

10209 ANNIE OAKLEY TL

19719142

1/8/2008

duponbj

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

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

Sheet: 1 of 2
Property ID: 197-191-42
Lot #: 3
File #: 5627B
Code: 2

ACS

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: William J. Pleasants
Address: Box 18624, Charlotte, N. C. 28218
Proposed Facility: Residence Design Flow (.1949): 480gpd
Location of Site: 10209 Annie Oakley Trail
Water Supply: [ ] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

Applicant: Robert J. Spence
Date Evaluated: 06/15/2004
Property Size: 1.21a
Property Recorded:

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941		OTHER PROFILE FACTORS				Profile Class & LTAR
			.1941 Structure/ Texture	.1941 Consistence Mineralogy	.1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	
1	LS, 8	0-5	GR/SCL	FR/SEXP/SS/SP	>20" TO SOIL WETNESS	20	N/A	NONE	US, IV .1GPD/FT^2
		5-20	SBK/C	FI/SEXP/S/P					
2	"	0-6	GR/SCL	FR/SEXP/SS/SP	>18" TO SOIL WETNESS	18	"	"	"
		6-18	SBK/C	FI/SEXP/S/P					
3	"	0-4	GR/SICL	FR/SEXP/SS/SP	"	"	"	"	"
		4-12	SBK/SIC	FI/SEXP/S/P					
		12-18	SBK/SICL	FR/SEXP/SS/SP					
4	"	0-3	GR/SCL	"	>23" TO SOIL WETNESS	23	"	"	"
		3-23	SBK/C	FI/SEXP/S/P					
5	"	0-4	GR/SCL	FR/SEXP/SS/SP	>20" TO SOIL: WETNESS	20+	"	"	"
		4-20	SBK/SC	FI/SEXP/S/P					
		20+	SBK/ABK/C	VFI/EXP/VS/VP					
6	"	0-3	GR/SCL	FR/SEXP/SS/SP	>31" TO SOIL WETNESS	31	"	"	US, IV .2GPD/FT^2
		3-24	SBK/SCL	"					
		24-31	SBK/C	FI/SEXP/S/P					
7	"	0-4	GR/SCL	FR/SEXP/SS/SP	>10" TO SOIL WETNESS	10+	"	"	US
		4-10	SBK/SCL	"					
		10+	ABK/C	VFI/EXP/VS/VP					

Description	Initial System	Repair System
Available Space (.1945)	PS	US
System Type(s)		
Site LTAR	.1GPD/FT^2	.1GPD/FT^2

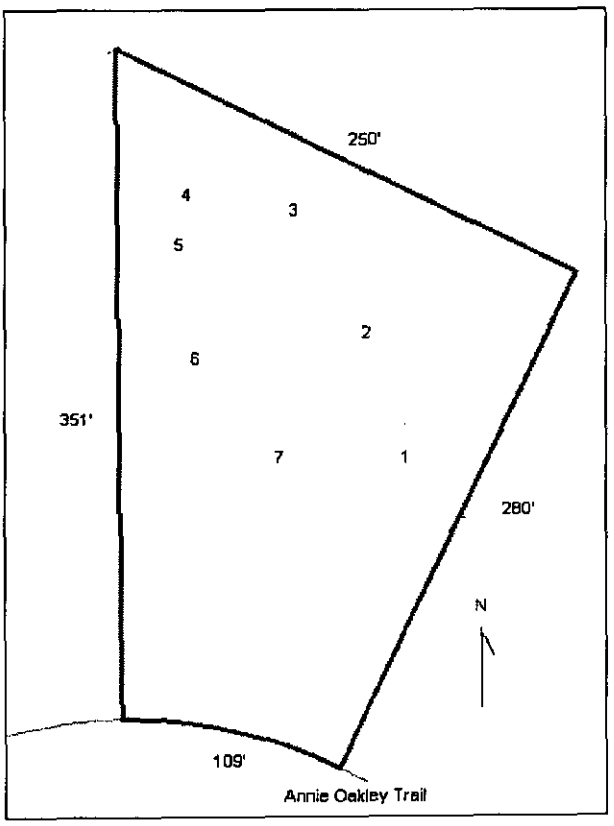
Other Factors (.1946):
Site Classification (.1948): UNSUITABLE
Evaluated By: W. R. Marlin, LSS, 6/17/2004, W. R. Marlin
Others Present:

COMMENTS:
100% repair

Landscape Position	Group	Texture	.1955 LTAR	Structure
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope				CR-Crumb
FS-Foot Slope	II	SL-Sandy Loam	0.8 - 0.6	GR-Granular
NS-Nose Slope		L-Loam		SBK-Subangular Blocky
HS-Head Slope				ABK-Angular Blocky
CC-Concave Slope	III	SI-Silt	0.6 - 0.3	PL-Platy
CV-Convex Slope		SICL-Silty Clay Loam		PR-Prismatic
T-Terrace		CL-Clay Loam		
FP-Flood Plain		SCL-Sandy Clay Loam		
	IV	SC-Sandy Clay	0.4 - 0.1	
		SIC-Silty Clay		
		C-Clay		

Consistence Moist	Consistence Wet	Mineralogy
VFR-Very Friable	NS-Non-Sticky	SEXP-Slightly Expansive
FR-Friable	SS-Slightly Sticky	EXP-Expansive
FI-Firm	S-Sticky	
VFI-Very Firm	VS-Very Sticky	
EFI-Extremely Firm	NP-Non-Plastic	
	SP-Slightly Plastic	
	P-Plastic	
	VP-Very Plastic	

Sketch of Soil Evaluation Locations



Mecklenburg County
Health Department

June 29, 2004

Robert J. Spence
5103 Witham Passage
Charlotte, NC 28215

Re: Application for improvement permit for
Property site: 10209 Annie Oakley Trail
Health Department file No. 5627B

Dear Property Owner:

The Mecklenburg County Health Department, Environmental Health Division on June 14, 2004 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 including 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:

- ☐ 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)
- ☒ Insufficient space for septic system and repair area (Rule .1945)
- ☐ 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 no improvement permit shall 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, N.C. 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 Statute 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 June 29, 2004. 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 not 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, N.C. 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.

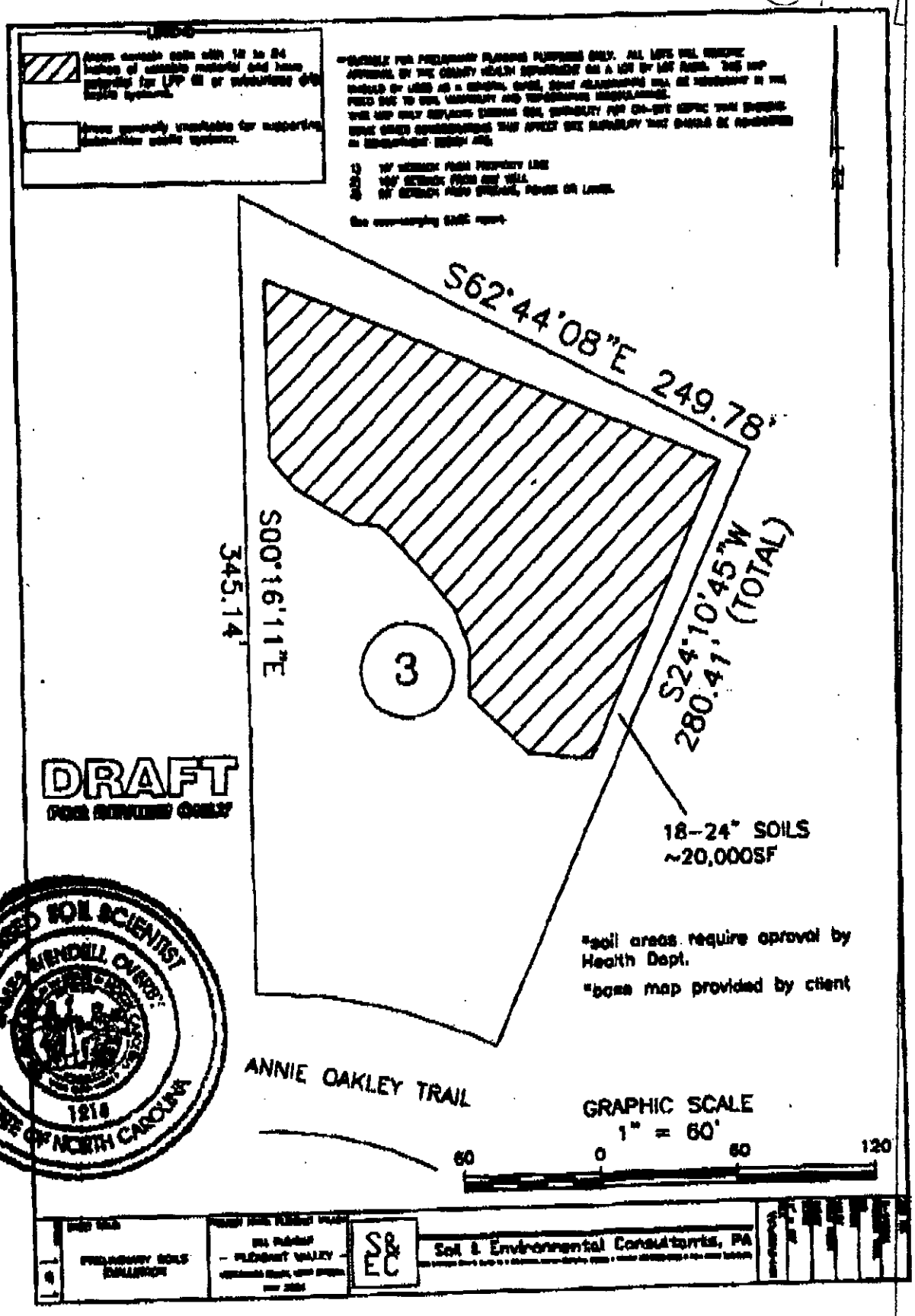
You may call or write the local health department if you need any additional information or assistance.

Sincerely,

J. Andrew Walker, R.S.

Encl: (2)

COPY


S62°44'08"E 249.78'
S00°16'11"E
345.14'
S24°10'45"W
280.41' (TOTAL)
3
DRAFT
FOR REVIEW ONLY
18-24" SOILS
~20,000SF
*soil areas require aproval by Health Dept.
*base map provided by client
ANNIE OAKLEY TRAIL
GRAPHIC SCALE
1" = 60'
60 0 60 120
LICENSED SOIL SCIENTIST
1818
STATE OF NORTH CAROLINA
S&EC
Soil & Environmental Consultants, PA

To Bob Spence

S&EC

Soil & Environmental Consultants, PA

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FACSIMILE SHEET
FAX NO. (704) 720-9406

DATE: 5/26/04 Project Number: 5-1423a1

TO: Name: Bill Pleasants CC: _____

Company: _____ _____

Fax Number: (704) 568-1156 _____

FROM: Wendell Overby SUBJECT: Pleasant Valley S/D

The following items are being faxed. Number of pages including transmittal sheet: 7

_____ For Your Comments/Approval
_____ Per Our Conversation
_____ Please Advise
_____ Would Like To Discuss
__x__ For Your Information
_____ Per Your Request
_____ Please Call
_____ Please Handle

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REMARKS: Bill: No soil found on lot 4. Lot 3 has about 20,000sf of 18 to 24" soil and if Confirmed by health department would require either LPPfill, drip or LPP with pretreatment. Lot 25 has 2 small areas of 18 to 24 inch soil and a pocket of 24 to 30" soil. We will need to confirm with the county first and then do a layout to know what will work. Three bedroom has a better chance on lot 25.

Wendell

IF YOU HAVE ANY QUESTIONS OR PROBLEMS WITH THIS TRANSMISSION,

PLEASE CONTACT Wendell AT (704) 720-9405.

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Fax: (336) 540-8235

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Taylorsville, NC 28681
Phone: (828) 635-5820
Fax: (828) 635-5820

Raleigh Office:
11010 Raven Ridge Road
Raleigh, NC 27614
Phone (919) 846-5900
Fax: (919) 846-9467

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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 26, 2004
S&EC #5-1423s1

Bill Pleasants, Sr.
PO Box 18624
Charlotte, NC 28218

Re: Soil/Site Evaluation-Lots 3, 4 and 25, Pleasant Valley Subdivision, Mecklenburg County, NC

Dear Mr. Pleasants:

Soil and Environmental Consultants, PA (S&EC) has performed a preliminary soil and site evaluation on the lots (3, 4 and 25) in Pleasant Valley Subdivision near Mint Hill, NC. The property is located north of Hwy 218 at the end of Silver Maple Lane. At your request the evaluation was performed to evaluate soil areas for subsurface wastewater disposal for four-bedroom homes.

S&EC walked over the lots taking note of the landscape (slope, drainage patterns, past use, etc.) as well as soil conditions (depth, texture, structure, seasonal wetness, restrictive horizons, etc.) through hand auger borings. The site was evaluated during dry soil conditions. From these observations an evaluation of the land relative to subsurface wastewater disposal was developed. The soil/site evaluation criteria used was that contained in 15 A NCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems".

Once potentially usable areas are identified, the next consideration is the horizontal extent (size) of those areas. The size and configuration of the usable soil area dictate how many systems an area can support. The size of a subsurface septic field is determined by; 1) the design flow (120 gallons/bedroom/day in residences), and 2) 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 of the soil area must be such that an efficient layout of drain lines (on contour) is possible and not contain unsuitable topography. 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).

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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	100 feet from normal 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	10 feet
	(i) upslope	15 feet
	(ii) sideslope	25 feet
	(iii) downslope	25 feet
	(B) Groundwater lowering ditches and devices	15 feet
(16)	any swimming pool	20 feet
(17)	any other nitrification field (except repair area)	

(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.

driveway, wells, patios, decks, etc.). 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 usable soil area may be rendered unusable as a result of improper site planning and/or disturbance.

Our recommendations include meeting representatives from the Mecklenburg County Health Department to evaluate soil areas on Lots 3 and 25. Based on their findings septic system layouts would likely be necessary to demonstrate adequate space for any proposed systems. Additionally, if the soil areas on Lots 3 and 25 are too small a combination of lots may be necessary for approval of a septic permit. Other options include lowering the number of bedrooms or proposing the use of pretreatment to increase the loading rate.

This report discusses the general location of potentially usable 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 ever evolving, 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.

Soil & 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,

Wendell Overby
NC Licensed Soil Scientist

LICENSED SOIL SCIENTIST WENDELL OVERBY 1218 STATE OF NORTH CAROLINA

Encl: Soil/Site Maps, Attachment

FINDINGS

Soils identified on the property were derived from either slate belt or basic parent materials. The soils were most similar to the Tatum, Lignum, Herndon and Enon soil series'. Tatum soils are derived from weathered slate rock and contain silt loam surfaces over red clay subsoils. Tatum soils are generally suitable for supporting subsurface septic systems such as at-grade conventional or Low Pressure Pipe types. The Lignum, Herndon and Enon soils are generally unsuitable for supporting subsurface septic systems due to expansive clay subsoils, soil wetness, or unsuitable topography.

The attached sketch map outlines the approximate extent of the usable soil areas identified on the 3 lots. The suitability of each auger hole was determined and the location of each boring recorded using GPS technology. Our boring locations were then transferred to a digital base map provided by the surveyor. The usable soils on the sketch map were broken into two suitability types: 18 to 24 inch and 24 inch and greater soils. Soil areas with 18 to 24 inches of usable material have potential to support subsurface drip or possibly LPP-fill systems. Soil areas with 24 inches or more of usable soil material and have potential to support conventional, at-grade conventional or Low Pressure-Pipe septic systems. At-grade conventional systems use a soil cap put over a shallow placed conventional system. Unfortunately on-site septic systems require a relatively large area of any lot for placement of the drainlines. Based on our evaluation lot 3 contains approximately 20,000sf of usable soil 18 to 24 inches deep. Lot 4 did not contain any usable soil for supporting a subsurface septic system and Lot 25 contained approximately 7800sf of 18 to 24 inch soils and 7500sf of 24 inches or greater soils.

GENERAL WASTEWATER CONSIDERATIONS

The utility of a potentially usable soil area for supporting a subsurface system is most accurately determined by an on-ground layout or demonstration of the proposed system. The total area needed for system and repair areas will depend upon the system type, the topography of the area and the total design flow (factors mentioned above). The typical area needed for a four-bedroom (480 gpd) residence is approximately 16,000 ft^2 (could be more depending on site features) or 1280 linear feet of conventional line (system and repair) or 1920 linear feet of LPP line (system and repair). These estimates reference Laws and Rules for Sewage Treatment and Disposal Systems for North Carolina and use a LTAR of 0.25gpd/ft^2 for conventional systems. The ultimate LTAR will be determined by the Health Department but we believe based on the nature of the soils encountered a higher LTAR will be recommended by the County. Therefore more than 16,000sf of usable soil may be required for a 4-bedroom home on these lots.

In order to reduce the space needed for a drainfield the number of proposed bedrooms could be reduced to 3. In addition, the site plans for any lot must ensure that adequate soil area for system and repair is unaffected by site elements (house placement,

FEE: 200.00 + 50.00 + 44.00 + 168.00 + 44.00 + 50.00 + 50.00 + 50

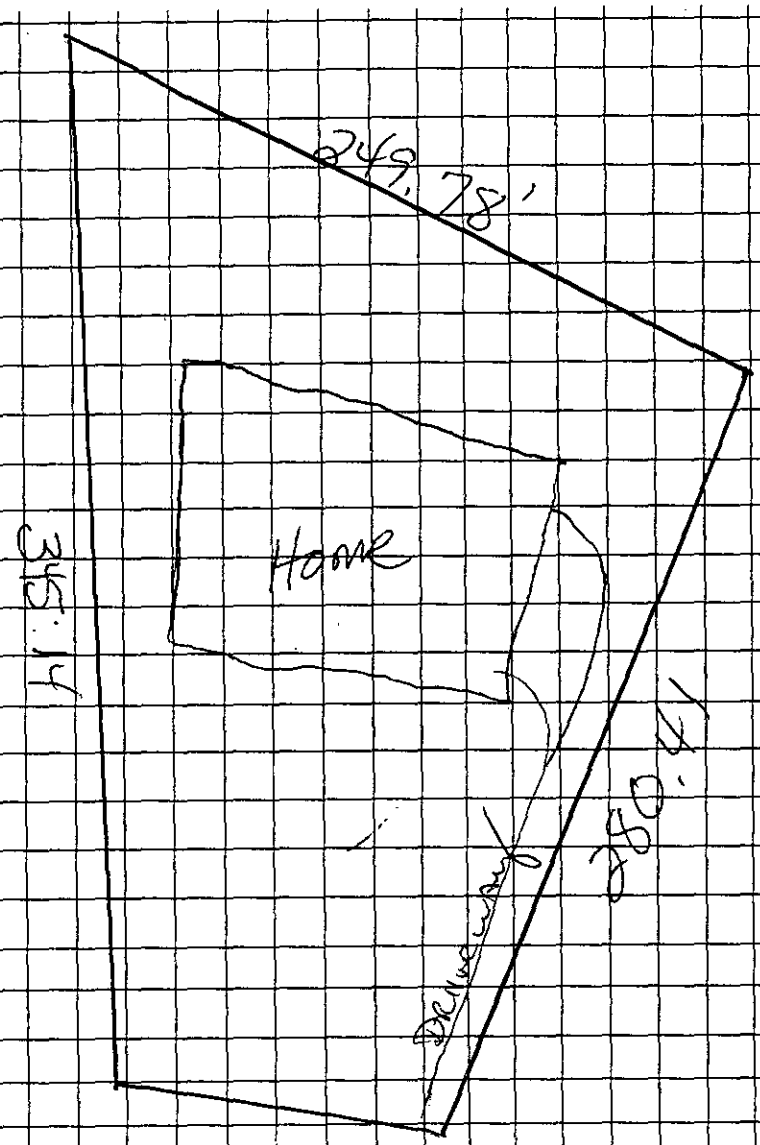
PROPOSED PLOT PLAN

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

FILE: 5627B

TC: 197-19-42

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.



OWNER/AGENT SIGNATURE

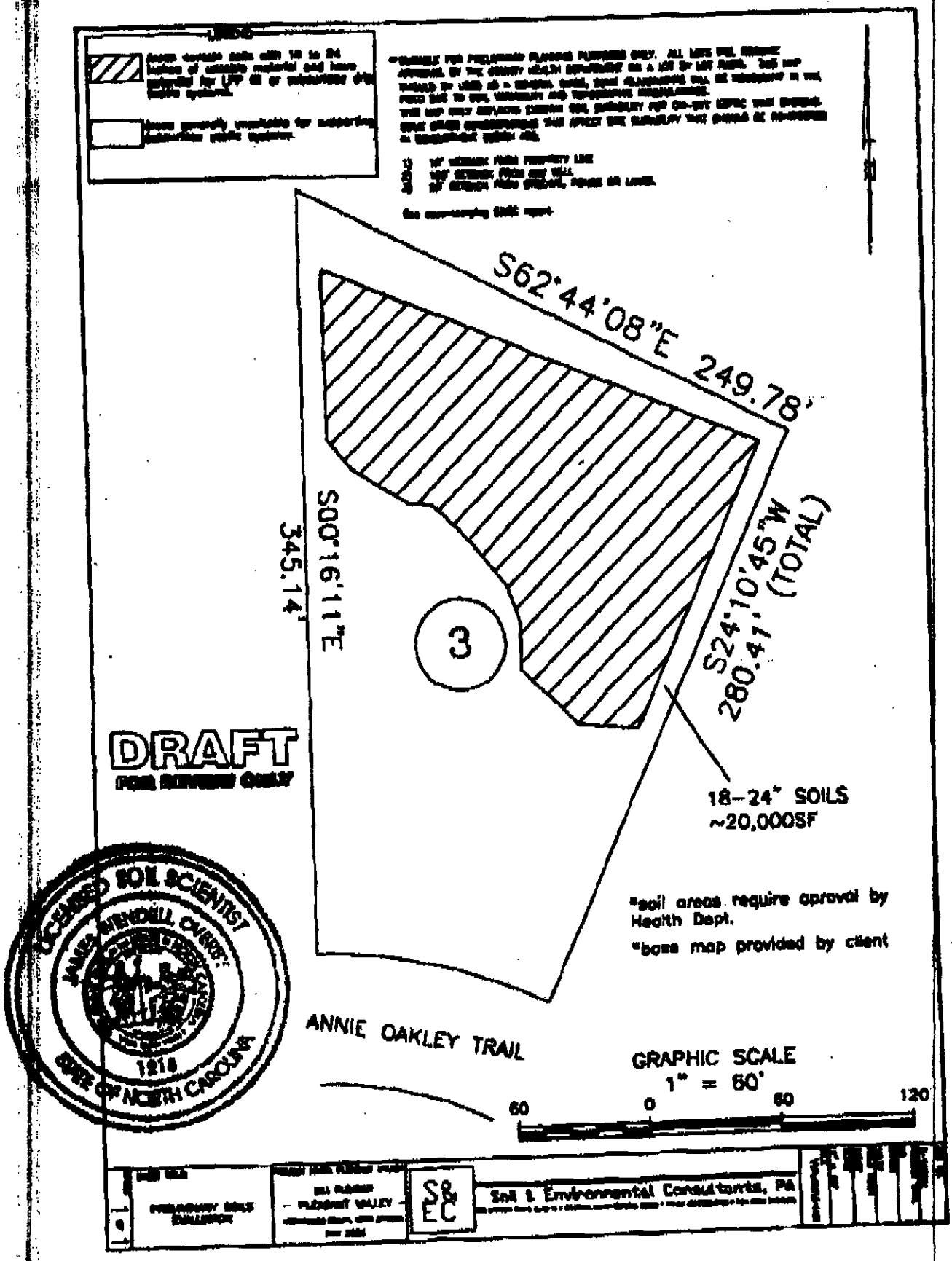
DATE 6/14/04

APPROVAL DATE _____

White - Health Department's Copy

Canary - E.H.S. Copy

Pink - Owner's Copy


S62°44'08"E 249.78'
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1218
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To Bob Spence

S&EC

Soil & Environmental Consultants, PA

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FAX NO. (704) 720-9406

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Company: _____ _____

Fax Number: (704) 568-1156 _____

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_____ Please Advise
_____ Would Like To Discuss
x For Your Information
_____ Per Your Request
_____ Please Call
_____ Please Handle

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_____ Overnight
_____ Hand Delivery
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May 26, 2004
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Taylorsville, NC 28681
Phone: (828) 635-5820
Fax: (828) 635-5820

Raleigh Office:
11010 Raven Ridge Road
Raleigh, NC 27614
Phone (919) 846-5900
Fax: (919) 846-9467

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	100 feet from normal 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	10 feet
	(i) upslope	15 feet
	(ii) sideslope	25 feet
	(iii) downslope	25 feet
	(B) Groundwater lowering ditched and devices	15 feet
(16)	any swimming pool	20 feet
(17)	any other nitrification field (except repair area)	

(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 that 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.

driveway, wells, patios, decks, etc.). 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 usable soil area may be rendered unusable as a result of improper site planning and/or disturbance.

Our recommendations include meeting representatives from the Mecklenburg County Health Department to evaluate soil areas on Lots 3 and 25. Based on their findings septic system layouts would likely be necessary to demonstrate adequate space for any proposed systems. Additionally, if the soil areas on Lots 3 and 25 are too small a combination of lots may be necessary for approval of a septic permit. Other options include lowering the number of bedrooms or proposing the use of pretreatment to increase the loading rate.

This report discusses the general location of potentially usable 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 ever evolving, 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.

Soil & 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,

Wendell Overby
NC Licensed Soil Scientist

LICENSED SOIL SCIENTIST WENDELL OVERBY 1218 STATE OF NORTH CAROLINA

Encl: Soil/Site Maps, Attachment

FINDINGS

Soils identified on the property were derived from either slate belt or basic parent materials. The soils were most similar to the Tatum, Lignum, Herndon and Enon soil series'. Tatum soils are derived from weathered slate rock and contain silt loam surfaces over red clay subsoils. Tatum soils are generally suitable for supporting subsurface septic systems such as at-grade conventional or Low Pressure Pipe types. The Lignum, Herndon and Enon soils are generally unsuitable for supporting subsurface septic systems due to expansive clay subsoils, soil wetness, or unsuitable topography.

The attached sketch map outlines the approximate extent of the usable soil areas identified on the 3 lots. The suitability of each auger hole was determined and the location of each boring recorded using GPS technology. Our boring locations were then transferred to a digital base map provided by the surveyor. The usable soils on the sketch map were broken into two suitability types: 18 to 24 inch and 24 inch and greater soils. Soil areas with 18 to 24 inches of usable material have potential to support subsurface drip or possibly LPP-fill systems. Soil areas with 24 inches or more of usable soil material and have potential to support conventional, at-grade conventional or Low Pressure-Pipe septic systems. At-grade conventional systems use a soil cap put over a shallow placed conventional system. Unfortunately on-site septic systems require a relatively large area of any lot for placement of the drainlines. Based on our evaluation lot 3 contains approximately 20,000sf of usable soil 18 to 24 inches deep. Lot 4 did not contain any usable soil for supporting a subsurface septic system and Lot 25 contained approximately 7800sf of 18 to 24 inch soils and 7500sf of 24 inches or greater soils.

GENERAL WASTEWATER CONSIDERATIONS

The utility of a potentially usable soil area for supporting a subsurface system is most accurately determined by an on-ground layout or demonstration of the proposed system. The total area needed for system and repair areas will depend upon the system type, the topography of the area and the total design flow (factors mentioned above). The typical area needed for a four-bedroom (480 gpd) residence is approximately 16,000 ft^2 (could be more depending on site features) or 1280 linear feet of conventional line (system and repair) or 1920 linear feet of LPP line (system and repair). These estimates reference Laws and Rules for Sewage Treatment and Disposal Systems for North Carolina and use a LTAR of 0.25gpd/ft^2 for conventional systems. The ultimate LTAR will be determined by the Health Department but we believe based on the nature of the soils encountered a higher LTAR will be recommended by the County. Therefore more than 16,000sf of usable soil may be required for a 4-bedroom home on these lots.

In order to reduce the space needed for a drainfield the number of proposed bedrooms could be reduced to 3. In addition, the site plans for any lot must ensure that adequate soil area for system and repair is unaffected by site elements (house placement,

VACANT LOT OFFER TO PURCHASE AND CONTRACT

NOTE: This contract is intended for use only for lots which have been developed pursuant to a Subdivision Ordinance adopted by a City or County and for which a plat has been recorded in the Office of the Register of Deeds in the county in which the property is located. If Seller is Buyer's builder and the sale involves the construction of a new single family dwelling prior to closing, use the standard Offer to Purchase and Contract (Form 2) with the New Construction Addendum (Form 2A3).

Bob Spence and wife Lori, as Buyer, hereby offers to purchase and William J Pleasants and Anne H ~~Smithwick~~, as Seller, upon acceptance of said offer, agrees to sell and convey, all of that plot, piece or parcel of land described below (hereafter referred to as the "Property"), upon the following terms and conditions: PLEASANTS (1)

1. REAL PROPERTY: Located in the City of Mint Hill, County of Mecklenburg, State of North Carolina, being known as and more particularly described as: Street Address 10209 Annie Oakley TRAIL Zip 28227
Subdivision Name PLEASANT VALLEY
Plat Reference: Lot 197/191/42, Block or Section _____ as shown on Plat Book or Slide 9869 at Page(s) 865.

NOTE: Prior to signing this Vacant Lot Offer to Purchase and Contract, Buyer is advised to review Restrictive Covenants, if any, which may limit the use of the Property, and to read the Declaration of Restrictive Covenants, By-Laws, Articles of Incorporation, Rules and Regulations, and other governing documents of the owners' association and/or the subdivision, if applicable.

2. PURCHASE PRICE: The purchase price is $ ~~78,000~~ 80,000 3/23/04 Lyft and shall be paid as follows:

(a) $ 1000.00, EARNEST MONEY DEPOSIT with this offer by ☐ cash ☐ personal check ☐ bank check ☐ certified check ☐ other: _____ to be deposited and held in escrow by Criswell Realty ("Escrow Agent") until the sale is closed, at which time it will be credited to Buyer, or until this contract is otherwise terminated. In the event: (1) this offer is not accepted, or (2) any of the conditions hereto are not satisfied, then all earnest monies shall be returned to Buyer. In the event of breach of this contract by Seller, upon Buyer's request, all earnest monies shall be returned to Buyer, but such return shall not affect any other remedies available to Buyer for such breach. In the event this offer is accepted and Buyer breaches this contract, then all earnest monies shall be forfeited upon Seller's request, but receipt of such forfeited earnest monies shall not affect any other remedies available to Seller for such breach.

NOTE: In the event of a dispute between Seller and Buyer over the return or forfeiture of earnest money held in escrow by a broker, the broker is required by state law to retain said earnest money in the broker's trust or escrow account until a written release from the parties consenting to its disposition has been obtained or until disbursement is ordered by a court of competent jurisdiction.

(b) $ N/A, ADDITIONAL EARNEST MONEY DEPOSIT to be paid to Escrow Agent no later than N/A, TIME BEING OF THE ESSENCE WITH REGARD TO SAID DATE. (3)

(c) $ 79,000, BY ASSUMPTION of the unpaid principal balance and all obligations of Seller on the existing loan(s) secured by deed of trust on the Property in accordance with the attached Loan Assumption Addendum.

(d) $ N/A, BY SELLER FINANCING in accordance with the attached Seller Financing Addendum.

(e) $ ~~1,000~~ BALANCE of the purchase price in cash at Closing. 3/23/04 Lyft

3. CONDITIONS: (State N/A in each blank that is not a condition to this contract.)

(a) Buyer must be able to obtain a ☐ FHA ☐ VA (attach FHA/VA Financing Addendum) ☑ Conventional ☑ Other: Banks loan at a ☑ Fixed Rate ☐ Adjustable Rate in the principal amount of 90 20 (plus any financed VA Funding Fee or FHA MIP) for a term of 2 year(s), at an initial interest rate not to exceed 5 % per annum, with mortgage loan discount points not to exceed 4 % of the loan amount. Buyer shall apply for said loan within 5 days of the Effective Date of this contract. Buyer shall use Buyer's best efforts to secure the lender's customary loan commitment letter on or before 4-10-04 and to satisfy all terms and conditions of the loan commitment letter by Closing. After the above letter date, Seller may request in writing from Buyer a copy 5/11/04 (4)

This form jointly approved by:
North Carolina Bar Association
North Carolina Association of REALTORS®, Inc.

STANDARD FORM 12 - T
© 7/2002

Buyer Initials BJS JD Seller Initials Lyft ____

of the loan commitment letter. If Buyer fails to provide Seller a copy of the loan commitment letter or a written waiver of this loan condition within five days of receipt of Seller's request, Seller may terminate this contract by written notice to Buyer at any time thereafter, provided Seller has not then received a copy of the letter or the waiver.

(b) There must be no restriction, easement, zoning or other governmental regulation that would prevent the reasonable use of the Property for Residential purposes ("Intended Use").

(c) The Property must be in substantially the same or better condition at Closing as on the date of this offer, reasonable wear and tear excepted.

(d) All deeds of trust, liens and other charges against the Property, not assumed by Buyer, must be paid and satisfied by Seller prior to or at Closing such that cancellation may be promptly obtained following Closing. Seller shall remain obligated to obtain any such cancellations following Closing.

(e) Title must be delivered at Closing by GENERAL WARRANTY DEED unless otherwise stated herein, and must be fee simple marketable and insurable title, free of all encumbrances except: ad valorem taxes for the current year (prorated through the date of Closing); utility easements and unviolated restrictive covenants that do not materially affect the value of the Property; and such other encumbrances as may be assumed or specifically approved by Buyer. The Property must have legal access to a public right of way.

4. **SPECIAL ASSESSMENTS:** Seller warrants that there are no pending or confirmed governmental special assessments for sidewalk, paving, water, sewer, or other improvements on or adjoining the Property, and no pending or confirmed owners' association special assessments, except as follows: None

(Insert "None" or the identification of such assessments, if any.) Seller shall pay all owners' association assessments and all governmental assessments confirmed through the time of Closing, if any, and Buyer shall take title subject to all pending assessments, if any, unless otherwise agreed as follows: NONE

5. **PRORATIONS AND ADJUSTMENTS:** Unless otherwise provided, the following items shall be prorated and either adjusted between the parties or paid at Closing: (a) Ad valorem taxes on real property shall be prorated on a calendar year basis through the date of Closing; (b) All late listing penalties, if any, shall be paid by Seller; (c) Rents, if any, for the Property shall be prorated through the date of Closing; (d) Owners' association dues and other like charges shall be prorated through the date of Closing. Seller represents that the regular owners' association dues, if any, are $ 0 per _____.

6. **CLOSING EXPENSES:** Buyer shall be responsible for all costs with respect to any loan obtained by Buyer. Buyer shall pay for recording the deed and for preparation and recording of all instruments required to secure the balance of the purchase price unpaid at Closing. Seller shall pay for preparation of a deed and all other documents necessary to perform Seller's obligations under this agreement, and for excise tax (revenue stamps) required by law. If Seller is to pay any of Buyer's expenses associated with the purchase of the Property, the amount thereof shall be $ NONE, including any FHA/VA lender and inspection costs that Buyer is not permitted to pay, but excluding any portion disapproved by Buyer's lender.

7. **EVIDENCE OF TITLE:** Seller agrees to use his best efforts to deliver to Buyer as soon as reasonably possible after the Effective Date of this contract, copies of all title information in possession of or available to Seller, including but not limited to: title insurance policies, attorney's opinions on title, surveys, covenants, deeds, notes and deeds of trust and easements relating to the Property. Seller authorizes (1) any attorney presently or previously representing Seller to release and disclose any title insurance policy in such attorney's file to Buyer and both Buyer's and Seller's agents and attorneys; and (2) the Property's title insurer or its agent to release and disclose all materials in the Property's title insurer's (or title insurer's agent's) file to Buyer and both Buyer's and Seller's agents and attorneys.

8. **LABOR AND MATERIAL:** Seller shall furnish at Closing an affidavit and indemnification agreement in form satisfactory to Buyer showing that all labor and materials, if any, furnished to the Property within 120 days prior to the date of Closing have been paid for and agreeing to indemnify Buyer against all loss from any cause or claim arising therefrom.

9. **CLOSING:** Closing shall be defined as the date and time of recording of the deed. All parties agree to execute any and all documents and papers necessary in connection with Closing and transfer of title on or before ~~5-21-04~~ Friday (5) 6/18/04 at a place designated by Buyer. The deed is to be made to As Directed

CLOSING SHALL CONSTITUTE ACCEPTANCE OF THE PROPERTY IN ITS THEN EXISTING CONDITION UNLESS PROVISION IS OTHERWISE MADE IN WRITING.

10. **POSSESSION:** Unless otherwise provided herein, possession shall be delivered at Closing. No alterations, excavations, tree removal or other such activities may be done before possession is delivered.

Buyer Initials _____ Seller Initials _____

11. SEWER SYSTEM (check only ONE):

☐ Buyer has investigated the costs and expenses to install the sewer system approved by the Improvement Permit attached hereto as Exhibit A and hereby approves and accepts said Improvement Permit.

☐ Buyer acknowledges receipt of the Improvement Permit attached hereto as Exhibit A. Seller represents that the system has been installed, which representation survives Closing, but makes no further representations as to its condition.

☐ This contract is contingent upon Buyer obtaining an Improvement Permit from the County Health Department ("County") for a (check only ONE) ☐ conventional or ☐ other TO satisfaction of buyer ground absorption sewage system for a 4 bedroom home. All costs and expenses of obtaining such Permit shall be borne by Buyer, except Seller shall be responsible for locating that portion of the Property required by the County to perform its tests and/or inspections no later than (6) BS 5-15-04, Buyer shall use Buyer's best efforts to obtain such Permit. If the ground absorption sewage system is not permitted, Buyer may terminate this contract and the Earnest Money Deposit shall be refunded to Buyer. Buyer shall have until 5-15-04 6pm, *time being of the essence*, to provide written notice to Seller that this condition cannot be satisfied, otherwise the condition is deemed satisfied. BS BS

12. SOIL, WATER, UTILITIES AND ENVIRONMENTAL CONTINGENCY: This contract is contingent upon Buyer obtaining report(s) that (i) the soil is suitable for Buyer's Intended Use, (ii) utilities and water are available to the Property, (iii) there is no environmental contamination, law, rule or regulation that prohibits, restricts or limits Buyer's Intended Use, and (iv) there is no flood hazard that prohibits, restricts or limits Buyer's Intended Use (collectively the "Reports"). All costs and expenses of obtaining the Reports shall be borne by Buyer. Buyer shall use Buyer's best efforts to obtain such Reports. If the Reports cannot be obtained, Buyer may terminate this contract and the Earnest Money Deposit shall be refunded to Buyer. Buyer shall have until (5) BS 5-15-04 6pm, *time being of the essence*, to provide written notice to Seller that this condition cannot be satisfied, otherwise the condition is deemed satisfied.

13. RIGHT OF ENTRY, RESTORATION AND INDEMNITY: Buyer and Buyer's agents and contractors shall have the right to enter upon the Property for the purpose of appraising the Property, and performing the tests and inspections permitted in Sections 12 and 13 of this contract. If Buyer terminates this contract as provided herein, Buyer shall, at Buyer's expense, restore the Property to substantially its pre-entry condition within thirty days of contract termination. Buyer will indemnify and hold Seller harmless from all loss, damage, claims, suits or costs, which shall arise out of any contract, agreement, or injury to any person or property as a result of any activities of Buyer and Buyer's agents and contractors relating to the Property. This indemnity shall survive this contract and any termination hereof. Notwithstanding the foregoing, Seller shall be responsible for any loss, damage, claim, suit or cost arising out of pre-existing conditions of the Property and/or out of Seller's negligence or willful acts or omissions.

14. OTHER PROVISIONS AND CONDITIONS: (ITEMIZE ALL ADDENDA TO THIS CONTRACT AND ATTACH HERETO.) 3/23/04 Buyer requests that seller waive 1966 or restrictive Covenants; if incomplete contract absolutely be seen from street. (9) BS BS

15. RISK OF LOSS: The risk of loss or damage by fire or other casualty prior to Closing shall be upon Seller.

16. ASSIGNMENTS: This contract may not be assigned without the written consent of all parties, but if assigned by agreement, then this contract shall be binding on the assignee and his heirs and successors.

17. PARTIES: This contract shall be binding upon and shall inure to the benefit of the parties, i.e., Buyer and Seller and their heirs, successors and assigns. As used herein, words in the singular include the plural and the masculine includes the feminine and neuter genders, as appropriate.

18. SURVIVAL: If any provision herein contained which by its nature and effect is required to be observed, kept or performed after the Closing, it shall survive the Closing and remain binding upon and for the benefit of the parties hereto until fully observed, kept or performed.

19. ENTIRE AGREEMENT: This contract contains the entire agreement of the parties and there are no representations, inducements or other provisions other than those expressed herein. All changes, additions or deletions hereto must be in writing and signed by all parties. Nothing contained herein shall alter any agreement between a REALTOR® or broker and Seller or Buyer as contained in any listing agreement, buyer agency agreement, or any other agency agreement between them.

20. **NOTICE AND EXECUTION:** Any notice or communication to be given to a party herein may be given to the party or to such party's agent. This offer shall become a binding contract (the "Effective Date") when signed by both Buyer and Seller and such signing is communicated to the offering party. This contract is executed under seal in signed multiple originals, all of which together constitute one and the same instrument, with a signed original being retained by each party and each REALTOR® or broker hereto, and the parties adopt the word "SEAL" beside their signatures below.

Buyer acknowledges having made an on-site personal examination of the Property prior to the making of this offer.

THE NORTH CAROLINA ASSOCIATION OF REALTORS®, INC. AND THE NORTH CAROLINA BAR ASSOCIATION MAKE NO REPRESENTATION AS TO THE LEGAL VALIDITY OR ADEQUACY OF ANY PROVISION OF THIS FORM IN ANY SPECIFIC TRANSACTION. IF YOU DO NOT UNDERSTAND THIS FORM OR FEEL THAT IT DOES NOT PROVIDE FOR YOUR LEGAL NEEDS, YOU SHOULD CONSULT A NORTH CAROLINA REAL ESTATE ATTORNEY BEFORE YOU SIGN IT.

Date: 3/22/04 Date: 3/23/04

Buyer _____ (SEAL) Seller _____ (SEAL)

Date: 3/22/04 Date: _____

Buyer _____ (SEAL) Seller _____ (SEAL)

Escrow Agent acknowledges receipt of the earnest money and agrees to hold and disburse the same in accordance with the terms hereof.

Date 3-22-04 Firm: Crowell Realty

By: Tom Crowell
(Signature)

Selling Agent/Firm/Phone Tom Crowell Crowell Realty 704-545-3818
Acting as ☒ Buyer's Agent ☐ Seller's (sub)Agent ☐ Dual Agent

Listing Agent/Firm/Phone DAN McLENDORE Allen Tate Co. 704-814-6286
Acting as ☒ Seller's (sub)Agent ☐ Dual Agent