

Southeastern Soil & Environmental Associates, Inc.

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January 9, 2008

Harnett County Health Dept.
307 Cornelius Harnett Blvd.
Lillington, NC 27546

Re: Hydraulic conductivity (Ksat) analysis for proposed subsurface waste disposal system, Thornton's Creek Subdivision, Lot 13, Harnett County, North Carolina

To whom it may concern,

An evaluation of soil and hydraulic conductivity (Ksat) has been conducted on the aforementioned property. The purpose of the investigation was to determine soil absorption rates for a proposed septic system to serve a 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".

Two compact constant head permeameter (CCHP) measurements were made to determine a Ksat rate at depths of 22 and 25 inches (Bt and BC horizons). The lowest Ksat measurement was 0.558 cm/hr. This equates to 2.69 gpd/sq. ft. Using 10% of the Ksat measured equates to 0.26 gpd/sq. ft. (typical for domestic disposal without pretreatment).

The proposed system is based on a 0.25 gpd/sq. ft. application rate which is considerably less than the measured rate. This rate should allow for sufficient drainage from the proposed system.

The system sizing is as follows:

480 gpd @ 0.25 gpd/sq. ft. = 1920 sqft
1920 sqft / 3 = 640 linear feet of 2 foot infiltrator spaced on 6 foot centers.



It is imperative that no grading, rutting, etc. occur in the area of the proposed septic field. I trust this is the information required at this time. Please call if you have any questions.

Sincerely,

Mike Eaker
President



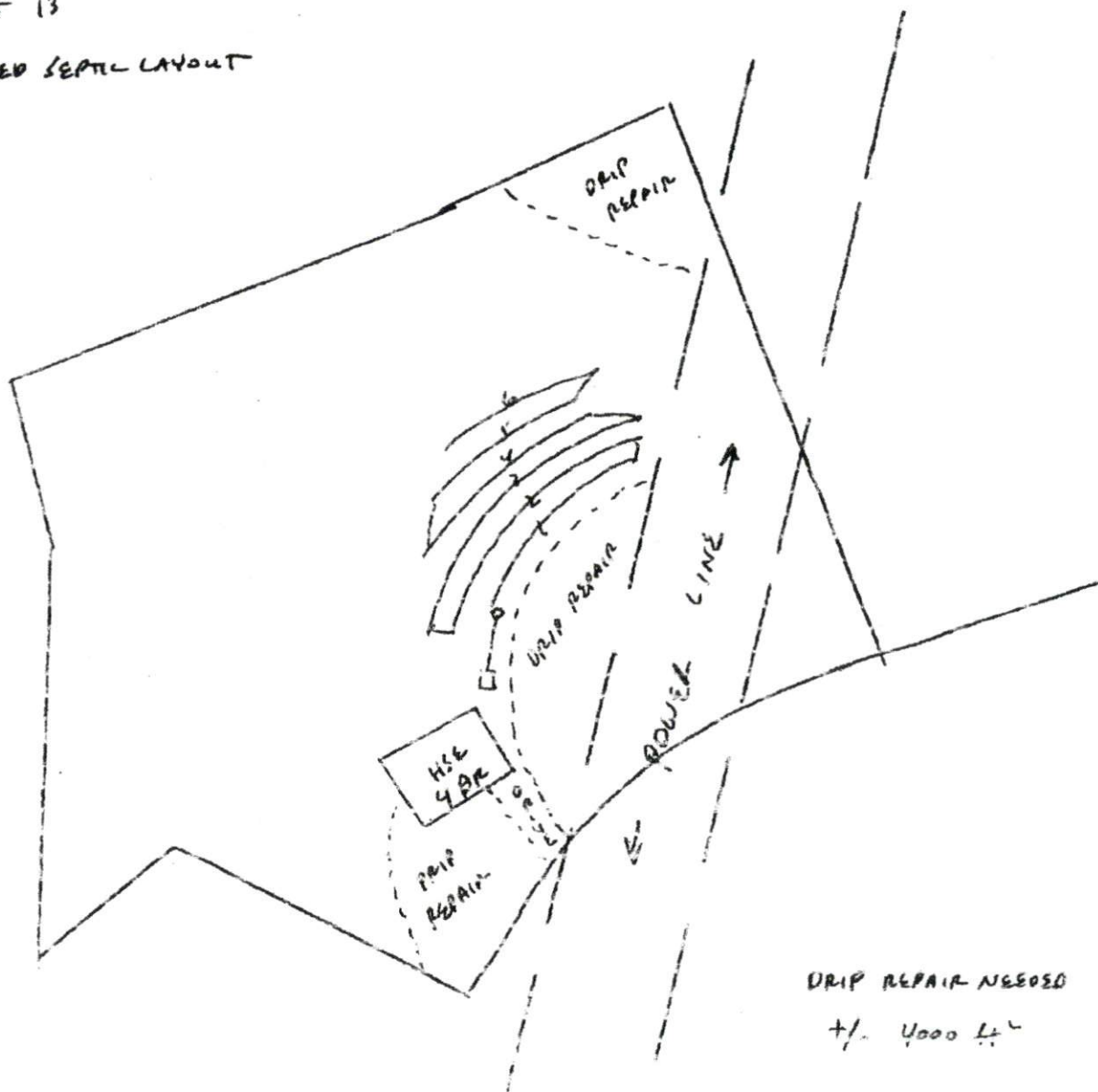
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THORNTON'S CREEK

Lot 13

PROPOSED SEPTIC LAYOUT



HOUSE LOCATION MAY CHANGE
DRIVEWAY MAY CHANGE

N.T.S.

SOUTHEASTEN SOIL & ENVIRONMENTAL ASSOC, INC.

PROPOSED SUBSURFACE WASTE DISPOSAL SYSTEM DETAIL SHEET

SUBDIVISION Thornton's Creek

LOT 13

INITIAL SYSTEM 2' INFILTRATOR AT GRADE
w/ 6" cover

REPAIR DRIP IRRIGATION (NO
RETREAT)

DISTRIBUTION SERIAL

DISTRIBUTION _____

BENCHMARK 100.0

LOCATION FRONT CORNER 13/14

NO. BEDROOMS 3

proposed CTAR = 0.25 gpd/ft²

<u>LINE</u>	<u>FLAG COLOR</u>	<u>ELEVATION</u>	<u>ACTUAL LENGTH</u>
1	B	96.84	100'
2	O	96.25	150'
3	B	95.25	150'
4	O	95.25	100'
5	B	94.25	90'
6	O	94.25	50'
			640' AVAILABLE
SOME CHLOROMA & MOTTLES AT 20-26"			

BY M BAKER

DATE 01/09/08

INSTALL AT GRADE WITH 6" COVER