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November 6, 1999

Mr. Charles Katzenstein
223 West Main Avenue
Suite C
P.O. Box 1473
Gastonia, North Carolina 28053-1473

Dear Mr. Katzenstein,

This report concerns the preliminary soils and site investigations for on site sewage disposal suitability on the 30.12 acre tract located near the intersection of US 158 Bypass and SR 1333 near Warrenton.

The attached sketch map shows the approximate locations of various soil areas as well as selected cultural features and drainage features. This map was prepared using a copy of the survey plat which you provided and a copy of the ASCS aerial photography. The map scale is 1" – 200'.

The soils boundaries and areas as shown were estimated from auger borings made at intervals that ranged from 60 to more than 200 ft. and from field observations of soil related landforms and vegetation. This map is of sufficient detail for the preparation of a preliminary lot layout sketch for subdividing the tract into minimum size lots and small tracts and to demonstrate feasibility for the present four lot subdivision. Some follow-up investigations will probably be needed if the property is to be subdivided to it's maximum potential because of localized complex soil conditions not reflected by this map and due to the gradational nature of soil boundaries.

Brief descriptions of the soil areas and suitability for sewage disposal are as follows:

AREA 1: These soils will dominantly classify provisionally suitable for conventional or modified conventional septic system drainfields. These soils generally have friable red to yellowish brown clay subsoils that are free of gray wetness mottling or massive restrictive saprolite (weathered bedrock) within the upper 30 inches or more of the soil profiles. For the most part these soils should be usable for conventional drainfields with few if any concerns for modifications. At some locations shallow placement of drainfield trenches will be necessary or at isolated locations the installation of approved fill materials to the drainfield area may be necessary.

AREA 2: These soils will dominantly classify provisionally suitable for alternative (low pressure) septic system drainfields or in some locations for modified conventional septic system drainfields. These soils are similar to some of the soils in area 1 except that they have gray mottling or massive saprolite within the upper 30 inches of the soil profiles. The gray mottles are indicative of intermittent saturation during the wetter months of the year. The low pressure systems required for these soils or the site modifications required for conventional drainfields will be somewhat more expensive to install than for drainfields in area 1. For this reason it is recommended that area 2 soils be reserved as sites for repair drainfields at best.

AREAS 3 & 3a: These soils will dominantly classify unsuitable for conventional or alternative septic system drainfields. These soils have yellowish brown sandy clay loam to clay subsoils that are mottled with gray or have significant zones of gray within the upper 24 inches of the soil profiles. The gray colors are indicative of intermittent saturation during the wet seasons of the year. Some of these soils also occur in low lying landscapes adjacent to the streams and drains. Included in area 3 are areas of wetlands near the streams. The wetlands may need to be delineated if this tract is to be developed to it's maximum potential. Area 3a is not a wet area but consists of soils similar to area 2 but appear to have been disturbed by removal of some of the naturally occurring soil layers. There is a possibility that this area could be used for drainfields subject to additional detailed investigations.

SUMMARY

This property has potential for subdivision into a combination of minimum size lots and small tracts. Area 1 soils are recommended as sites for initial drainfield systems. Area 2 soils are potential usable for alternative drainfields but are recommended as sites for repair drainfields due to the higher cost of use. Area 3 soils for the most part are not usable for septic system drainfields.

There is sufficient usable soils on each of the four tracts as shown for sewage disposal for three bedroom dwellings or larger. A detailed layout of drainfields on the ground might be required on lot 4 due to the limited area of usable soils and the marginal nature of area 2 soils on the lot. There is sufficient usable soils for sewage disposal on lots 1, 2 & 3 for these lots to be subdivided into several or more smaller lots each.

The attached sketch map can be used to prepare a new subdivision plat for minimum size lots and larger. For planning purposes each building lot should be allocated from

LEGEND
PERENNIAL STREAM
SURFACE DRAIN
DITCH
WATER
ROCK OUTCROP OR STONES
GULLY
HIGHWAY
PATH OR DRIVEWAY
RAILROAD
POWER LINE
PROPERTY BOUNDARY
WOODS LINE
HOUSE OR BUILDING
CEMETERY
BORROW AREA
SOIL BOUNDARY AND SYMBOL
SCALE: 1" = 200'
US 158 BYPASS
SR 1333
SR 1322

12, 000 to 15,000 sq. ft. of area 1 or area 2 soils for sewage disposal exclusively. This should be sufficient for an initial drainfield installation and the required repair area if needed.

Please contact me if you have any questions regarding the soils or this report. Also I can assist with the preparation of a preliminary lot sketch if you or a prospective buyer wants to subdivided the tract more intensively that the present subdivision.

Sincerely

Daniel J. Bliley
Licensed Soil Scientist