



Fred D. Smith Soil Scientist

November 17, 2025

Dale and Martel Privette
8000 Upper Lake Dr.
Raleigh, N.C. 27615

Subject: Preliminary Soil Suitability for Conventional Septic Systems
Kendal Lane, Parcel 048392
Franklin County

Dear Mr. and Mrs. Privette:

This letter presents our evaluation results and conclusions regarding soil suitability for septic systems for the above-mentioned parcel.

We were asked to evaluate the soils on the above-mentioned parcel. You want to determine if the soils on the parcel are suitable for conventional, accepted or innovative septic systems for a residential home. We based our evaluation on a 4-bedroom house. You sent us the parcel number of the property. The property lines were not flagged at the site.

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 18E (Laws and Rules for Sewage Treatment and Disposal Systems). See the attached map that shows the general location of each boring on a topographic map. It also shows the suitable (Soil 1) and unsuitable soil (US) areas and their general locations. This report and map are intended for planning purposes only and not for recording or permitting purposes.

The portion of the tract that was evaluated is a linear area with slopes of about 1-6% and is moderately wooded.

The tract is located in the Fall Zone of N.C. where the transition occurs between the residual soils of the Piedmont region and the marine sediment soils of the Upper Coastal Plains.

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Soil 1

These soils are residual soils formed from the underlying rocks of the Piedmont Region of N.C. They have sandy loam topsoil and yellowish-brown sandy clay loam and clay subsoils. They have sub-angular blocky structure. They do not have a significant amount of shrink-swell clay mineralogy. They do not have shallow seasonal wetness, saprolite or rock within 40 inches of the surface.

Conclusion

Soil 1

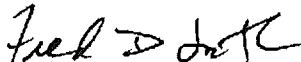
The soils are suitable for a shallow conventional drainfield. Based on the soil properties found we expect these suitable soils to have a loading rate of 0.30 gallons per square feet of trench per day. We expect that the initial and repair drainfields will need approximately 3400 square feet of area each for a 4-bedroom house.

Unsuitable Soil (US)

These soils have saprolite and rock at approximately 8-14 inches below the surface. Therefore, these soils are considered unsuitable for any type of septic system with respect to shallow depth to saprolite or rock.

We 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

