

## Future Subdivision Considerations

Several factors should be considered before a final subdivision plan is created for this property. One consideration is that each proposed lot shall contain an adequate amount of suitable soils, which can support a primary septic system along with a repair septic system. The suitable soil areas cannot be affected by future homes, driveways, patios, excavation or filling activities and if an on-site well is used then a 100' setback is required around the well head. An exact square footage of suitable soils required per lot to obtain a permit cannot be given due to soil variability and topographic characteristics on each lot. The amount of suitable soils required to support a 5-bedroom residence will range between 18,000 ft<sup>2</sup> - 22,000 ft<sup>2</sup> (could be more or less) per lot. These soil area estimates are based upon soil application rates for a clayey textured subsoil with a range of 0.25 gallons per day/square foot and 0.3 gallons per day/square foot for conventional type systems and 0.1 to 0.13 gallons per day/square foot for low pressure pipe septic systems. The ultimate application rate will be assigned by the Chatham County Health Department based on a detailed evaluation on each proposed lot.

This particular parcel already had a portion of the proposed roads graded or they were in the process of being graded. The attached map indicates the approximate areas of road ways that have been constructed. The areas that illustrate suitable soils where the proposed roads are shown on the attached map were not constructed at the time CCSC evaluated the property. During any future road construction in the subdivision it is important not to impact any suitable soil areas with such activities as excavating or filling. Only the actual roadways and required drainage ditches and/or sediment basins should be constructed during this process. If the contractor requires a staging area to place fill from the construction process, then areas of unsuitable soils on the property should be utilized as long as they are not state/county buffers, jurisdictional wetlands or other areas protected by local zoning regulations. If this is not possible, then the disturbed areas should be minimized as much as possible. The developer may decide to stockpile the upper 12-16 inches (topsoil) when constructing the roads to use this material for fill over any future lots that may require ultra-shallow conventional septic systems. The same precautions should be taken when the individual lots are cleared for home sites. Only the vegetation should be removed in the areas of the proposed drain fields on lots to prevent any disturbance of the naturally occurring soil. A lot with adequate areas of suitable soils can be deemed unsuitable due to poor planning or site disturbance. Central Carolina Soil Consulting recommends that all lot clearing activities are delayed until a permit is issued by the local health department, with the exception of clearing thick vegetation to access the lot.

This report discusses the location of suitable soils for subsurface wastewater disposal systems and does not guarantee any permits or approval required by the local health department. Central Carolina Soil Consulting, PLLC is a professional consulting firm specializing in soil delineations and design for on-site wastewater disposal systems. The rules governing on-site wastewater disposal systems are complex and the interpretation of the rules are based upon the opinions of regulators (state and county