Fred D. Smith Soil Scientist

July 5, 2022

Paul Satterwhite
Low Ridge, LLC
% Brandy Alexander, Broker
4700 Six forks Rd
Suite 130
Raleigh, NC 27609

Subject: Preliminary Soil Suitability for Conventional Septic Systems
1910 Wade Stephenson RD
Harnett County

Dear Mr. Satterwhite and Ms. Alexander:

This letter presents my evaluation results and conclusions regarding soil suitability for septic systems for the above-mentioned subdivision lot.

I understand that you plan to build a 3-bedroom house on this lot. You want to determine if the soils on the lot are suitable for conventional septic systems. The lot is about 0.6 acre. I do not know if a well will be necessary for water supply or if the lot is served by county water.

I did not have a survey plat and the property lines were not flagged.

Soil and Site Evaluation

The site and soil were evaluated to observe soil properties, surface features, landscapes, and site parameters. Hand auger borings were used to evaluate soil characteristics in accordance with 15A NCAC 18A 1900 (Laws and Rules for Sewage Treatment and Disposal Systems). As you read this report, please see the attached site sketch.

The lot is a gently sloping tract with slopes of about 8% from the street to the rear of the lot. The lot is lightly wooded. The attached drawing shows the approximate boundaries of the soil and site evaluation.

The soils are derived from residual rocks of the Piedmont of NC. The soils are moderately deep clay and clay loam with subangular blocky structure. They do not have a significant amount of shrink-swell clay mineralogy. They do not have shallow seasonal wetness within 48 inches of the surface. The have saprolite mixed with soil below a depth of about 40 inches below the surface.

These soils are suitable for shallow conventional drainfield. Sufficient space of these suitable soils is present for a 3-bedroom home. If this lot requires a well permit, then the well will have a 50-foot setback that will significantly reduce the amount of land available for the initial and repair septic system areas.

A 3-bedroom home (360 gallons per day of wastewater) is estimated to require about 300 linear feet of trench for the initial drainfield. Based on the 300 linear feet, approximately 2400 square feet of area is required. An equal amount of area is also required to be set aside for a repair system.

If available space for the septic system is limited, then the T&J Panel Block system can be used to lower the space requirement by about 50%.

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If the house is placed toward the rear of the lot, then a pump and pump tank will need to be used to pump the wastewater up to the shallow conventional drainfield

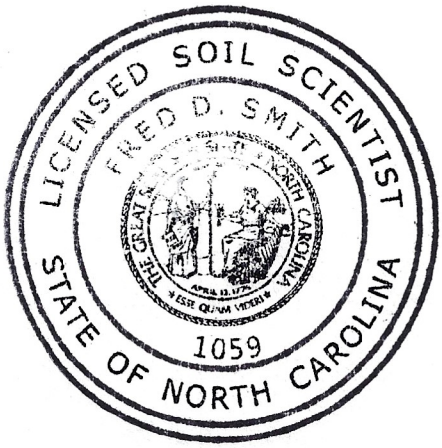
Minimum Setbacks for Septic Systems

10 feet from property lines
15 feet from any gully
5 feet from house foundation
15 feet from basement walls
10 feet from water supply pipe
50 feet from any well

I appreciate the opportunity to work with you on this project. Please contact me with questions or additional information after you have reviewed the information here.

Sincerely,

Fred D. Smith, LSS



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Google Maps

1910 WADE STEPHENSON RD

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