

HAL OWEN & ASSOCIATES, INC.

SOIL & ENVIRONMENTAL SCIENTISTS

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02 July 2026

Paul Stam
Stam Law Firm
124 Salem Towne Court
Apex NC, 27502

Reference: Preliminary Soil & Wetland Investigation
Highland Creek Drive
Apex NC, Wake Co.
PIN 0770700849

Dear Mr. Stam,

A site investigation has been conducted for the above referenced property, located on the southern end of Highland Creek Drive in Wake County, North Carolina. The purpose of this investigation was to determine the site's ability to support subsurface wastewater dispersal systems. This report and map are intended for planning purposes only and not for lot recordation.

All sewage disposal ratings and determinations were made in accordance with the Rules for "Wastewater Treatment and Dispersal Systems", 15A NCAC 18E. This report represents my professional opinion as a Licensed Soil Scientist but does not guarantee or represent permit approval for any lot by the Local Health Department. An application for an approved wastewater system shall be made to the Local Health Department that specifies the proposed building size and location and the design and location of the wastewater system to be installed.

The soils were evaluated under moist soil conditions through the advancing of auger borings. This evaluation included observations of topography and landscape position, soil morphology (texture, structure, clay mineralogy, organics), soil wetness, soil depth, and restrictive horizons. Soil units shown on the attached map represent dominant soil types with similar profiles but may include minor components of contrasting soil types.

The soils shown as suitable on the attached map are adequate to support subsurface wastewater dispersal systems. Unfortunately, this area was too rocky to assess the soil deeper than 25 to 28 inches below the ground surface. While this was deep enough to say that the area is at least suitable for low profile chamber type septic systems, backhoe pits will be necessary to determine if more conventional type drainline products can be used. Soils suitable for low profile chamber systems are limited in soil depth to the extent that low profile chamber type drainlines installed at-grade will likely be required. Due to ultra shallow trench depths, the addition of approximately six inches of approved soil will be necessary to completely cover the system. It is likely that 100 to 115 feet of low profile chamber drainlines would be required for the initial system per bedroom in any potential residence.

The soils indicated as suitable soils for drip systems are limited in soil depth to the extent that subsurface drip dispersal systems will be required. Additional soil testing and pretreatment filters will also likely be required. Pretreatment and drip systems are significantly more expensive, costing about \$30,000 just to install, and are recommended only for use as repair areas.

Unsuitable soils can make up part of any future lots. However, it is necessary that **at least 15,000 square feet** of usable soil be incorporated into each lot in such a way that it will be **completely available** for waste disposal.

The unsuitable soil area is so rated due to inadequate soil depth to excessive soil wetness conditions and/or unsuitable landscape position. Subsurface wastewater dispersal systems cannot be placed in this area. Some of this area will likely support building foundations, and homes could be sited in this area. Wastewater systems that utilize pumps to conventional drainlines are recommended if you wish to locate homes on unsuitable soils and attempt to maximize the usable portion of the property.

No wetland areas were encountered during the investigation. One ephemeral stream was observed and is approximately shown on the attached map. There does not appear to be any riparian buffers for this stream.

The soils underlying this property appear adequate to support the subsurface wastewater dispersal system needs of several three- or four-bedroom residences. I appreciate the opportunity to provide this service and trust that you will feel free to call on me again in the future. If you have any questions or need additional information, please contact me at your convenience.



Sincerely,

Britt Wilson
Licensed Soil Scientist



Legend

— Stream (Ephemeral)

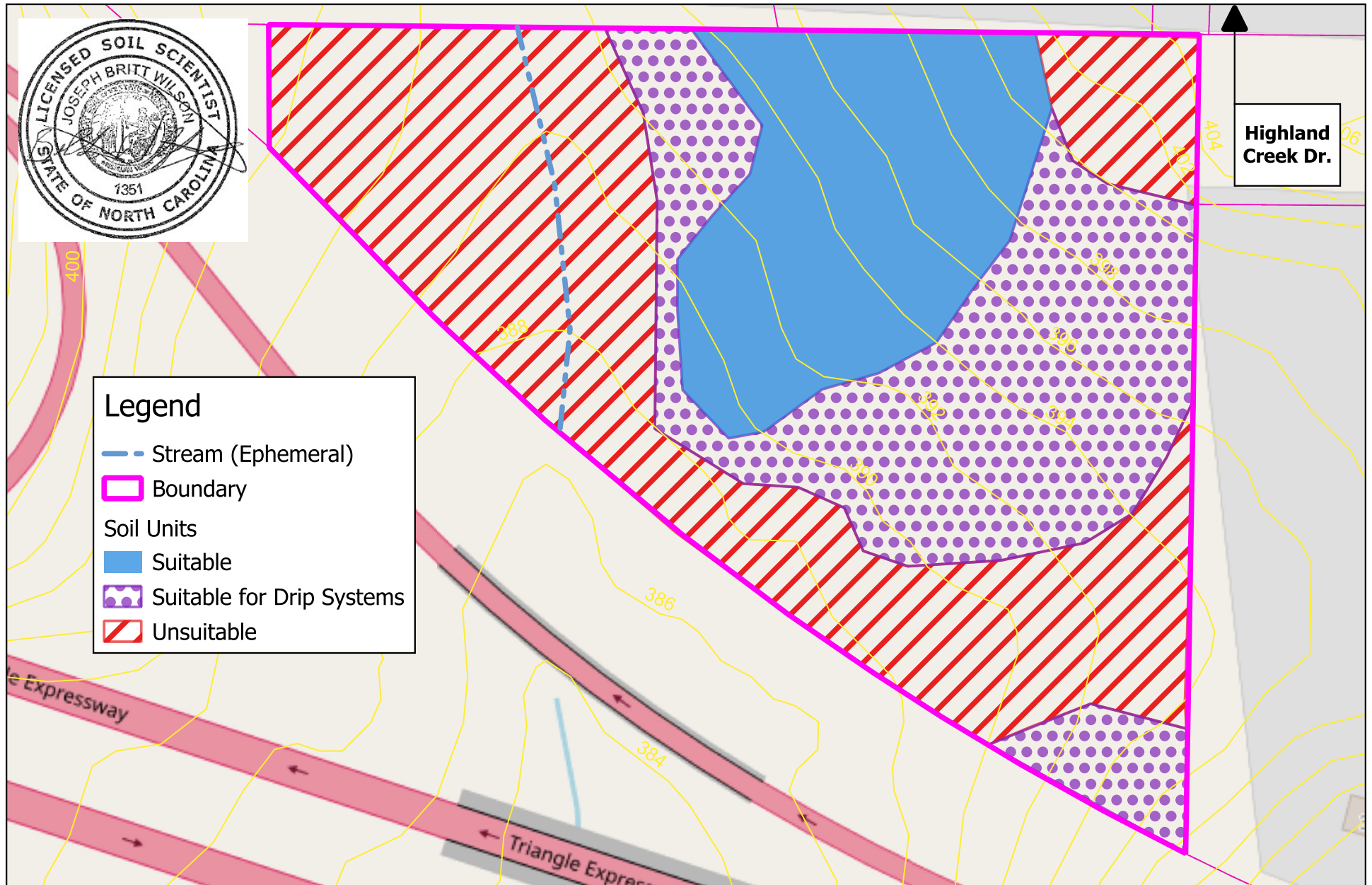
□ Boundary

Soil Units

■ Suitable

▤ Suitable for Drip Systems

▨ Unsuitable



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0 120 240 ft



For reference only. Not a survey.

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Preliminary
Soil Map for Septic Suitability