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622 Coon Mountain Lane, Taylorsville, NC 28681



July 15, 2025

Kay Walker
6201 Fairview Rd, STE 200
Charlotte, NC 28210

Re: Preliminary Soil/Site Evaluation on portions of an approximately 10-acre tract (Parcel ID 138024), located on Boone Gap Ln in Alexander County, NC

Dear Ms. Walker:

PERC, PC has performed a preliminary soil evaluation on a small portion of the above referenced tract. This was performed at your request as part of a preliminary planning process in order to determine areas of soil that have potential for subsurface wastewater disposal.

PERC, PC traversed portions of the property and observed landforms (slope, drainage patterns, past use, etc.) as well as soil conditions (depth, texture, structure, seasonal wetness, restrictive horizons, etc.) through the use of hand auger borings. The soil/site evaluation criteria used is contained in 15A NCAC 18E "Wastewater Treatment and Dispersal Systems".

FINDINGS

The soil on the property consists of a clay loam to clay textured subsoil. No to scale map or survey was provided for the property. An Alexander County GIS map is utilized for a base drawing. The accompanying drawing shows the approximate location of the auger borings that were evaluated during the site visit. These locations are approximated utilizing aerial photography and topography.

The suitable soil depth of the borings range in depth from 23 inches to 44 inches deep. On the attached drawing the borings represented by unfilled circles are typically at least 40 inches deep and potentially usable for conventional or accepted type wastewater systems. The borings represented by filled circles are at least 35 inches deep and are usable for 2 ft chambers or large diameter pipe (LDP) wastewater systems. The borings represented with an X are at least 18 inches deep and would require a drip system. Several of the borings had saprolite which can be usable but would require an evaluation with a backhoe pit.

At the time of the evaluation there were not any property corners or property lines marked on site. There was also no proposed house location or proposed site plan. The size of the house, number of bedrooms, and location will affect the size of septic system necessary. A final determination of any lot's usability cannot be made until a final site plan is proposed. The area between borings 2-6, and 10 appears to be large enough for a subsurface septic system for at least a 3-bedroom house using a conventional or accepted systems for both system and repair. This area should also be large enough for a 4-bedroom system but would require a drip system for repair area. The house would likely have to be located below the proposed soil area and be pumped up to the proposed soil area.

The site plan for any lot must ensure that adequate soil area for system and repair is unaffected by site elements (house placement, driveway, wells, patios, decks, etc.) on that or adjacent lots. The area ultimately designated by the health department on the site plan for the septic system and repair must remain undisturbed (no mechanical clearing, excavation, heavy traffic or other significant site disturbing activities) until authorized by

the health department. A lot with initially adequate usable soil area may be rendered unusable because of improper site planning and/or disturbance.

GENERAL WASTEWATER CONSIDERATIONS

The utility of a potential usable soil area for a subsurface system is most accurately determined by an on-ground layout of the proposed system. The total area needed for system and repair areas will depend upon the system type, the layout of that system and the total design daily flow. A typical area needed for a conventional septic system (system and repair) on a three-bedroom house is approximately 6,000 to 8,000 ft² (could be more depending on site features). These estimates utilize a group III LTAR of 0.35 gpd/ft² for a conventional septic system. The health department will determine the ultimate LTAR after their lot evaluation.

This report discusses the general location of potentially useable soil for on-site subsurface wastewater disposal and, of course, does not constitute or imply any approval or permit as needed by the client from the local health department. As a consulting soil scientist, I am hired for my professional opinion in these matters. The rules governing wastewater treatment (interpreted and governed by local and state agencies) are evolving constantly, and in many cases, affected by the opinions of individuals employed by these governing agencies. Because of this, I cannot guarantee that areas delineated and/or systems designed will be permitted by the governing agencies. As always, I recommend that anyone making financial commitments to a tract be fully aware of individual permit requirements on that tract prior to final action.

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, among other things, system size and layout. Only after developing this information can a final determination be made concerning specifics of system design and site utilization. A more thorough preliminary evaluation or a detailed soil evaluation will provide better information in defining areas of soil to help future development planning on this tract of land.

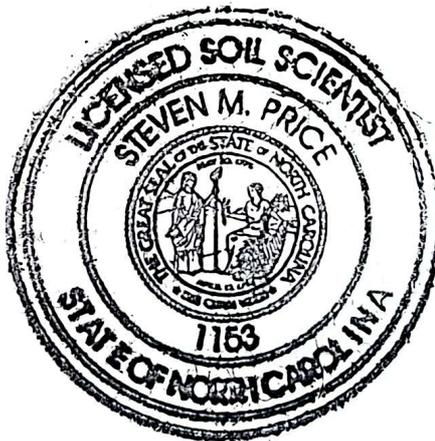
I am pleased to be of service in this matter and look forward to assisting with any site analysis needs you may have in the future. Please feel free to call with any questions or comments.

Sincerely,



Steven M. Price
NC Licensed Soil Scientist #1153

Encl: Drawing



PROPERTY ID #: _____
 COUNTY: Alexander

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM
 (Complete all fields in full)

OWNER: Lowell Bryan Wells DATE EVALUATED: 7/4/25
 ADDRESS: _____
 PROPOSED FACILITY: _____ PROPOSED DESIGN FLOW (.0400): _____ PROPERTY SIZE: ~ 10
 LOCATION OF SITE: Boone Camp Ln PROPERTY RECORDED: _____
 WATER SUPPLY: Public Single Family Well Shared Well Spring Other _____ WATER SUPPLY SETBACK: _____
 EVALUATION METHOD: Auger Boring Pit Cut TYPE OF WASTEWATER: Domestic High Strength IPWW

P R O F I L E #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS				.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRE CTION
			.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ		
1	L 30%	0-14	SBk CL	FR SE	23" 10xR 7/2	23	NA	NA	S DIP 0.1	-
		14-23	ABk C	FI SE						
		23	" "	" "						
2	L 25%	0-18	SBk CL	FR SE	NA	40	NA	NA	S 0.35	9"
		18-40	SBk CL	FR SE						
		40	rock							
3	L 30%	0-34	SBk CL	FR SE	NA	41	NA	NA	S 0.35	11"
		34-41	SBk CL ^{1/2 SP} _{1/2 R}	FR SE						
		41								
4		0-15	SBk CL	FR SE S	NA	38	S in auger	NA	S 2' chamber 0.35	7"
		15-28	SBk CL	FR SE R						
		28-38	SBk CL ^{1/2 SP}	FR SE						
		38-42	Soft Sp L	FR NG						

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	
Available Space (.0508)			SITE CLASSIFICATION (.0509): <u>S</u> EVALUATED BY: <u>SP MB</u> OTHER(S) PRESENT: _____
System Type(s)			
Site LTAR			
Maximum Trench Depth			

Comments: _____

SOIL/SITE EVALUATION
(Continuation Sheet-Complete all field in full)

PROPERTY ID #: _____
DATE OF EVALUATION: 7/9/25
COUNTY: Alexander

P R O F I L E #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS				.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRE CTION
			.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ		
5	L 30%	0-42	SBK CL	FR SE	NA	42	NA	NA	S 0.4	11"
6	L 35%	0-22	SBK CL	FR SE	NA	35	S in anger	NA	S LDP 0.35	6"
		22-35	SBK CL ^{1/2} sp	FR SE						
		35-42*	Shes Sep L	VFR WB						
7	L 35%	0-22	SBK CL	FR SE	NA	28	NA	NA	S drip 0.15	-
		22-28	SBK CL ^{1/2} sp	FR SE						
		28	Rock							
8	L 30%	0-22	SBK CL	FR SE	NA	38	UN	NA	S 2' chunk 0.3	7"
		22-35	SBK C	FR SE						
		35-38	SBK C ^{1/2} sp	FR SE						
		38	Sp/L							
9	L 35%	0-28	SBK CL	FR SE	NA	28	UN	NA	S drip 0.15	-
		28+	Sp/R							

COMMENTS: _____

SOIL/SITE EVALUATION
(Continuation Sheet-Complete all field in full)

PROPERTY ID #: _____
DATE OF EVALUATION: 7/4/25
COUNTY: Alexander

P R O F I L E #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS				.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRE CTION
			.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ		
10	N 25%	0-16	Sbk CL	FR SE	NA	44	NA	NA	S 0.35	9"
		16-44	Sbk C	FR SE						
11	L 30%	0-42	Sbk CL	FR SE	NA	42	NA	NA	S 0.35	11"
12	N 25%	0-28	Sbk CL	FR SE	NA	28	S in upper	NA	S Drip 0.15	-
		28-								
13	L 30%	0-14	Sbk CL	FR SE	27	27+	NA	NA	S Drip 0.1	-
		14-19	ABk C	FI SE						
		19-27	ABk C	FI SE						
		27+	" "	" "						

COMMENTS: _____

