

June 23, 2005

Mr. Will Marshburn  
Bobbitt Design Build  
600 Germantown Road  
Raleigh, NC 27607

Mr. Marshburn:

I evaluated the soil on a 4.7-acre tract of land in the northeast corner of US Hwy 501 and Vickers Road in Chatham County. My evaluation was done to determine how much usable soil was present on this property for an on-site septic system to serve a veterinarian clinic.

An area of usable soil was found on the west side of the existing pond. The soil in this area has a fine sandy loam surface and a clayey subsurface. The surface layer varied from 14 to 24 inches thick. The subsurface layer was composed of expansive mixed mineralogy clay that has a low permeability. This soil area has a seasonally high soil wetness condition greater than 12 inches below the surface, which makes it only usable for surface drip irrigation wastewater disposal. It has about 16,000 square feet assuming the pond dam can be breached. There is a 50-foot setback from surface, so it would be justifiable to breach the dam if you want to maximize the soil absorption area for the wastewater flow.

Depending on the soil loading rate that is permitted, I am confident this area can dispose of 600 to 800 gallons per day of wastewater flow from a veterinarian clinic. This would require the use of a septic system that has pretreatment capability and utilizes surface drip disposal technology. See the attached Map. Let me know if you have any questions. My number is 919-218-3352.

**Appian Consulting Engineers, PA**

  
John R. Davis, Jr. LSS  
Environmental Manager

Encl. 1

