

18126 KALABASH RD

21718151

1/7/2008

duponbj

Groundwater and Wastewater Services File Imaging Project
May 2007
Barcode Font = IDAutomationHC39M

FEE: 200

DATE: 2-25-02

APPLICATION FOR IMPROVEMENT PERMIT
FOR RESIDENTIAL SITE
INDIVIDUAL WATER AND WASTEWATER
SYSTEMS PROGRAM

Paid $100 6/18/02
2nd Site Evaluation RF
1 CRT

TYPE APPLICATION: X NEW SYSTEM __ EXPANSION/ ALTERATION OF EXISTING SYSTEM __ REPAIR OF EXISTING SYSTEM

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT,
HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

FILE #: 4871B

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 217-181-51 pp

STREET ADDRESS: Harbor View Road

SUBDIVISION OR MOBILE HOME PARK NAME:

LOT NUMBER: 10

TOWNSHIP (CHECK ONE):

__ 0 MECKLENBURG
X 1 CHARLOTTE
__ 2 DAVIDSON
__ 3 CORNELIUS
__ 4 PINEVILLE
__ 5 MATTHEWS
__ 6 HUNTERSVILLE
__ 7 MINT HILL

CLOSING DATE _____

2nd site visit was made 6-20-02 report in file when rec'd 7-2002

TYPE OF BUILDING (CHECK ONE):

__ SINGLE MOBILE HOME(S)
__ DOUBLE WIDE (D)
X HOUSE (H)
__ MODULAR HOME (M)
__ MULTIPLE FAMILY (U)
__ OTHER (O)

HEATED SQUARE FOOTAGE: Unknown

NUMBER OF BEDROOMS: 4

NUMBER OF OCCUPANTS:

FOUNDATION FOR RESIDENCE:

__ WITHOUT BASEMENT
__ ON SLAB
__ CRAWL SPACE
X WITH BASEMENT /PLUMBING
__ WITH BASEMENT /NO PLUMBING

IF EXPANSION/ALTERATION OF EXISTING SYSTEM, DESCRIBE THE PROPOSED BUILDING ADDITION:

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE: __ YES X NO TYPE: _____

WATER SUPPLY (CHECK ONE):
__ COMMUNITY (C)
__ MUNICIPAL (M)
__ PRIVATE WELL (P)
__ SHARED WELL (S)
__ OTHER 'SPRINGS' (O)

IF ANY OF THE FOLLOWING ARE LOCATED ON THE PROPERTY, PLEASE SHOW LOCATION ON PLAT:

BURIED CABLES, LANDFILLS, STUMPHOLES __ YES __ NO
EXISTING WASTEWATER SYSTEMS __ YES __ NO
EASTMENTS OR RIGHT-OF-WAYS __ YES __ NO
WELL, SPRINGS OR WATERLINES __ YES __ NO
DESIGNATED WETLANDS __ YES __ NO

PROPERTY OWNER:

NAME: Falls Thomas N.
(LAST) (FIRST) (MI)

ADDRESS: 16328 Harvorview Rd.

CITY: Charlotte STATE: NC ZIP: 28278

DAYTIME PHONE: (704 588 - 7644

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: Hagemeyer Richard H.
(LAST) (FIRST) (MI)

DAYTIME PHONE: (704 543-9696

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 1/23/74

An Improvement Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

SIGNED _____ DATE: 2/27/02

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
c/o HAL MARSHALL CTR., SUITE 211, 700 N. TRYON ST., CHARLOTTE, N.C. 28202., (704) 336-5102

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 1
Property ID: PO 217-181-51
Lot #: 10
File #: 4871B
Code: 2

RCS 2nd pit

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: Thomas N. Falls
Applicant: Richard Hagemeyer
Address: 16328 Harbor Drive, Charlotte, N. C. 28278
Date Evaluated: 06/20/2002
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Property Size: .1a
Location of Site: Harbor View Drive
Property Recorded:
Water Supply: [ ] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [ ] Auger Boring [x] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
A	LS, 15	0-2	GR/CL	FR/SEXP/SS/SP	>50" TO SOIL WETNESS	50	N/A	NONE	PS, IV .3GPD/FT^2
		2-18	SBK/C	FI/SEXP/S/P					
		18-50	WKSBK/SCL	FR/SEXP/SS/SP					
B	"	0-3	GR/SCL	"	>51" TO SOIL WETNESS	51	"	"	"
		3-24	SBK/C	FI/SEXP/S/P					
		24-51	WKSBK/CL	FR/SEXP/SS/SP					
C	LS, 20	0-3	GR/SCL	"	>53" TO SOIL WETNESS	53	"	"	PS, IV .32GPD/FT^2
		3-41	SBK/C	FI/SEXP/S/P					
		41-53	SBK/CL	FR/SEXP/SS/SP					

Description	Initial System	Repair System
Available Space (.1945)	US	US
System Type(s)		
Site LTAR	.3GPD/FT^2	.3GPD/FT^2

Other Factors (.1946): _____
Site Classification (.1948): UNSUITABLE
Evaluated By: W. R. Marlin, LSS, 7/2/02. W R Marlin
Others Present: A. Rollins

FEE: 200

DATE: 2-25-02

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FOR RESIDENTIAL SITE
INDIVIDUAL WATER AND WASTEWATER
SYSTEMS PROGRAM

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NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT,
HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
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FILE #: 4871B

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STREET ADDRESS: Harbor View Road

SUBDIVISION OR MOBILE HOME PARK NAME:

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__ SINGLE MOBILE HOME(S)
__ DOUBLE WIDE (D)
X HOUSE (H)
__ MODULAR HOME (M)
__ MULTIPLE FAMILY (U)
__ OTHER (O)

TOWNSHIP (CHECK ONE):

__ 0 MECKLENBURG
X 1 CHARLOTTE
__ 2 DAVIDSON
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__ 7 MINT HILL

HEATED SQUARE FOOTAGE: Unknown

NUMBER OF BEDROOMS: 4

NUMBER OF OCCUPANTS:

CLOSING DATE

FOUNDATION FOR RESIDENCE:

__ WITHOUT BASEMENT
__ ON SLAB
__ CRAWL SPACE
X WITH BASEMENT /PLUMBING
__ WITH BASEMENT /NO PLUMBING

IF EXPANSION/ALTERATION OF EXISTING SYSTEM, DESCRIBE THE PROPOSED BUILDING ADDITION:

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE: __ YES X NO TYPE:

WATER SUPPLY (CHECK ONE):

__ COMMUNITY (C)
__ MUNICIPAL (M)
__ PRIVATE WELL (P)
__ SHARED WELL (S)
__ OTHER 'SPRINGS' (O)

IF ANY OF THE FOLLOWING ARE LOCATED ON THE PROPERTY, PLEASE SHOW LOCATION ON PLAT:

BURIED CABLES, LANDFILLS, STUMPHOLES __ YES __ NO
EXISTING WASTEWATER SYSTEMS __ YES __ NO
EASTMENTS OR RIGHT-OF-WAYS __ YES __ NO
WELL, SPRINGS OR WATERLINES __ YES __ NO
DESIGNATED WETLANDS __ YES __ NO

PROPERTY OWNER:

NAME: Falls Thomas N.
(LAST) (FIRST) (MI)

ADDRESS: 16328 Harvorview Rd.

CITY: Charlotte STATE: NC ZIP: 28278

DAYTIME PHONE: (704 586 - 7044

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: Hagemeyer Richard H.
(LAST) (FIRST) (MI)

DAYTIME PHONE: (704 543-9696

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 1/23/74

An Improvement Permit is subject to suspension or revocation if site plans or the intended use change or if information submitted in this application is falsified or changed. The undersigned, owner, or legal agent for the owner, of the property described above as the "Job Location" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

SIGNED [signature] DATE: 2/27/02

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
c/o HAL MARSHALL CTR., SUITE 211, 700 N. TRYON ST., CHARLOTTE, N.C. 28202., (704) 336-5102

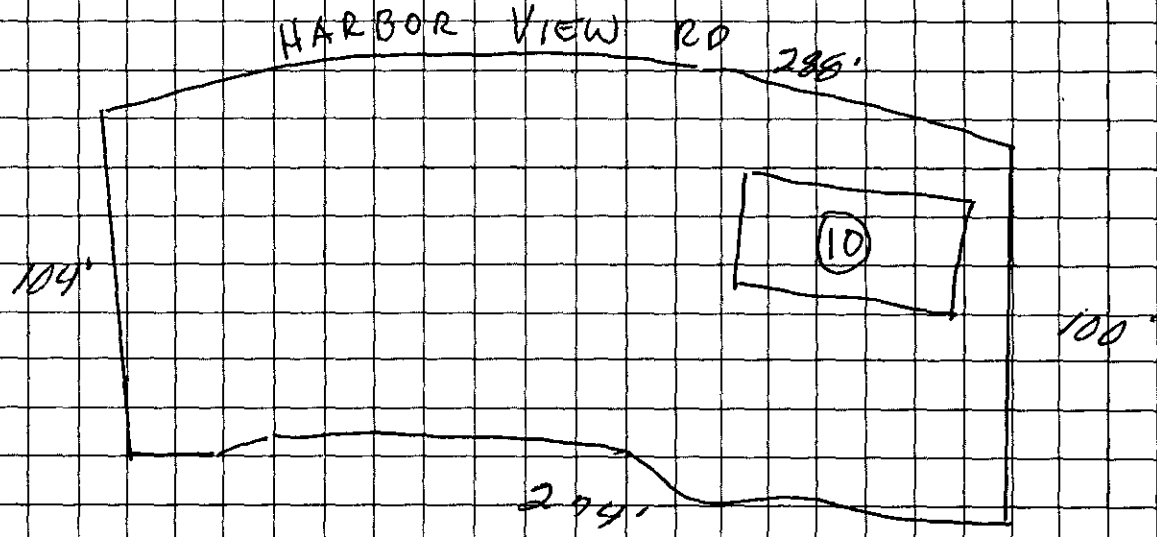
PROPOSED PLOT PLAN

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON STREET
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 4871B

TC: 217.181.5190

Draw in and name all roads adjoining the property. Draw in and accurately dimension the lot concerned. Accurately indicate property boundaries proposed and/or existing structures and driveways, underground utilities, and wells and springs within 100 feet of the proposed building or drainfield.



1" = 60'

OWNER/AGENT SIGNATURE

DATE 2/27/02

APPROVAL DATE _____

White - Health Department's Copy Canary - E.H.S. Copy Pink - Owner's Copy

MECKLENBURG COUNTY
Health Department

February 11, 2003

Thomas N. Falls
16325 Harbor View Road
Charlotte, NC 28278

Re: Application for improvement permit for Richard Hagemeyer
Property Site: lot 10, Kalabash Road
Health Department file no. 4871B

Dear Property Owner or Owner's Agent:

The Mecklenburg County Health Department, Environmental Health Division on July 2, 2002 evaluated the above-referenced property at the site designated on the plat/site plan that accompanied your improvement permit application. According to your application the site is to serve a 4-bedroom residence, with a design wastewater flow of ___480____gallons per day. The evaluation was done in accordance with the laws and rules governing wastewater systems in North Carolina General Statute 130A-333 and related statutes and Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rule .1900 and related rules.

Based on the criteria set out in Title 15A, Subchapter 18A, of the North Carolina Administrative Code, Rules .1940 through .1948, the evaluation indicated that the site is **UNSUITABLE for** a ground absorption sewage system. Therefore, your request for an improvement permit is **DENIED.** A copy of the site evaluation is enclosed. The site is unsuitable based on the following:

____X___Unsuitable soil topography and/or landscape position (Rule .1940)
_____Unsuitable soil characteristics (structure or clay mineralogy) (Rule .1941)
_____Unsuitable soil wetness condition (Rule .1942)
_____Unsuitable soil depth (Rule .1943)
_____Presence of restrictive horizon (Rule .1944)
____X____Insufficient space for septic system and repair area (Rule .1945)
____X____Unsuitable for meeting required setbacks (Rule .1950)
_____Other (Rule .1946)

These severe soil or site limitations could cause premature system failure, leading to the discharge of untreated sewage on the ground surface, into surface waters, directly to ground water or inside your structure.

The site evaluation included consideration of possible site modifications, and modified, innovative or alternative systems. However, the Health Department has determined that none of the above options will overcome the severe conditions on this site. A possible option might be a system designed to dispose of sewage to another area of suitable soil or off-site to additional property.

For the reasons set out above, the property is currently classified **UNSUITABLE,** and an improvement permit shall not be issued for this site in accordance with Rule .1948 (c).

However, the site classified as **UNSUITABLE** may be classified as **PROVISIONALLY SUITABLE** if written documentation is provided that meets the requirements of Rule .1948(d). A copy of this rule is enclosed. You may hire a consultant to assist you if you wish to try to develop a plan under which your site could be reclassified as **PROVISIONALLY SUITABLE.**

You have a right to an informal review of this decision. You may request an informal review by the soil scientist or environmental health supervisor at the local health department. You may also request an informal review by the N. C. Department of Environment and Natural Resources regional soil specialist. A request for informal review must be made in writing to the local health department.

You also have a right to a formal appeal of this decision. To pursue a formal appeal, you must file a petition for a contested case hearing with the Office of Administrative Hearings, 6714 Mail Center, Raleigh, NC 27699-6714. To get a copy of a petition form, you may write the Office of Administrative Hearings or call the office at (919) 733-0926 or from the OAH web site at www.oah.state.nc.us/form.htm. The petition for a contested case hearing must be filed in accordance with the provision of North Carolina General Statutes 130A-24 and 150B-23 and all other applicable provisions of Chapter 150B. N. C. General Statue 130A-335(g) provides that your hearing would be held in the county where your property is located.

Please note: If you wish to pursue a formal appeal, you must file the petition form with the Office of Administrative Hearings **WITHIN 30 DAYS OF THE DATE OF THIS LETTER.** The date of this letter is February 11, 2003. Meeting the 30-day deadline is critical to your right to a formal appeal. Beginning a formal appeal within 30 days will not interfere with any informal review that you might request. Do no wait for the outcome of any informal review if you wish to file a formal appeal.

If you file a petition for a contested case hearing with the Office of Administrative Hearings, you are required by law (N.C. General Statute 150B-23) to send a copy of your petition to the North Carolina Department of Environment and Natural Resources. Send the copy to: Office of General Counsel, N. C. Department of Environment and Natural Resources, 1601 Mail Service Center, Raleigh, NC. 27699-1601. Do **NOT** send the copy of the petition to your local health department. Sending a copy of your petition to the local health department will **NOT** satisfy the legal requirement in N.C. General Statute 150B-23 that you send a copy to the Office of General Counsel, NCDENR.

You may call or write the local health department if you need any additional information or assistance.

Sincerely,

Brandon Summey R.S.

Brandon Summey, R.S.
Authorized Agent - DENR

Encl: (2)

S&EC

Soil & Environmental Consultants, PA

236 LePhillip Court, Suite C • Concord, North Carolina 28025 • Phone: (704) 720-9405 • Fax: (704) 720-9406
www.SandEC.com

May 21, 2002
Project #05-1131

R.H. HAGEMEYER. INC.
Attn: Dick Hagemeyer
P.O. Box 472685
Charlotte, NC 28247

Bill Marlin
536 5574

Re: Detailed Soil/Site Evaluation on a ±10.0acre site (Lots 1 – 10) on the corner of Harbor View and Kalabash Roads, Mecklenburg County, NC.

Dear Mr. Hagemeyer:

Soil and Environmental Consultants, PA (S&EC) performed a detailed soil and site evaluation on the above referenced tract. This was performed at your request as part of the preliminary planning process to evaluate soil areas for subsurface wastewater disposal. Fieldwork was performed May 16th, 2002.

S&EC traversed the property and observed landforms (slope, drainage patterns, past use, etc.) as well as soil conditions (depth, texture, structure, seasonal wetness, restrictive horizons, etc.) through the use of hand auger borings. The site was evaluated during moist soil conditions. From these observations, an evaluation of the site, relative to subsurface disposal of wastewater, was developed. Soil boundaries were located using Global Positioning System (GPS) technology. Field maps (topographic and tax information) provided by the client's engineer, B.K. Barringer, P.E. with Piedmont Design Associates, PA. The field map and our Global Positioning System (GPS) data were utilized to produce a digital soil map in AutoCad. The soil/site evaluation criteria used is that contained in 15 A NCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems".

Once potentially useable areas are located through vertical borings, the next consideration is the horizontal extent of those areas. The size and configuration of the useable soil area dictate the utility of that area. The size of a subsurface disposal field is determined by; 1) the design flow from the source (120 gallons/bedroom/day in residences), and 2) the long term acceptance rate (LTAR) of the soil (based on the hydraulic conductivity of the soil, a function of the soil's texture, mineralogy, structure, porosity, etc.). The configuration must be such that an efficient layout of disposal lines (on contour) is possible. An additional consideration is the required setbacks for the system from various elements such as wells (100'), streams and ponds (50') or more depending on watershed regulations, property lines (10'), top of embankment (15'), watershed buffers, etc. (see Attachment 1).

Greensboro Office:
3817-E Lawndale Drive
Greensboro, NC 27455
Phone: (336) 540-8234
Fax: (336) 540-8235

Hickory Area Office:
710 Boston Road
Taylorsville, NC 28681
Phone: (828) 635-5820
Fax: (828) 63[illegible]

Raleigh Office:
11010 Raven Ridge Road
Raleigh, NC 27614
Phone (919) 846-5900

FINDINGS

This site is located in the southwestern region of Mecklenburg County. The upland soils were derived predominantly of acid crystalline rock. Small portion of the upland soils weathered from mafic or intermediate crystalline rocks. The upland soils were most similar to the Cecil, Pacolet and Poindexter soil series. The Cecil and Pacolet soil series' have a sandy loam surface material over clay subsoil. These soils are at least 24 inches deep to prohibitive soil characteristics and are generally useable for subsurface septic systems. The Poindexter soil series has a loam surface material over sandy clay loam subsoil. These soils are generally less than 18 inches deep to prohibitive soil characteristics and are generally unsuitable for subsurface septic systems. Small area within this soil map unit may contain soils that are between 18 and 24 inches deep and are suitable for some innovative subsurface septic systems.

Soil areas generally unsuitable for supporting subsurface septic systems were encountered by S&EC. These areas suffered from unsuitable topography (gullied land, road cuts, etc.), depth to rock or evidence of soil wetness. Septic systems cannot be permitted in gullied, concave areas such as draws or drainageways.

The accompanying *GPS/AutoCAD* map indicates the areas with potential use for subsurface wastewater disposal. The **"Solid-Hatched"** units indicate areas of soils that are at least 30 inches deep to prohibitive soil characteristics and have potential for conventional and modified conventional (shallow placed lines with no fill required over the disposal area) septic systems. The **"Diamond-Hatched"** units indicate areas of soils that are 24 to 30 inches deep to prohibitive soil characteristics and have potential for low pressure pipe system (LPP) and/or ultra-shallow conventional (shallow placed lines with fill required over the disposal field) system. The **"Block-Hatched"** units indicate areas of soils that are 18 to 24 inches deep to prohibitive soil characteristics and have potential for subsurface drip irrigation w/pretreatment septic systems. Such systems typically cost in excess of $15,000.00 to $20,000.00 +. The **"UN"** units on the attached map indicate soil areas with less than 24 inches to unsuitable characteristics and generally unsuitable for systems mentioned above.

GENERAL WASTEWATER CONSIDERATIONS

The utility of a potentially useable soil area for a subsurface system is most accurately determined by an on-ground layout of the proposed system. The total area needed for system and repair areas will depend upon the system type, the layout of that system and the total design flow (factors mentioned above). **A typical area needed for a four-bedroom (480 gpd) residence is approximately 16,000 ft² (could be more depending on site features) or 1066 linear feet of conventional line (system and repair), 1960 linear feet of LPP line (system and repair) or 4800 linear feet of drip irrigation line (system and repair).** These estimates reference Laws and Rules for Sewage Treatment and Disposal Systems for North Carolina and use a LTAR of 0.30gpd/ft² for conventional septic systems (.1955), a LTAR of 0.30gpd/ft² for modified conventional (.1956) and 0.10gpd/ft² for LPP or drip irrigation septic systems (.1957a). The ultimate LTAR will be determined by the Health Department after their lot evaluation. S&EC will be glad to assist in any system layout or sizing calculations if requested.

The site plan for each lot must ensure that adequate soil area for system and repair is unaffected by site elements (house placement, driveway, wells, patios, decks, etc.) on that, or adjacent lots. The area ultimately designated by the health department for the septic system and repair must remain undisturbed (no mechanical clearing, excavation, heavy traffic or other significant site disturbing activities) until authorized by the health department. A lot with adequate useable soil area may be rendered unusable as a result of improper site planning and/or disturbance. A field layout of the proposed septic systems may be required as part of the individual lot development process.

This report discusses the general location of potentially useable soils for on-site subsurface wastewater disposal and does not constitute or imply any approval or permit needed by the client from the local heath department. S&EC, PA is a professional consulting firm that specializes in the delineation of soil areas for wastewater disposal and the layout and design of wastewater treatment systems. As a professional consulting firm, S&EC is hired for its professional opinion in these matters. The rules governing wastewater treatment (interpreted and governed by local and state agencies) are evolving constantly, and in many cases, affected by the opinions of individuals employed by these governing agencies. Because of this, S&EC, PA cannot guarantee that areas delineated and/or systems designed will be permitted by the governing agencies. As always, we recommend that anyone making financial commitments on a tract be fully aware of individual permit requirements on that tract prior to final action.

An individual septic system permit will be required for each lot prior to obtaining a building permit. This will involve a detailed evaluation by the local health department to determine system size and layout, well, drive and house location, etc. Only after developing this information can a final determination be made concerning the specifics of system design and site utilization. **It is apparent based on the limited size and proximity of the usable soils for Lots 1 - 10 that recombinations, septic easements, and/or additional site work (septic layout/designs) will be required to obtain septic permits. S&EC recommends scheduling a site meeting with the client and Bill Marlin, L.S.S., R.S., with Mecklenburg County Health Department to discuss our findings and what additional information the county will need to permit these lots.**

Soil and Environmental Consultants, PA is pleased to be of service in this matter and we look forward to assisting in any site analysis needs you may have in the future. Please feel free to call with any questions or comments.

Sincerely,



5/22/02

Samuel A. Rollans
NC Licensed Soil Scientist #1231

Encl: *Attachment 1*
Soil Suitability Map

Attachment 1

.1950 Location of Sanitary Sewage Systems

(c) Every sanitary sewage treatment and disposal system shall be located at least the minimum horizontal distance from the following:

(1)	any private water supply source including a well or spring	100 feet
(2)	any public water supply source	100 feet
(3)	streams classified as WS-I	100 feet
(4)	water classified as S.A.	100 feet from mean high water mark
(5)	Other coastal waters	50 feet from mean high water mark
(6)	any other stream, canal, marsh, or other surface waters	50 feet
(7)	any Class I or Class II reservoir normal	100 feet from pool elevation
(8)	any permanent storm water retention pond	50 feet from flood pool elevation
(9)	any other lake or pond	50 feet from normal pool elevation
(10)	any building foundation	5 feet
(11)	any basement	15 feet
(12)	any property line	10 feet
(13)	top of slope of embankments or cuts of 2 feet or more vertical height	15 feet
(14)	any water line	10 feet
(15)	drainage systems:	
	(A) Interceptor drains, foundation drains and storm water diversions	
	(i) upslope	10 feet
	(ii) sideslope	15 feet
	(iii) downslope	25 feet
	(B) Groundwater lowering ditched and devices	25 feet
(16)	any swimming pool	15 feet
(17)	any other nitrification field (except repair area)	20 feet

(b) Ground absorption, sewage treatment and disposal systems may be located closer than 100 feet from a private well supply, except springs and uncased wells located downslope and used as a source of drinking water, repairs, space limitations and other site-planning considerations but shall be located the maximum feasible distance and, in no case, less than 50 feet.

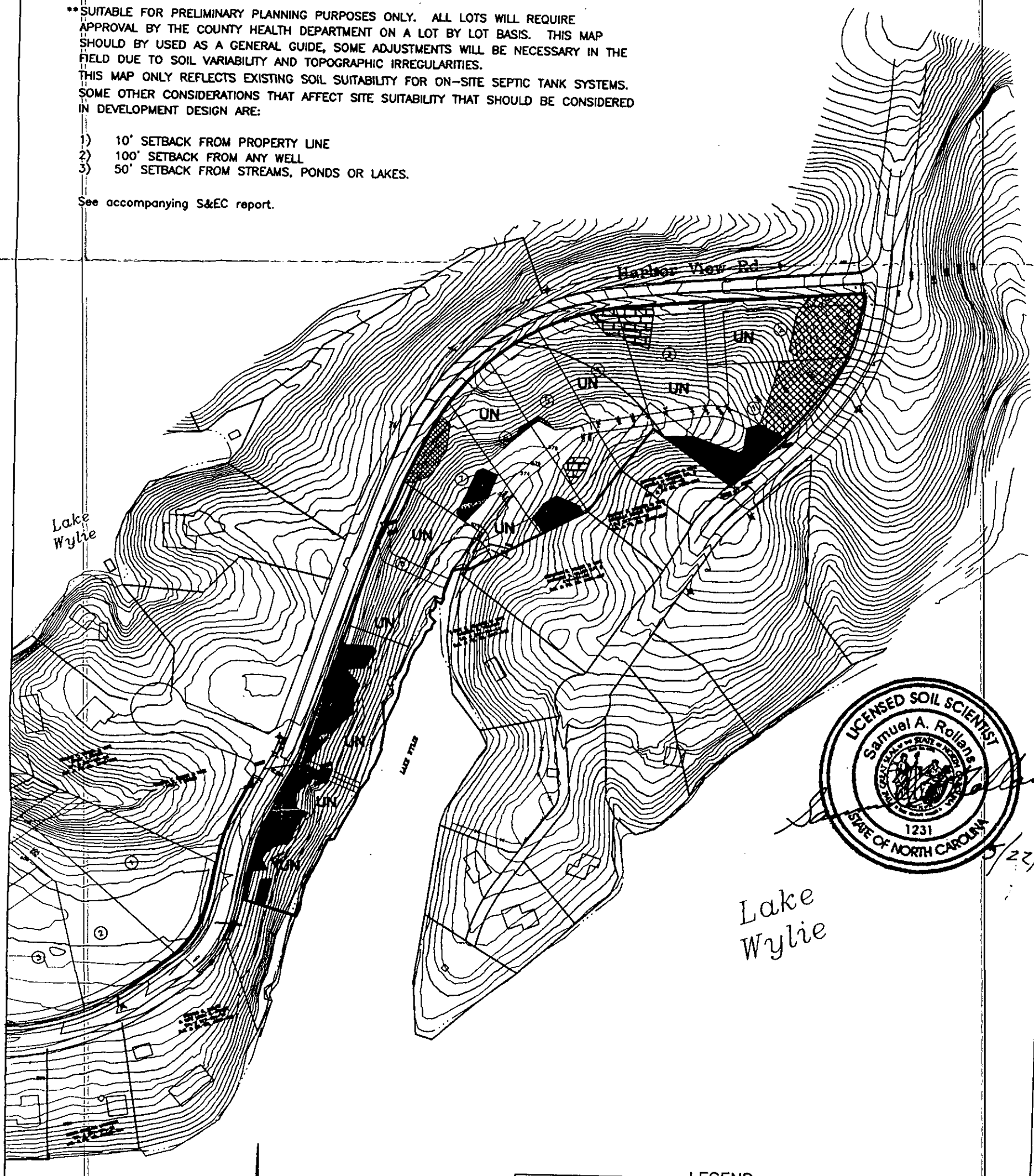
(c) Nitrification fields and repair areas shall not be located under paved areas or areas subject to vehicular traffic. If effluent is to be conveyed under areas subject to vehicular traffic, ductile iron or its equivalent pipe shall be used. However, pipe specified in Rule .1955 (e) may be used if a minimum of 30 inches of compacted cover is provided over the pipe.

Note: Systems over 3000 GPD or an individual nitrification fields with a capacity of 1500 GPD or more have more restrictive setback requirements, see .1950 (a) (17) (d) for specifics.

** SUITABLE FOR PRELIMINARY PLANNING PURPOSES ONLY. ALL LOTS WILL REQUIRE APPROVAL BY THE COUNTY HEALTH DEPARTMENT ON A LOT BY LOT BASIS. THIS MAP SHOULD BY USED AS A GENERAL GUIDE, SOME ADJUSTMENTS WILL BE NECESSARY IN THE FIELD DUE TO SOIL VARIABILITY AND TOPOGRAPHIC IRREGULARITIES.
THIS MAP ONLY REFLECTS EXISTING SOIL SUITABILITY FOR ON-SITE SEPTIC TANK SYSTEMS. SOME OTHER CONSIDERATIONS THAT AFFECT SITE SUITABILITY THAT SHOULD BE CONSIDERED IN DEVELOPMENT DESIGN ARE:

1) 10' SETBACK FROM PROPERTY LINE
2) 100' SETBACK FROM ANY WELL
3) 50' SETBACK FROM STREAMS, PONDS OR LAKES.

See accompanying S&EC report.



LEGEND

- Areas contain soils with 30 inches or more of useable material and have potential for conventional and shallow conventional septic systems.
- Areas contain soils with 24 to 30 inches of useable material and have potential for low pressure pipe (lpp) or "at-grade" conventional septic systems.
- Areas contain soils with ~~24 to 30~~ 18-24 inches of useable material and have potential for ~~low pressure pipe (lpp)~~ or "at-grade" ~~conventional~~ septic systems. LPP or DCP.
- UN — Unsuitable areas.

GRAPHIC SCALE
1" = 200'
200 0 200 400

SHEET 1 OF 1	SHEET TITLE: DETAILED SOILS EVALUATION	PROJECT NAME: R.H. HEGEMEYER, INC. - HARBOR VIEW - MECK. COUNTY, NORTH CAROLINA MAY 2002	S&EC Soil & Environmental Consultants, PA

FILE \\SEC\JOBS\5-1131 | 1" = 200' SCALE | SAR FIELD WORK | SAR DRAWN | 5-1131 PROJECT MGR. | JOB NO.

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 1
Property ID: PO 217-181-51
Lot #: 10
File #: 4871B
Code: 2

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Thomas N. Falls
Applicant: Richard Hagemeyer
Address: 16328 Harbor View Road, Charlotte, N. C. 28278
Date Evaluated: 06/20/2002
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Property Size: .1a
Location of Site: Harbor View Road
Property Recorded:
Water Supply: [ ] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [ ] Auger Boring [x] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	.1941 Consistence Mineralogy	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
A	LS, 15	0-2	GR/CL	FR/SEXP/SS/SP	>50" TO SOIL WETNESS	50	N/A	NONE	PS, IV .3GPD/FT^2
		2-18	SBK/C	FI/SEXP/S/P					
		18-50	WKSBK/SCL	FR/SEXP/SS/SP					
B	"	0-3	GR/SCL	"	>51" TO SOIL WETNESS	51	"	"	"
		3-24	SBK/C	FI/SEXP/S/P					
		24-51	WKSBK/CL	FR/SEXP/SS/SP					
C	LS, 20	0-3	GR/SCL	"	>53" TO SOIL WETNESS	53	"	"	PS, IV .32GPD/FT^2
		3-41	SBK/C	FI/SEXP/S/P					
		41-53	SBK/CL	FR/SEXP/SS/SP					

Description	Initial System	Repair System
Available Space (.1945)	US	US
System Type(s)		
Site LTAR	.3GPD/FT^2	.3GPD/FT^2

Other Factors (.1946): _____
Site Classification (.1948): UNSUITABLE
Evaluated By: W. R. Marlin, LSS, 7/2/02, W. R. Marlin
Others Present: A. Rollins

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 1
Property ID: PO 217-181-51
Lot #: 10
File #: 4871B
Code: 3

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Thomas N. Falls
Applicant: Richard Hagemeyer
Address: 16328 Harbor View Road, Charlotte, N. C. 28278
Date Evaluated: 3/27/02
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Property Size: .75a
Location of Site: Harbor View Road
Property Recorded:
Water Supply: [ ] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941 .1941 Structure/ Texture	SOIL MORPHOLOGY .1941 .1941 Consistence Mineralogy	OTHER PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
1	LS, 15	0-5	GR/SCL	FR/SEXP/SS/SP	>49" TO SOIL WETNESS	49	N/A	NONE	PS, IV .3G/DAY/FT^2
		5-42	SBK/C	FI/SEXP/S/P					
		42-49	SBK/CL	FR/SEXP/SS/SP					
2	"	0-4	GR/SCL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48	"	"	"
		4-32	SBK/C	FI/SEXP/S/P					
		32-48	SBK/CL	FR/ SEXP/S/P					

Description	Initial System	Repair System
Available Space (.1945)	US	US
System Type(s)		
Site LTAR	.3G/DAY/FT^2	.3G/DAY/FT^2

Other Factors (.1946): _____
Site Classification (.1948): UNSUITABLE
Evaluated By: W. R. Marlin, LSS, 3/27/02, W. R. Marlin
Others Present:

FILE # 49713

COMMENTS 100% Repair

LANDSCAPE POSITION	GROUP	TEXTURE	.1955 LTAR
R-RIDGE	I	S-SAND	1.2-0.8
S-SHOULDER SLOPE		LS-LOAMY SAND	
L-LINEAR SLOPE			
FS-FOOT SLOPE	II	SL-SANDY LOAM	0.8-0.6
N-NOSE SLOPE		L-LOAM	
H-HEAD SLOPE			
CC-CONCLAVE SLOPE	III	SI-SILT	0.6-0.3
CV-CONVEX SLOPE		SICL-SILTY CLAY LOAM	
T-TERRACE		CL-CLAY LOAM	
FP-FLOOD PLAIN		SCL-SANDY CLAY LOAM	
	IV	SC-SANDY CLAY	0.4-0.1
		SIC-SILTY CLAY	
		O-ORGANIC	

CONSISTENCE MOIST	WET
VFR-VERY FRIABLE	NS-NON-STICKY
FR-FRIABLE	SS-SLIGHTLYSTICKY
FI-FIRM	S-STICKY
VFI-VERY FIRM	VS-VERY STICKY
EFI-EXTREMELY FIRM	NP-NON-PLASTIC
	SP-SLIGHTLYSTICKY
	P-PLASTIC
	VP-VERY PLASTIC

STRUCTURE

SG-SINGLE GRAIN
M-MASSIVE
CR-CRUMB
GR-GRANULAR
SBK-SUBANGULAR BLOCKY
ABK-ANGULAR BLOCKY
PL-PLATY
PR-PRISMATIC

MINERALOGY

SLIGHTLY EXPANSIVE

EXPANSIVE

