

PRELIMINARY SOIL & SITE EVALUATION

Abdul Zalal Lot
132 Cherokee Dr
Louisburg, NC 27549

Prepared For:

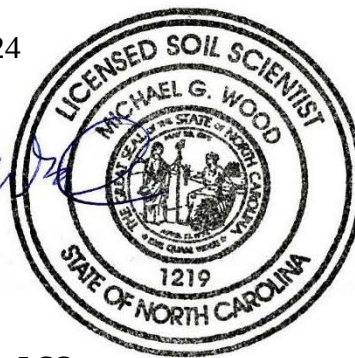
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June 11, 2024



Michael G. Wood, LSS

INTRODUCTION AND SITE DESCRIPTION

A Preliminary Soil & Site Evaluation was performed on the 0.63-Acre Abdul Zalal Lot located at 132 Cherokee Dr, Louisburg, NC (Franklin County PIN: 2705019953). Wood Soil Consultants (WSC) was retained to evaluate the soil and site conditions and identify suitable areas for placement of an on-site subsurface wastewater system(s). The property was evaluated in accordance with the working copy of North Carolina statutes for waste disposal 15A NCAC 18E, effective January 1, 2024.

The study area is wooded. There is a small drain that outlets into a very large concave drainage area that has been marked in red as Unsuitable Topography for subsurface septic systems on Figure 1.

INVESTIGATION METHODOLOGY

The field survey was conducted on June 11, 2024, by Michael G. Wood, LSS and Ethan T. Wood. Soil borings were advanced with hand-augers and soil color 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

Three (3) soil borings were advanced their placements located on Figure 1. They were placed into one of the following categories:

Suitable for Conventional Type Systems. Borings Provisionally Suitable for Conventional Systems include Gravel, Accepted, Alternative, Shallow-Placed, and prefabricated permeable block panel systems. 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 GPD/sq-ft.

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.

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

All three borings advanced were rated as suitable for Conventional Type Septic Systems. However, the lot is relatively small and a large section is Unsuitable due to topography, as such mindful development will be needed to ensure sufficient room is left for the septic system.

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 Franklin County and North Carolina. The majority of the lot is Suitable for a Conventional Type Septic System.

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.

Figure 1. 132 Cherokee Drive



● Conventional Type