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Dear John:

This report concerns the preliminary soils and site investigations for septic system suitability at five locations on the property located on the west side of Goshen Road just south of the intersection with Old Roxboro Road in western Granville County.

The attached copy of the property map with topographic contours shows the approximate locations of the areas identified. This map was prepared using property boundaries and topographic contours obtained from the county GIS web site. The USDA soil survey maps of the area and the USGS topographic maps were also consulted as to the general nature of the soils and landforms.

The proposed sewage disposal sites as shown on the map were individually identified from at least four or more hand auger borings made at selected locations and from field observations of soil related landforms and vegetation. The auger borings were located using a Trimble mapping grade GPS receiver. These investigations should be of sufficient detail for preliminary planning purposes. It is probable that additional follow-up soils investigations and the field layout of septic system drainfields will be required if these areas are to be developed for dwellings larger than three bedrooms. Field layouts may be required in any case due to the complexity of the soils at some of the sites.

The soils at the sites identified are dominantly formed over residual materials weathered from meta-volcanic rocks. Typically these soils have dark brown and light brown loam to gravelly loam surface layers. The subsoils are friable to slightly firm red to yellowish red clays which are mottled with yellowish brown in the lower parts. The subsoils generally exhibit structure and are free of seasonal wetness indicators within the upper 24 to 36 inches or more of the soil profiles. These soils will classify provisionally suitable for conventional, modified conventional or alternative (low pressure) septic system drain fields. Most of the sites have areas where conventional or shallow placed conventional drain fields can be installed, although the specific locations for conventional trenches may be limited. There is a good chance that site modifications will be needed at one or more of the sites. The site modifications may include the use of shallow fill (at grade) installations. These systems involve the installation of six inches or more of approved fill materials over the drainfield site according to a detailed site plan and under conditions of favorable soil moisture.

From these investigations it appears that each of the sites should be sufficient in area to support septic system drainfields for three bedroom dwellings. This assumes that areas 3 & 3a will be combined into one site. As indicated above additional follow-up work may be required before permits can be finalized. Backhoe pits may be required for site 3 due to the rock content at the site. Also for permits the county requires that the applicant dig four holes in a square pattern 75 ft. apart for the county to inspect during the site evaluation. Given the complexity of some of the sites and their restricted location there is a good chance that an ordinary applicant may not locate the test holes properly, which could result in the denial of the permit. This happens occasionally and can be very disruptive to the plans of the buyers and lenders. It would be a good idea to re-flag these sites clearly after the grain crop has been harvested and to make a few additional borings to enlarge the areas if possible.

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Please call me if you want to discuss these investigations in more detail. Also if you want to re-locate or expand one or more of the sites, we may be able to schedule some additional field investigations. There are some clues on the topographic map suggesting that additional supplemental sites may be available.

Sincerely

  
Daniel J. Bliley  
Licensed Soil Scientist



