems but are not allotted any reduction in drainfield size, thus will require more space than the typical Conventional Type systems. These soils require a minimum of 20" of suitable soil when factoring in slope corrections.

Provisionally Suitable for Subsurface Drip Systems. Subsurface Drip systems require a minimum of 13" of suitable soil. Soil with a restriction less than 17" will require the septic system to include a pretreatment unit that treats the wastewater to Treatment Standards II. Subsurface Drip systems are substantially more costly to install than Conventional Type and Low-Profile Chamber Systems. LTAR often need to be confirmed via in-situ hydraulic conductivity measurements, but these are expected to support an LTAR of 0.10 GPD/sq-ft.

Unsuitable. Borings were rated as Unsuitable due to a restrictive horizon occurring within 12 inches of the ground surface.

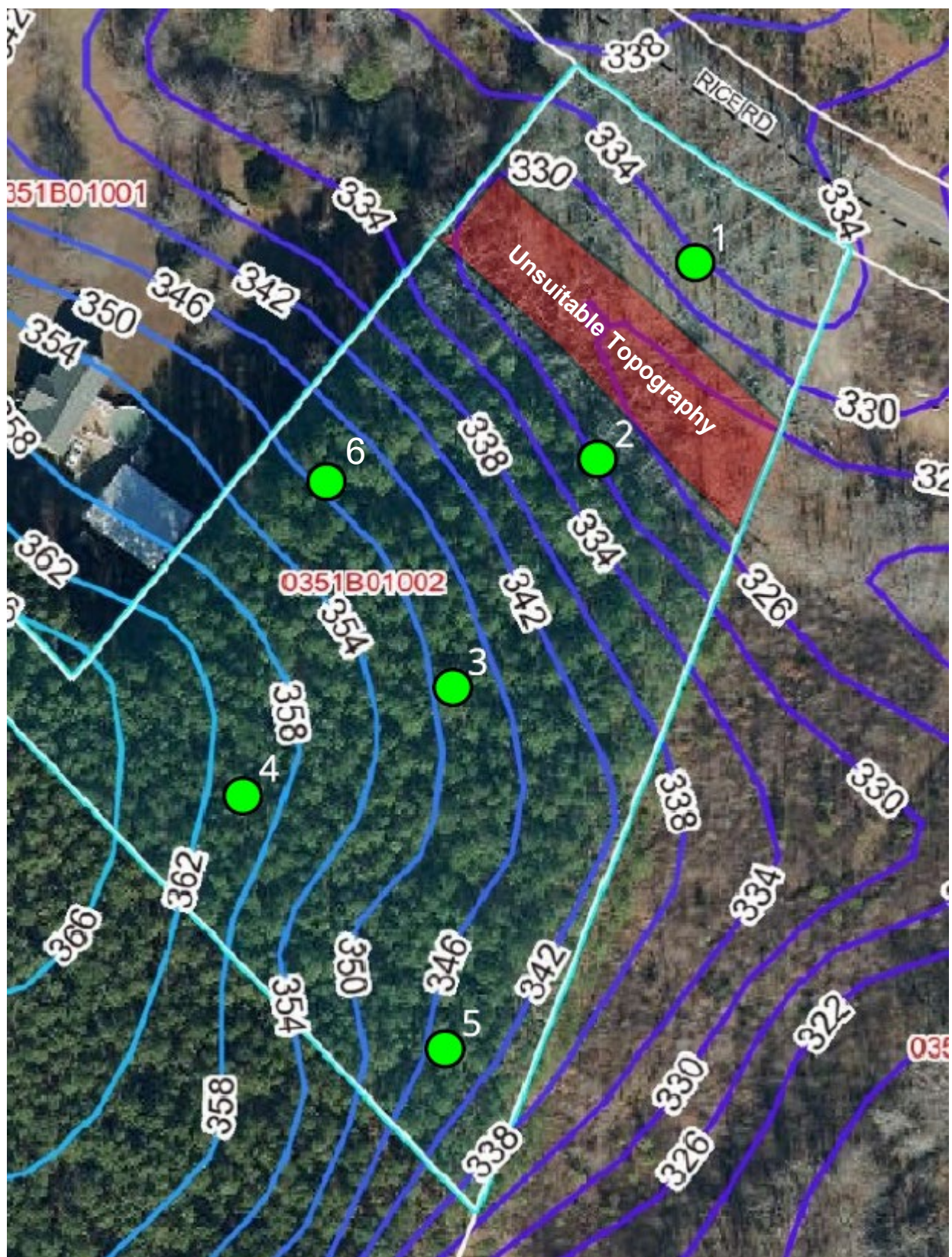
DISCUSSION

The soil in the study area mostly Suitable for a Conventional Type System. There are few restrictions with regard to placed of a subsurface septic system(s). While a drainfield layout will eventually be required to determine the system details; trench depth, length, LTAR, etc., the lot is large enough to accommodate at minimum a 5-bedroom single-family residence.

CONCLUSION

The findings presented herein represent WSC's professional opinion based on our Preliminary Soil and Site Evaluation and knowledge of the current laws and rules governing on-site wastewater systems in Vance County and North Carolina. This study area has ample space for a Conventional Type Septic System for at minimum a 5-bedroom single-family residence.

This Preliminary Soil and Site Evaluation is for general information purposes only. The data collected will not meet the standards of the Engineered Option Permit (EOP) process. Soils naturally change across a landscape and contain many inclusions. As such, attempts to quantify them are not always precise and exact. Due to this inherent variability of soils and the subjectivity when determining limiting factors, there is no guarantee that a regulating authority will agree with the findings of this report.



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Figure
1

Date: 3/29/2026