

Southeastern Soil & Environmental Associates, Inc.

P.O. Box 9321
Fayetteville, NC 28311
Phone/Fax (910) 822-4540

July 25, 2002

Harnett County Health Department
PO Box 09
Lillington, NC 27546

Re: Hydraulic conductivity (Ksat) analysis for septic system, Crosslink Subdivision, Lot 49, Harnett County, North Carolina

To whom it may concern,

An evaluation of soil and hydraulic conductivity (Ksat) has been conducted, at the request of the Mr. Jimmy Johnson (owner), on the aforementioned property. The purpose of the investigation was to determine soil absorption rates for a proposed subsurface waste disposal system to serve a proposed 4 bedroom single family residence. All ratings and determinations were made in accordance with "Laws and Rules for Sanitary Sewage Collection, Treatment, and Disposal, 15A NCAC 18A .1900".

Three compact constant head permeameter (CCHP) measurements were made to determine a Ksat rate at depths of 24 to 27 inches. The lowest Ksat measurement in the Bt horizon was 1.49 cm/hr [other measurements were 2.39 cm/hr and 2.67 cm/hr]. The lowest measurement was as a conservative approach for system design. 1.49 cm/hr equates to 8.73 gpd/sq. ft. Using 4% of this average (typical for systems without pretreatment), Ksat measurement equates to 0.349 gpd/sq.ft.

The proposed system consists of a pump to 480 linear feet of 2 foot infiltrator. The site is limited by usable soil space to a 3 bedroom home.

Our system is based on a proposed LTAR of 0.25 gpd/sq. ft. which is less than 4 percent of the lowest measured rate. This LTAR should allow for sufficient drainage from the proposed system.

Sincerely,



Mike Eaker
President



