9-10-13 RH
$500 pd in 2007
in Statesville



MICHAEL ATHANAS & ASSOCIATES
LICENSED SOIL SCIENTIST
1999 CANDLEWICK DRIVE
FORT MILL, S.C. 29715
803-802-4403 (office)
803-802-4402 (fax)

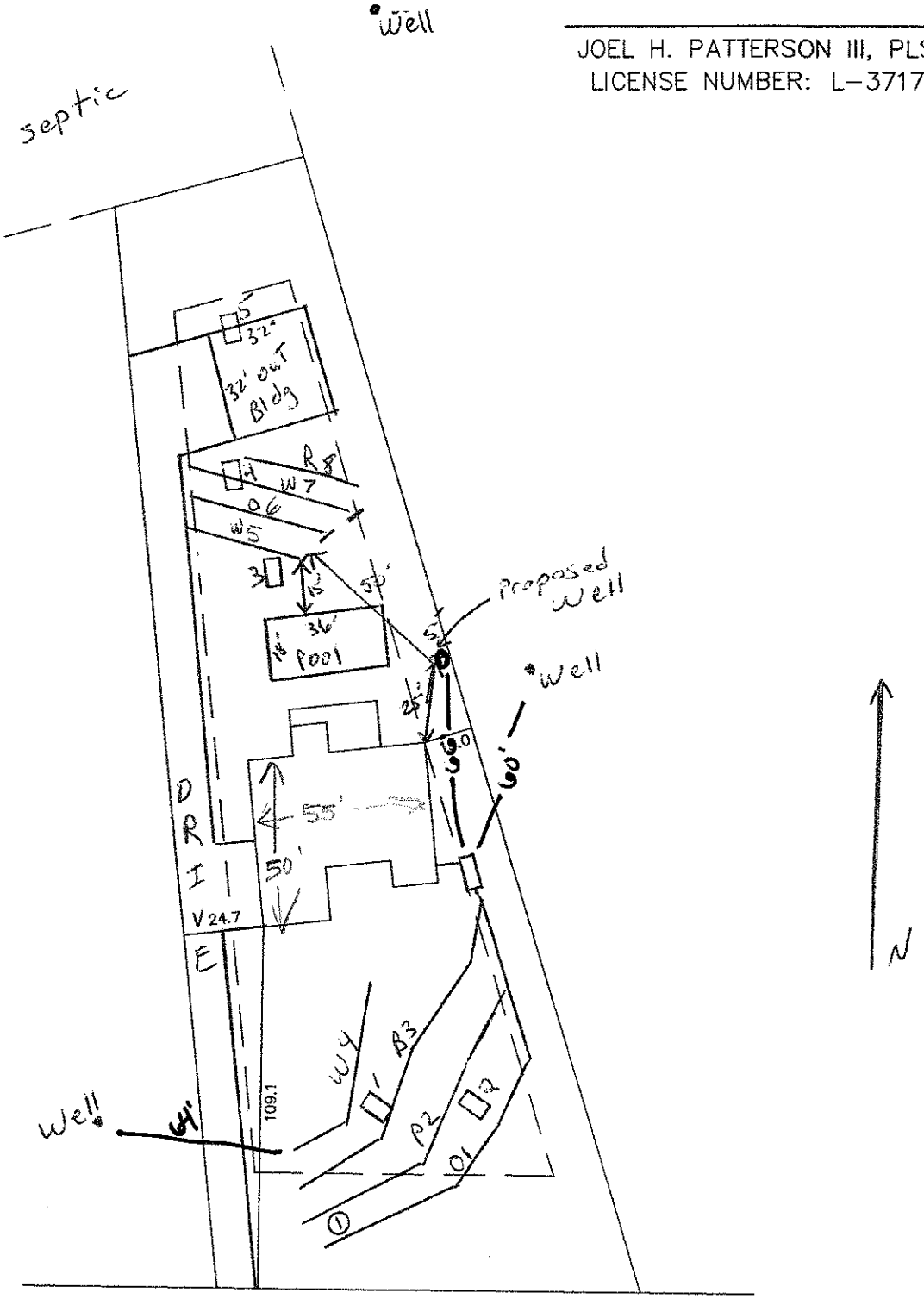
Reference: Data Sheet for 116 Cicero Ln., Shavenders Bluff, Lot 94
House Footprint: See attached plan
Building Setbacks: 35' front/rear, 15' side
Water Source: Private Well
Number of Bedrooms: 3/360 GPD
Proposed LTAR: 0.3 GPD/FT2 (initial), 0.275 GPD/FT2 (repair)
Proposed System Type: 25% Reduction
Proposed Repair System Type: PPBPS
Distribution: Drop boxes/end cap
Septic Tank Size: 1000 gallons
Proposed Trench Bottom: 20"

Line	Design Length	Actual Length
Orange 1	**90'**	**90'**
Pink 2	**100'**	**100'**
Blue 3	**110'**	**110'**
White 4		60'
White 5		36'
Orange 6		42'
White 7		52'
Red 8		36'

Initial System: 300' **Repair System:** 226'

Comments:
Because of the presence of saprolite in the initial area, the trench bottom must be kept shallow in order to maintain a 50' minimum setback from wells.

JOEL H. PATTERSON III, PLS
LICENSE NUMBER: L-3717



PLOT PLAN SURVEY

OF

Lot 94 "SHAVENDERS BLUFF" Phase Two, Section B

SCALE 1" = 50'

Davidson Twsp., Iredell Co., NC

ACQUIRED BY: Shaw Custom Builders

FIELD BOOK:
FILE: 13074
TAX MAP NO:

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

Sheet ____ *of* ____
PROPERTY ID #: _____
COUNTY: _____

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: _Bryan Wagner_____ APPLICATION DATE_____
ADDRESS:_____ DATE EVALUATED: _____
PROPOSED FACILITY: _3 bedroom_____ PROPOSED DESIGN FLOW (.1949): _360 GPD____ PROPERTY SIZE: _____
LOCATION OF SITE: _116 Cicero Ln., Shavenders Bluff lot 94_____ PROPERTY RECORDED: _____
WATER SUPPLY: ☒ Private ☐ Public ☒ Well ☐ Spring ☐ Other _____
EVALUATION METHOD: ☒ Auger Boring ☒ Pit ☐ Cut TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

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	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
PIT 1	LS 10%	0-6	Br SCL WSBK	FR SS SP		38"	PS		PS 0.3
		6-24	R C SBK	FR SS SP					
		24-38	R CL WSBK	FR SS SP					
		38-50	Ver SL SAP M	VFR SS SP					
PIT 2	LS 12%	0-5	FILL			40"	PS		PS 0.3
		5-9	Br SCL WSBK	FR SS SP					
		9-29	R C SBK	FR SS SP					
		29-40	R CL WSBK	FR SS SP					
		40-48	Ver. SL SAP M	FR SS SP					
PIT 3	LS 7%	0-3	Br SCL WSBK	FR SS SP		48"			PS 0.3
		3-34	R C SBK	FR SS SP					
		34-48	R CL WSBK	FR SS SP					
PIT 4	LS 7%	0-9	Br SCL WSBK	FR SS SP	Few YB	48"			PS 0.275
		9-34	R C SBK/ABK	FR SS SP					
		34-48	R CL WSBK	FR SS SP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	900 FT2	654 FT2
System Type(s)	25% Reduction	PPBPS
Site LTAR	0.3	0.275

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: _M A & Associates_____
OTHER(S) PRESENT: _____

COMMENTS:_____

SOIL/SITE EVALUATION

(Continuation Sheet)

Sheet ____ of ____

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: _____
DATE OF EVALUATION: _____
COUNTY: _____

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	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
PIT 5	LS 7%	0-4	Br SCL WSBK	FR SS SP		48"			PS 0.3
		4-27	R C SBK	FR SS SP					
		27-48	R CL WSBK	FR SS SP					
AB 1	LS 12%	0-20	R C SBK	FR SS SP		38"			PS 0.3
		20-38	R CL WSBK	FR SS SP					
		38-48	Ver SL SAP M	VFR SS SP					

COMMENTS: _____

DENR/DEH

ON-SITE WASTEWATER SECTION

Sheet 1 of 1
PROPERTY ID #: 4627926035
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Bryan Wagner
ADDRESS: 8029 Maxelton Dr.
PROPOSED FACILITY: 3 BR Residence PROPOSED DESIGN FLOW (.1949): 360gpd.
LOCATION OF SITE: 116 Cicero Ln. Mooresville NC
WATER SUPPLY: • (Private) • Public • Well • Spring • Other N/A
EVALUATION METHOD: • (Auger Boring) • Pit • Cut

APPLICATION DATE 7-11-12
DATE EVALUATED: 8-15-12
PROPERTY SIZE: .733 acres
PROPERTY RECORDED: Yes
TYPE OF WASTEWATER: • (Sewage) • Industrial Process • Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	NS 6.5%	0-4	SL SBK	Fr SS/SP mod SE	>48"	>48"	>48"	>48"	PS 0.3
		4-35	C mica SBK	Fr SS/SP Mod SE					
		35-48	CL WSBK	Fr SS/SP Mod SE					
2	NS 7.5%	0-7	SCL SBK	Fr SS/SP Mod SE	>48"	>48"	>48"	>48"	PS 0.3
		7-36	C SBK	Fr SS/SP Mod SE					
		36-48	CL mica WSBK	Fr SS/SP Mod SE					
3	8% NS	0-25	C ABK	Fr SS Mod SE	>48"	>48"	>48"	>48"	PS 0.3
		25-48	CL mica WSBK	Fr mod SE					
4	10% NS	0-3	SC SBK	Fr mod SE	>48"	>48"	>48"	>48"	PS 0.3
		3-31	C SBK	Fr mod SE					
		31-48	CL WSBK	Fr Mod SE					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	III	IV
Site LTAR	0.3	0.3

OTHER FACTORS (.1946): N/A
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: Justin Henderson
OTHER(S) PRESENT: N/A

COMMENTS: N/A

LEGEND

use the following standard abbreviations

LANDSCAPE POSITION	GROUP	SOIL TEXTURE	CONVENTIONAL .1955 LTAR*	LPP .1957 LTAR*	MINERALOGY/ CONSISTENCE	STRUCTURE
CC (Concave Slope)	I	S (Sand)	1.2 - 0.8	0.6 - 0.4	NEXP (Non-expansive)	G (Single Grain)
CV (Convex Slope)		LS (Loamy Sand)			SEXP (Slightly Expansive)	M (Massive)
D (Drainage Way)					EXP (Expansive)	CR (Crumb)
DS (Debris Slump)	II	SL (Sandy Loam)	0.8 - 0.6	0.4 - 0.3		GR (Granular)
FP (Flood Plain)		L (Loam)				SBK (Subangular Blocky)
FS (Foot Slope)						ABK (Angular Blocky)
H (Head Slope)	III	Si (Silt)	0.6 - 0.3	0.3 - 0.15		PL (Platy)
L (Linear Slope)		SiCL (Silty Clay Loam)				PR (Prismatic)
N (Nose Slope)		CL (Clay Loam)				
R (Ridge)		SCL (Sandy Clay Loam)			**MOIST**	**WET**
S (Shoulder Slope)		SiL (Silt Loam)				
T (Terrace)					VFR (Very Friable)	NS (Non-sticky)
	IV	SC (Sandy Clay)	0.4 - 0.1	0.2 - 0.05	FR (Friable)	SS (Slightly Sticky)
		SiC (Silty Clay)			FI (Firm)	S (Sticky)
		C (Clay)			VFI (Very Firm v. Very Sticky)	VS (Very Sticky)
		O (Organic)	None	None	EFI (Extremely Firm)	NP (Non-plastic)
						SP (Slightly Plastic)
						P (Plastic)
						VP (Very Plastic)

*Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.

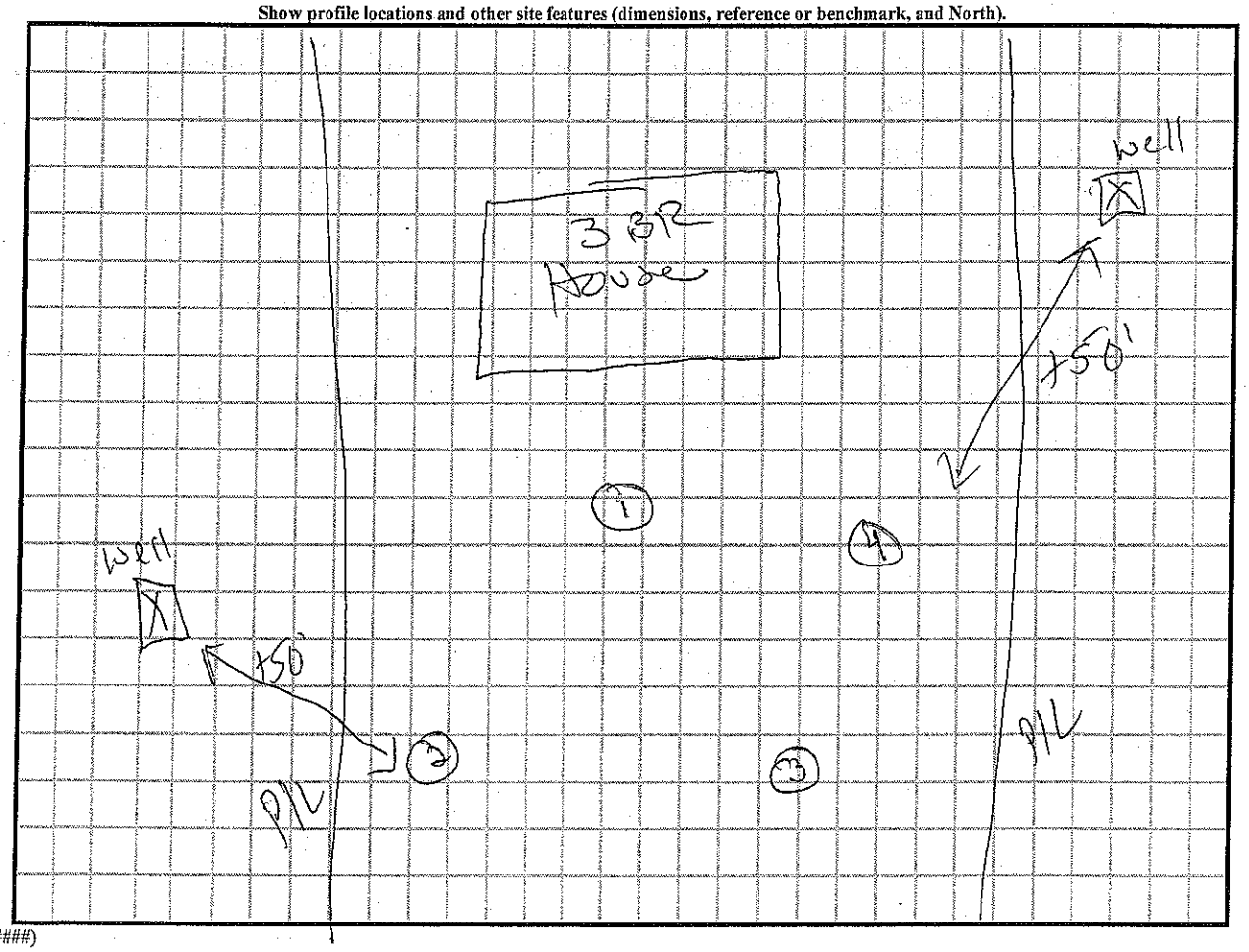
NOTES

HORIZON DEPTH	In inches below natural soil surface
DEPTH OF FILL	In inches from land surface
RESTRICTIVE HORIZON	Thickness and depth from land surface
SAPROLITE	S(suitable) or U(unsuitable)
SOIL WETNESS	Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation
CLASSIFICATION	S (Suitable), PS (Provisionally Suitable), or U (Unsuitable)

Evaluation of saprolite shall be by pits.

Long-term Acceptance Rate (LTAR): gal/day/ft^2

Show profile locations and other site features (dimensions, reference or benchmark, and North).



DENR (######)
Review (#####)

DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

PROPERTY ID #: _____
COUNTY: _____

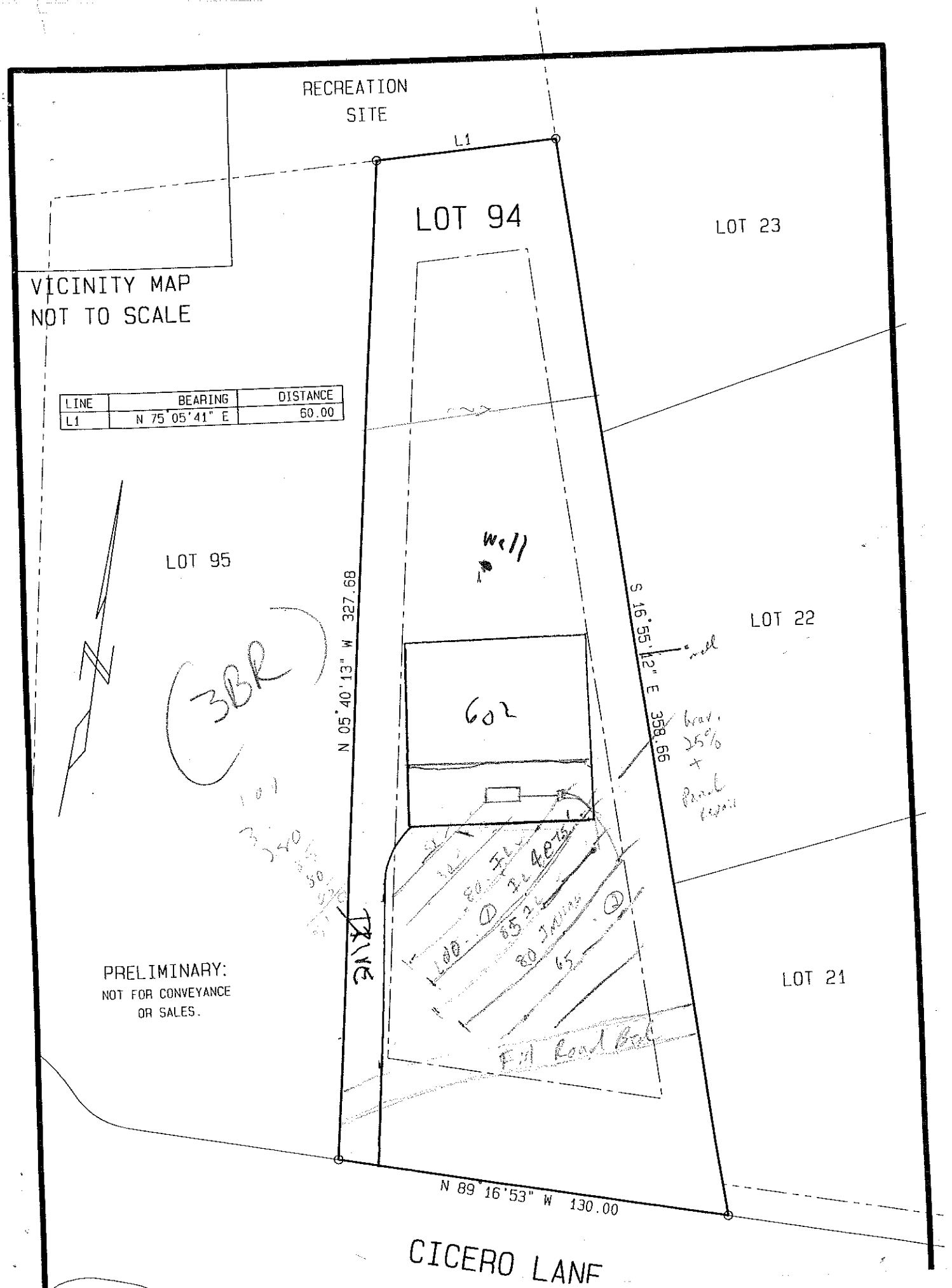
SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: _____ APPLICANT: _____
ADDRESS: _____ APPLICATION DATE: _____ DATE EVALUATED: _____
PROPOSED FACILITY: _____ PROPOSED DESIGN FLOW (.1949): _____ PROPERTY SIZE: _____
LOCATION OF SITE: Lot 94 Shawnlee's Bluff PROPERTY RECORDED: _____
WATER SUPPLY: ☐ Private ☐ Public ☐ Well ☐ Spring ☐ Other _____
EVALUATION METHOD: ☐ Auger Boring ☐ Pit ☐ Cut
TYPE OF WASTEWATER: ☐ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LAND-SCAPE POSITION/ SLOPE %	HORI-ZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1		0-3	BSCL GR	FRI SS SP	B/C				P .3
		3-19	RHwCL MFSBK	FRI SS SP					
		19-46	RCL WSBK	FRI SS SP					
		46-48	RSAP MASS	FRI SS SP					
2		0-19	RHwCL MFSBK	FRI SS SP					PS .3-.4
		19-46	CL WSBK	FRI SS SP					
		46-48	RSAP MASS	FRI SS SP					
3									
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: _____
OTHER(S) PRESENT: _____


RECREATION
SITE
L1
LOT 94
LOT 23
VICINITY MAP
NOT TO SCALE
LINE | BEARING | DISTANCE
L1 | N 75°05'41" E | 60.00
LOT 95
well
N 05°40'13" W 327.68
S 16°55'42" E 358.66
LOT 22
602
3BR
PRELIMINARY:
NOT FOR CONVEYANCE
OR SALES.
LOT 21
N 89°16'53" W 130.00
CICERO LANE

Paid 125.00 6-5-00

IREDELL COUNTY HEALTH DEPARTMENT

STATESVILLE 704-878-5305 MOORESVILLE 704-664-5281

IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM INSPECTION

PERMIT# 88629 PIN# 4627 81 9014 DATE 4/28/00

OWNER OR CONTRACTOR SHAVENDER'S DEV. GRP / Bryan Wagner PHONE: Business 919460-0270 Home

ADDRESS 1143-O EXECUTIVE DRIVE CARY NC 27511

LOCATION BRAWLEY SCHOOL - TR BLUME - TL BEATEN PATH - TL CICERO - ON RT

SUBDIVISION SHAVENDERS BLUFF BLOCK / SECTION LOT 94 LOT AREA ± SITE CLASS. PS DESIGN FLOW 360 GPD L.T.A.R. .3 gal/ft²

Septic Tank: 1000 Gallons; STB Date

Pump Tank: Gallons; PT Date

Pump Make: Model Serial No.

Nitrification Field: No Fields 1 Square Feet 900 Linear Feet 300

No Lines 4@75' Trench Width 36" Max Trench Bottom Depth 36" Gravel Depth N/A

☑ New System ☐ Repair System Type: I, II, III, IV, V, VI

System Description: GRAVITY 25% REDUCTION

Repair System Description: PANEL

Maintenance Agreement Required: ☐ Yes ☑ No

☑ House/Mod. Home ☐ Mobile Home ☐ Business ☐ Other

No. Bedrooms 3 No. Bathrooms 3 No. Employees

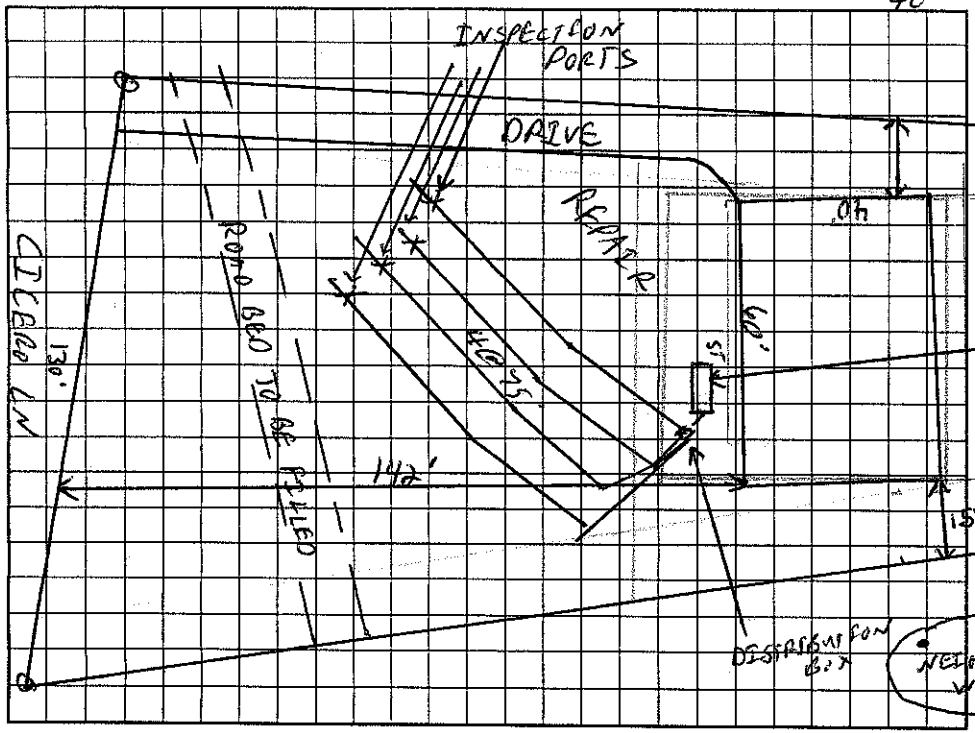
Water Supply: ☑ Individual ☐ Public ☐ Community

☐ Slab ☑ Crawl Space ☐ Basement w/plumbing ☐ Basement wo/plumbing

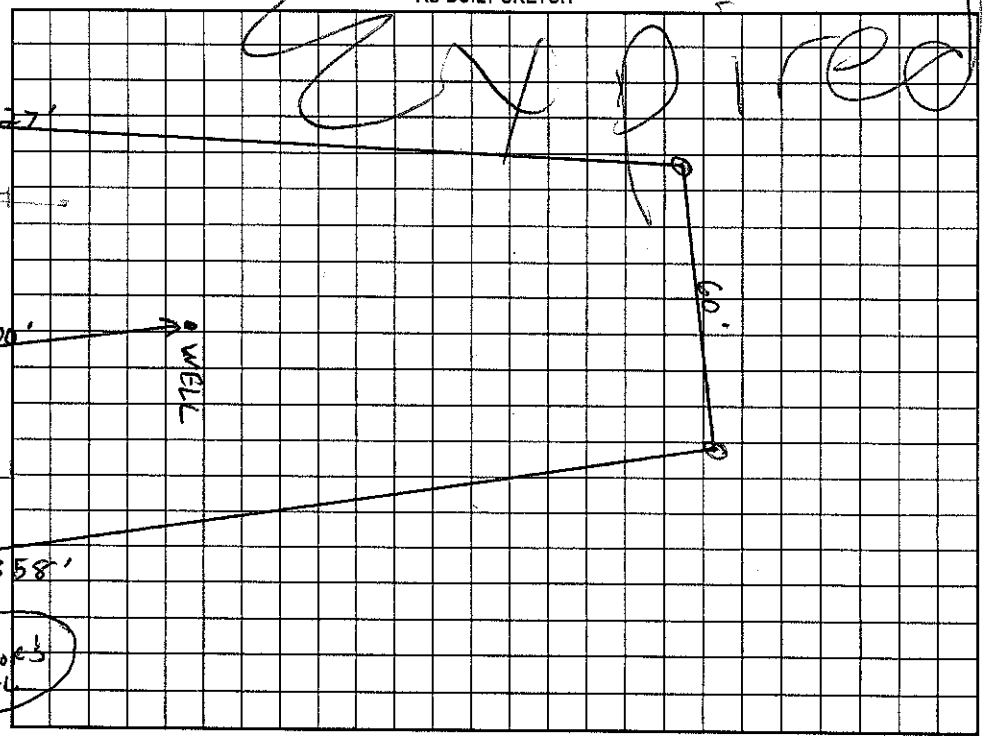
Comments:/Conditions:

Comments:/Conditions:

INITIAL SITE SKETCH 1"=40'



AS BUILT SKETCH



Permit can be suspended or revoked if any false information is supplied toward securing the permit/any unauthorized changes are made to the site/any unauthorized changes are made in the installation of the system. Improvement Permit with plat valid without expiration. Improvement Permit with site plan valid for sixty months. Authorization to Construct is valid for a period equal to that of Improvement Permit – not to exceed sixty months.

Signed: Ronald H. Sullivan date 6/5/00 Installed by:

Improvement Permit by: C. B. Zoan RS date 4/28/00 Operation Permit by: date

Authorization to Construct by: date Existing System Inspection by: date

HEALTH DEPT. COPY: WHITE OWNER COPY (FINAL): YELLOW OWNER COPY (INITIAL): PINK