JOSEPH A HINTON
JUST SOILS
LICENSED SOIL SCIENTIST

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145 RIVER RIDGE ROAD ♦ EDEN, NORTH CAROLINA 27288 ♦ 336-432-7551
E-mail josephinton@triad.rr.com

July 10, 2019

Russell Seneff
Woltz & Associates
23 Franklin Road SW
Roanoke, Virginia 24011

Reference: White Sulfur Springs

Dear Mr. Seneff;

OBJECTIVE

Just Soils conducted a soil/site evaluation of **Lot 15** located in the Historic White Sulfur Springs Property on White Sulfur Springs Road in Surry County to determine areas of soil and saprolite that have the potential to accommodate ground absorption sewage treatment and disposal systems to accommodate three bedroom residences per email received June 28, 2019.

Just Soils traversed the property observing the landforms, (topographical features, drainage patterns, etc.) and soil conditions (soil horizons, depth, texture, structure, drainage, mineralogy, etc.). This evaluation was conducted with a hand auger in accordance with current soil science practices and technology and the soil and site criteria found in 15 A NCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems." A map of the area evaluated is enclosed.

OBSERVATIONS

A1 The surface layer to depths of 9 to 12 inches below ground surface (bgs) consists of loam. The structure appears to be granular with very friable consistence. The subsurface layer to depths of 38 to 42 inches bgs consists of clay and clay loam. The structure of the clay appears to be moderate medium subangular blocky with firm, slightly sticky, slightly plastic consistence. The structure of the clay loam appears to be weak fine subangular blocky with friable, slightly sticky, slightly plastic consistence. The clay appears to be slightly expansive. Saprolite was observed from 38 to 50 inches bgs with the hand auger. The saprolite had a texture of loam. The structure appears to be massive with friable consistence. Soil wetness conditions were not observed in the borings to a depth of 50 inches bgs. Slopes range from 14 to 18 percent.

A2 The surface layer to depths of 8 to 14 inches bgs consists of loam. The structure appears to be granular with very friable consistence. The subsurface layer to depths of 32 to 38 inches bgs consists of clay and clay loam. The structure of the clay appears to be moderate medium subangular blocky with firm, slightly sticky, slightly plastic consistence. The structure of the clay loam appears to be weak fine subangular blocky with friable, slightly sticky, slightly plastic consistence. The clay appears to be slightly expansive. Saprolite was observed from 32 to 50 inches bgs with the hand auger. The saprolite had a texture of loam. The structure appears to be massive with friable consistence. Soil wetness conditions were not observed in the borings to a depth of 50 inches bgs. Slopes range from 10 to 16 percent.

X The soils observed was found to be less than 24 inches to weathered rock. Topography was irregular, had complex slopes, and limited space. Shallow depth of soil to weathered rock and irregular, complex slopes were found to be unsuitable for the installation of ground absorption sewage treatment and disposal systems.

FINDINGS

The soil and saprolite properties and characteristics observed in **A1 and A2** meet the criteria found in 15 A NCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems" to be classified as provisionally suitable for the installation of a ground absorption sewage treatment and disposal system to accommodate a single family residence. The recommended long-term acceptance rate ranges from .275 to .3 gallons per day per square foot. The method to evaluate the saprolite as described in Rule .1956(6) found in 15 A NCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems" would be with the aid of pits. **A1** can be utilized for the installation of the initial septic system and **A2** utilized for the designated repair area. A pump may be required based on the location of the single family residence.

The soils observed in **X** were found to be unsuitable for the installation of a ground absorption sewage treatment and disposal system due irregular, complex slope patterns .1940, shallow depth of suitable soils-.1943, and insufficient space of suitable soil-.1945.

This report discusses and describes the general location of potentially provisionally suitable soil areas for on-site subsurface sewage treatment and disposal systems. Approval and permits as needed by the client or applicant must be obtained from the local health department. An individual septic system permit will be required prior to obtaining a building permit. This will involve a detailed evaluation by the local health department to determine system size and layout, house location, driveway, well if applicable, etc.

But those who trust in the Lord will receive new strength. They will fly as high as eagles. They will run and not get tired. They will walk and not grow weak. Isaiah 40:31

Just Soils is pleased to offer you our professional services and look forward to assisting in any of your site analysis needs in the future. If you have any questions or require further assistance, contact me at 336-432-7551 or e-mail josephinton@triad.rr.com.

Respectfully,

Joseph A Hinton

Joseph A. Hinton, LSS
Just Soils

This report, including any attachments, is confidential and proprietary. The report was prepared for use by the client only. Third party use is prohibited without permission from the client.

"What then shall we say to these things? If God is for us, who can be against us?" Romans 8:31

Isaac W. Slate
and wife
Allison T. Slate
Bk 1929 Pg 65
Lot 10
Gilpin Tree Farms, LLC
Bk 1615 Pg 996
IPF
16
10.143 Ac
IPS @ 31.38'
IPS @ 36.79'
IPS @ 33.43'
18
10.143 Ac
IPS @ 19.11'
17
10.033 Ac
IPS @ 18.55'
15
10.020 Ac
IPS
A1
A2
IPS @ 15.27'
IPS @ 15.58'
IPS @ 25.14'
IPS @ 15.95'
23
10.155 Ac
21
19
10.087 Ac
22
10.183 Ac
10.190 Ac
20
10.148 Ac
IPF