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June 2, 2024

RE: Preliminary soil/site suitability evaluation performed on two adjacent tracts that are 4.68 and 0.49 acres on Atkinson Rd. in Robeson County, NC

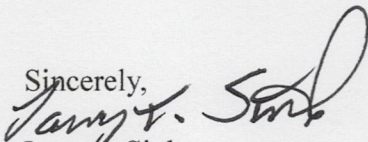
A preliminary soil/site suitability evaluation was performed on the above mentioned tract on May 30, 2024, at your request to determine areas of usable soils and favorable site conditions that have potential for subsurface wastewater treatment and disposal systems. The tract was traversed and observations were made of land forms (slopes, drainage patterns, past use, etc.) as well as soil conditions (depth, texture, structure, seasonal wetness, restrictive features, etc.) through the use of hand auger borings. This site was evaluated during moist soil conditions. The soil/site criteria used is that contained in 15 ANCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems".

*FINDINGS:* This preliminary soil/site suitability evaluation confirmed a good potential for residential development. There is a high level of confidence that this tract will support the installation of subsurface conventional septic systems. Furthermore, based on the usable soils and favorable site conditions alone, this tract will most likely support three to five house sites. Careful site planning is necessary to make any potential lots work for a septic system, well and house placement. However, based on local sub division rules and local zoning rules; then the potential for this tract is outside the scope of this report and would need to be varied independently. This tract is located in the Middle Coastal Plain Region of Robeson County, NC. The usable soils on this tract are similar to the Wagram soil series, and they are considered provisionally suitable for subsurface conventional or modified conventional septic systems with 24 to 30 inches plus of usable soil material. The usable textures of loamy sand and sandy clay loam, will have a LTAR range of 0.4 to 0.7 gallons per square foot per day. The size of a subsurface drain field is determined by the: 1) the design flow from the source (120 gallons per bedroom per day in residences) and 2) the long term acceptance rate (LTAR) of the soil which is based on the hydraulic conductivity of the soil which is a function of the soil's texture, mineralogy, structure and porosity. Since this tract is all wooded, then any potential house site with usable soils should remain undisturbed by heavy equipment, excavations, etc. until authorized by the local health department and determined to be the site for the septic system and repair. Also, this tract has some overhead power transmission lines in two places, and part of this tract is in the middle of existing home sites with set backs from property lines and maybe wells. An additional consideration in the overall design of the drain field is the required setbacks for the septic system and repair drain field from various elements such as wells(50ft.), streams and ponds (50ft.), property lines(10ft.) etc. The unsuitable soils are due to soil wetness in the Bibb and Rains soil series.

This report discusses the general location of potentially usable soils and favorable site conditions for on-site subsurface wastewater treatment and disposal and does not constitute or imply any approval or permit as needed by the client from the local health department.

I was hired for my professional and experienced knowledge in these matters.

Sincerely,



Larry T. Sink  
NC Licensed Soil Scientist #1054  
Soils sketch map included

