## HAL OWEN & ASSOCIATES, INC.

## SOIL & ENVIRONMENTAL SCIENTISTS

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15 March 2022

David Vendetti 629 Pendergrass Road Bunnlevel, NC 28323

Reference: Preliminary Soil Investigation Loop Road; PIN 0548-01-9595.000

Dear Mr. Vendetti,

A site investigation has been conducted for the above referenced property, located on the western side of Loop Road (SR 1132) in 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 but will require additional drainline due to clayey textured subsoil characteristics. You should expect that 80 to 133 feet of conventional drainline would be required for the initial system per bedroom in the home.

The soils shown as provisionally suitable for low profile chamber 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 and the use of low profile chamber drainlines. You should expect that 100 to 150 feet of conventional drainline would be required for the initial system per bedroom in the home.

Densities should be adjusted to allow for additional drainline in areas dominated by provisionally suitable soil types. It is recommended that lots be designed to contain at least 25,000 square feet in areas dominated by provisionally suitable soils and serviced by public or community water supplies. Developing lots with individual wells will necessitate an additional 10,000 square feet at minimum.

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.

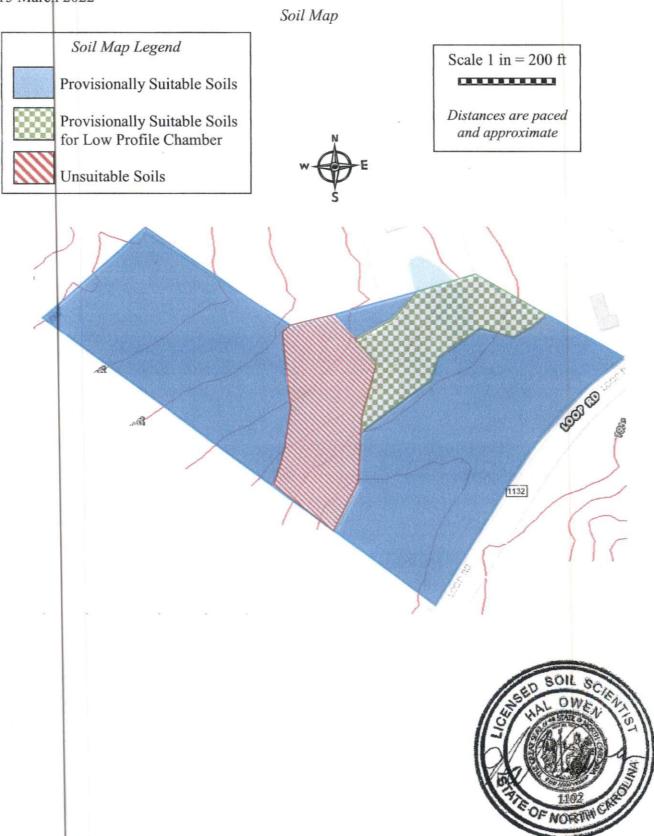
I appreciate the opportunity to provide this service and trust that you will feel free to call on me again in the future. If you have any questions or need additional information, please contact me at your convenience.

Sincerely,

Hal Owen

Licensed Soil Scientist

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