

Southeastern Soil & Environmental Associates, Inc.

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July 29, 2020

Mr. Jason Wellons
Wellco Contractors, Inc.
PO Box 766
Spring Lake, NC 28390

Re: Preliminary soil evaluation for subsurface waste disposal, PIN 0506-32-0407.000
+/- 201 acres, off Poplar Drive, Harnett County, North Carolina

Dear Mr. Wellons,

A preliminary soils investigation has been completed for the above referenced property at your request. The property is located off Poplar Drive as illustrated on the accompanying map. The purpose of the investigation was to determine the extent of soil areas that may have the ability to support subsurface waste disposal systems for a proposed residential subdivision. All ratings and determinations were made in accordance with "Laws and Rules for Sanitary Sewage Collection, Treatment, and Disposal, 15A NCAC 18A .1900".

Southeastern Soil and Environmental Associates, Inc. (SSEA) performed these soil evaluations in July 2020. SSEA traversed the property and observed landforms (slope, drainage patterns, etc.) as well as soil conditions through the use of hand auger borings and/or soil probes. From these observations and GPS location (accuracy may vary; **not based on a current survey**) the boundaries between usable and unusable soils has been **estimated** on the accompanying maps (scale as shown).

Three distinct soil patterns were observed in the field evaluations. They are described as follow:

Area "A": This area is dominated by soils that are provisionally suitable for subsurface waste disposal systems (**with the exception of minor drainageways or disturbed areas that are too small to delineate at this scale**). Typically, these soils exhibited 4 or more inches of loamy sand underlain by sandy clay loams and/or sandy clays to depths of 36 or more inches.

Soil wetness, depth, and mineralogy were typically suitable to depths of at least 20 inches. A 3-bedroom home would require approximately 8,000 sq. ft. of this soil area for drainfields and repair areas (exclusive of setbacks from lot lines, houses, drainage

features, etc.). A 4-bedroom home would require approximately 10,000 sq. ft. of this soil area. (Note: These square footage recommendations assume appropriate topography for a practical septic system layout on topographical contour. Space requirements could increase with difficult topography, irregular lot lines, etc.) System types in these soil areas could include conventional, innovative, low pressure pipe, pump to conventional, .1957b fill, low profile chamber, porous panel block, pretreatment, drip irrigation, French Drains, etc.

Note: The enclosed map is not based on a current survey [once surveyed, estimations of soil lines may change]. All points were flagged in the field for location by your professional land surveyor. Due to heavy vegetation and/or poor GPS accuracy, estimations of unsuitable soil lines (on maps provided) could vary after further evaluation.

Area "B": Soils in these areas are a **mixture of provisionally suitable and unsuitable** due to shallow depths to soil wetness (colors of chroma 2 or less within 20 inches from the soil surface) and/or parent material. Because of this shallow depth, **these areas are more likely to have alternative systems or be classified unsuitable after further testing (hydraulic conductivity)**. Further testing is required after rough lot staking to determine that each proposed lot contains enough soil for septic system and repair.

Area "C": Soils in these areas are dominantly unsuitable for subsurface waste disposal due to poor topography, shallow soil depths to unsuitable saprolite or parent material, soil wetness [colors of chroma 2 (or less) and/or redox mottles that are less than 12 inches from the soil surface] and/or expansive clay mineralogy. These soils are not capable of modification under current regulatory criteria (for subsurface waste disposal). Some of these areas contain wetlands that are regulated by the US Army Corps of Engineers and/or the NC Division of Water Resources. A wetland delineation has been completed and should be consulted prior to any site disturbances near these areas. A wetland permit will be required if any disturbance is required in or near the delineated wetland areas.

Note: Any site grading, compaction, rutting and/or soil removal in the provisionally suitable soil areas (A) may alter the findings of this report and render sites unusable. Areas for septic disposal must remain undisturbed (no mechanical clearing, stripping, excavation or heavy traffic).

Because individual lots were not surveyed at the time of evaluation, this report does not address lot(s). This report is to be used as a guide for likely subdivision/lot design based on useable soils.

Harnett County Planning requires a certification of the septic suitability of each proposed lot prior to recording a subdivision map. Additional soil borings/testing will be required at the time that proposed individual lots are staked on the ground to determine whether each lot contains adequate soils that have the ability to assimilate waste under current rules and the type system required. Based on these individual lot evaluations, additional requirements for lot density, lot size and/or configuration would be made to meet current regulatory criteria.

This report, of course, does not guarantee, constitute or imply any approval, or issuance of permit, as needed by the client from the local health department. Such approval is dependent on individual lot evaluations made after individual lots are staked in the field by the local health department. This report only represents my opinion as a licensed soil scientist. Because of the extreme variability of these soils, SSEA does not guarantee that permitting agencies will agree with these findings (nor permit the intended use).

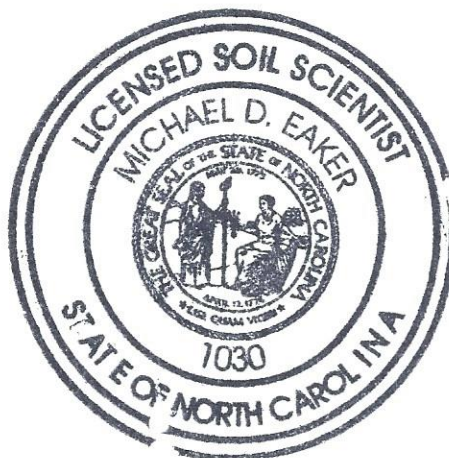
As with any property, a buyer of any proposed lot should obtain an appropriate septic improvement permit from the local County Health Department prior to making or completing financial obligations or commitments. (A permit from this agency is the only "guarantee" of a site's suitability).

Southeastern Soil and Environmental Associates, Inc. is pleased to be of service in this matter. We look forward to assisting in additional site analysis needs you may have in the future. Please feel free to call with any questions.

Sincerely,

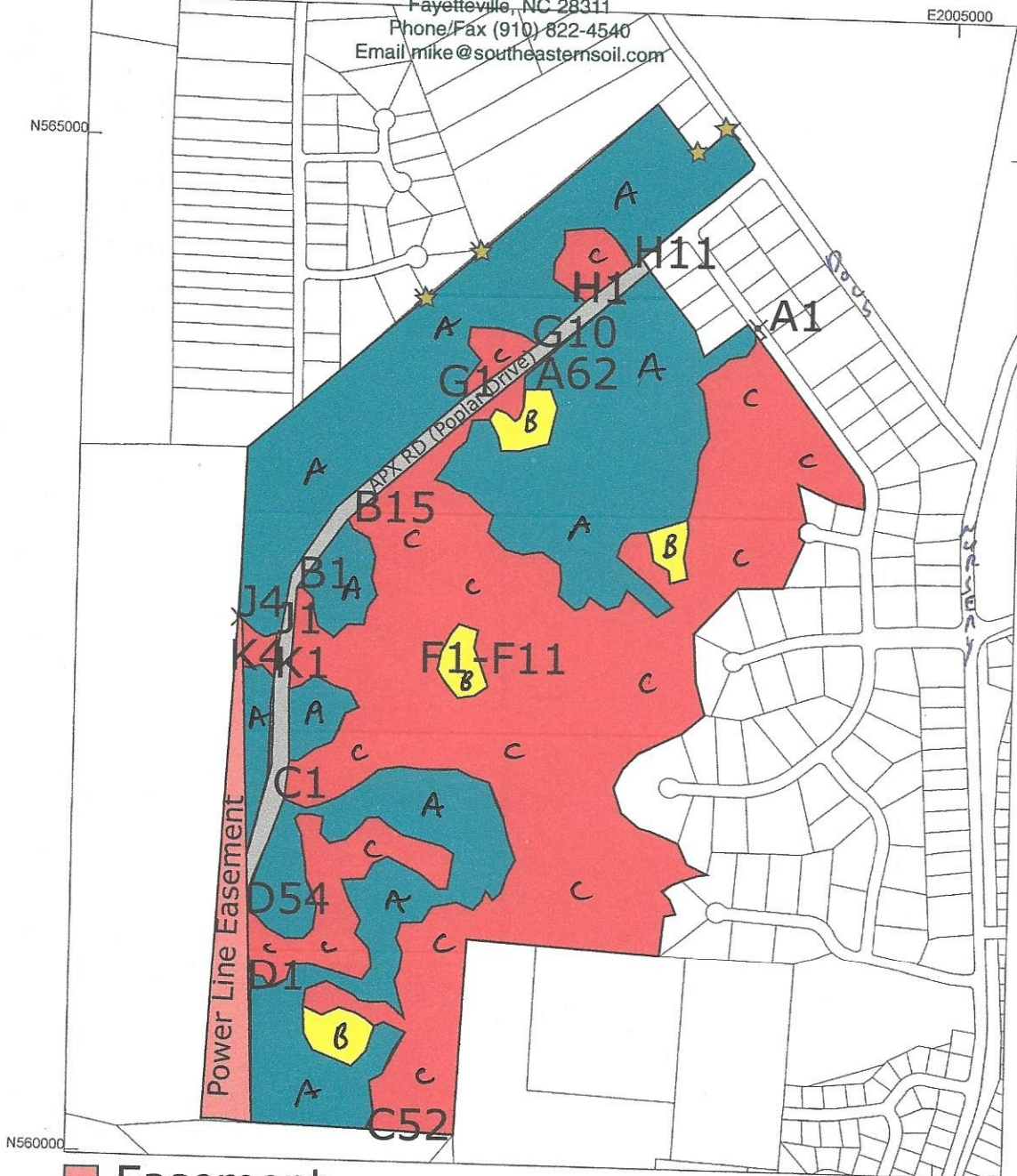


Mike Eaker
President



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- Easement
- Dominately Suitable
- Dominately Unsuitable
- Good-Bad Mix (see report)
- Control

US State Plane 1983
 North Carolina 3200
 NAD 1983 (Conus)



Scale 1:10,000



Feet

R072307A.SSF

7/27/2020

GPS Pathfinder® Office

