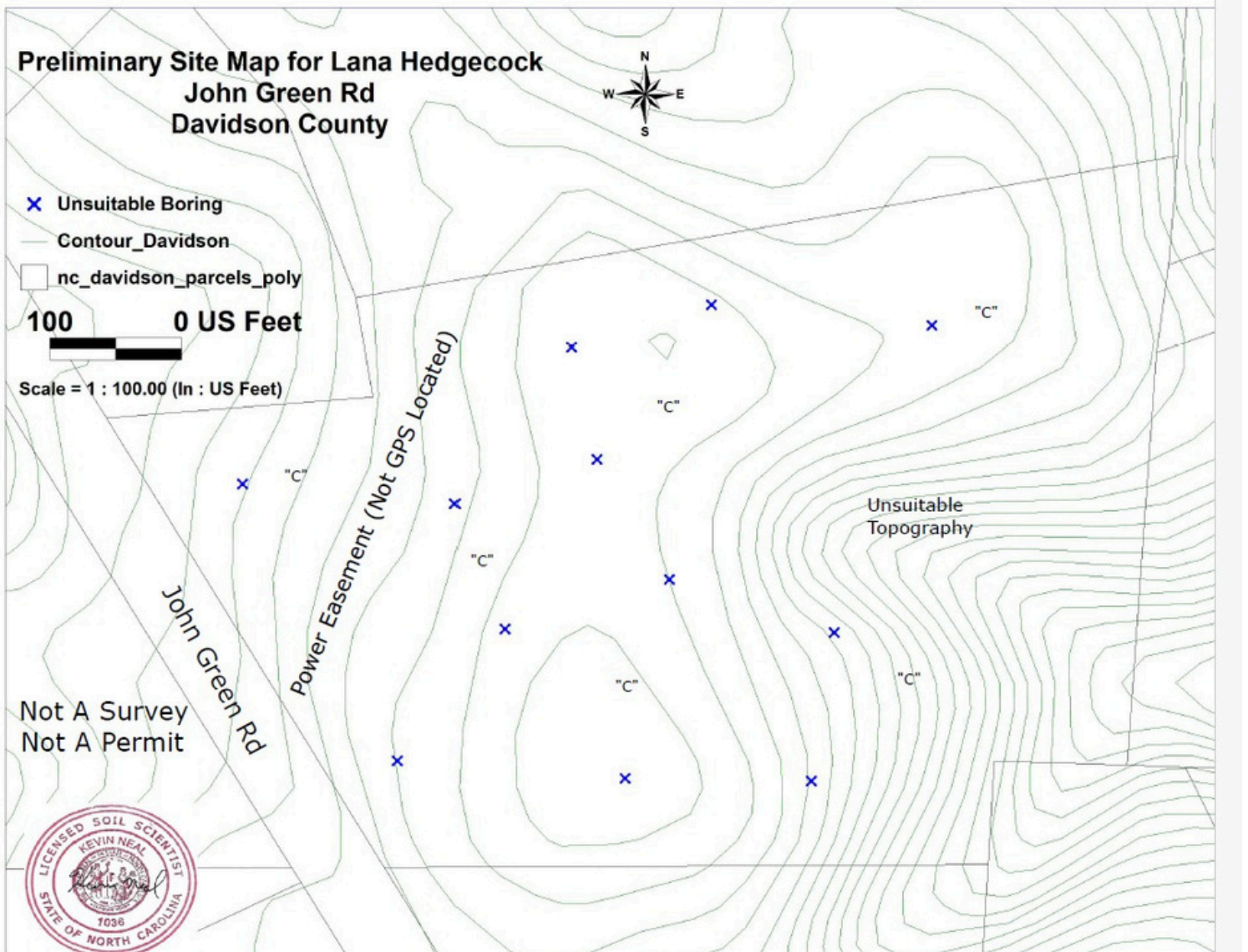
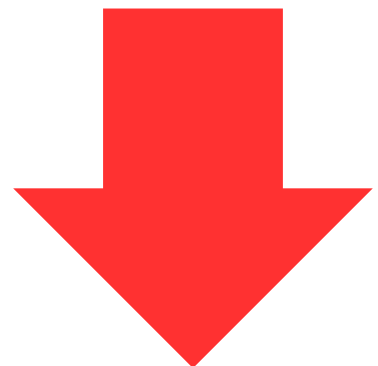
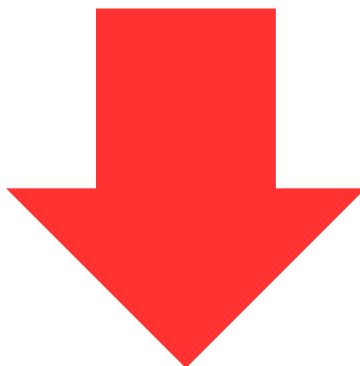
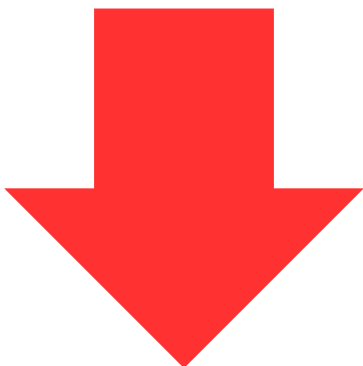


Soil Evaluation Map & Report



**Please scroll down to see
full report.**



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Soil/Site Evaluations-Septic Systems Layout-Preliminary Evaluations

May 18, 2026

Lana Hedgecock
Phone Number – 336-423-2435
Email – lanahedgecock@gmail.com

RE: John Green Road
PIN # 6860-01-39-4407
Property Size – 7.4 Acres
Davidson County

Ms. Hedgecock:

On May 13, 2026, I conducted a preliminary soil/site evaluation on the property referenced above on John Green Road in Davidson County for a potential on-site sewage disposal system in accordance with **15A NCAC 18E Wastewater Treatment and Disposal Systems**. The property was traversed, and twelve borings were made in a transect-type sampling pattern. These borings were made using a hand auger. Under state regulations, sites for subsurface sewage disposal systems are evaluated for landscape position and topography, soil characteristics (structure, mineralogy, and texture), soil depth, soil wetness, restrictive horizons, and available space. The property did have severe drainage pattern or gully located on the right rear of the property as shown on the site map.

This preliminary evaluation of the property was for the purpose of determining if the soil on the property would support an on-site wastewater system for a single family residence. This report and accompanying site map will help identify the soil on the parcel. Estimated design sewage flow from a house is 120 gallons per bedroom per day. The available space required is a function of system type, trench length, grade, and topographic features. I recommend 3,000 to 4,000 square feet per bedroom of area for drain fields. 3,000 square feet per bedroom for a level site and 4,000 square feet per bedroom needed for a sloping site, terraced sites, site with large trees and root mass, and sites with large surface boulders to work around. For example, a four-bedroom dwelling, 12,000 to 16,000 square feet of usable soil are needed for conventional gravel trenches or low-profile chambers. This square footage will also allow and include area for a repair field of equal size for use in the future.

Typical Septic Systems in Piedmont NC:

The most common septic systems used in the North Carolina Piedmont are listed with the corresponding minimum usable soil depth required and any trench length reduction if allowed noted in parentheses: conventional (30”), shallow conventional systems (24” with soil cap), chamber systems (24” with soil cap and 25% drain field reduction), polystyrene systems (24” with soil cap and 25% drain field reduction), vertical panel block systems (requires at least 34” of usable soil and allows 50% drain field reduction), horizontal panel block systems (requires at least 26” of usable soil and allows 50% drain field reduction) large diameter pipe (24”), low

pressure pipe (24”), low profile chamber (20”), low pressure fill (18”) and drip irrigation (18”). A pump can be used to deliver effluent to the usable soil area if gravity flow cannot be achieved. Also, a pump is required on any system with over 750’ of drain field. The percent reduction means the amount of drain field trench length reduction allowed for that product as compared to conventional trenches. Certain models of chamber systems and polystyrene bundle systems are considered accepted trench products. Accepted trench products can be substituted in lieu of conventional gravel trenches.

Septic System Setbacks (15A NCAC 18E .0601 Location of Wastewater Systems*):

The following setbacks must be taken into consideration in identifying a septic system area for flows less than 3000 gallons per day.

A private drinking water well:	50’
Public Water Supply Source:	100’
WS-1 Streams from ordinary high-water mark:	100’
SA Coastal waters:	100’
Shared water supply well or water supply spring:	100’
Other streams, ponds, canals, marshes, or surface waters:	50’
Class I and II reservoirs, from normal water level:	100’
Building foundation and deck supports:	5’
Basement, cellar, or in-ground pool:	15’
Property line:	10’
Gullies > 2’ deep:	15’
Any water line:	10’
Interceptor Drains and surface water diversions:	
Upslope:	10’
Side slope:	10’
Down slope:	15’
Groundwater lowering ditches:	25’
Above ground swimming pool and appurtenances that require a building permit:	5’
Any other nitrification field:	20’

Findings:

Soil borings were made throughout the property that was not unsuitable to topography. The areas denoted as "C" were found to have unsuitable soil or unsuitable topography. A blue “X” is shown at the boring locations on the site map. Unsuitable soil characteristics can include shallow soil depths less than 18” to rock or parent material (Rule .0505), the occurrence of soil wetness conditions (Rule .0504), or unsuitable soil morphology (Rule .0503).

Conclusions:

Using the current septic system technology, this property would be considered unsuitable for an on-site subsurface wastewater system and is only buildable if municipal sewer were available or access to adjacent properties with suitable soil.

The attached site map is based on soil borings collected using an EOS Arrow Gold GPS and iCMTGIS Pro app and then overlain with the Davidson County parcel and contour shapefiles available from NC OneMap. PCGIS X software was then used to prepare the maps and site map. A one inch to 100' version of a site plan is provided. The GPS locations can be accurate to submeter, but county GIS shapefile layers should not be considered as accurate as survey located features, points, and property lines.

This preliminary evaluation was conducted using accepted soil science and environmental health practices. This does not guarantee that the local health department or other professionals will agree with these findings since soil/site evaluations are an interpretation of the state regulations, but all current sampling methods, technologies, and practices were used. This report and site map should be used in conjunction with each other.

Please feel free to contact me if you have any further questions.



Kevin Neal

NC Licensed Soil Scientist #1036

NC Registered Environmental Health Specialist #1343

NC Onsite Wastewater Evaluator #10048E

