HAL OWEN & ASSOCIATES, INC.

SOIL & ENVIRONMENTAL SCIENTISTS

P.O. Box 400, Lillington, NC 27546-0400

Phone (910) 893-8743 / Fax (910) 893-3594

www.halowensoil.com

1 March 2021

Ms. Margaret Douglas
PO Box 36
Olivia, NC 28368

Reference: Preliminary Soil Investigation
274 A D Hall Rd, Sanford NC; PIN 9568-54-3946
195 A D Hall Rd, Sanford NC; PIN 9568-54-6363
65 A D Hall Rd, Sanford NC; PIN 9568-65-3312
Ponderosa Rd, Sanford NC (TR#2 Dewey Hall); PIN 9568-53-3992
Ponderosa Rd, Sanford NC (TR#6 Dewey Hall); PIN 9568-53-8952

Dear Ms. Douglas,

A site investigation has been conducted for portions of the above referenced properties, located on A D Hall Road (SR 1206) in the Johnsonville Township of Harnett County, North Carolina. The purpose of this investigation was to determine the site's ability to support subsurface sewage waste disposal systems. All sewage disposal ratings and determinations were made in accordance with "Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A .1900". 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 improvement permit for all residences will need to be obtained from the Health Department that specifies the proposed home size and location, and the design and location of the septic system to be installed.

This property was observed to be underlain by a mixture of soils that range from provisionally suitable to unsuitable for subsurface sewage waste disposal (see attached map). The soils shown as provisionally suitable will adequately function as sewage waste disposal sites. Due to clayey textured subsoil characteristics, you should expect that 80 to 100 feet of conventional drainline would be required for the initial system per bedroom in the home.

The soils shown as provisionally suitable for modified or alternative systems are limited in soil depth to the extent that systems that can be installed ultra shallow will likely be required. This requirement will necessitate the addition of approximately 6 inches of topsoil to completely cover the system. It is likely that low profile chamber type drainlines will be required at this site when limited soil depths are observed. You should expect that 100 to 150 feet of low profile chamber drainline would be required for the initial system per bedroom in the home.

The unsuitable soil area is so rated due to inadequate soil depth to excessive soil wetness conditions and/or unsuitable landscape position. The ability to utilize alternative systems or make modifications to this area to allow for septic systems is minimal. Some of this area will likely support building foundations, and homes could be sited in this area. Utilization of pump type conventional systems will allow unsuitable soils to make up part of the lot area. However,

it is necessary that **at least 10,000 square feet** of usable soil be incorporated into each lot in such a way that it will be **completely available** for waste disposal. Septic 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.

The soils on the lot at 274 A D Hall Rd (PIN 9568-54-3946) appear adequate to support the septic needs of one additional residence.

The soils on the lot at 195 A D Hall Rd (PIN 9568-54-6363), shown as address 201 A D Hall Rd on the map, appear adequate to support the septic needs of one residence with three or possibly four bedrooms. It is our understanding that an existing septic system has been installed near the rear of this property for a camper at some point in the past. It is thought that the system was properly permitted through the health department. Its location, condition, and potential to be put back into use were not investigated.

The soils on Dewey Hall TR#2 (PIN 9568-53-3992) and TR#6 (PIN 9568-53-8952) off of Ponderosa Rd were investigated and found to be usable in only a relatively small area and significantly marginal when usable. Low profile chamber type drainlines will likely be required on portions of these lots. There appears to be adequate amounts of usable soil to support the septic needs of two residences. It is our understanding that an existing septic system has been installed on this property; but its location, condition, and potential to be put back into use were not investigated. In an effort to make these two lots more usable for future homesites, a modification to the property line is recommended as shown on the attached sketch. The southern portion of the 16 acre tract (65 A D Hall Rd) contains a significant usable soil area which does not appear accessible from the remainder of the tract due to the presence of Dry Creek and its adjacent wetlands. It is our belief that you can provide access to three lots by utilizing an easement road across the pond dam. More than three lots would require a 20ft improved travel-way and we are not sure that could be done cost effectively. There are other options as to how to best utilize the usable soil areas on the southern end of the property.

The ridgetop portion of the property at 65 A D Hall Rd (PIN 9568-65-3312) contained one small area of usable soil that appeared adequate to support the septic needs of a four bedroom home with a very nice house site.

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,

Hal Owen

Hal Owen
Licensed Soil Scientist

Preliminary Soil Investigation
1 March 2021

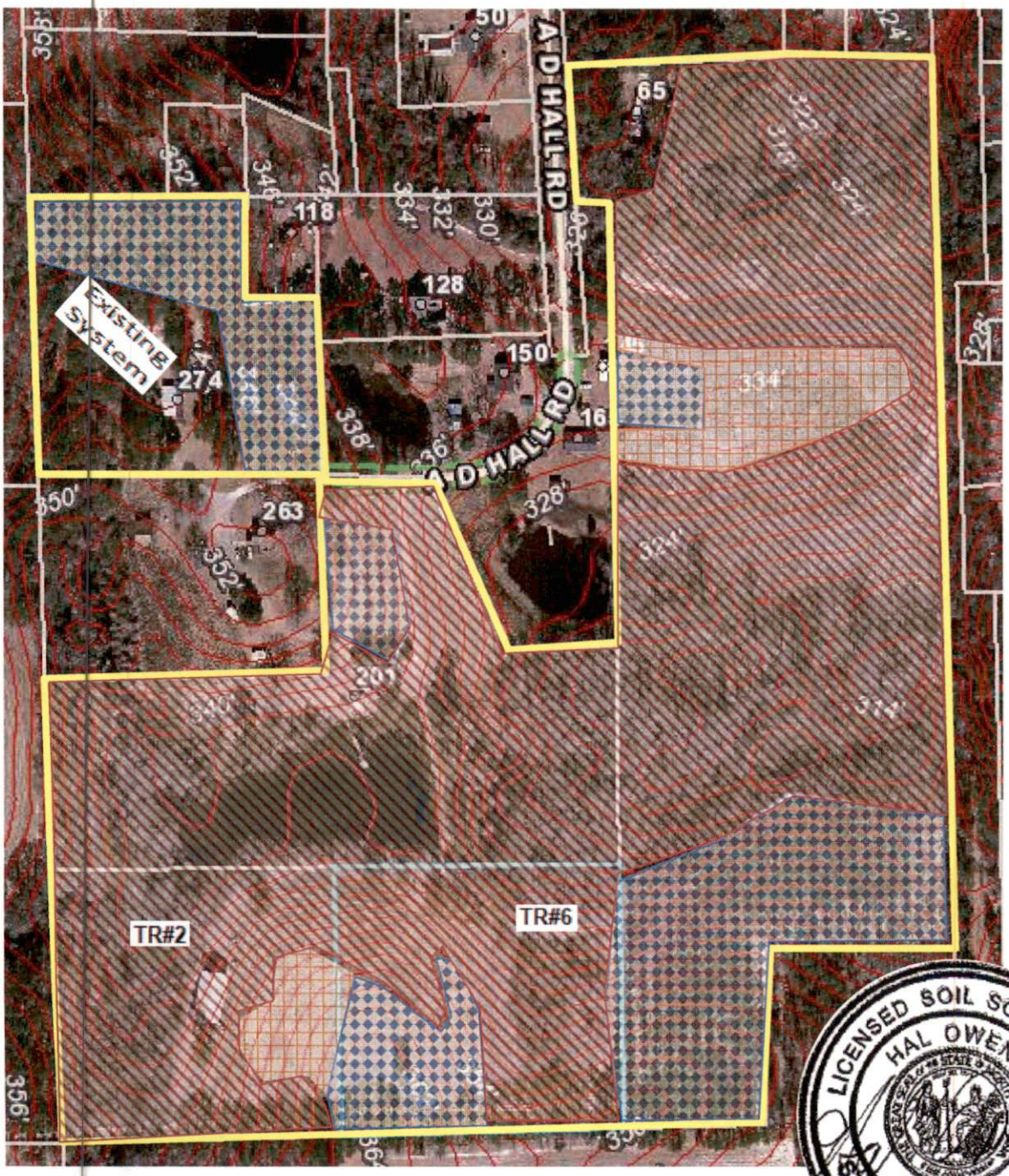
Soil Map

Scale 1 in = 200 ft

Distances are paced and approximate. Not a survey.

Soil Map Legend

- Provisionally Suitable Soils
- Provisionally Suitable Soils for Modified or Alternative Systems
- Unsuitable Soils



LICENSED SOIL SCIENTIST
HAL OWEN
1102
STATE OF NORTH CAROLINA

Preliminary Soil Investigation
1 March 2021

Potential Lot Reconfiguration A

Scale 1 in = 200 ft

Distances are paced and approximate. Not a survey.

Preliminary Soil Investigation
1 March 2021

Potential Lot Reconfiguration B

Scale 1 in = 200 ft

Distances are paced and approximate. Not a survey.