

HAL OWEN & ASSOCIATES, INC.

SOIL & ENVIRONMENTAL SCIENTISTS

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21 September, 2010

Mr. Kevin Gregory
45 Nut Tree Circle
Lillington, NC 27546

Reference: Soil Investigation for Arrington Property
PIN 9587-46-5667.000

Dear Mr. Gregory,

A site investigation has been conducted for the above referenced property, located on the northern side of NC 27 W, Harnett County, North Carolina. The purpose of this investigation was to determine the site's ability to support subsurface sewage waste disposal systems and to evaluate the suitability of this site to support a home with a basement. 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.

A significant portion of the property was observed to be underlain by soils that are rated as provisionally suitable for subsurface sewage waste disposal (see attached map). The subsoils at the site were observed to be clayey textured and will require some additional drainline due to limited permeability. You should expect that about one hundred feet of conventional drainline would be required for each bedroom in the proposed home. It appears that the soils on this lot are adequate to support a conventional septic system and repair area for at least one residence. A large home with four to six bedrooms should be easily permitted at this site if you so desire. A basement with plumbing may require the use of an effluent pump to move the sewage effluent from the outlet of the home uphill to the drainfield. Depending on the exact location of the home and the depth of the basement, it may be possible to gravity flow to the drainfield. A more detailed study would be required to make a definite determination about the need for an effluent pump.

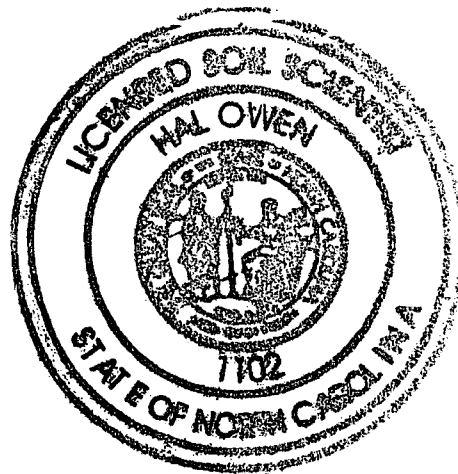
The site was also investigated to evaluate its potential to support a home with a basement. The Harnett County Soil Survey manual indicates the site to be underlain by soils of the Nason Series. The mapping was confirmed at the site and Nason soils appear to underlay the site. Table 9 of the survey manual indicates that Nason soils, and therefore this site, has moderate limitations to locating homes with basements due to slope. The limitations are considered moderate if they make special planning, design or maintenance necessary. In your case, consideration for surface water management is necessary as well as slope stability. Table 15 of the Harnett County Soil Survey indicates the seasonal high water table below Nason soils to be greater than six feet below surface. This site appeared typical of Nason soils with regard to seasonal high water tables. More specifically, at your site the soils were observed to be well drained to a depth of greater than seven feet below surface. Although a foundation drain is always recommended with a basement, it does not appear likely that a seasonally high water table exists within ten feet below surface at the site of your proposed home. The bearing strength of these materials should not be a problem for a structure with three stories or less.

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,



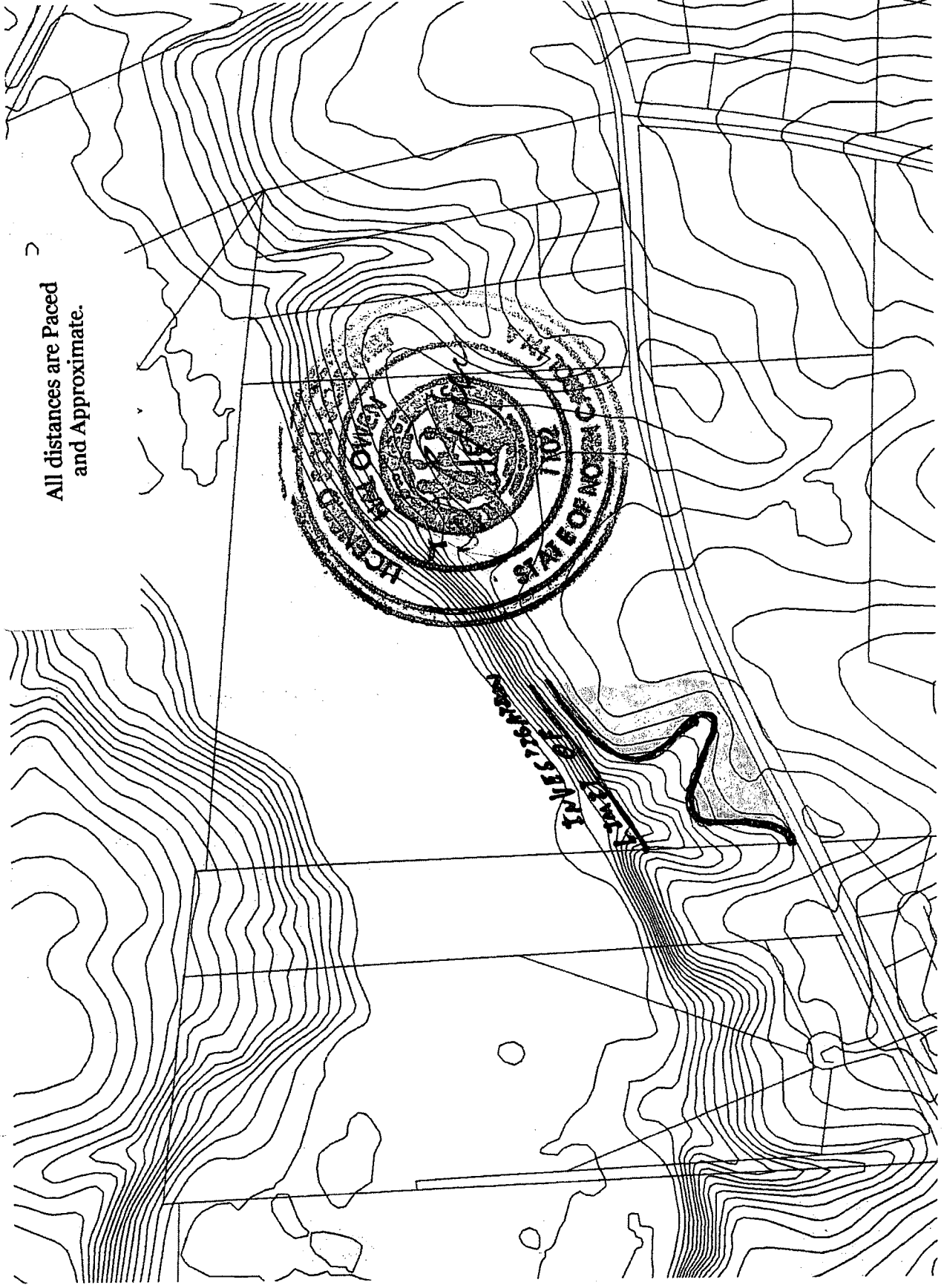
Hal Owen
Licensed Soil Scientist



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All distances are Paced
and Approximate.

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