HAL OWEN & ASSOCIATES, INC.

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5 December 2022

Jarrod Hilliard
Hilliard Engineering
PO Box 249
Sanford, NC 27331

Reference: Preliminary Soil Investigation
Phalanx Cross Fit (proposed)
PINs 9585-04-2818.000 and 9585-04-2892.000

Dear Mr. Hilliard,

A site investigation has been conducted for the above referenced properties, located on the northern side of NC 87 S 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 will need to be obtained from the Health Department that specifies the proposed facility's size and location, and the design and location of the septic system to be installed. An existing well was observed on the property that will need to be properly abandoned.

The site was observed to be underlain by a mixture of soils that range from suitable to unsuitable for subsurface sewage waste disposal (see attached map). The soils indicated as suitable are excellent for subsurface waste disposal and you should expect that 30 to 50 feet of conventional drainline would be required for the initial system per 100 gallons of design wastewater flow. 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 50 to 70 feet of conventional drainline would be required for the initial system per 100 gallons of design flow. 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.

The soils at this site appear adequate to support the subsurface sewage waste disposal needs of a Cross Fit facility with a daily flow of 550 gallons. As indicated on the map, the higher quality soils are located on the northern half of the site near Cooks Lane. Moving south toward NC 87 the soils became more clayey and shallower to a soil wetness condition. It appears the building would be better suited on the southern half of the property as shown in the most recent proposal.

Any stormwater basin proposed near the provisionally suitable soils will exhibit seasonal high water table within four or five feet of the ground surface. The deeper, better drained soils are located on the northern end. You may be required to designate a larger area for the basin due to limited depths above the season high water table. In addition, there will be a 50 ft setback for any sewage system from a permanent wet basin.

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

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Soil Map

Soil Map Legend

Suitable Soils

Provisionally Suitable Soils

Unsuitable Soils

Scale 1 in = 100 ft

Map for reference only. Not a survey. Distances are paced and approximate.

LICENSED SOIL SCIENTIST
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1102