S&ME

APPROVED APR 11 2014

ICHD Office Copy

April 7, 2014

Artisan Custom Homes
126 South Main Street, Suite 2A
Davidson, North Carolina 28036

Attention: Mr. Jay Johnstone

Reference: **Technical Assistance with Fast Track Septic Permitting**
Lot 27 Sailors Lair
110 Blue Sky Court
Iredell County, North Carolina
S&ME, Inc. Project No. 1584-13-127A

Dear Mr. Johnstone:

S&ME, Inc. (S&ME) has provided technical assistance to obtain a possible three bedroom septic Improvement Permit from the Iredell County Health Department (ICHD) for the above referenced lot. The technical assistance was performed in general accordance with S&ME Proposal No. 43-1400197 dated February 27, 2014.

Attached is the Application for the Septic Improvement Permit, the Environmental Health Requirements form, and the ICHD Fast Track requirements presented to the ICHD on your behalf. Lot 27 has an existing three bedroom house, an active individual water well, and an individual water well that is not in use. The existing house was built in 1979 and the existing three bedroom conventional septic system Certificate of Completion was issued by the ICHD on March 27, 1979. As the attached site plan shows, the existing system was partially installed and approved in the Blue Sky Court right-of-way. We understand the current owner purchased the lot in 1993 and now wants to demolish the 1979 house and build a new three bedroom retirement home. We understand the house will have a crawl space foundation.

The lot was originally recorded on March 22, 1977. Based on this record date, the lot should be considered repair exempt and also grandfathered for reduced septic setbacks. Mr. Adrian Pruett with the ICHD indicated that since part of Lot 27 was deeded to Lot 26 in 1987, the new proposed house will be required to have a repair area. Mr. Pruett also stated that the existing three bedroom conventional system could be used as the primary system for the new home or as the 100 percent repair area if an easement or encroachment agreement is recorded with the Iredell County Register of Deeds allowing the owner to use, maintain, or repair the existing system.

Mr. Pruett also stated that due to approximately 24 inches of fill material observed over part of the proposed system area that the proposed T&J Panel system could be installed with a 48 inch trench bottom. The active well drilled by the previous owner was observed to be less than 50 feet from the existing septic drainfield. This well and the inactive well should be properly abandoned by a certified well driller. ICHD permits will be required before the wells can be abandoned. A new well will be required for the proposed house that must be permitted by the ICHD.

S&ME has placed four hand auger borings on the lot and flagged a proposed three bedroom Low Pressure Distribution T&J Panel system on the lot. The existing conventional drainfield is proposed to be the repair area for the proposed house. The existing septic tank, drainfield, and wells have been located by the surveyor and shown on the attached site plan. S&ME sketched the proposed T&J Panel system on the site plan. The existing paved drive is over the existing drainfield and must be removed and the proposed drive on the site plan used for entry to the lot.

The existing basement should be properly filled to allow the crawl space septic system setbacks. If the new foundation height requires the septic or pump tank to be greater than thirty-sixty inches bgs, traffic rated tanks shall be used. There shall be no grading, fill, or parking over the existing system or the proposed system area. All stormwater should be diverted around the proposed system area. Once the septic area is permitted, it should be fenced off for protection during home construction. Access to the lot should only be by the proposed drive. There shall not be cuts of 2 feet or greater within 15 feet of any part of the permitted septic system.

S&ME appreciates the opportunity to provide these services to you. The attached information is not an Improvement Permit or Authorization to Construct, and is only to assist you and the ICHD with the Fast Track site evaluation. The ICHD may show any changes or modifications they want to the proposed system on the report or attached site plan. The attached plan is not intended to be a Professional Engineer design and is only valid for the proposed site plan and hand auger borings. The ICHD must approve each lot and only the ICHD can issue these permits. The ICHD should verify all soils and system specifications, required setbacks, and whether a professional engineer plan is required before permitting and/or septic system installation. Soil evaluations and system layouts are done based on interpretations of the rules governing wastewater treatment and disposal systems and are not guarantees for site approval or future septic system performance.

If you have any questions or require additional information please contact us at your convenience.

Sincerely,

S&ME, Inc.

Paul G. Penninger, L.S.S.
Licensed Soil Scientist

Rob Willcox, L.S.S.
Senior Project Manager

Attachments:

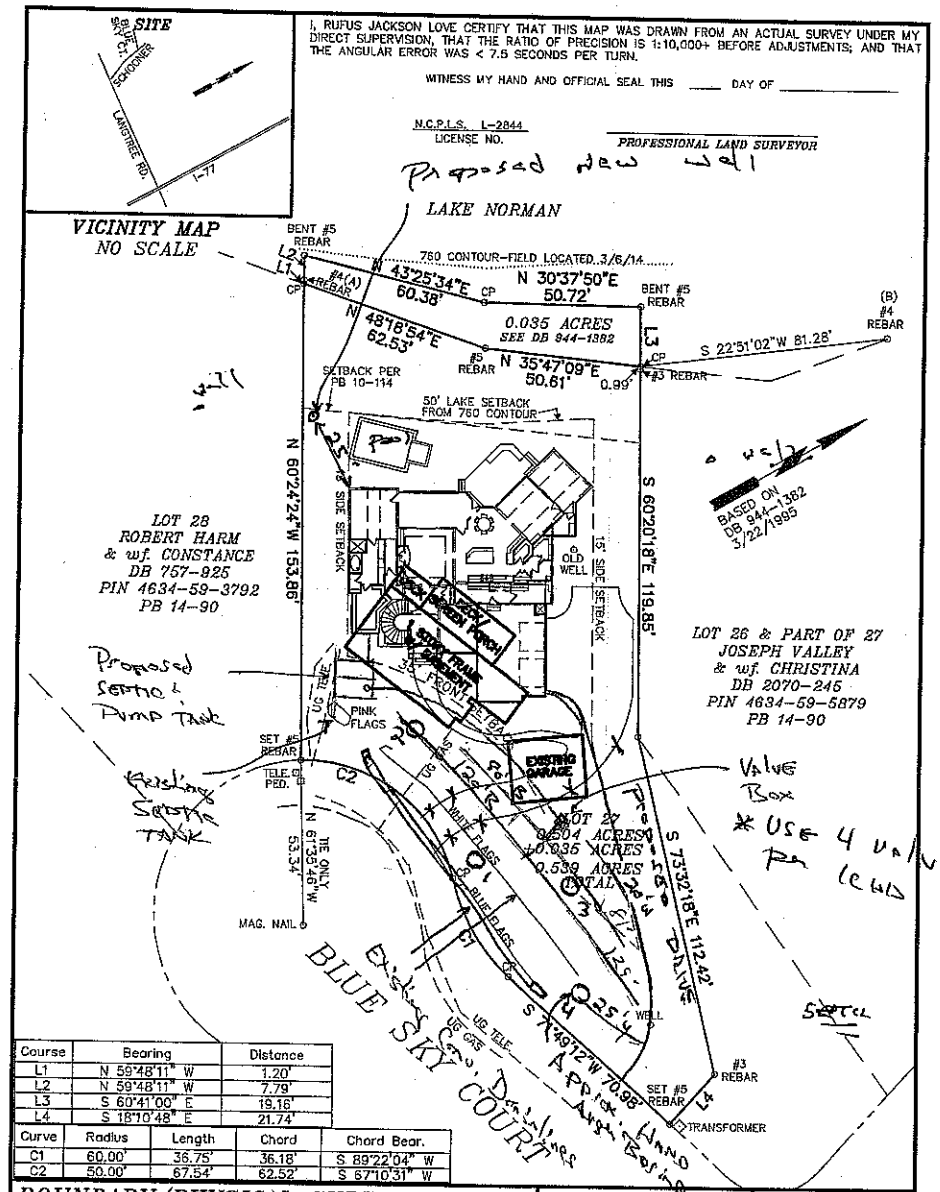
1. ICHD Improvement Permit Application and Health Department Requirements
2. Site Plan and System Specifications
3. Soil Profile Descriptions, 1979 ICHD Permit, 1977 plat, 1987 deed

Copy: ICHD

S:\1584\PROJECTS MASTER\Projects 2013\1584-13-127A Artisan 110 Blue Sky Ct\1584-13-127 110 Blue Sky Ct. Summary Letter.doc

APPROVED APR 11 2014

RP



Site Plan

1584-13-127A

* Site Plan must Accompany 4-7-14 Report

Lot 27 Sailors Lair Fast Track System Specifications (4-7-14)

Number of Bedrooms	3
Basement or Crawl	**crawl/slab garage**
Design Flow (gpd)	360
LTAR (gpd/ft2)	0.3
Primary System Type	**LP PPBPS**
No. Lines	~~2 centerfed~~ (See Table) 4 end fed per ICHD 4-9-14
Total Linear Feet	200
Trench Width	2' min.
Trench Spacing	8' min.
Pump Required	Yes
Distribution Device	Gate Valve Box w/ LPP Distribution
Maintenance Agreement Required	Yes
Length and Diameter of Supply Pipe	approx. 80' of 2 " SCH 40 PVC
Size of laterals	1 1/4" SCH 40 PVC
Flow Rate through the system	23 gpm
Elevation head	Approx. 10'
Pressure head	3.0'
Friction head	approx. 2'
20% Contingency	3
Total Head	18'
Pump Requirements	23 gpm @ 18' of head To be verified by installer and ICHD.
Maximum Dosing Volume	165 gallons max
Volume of water pumped per dose	Calculated to specific tank by measure or dealer engineering specifications (1 cubic ft. of water equals 7.48 gal.)
Pump Run per dose	approx. 7.1 min.
Check Valve	yes
Siphon Break hole	yes
Repair System	**Existnig 200 ft. conv.**
	45 ft. T&J Panel Shown
	0.3-0.4

***Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.**

Table 1: Lot 27 Sailors Lair Fast Track Summary of Primary Line Specifications (4-7-14)

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod* Reading (Ft.)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	System	red	LPPPBPS	~~120~~ 2 @ 60'	5.2	28	28	1 per panel	5/32"
2	System	white	LPPPBPS	~~80~~ 2 @ 40'	5.3	18	18	1 per panel	5/32"
				Total System: 200'		Total: 46	Total:46 (1 in each panel turned up)		

use 4 valves per ICHD 4-9-14

1000 gal

Tank		~~1500~~ gal (2 compartment)	
Pump Tank		~~1500~~ gal.	6.0
House	(FR)	1000	**

Note: **Installer and ICHD shall verify all soils, line locations, tank locations, and elevations prior to installation.**
System is to be installed according to any other ICHD requirements or policies.
These specifications are to satisfy the ICHD Fast Track LSS checklist and are not intended to represent an Engineered System Design or Permit.
Use trench depth on ICHD IP.
*Elevations to be verified by ICHD and installer.
** Inside existing house

S&ME, INC.
SITE/SOIL EVALUATION

Project No. _____ **Phone No.** _____ **Date:** 3-10-14

Location _____ **Pin** _____ **County:** _____ **Property Size** _____

Proposed Facility: 3 LL **Water Supply:** On-Site Well [X] Community [ ] Public [ ] **Evaluation:** Auger Boring [X] Pit [ ] Cut [ ]

Weather: Warm **Antecedent Moisture** Avg **Surface Water:** CW

FACTORS	PROFILE 1	PROFILE 2	PROFILE 3	PROFILE 4
Landscape Position %	L < 5%	L < 5%	L < 5%	L < 5%
Horizon Depth I	0 - 24	0 - 26	0 - 2	0 - 5
Color Munsell	10YR	10YR	10YR 4/4	10YR
Texture	SCL	SCL	SCL	SL
Structure	GR	GR	SG	SG
Consistence	FI	FI	SO	FR
	WSBK	WSBK	SO	FR SS/SP
	FR SS/SP	FR SS/SP		
Boundary				
Horizon Depth II	24 - 40	26 - 32 AB	2 - 19	5 - 24
Color – Munsell	10YR	10YR	10YR	10YR
Texture	C	SCL	SCL	L
Mottles				C
Structure	MSBK	WSBK	WSBK	FR SBK
Consistence	FR SP	FR SS/SP	FR SS/SP	FR SS/SP
Boundary	72			
Horizon Depth III	40 - 48	32 - 52	19 - 37	24 - 60
Color – Munsell	10YR	10YR	10YR	10YR
Texture	C - SCL	C	C	C
Mottles	FR SAP	FR MICA - SAP		
Structure	C MICA	FR SBK	FR SBK	C SAP
Consistence	WSBK	FR SS/SP	FR SS/SP	WSBK
	FR SS/SP			FR SS/SP
Boundary				
Horizon Depth IV		52 - 70	37 - 76	
Color – Munsell		10YR	10YR	
Texture		CL	CL	
Mottles		C MICA	C MICA	
Structure		FR SAP	FR - C SAP	
Consistence		WSBK	WSBK	
		FR SS/SP	FR SS/SP	
Boundary				
Soil Wetness	—	—	—	—
Restrictive Horizon	—	—	—	—
Saprolite	—	—	—	—
PAR	—	—	—	—
Classification	PS .3	PS .3	PS .3	PS .3

APPROVED APR 11 2014

AZP

LEGEND

LANDSCAPE POSITION

R	Ridge Interfluve
S	Shoulder
L	Linear Slope
S	Foot Slope
N	Nose Slope
H	Head Slope
Cc	Conclave Slope
Cv	Convex Slope
T	Terrace
P	Flood Plain

TEXTURE

s	sand
ls	Loamy sand
sl	sandy loam
l	loam
si	silt
sil	silt loam
sicl	silty clay loam
cl	clay loam
scl	sandy clay loam
sc	sandy clay
sic	silty clay
c	clay

CONSISTENCE WET

Ns	non-sticky
Ss	slightly sticky
S	sticky
Vs	very sticky
Np	non-plastic
Sp	slightly plastic
P	plastic
Vp	very plastic

MOIST

vfr	Very friable
fr	friable
fi	firm
vfi	Very firm

STRUCTURE

sg	single grain
m	massive
cr	crumb
gr	granular
sab	subangular blocky
ab	angular blocky
pl	platy
pr	prismatic

IREDELL COUNTY HEALTH DEPARTMENT 4634595800

(SEPTIC TANK) IMPROVEMENTS PERMIT AND CERTIFICATE OF COMPLETION
(Ground Absorption Sewage Disposal System – G. S. Chapter 130-Article 13C)

OWNER OR CONTRACTOR John Stalbark DATE 3-27-79 PERMIT NO. 70

PHONE: Business _____ Home _____

LOCATION 1102 1 R at end

SUBDIVISION NAME Sailor Lane LOT NO. 27 S. R. No. _____ SECTION OR BLOCK NO. _____

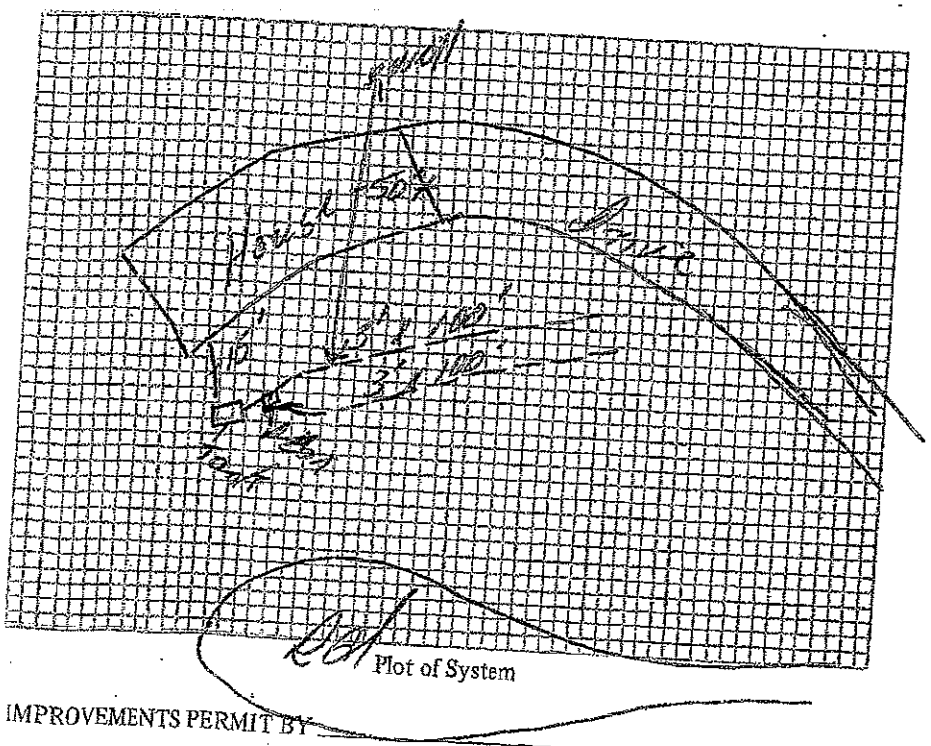
House (✓) Mobile Home ( ) Business ( ) Other _____

No. Bedrooms 3 No. Bathrooms 2

Garbage Disposal Unit	Yes ( )	No (✓)	
Auto. Dishwasher	Yes (✓)	No ( )	
Auto. Wash. Machine	Yes (✓)	No ( )	
Site Suitable	Yes (✓)	No ( )	

Lot Area 3/4 ac

Character & Porosity of Soil Clay loam
Percolation Rate 60 Min/in
Topography 5 to 8 Slope
Depth to Water Table 6 to 8
Rock or other impervious formations None



Plot of System

Size of Tank 1000 Gals.
Nitrification Field:
No. of Lines 2
Sq. Ft. 600 Linear Ft. 200
Depth of Stone in Lines 10"
Water Supply: Individual (✓)
Public ( )

Installed by Lee Lackey

IMPROVEMENTS PERMIT BY _____

COMMENTS: _____

CERTIFICATE OF COMPLETION BY John Houston DATE 3-27-79

CONSTRUCTION MUST COMPLY WITH ALL OTHER APPLICABLE STATE AND LOCAL REGULATIONS.

Health Dept. Copy: White Inspection Dept. Copy: Yellow Sanitarian's Copy: Pink Owner's Copy: Gold

11/90

90

STATE OF NORTH CAROLINA
COUNTY OF IREDELL

"I, the undersigned surveyor, being duly sworn, do depose and says that the plat upon which this certificate appears was prepared in accordance with G. S. 47-30 as amended, is in all respects correct according to the best, of his knowledge and belief, and was prepared from an actual survey made by him on the 21st day of January, 19 77, with a minimum linear error of closure of 1:10,000 and a minimum field error of angular closure of 75 sec/angle

Donald Ray Allen
Reg. N. C. Surveyor L-1131

NORTH CAROLINA REGISTERED SEAL L-1131 LAND SURVEYOR DONALD RAY ALLEN

I, Sam F. Williams, a Notary Public in and for the County of Mecklenburg and State of North Carolina, do hereby certify that Donald Ray Allen Surveyor, personally appeared before me this day and acknowledged the due execution of the foregoing certificate and upon oath sworn to the truth of the statements set forth therein.

Witness my hand and notarial seal, this 1st day of FEBRUARY 1977

Sam F. Williams
My Commission expires 4-30-79

SAM F. WILLIAMS NOTARY PUBLIC MECKLENBURG COUNTY, N. C.

STATE OF NORTH CAROLINA, COUNTY OF IREDELL
THE FOREGOING CERTIFICATE OF SAM F. WILLIAMS, A NOTARY PUBLIC OF MECKLENBURG COUNTY, N. C. IS CERTIFIED TO BE CORRECT. THIS INSTRUMENT WAS PRESENTED FOR REGISTRATION THIS DAY AND HOUR AND DULY RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS OF IREDELL COUNTY, N.C. IN PLAT BOOK 14 PAGE 90
THIS 22ND DAY OF MARCH, 1977 AT 10:00 A.M.

R. R. Medlin
REGISTER OF DEEDS

Owner's Certificate and Dedication.

KNOW ALL MEN BY THESE PRESENTS, that I (we) ROE LTD (Robert O. Short, Pres. and M.B. Cline, Sec.) hereby certify that I am (we are) the owner(s) of the property shown on this plat, that I hereby acknowledge this plat and allotment to be my (our) free act and do hereby dedicate to public use all streets, alleys, easements and other public areas shown on this plat. I (we) further certify that Robert Ray Allen (Surveyor) surveyed and made this plat of my (our) direction, and that the entire subdivision is within the boundaries of a tract conveyed to me by a deed recorded in Deed Book ____, Page ____, Iredell County Registry.

ROE LTD By Robert O. Short Pres. 3711 B Clines
SIGNATURE OF OWNER(S)

SUBSCRIBED AND SWORN TO BEFORE ME, THIS the 1st day of FEBRUARY, 19 77

My Com. Exp. 4-30-79 Sam F. Williams
NOTARY PUBLIC

SAM F. WILLIAMS NOTARY PUBLIC MECKLENBURG COUNTY, N. C.

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED SUBDIVISION ROAD
CONSTRUCTION STANDARDS CERTIFICATION
APPROVED: W. H. Tredlin
DISTRICT ENGINEER
DATE March 22 1977

Provided that the plat is recorded within sixty (60) days of final approval, it is approved by the Iredell County Planning Board.

3-4-1977 (DATE) Lee A. Burgess Jr. (CHAIRMAN OF BOARD)

Provided that the plat is recorded within sixty (60) Days of Final Approval, it is approved by the Iredell County Board of Commissioners this the 21 Day of March A.D. 1977

Robert Longsdale
CHAIRMAN OF BOARD OF COUNTY COMMISSIONERS

NOTES:
Iron pins on all lot corners and angle points, less noted otherwise.
All street intersections subject to a 20' radius.
All bearings of distances are to inter-section of streets.
All lot lines are subject to a 10' Drainage and Utility easement.
All roads will conform to State Highway Commission Secondary Rd. Standards.

PLAT SHOWING
SAILORS LAIR SUBD.
PROP. OF ROE LTD. & M.B. CLINE
DAVIDSON TWP IREDELL CO., N.C.

Graphic Scale
0 100 200 300
Scale: 1"=100'
Date: Jan. 31, 1977

Don Allen Surveyors
Rt 6, Box 627A
Mooresville N.C. 28115
N.C.R.L.S. Lic. 1131

Note: Boundary information taken from survey by Duke Power Co.

LAKE NORMAN Duke Power Co.
780 Contour
DEPARTMENT OF TRANSPORTATION
Ch. N 67-55-19 W 474.74
Ch. N 67-55-19 W 474.74
25' Access Easement
THISTLE COURT
SCHOONER DRIVE
FLYING SCOT COURT
HIGHLANDER COURT
25' Access Easement
Ch. N 50-45-30 W 224.94
Ch. N 50-45-30 W 224.94
Many "X" Rox
Ch. N 55-22-30 W 224.94
Ch. N 55-22-30 W 224.94
Minimum Front Bldg. Line
Minimum Front Bldg. Line
ACCESS LOT
N.C. STATE ROAD No. 1102

Revenue Stamps $10.00

Excise Tax

Register of Deeds for Iredell County

Time, Book and Page

Tax Lot No.

Verified by

County on the day of , 19

Parcel Identifier No.

Mail after recording to Homesley, Jones, Gaines & Fields

P. O. Box 1235, Mooresville, NC 28115

This instrument was prepared by Walter H. Jones, Jr., Attorney at Law

Brief description for the Index | Portion of Lot 27, SAILORS LAIR |

NORTH CAROLINA GENERAL WARRANTY DEED

THIS DEED made this 11th day of November , 19 87 , by and between

GRANTOR	GRANTEE
THOMAS C. CHARBONNEAU and wife, BRENDA L. CHARBONNEAU, of Iredell County, North Carolina	MARCUS F. SNODDY and wife, VIRGINIA MORRIS SNODDY 3209 Wickersham Road Charlotte, NC 28211

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.g. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of , Davidson Township, Iredell County, North Carolina and more particularly described as follows:

BEGINNING at an iron pin in the margin of Schooner Drive, said point of Beginning being the common corner of Lots 26 and 27 of SAILORS LAIR SUBDIVISION as shown on plat recorded in Plat Book 14 at Page 90, Iredell County Registry; and running thence from said Beginning point with the common line of Lots 26 and 27 South 84 deg. 16 min. West 142.23 feet to an iron pin; thence South 73 deg. 41 min. 30 sec. East 113.08 feet to an iron pin; thence South 18 deg. 20 min. East 21.74 feet to an iron pin in the margin of Thistle Court; thence with the margin of said roadway North 71 deg. 40 min. East 45.77 feet to an iron pin at the intersection of Thistle Court and Schooner Drive; thence with the margin of Schooner Drive North 18 deg. 20 min. West 55 feet to the point and place of BEGINNING, same containing 4775 sq. ft. (0.1096 of an acre), more or less, according to that certain survey dated November 5, 1987, prepared by Donald Ray Allen, Registered Surveyor, a copy of which is attached hereto and incorporated herein by reference.

ROE LTD.

By: Robert G. Ebert
Robert G. Ebert - President

ATTEST:

By: Viola R. Ebert
Viola R. Ebert - Secretary

(CORPORATE SEAL)

N. B. Cline (SEAL)

Virginia M. Cline (SEAL)

e property hereinabove described was acquired by Grantor by instrument recorded in Deed Book 731 at Page 434 in the office of the Register of Deeds for Iredell County.

map showing the above described property is recorded in Plat Book 14 page 90.

) HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to : Grantee in fee simple.

d the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant d defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated. le to the property hereinabove described is subject to the following exceptions:

Those certain restrictions set forth in instrument recorded in Deed Book 602 at Page 981 in the office of the Register of Deeds for Iredell County.

This conveyance is made subject to all easements and rights of way including those for utilities and public roadways.

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its porate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, the day and year first re written.

(Corporate Name)

President

EST:

Secretary (Corporate Seal)

(Corporate Name)

USE BLACK INK ONLY

Thomas C. Charbonneau (SEAL)

Brenda L. Charbonneau (SEAL)

(SEAL)

(SEAL)

(SEAL)

USE BLACK INK ONLY

My commission expires: June 7, 1992 Sue C. Harrington Notary Public

SEAL - STAMP

NORTH CAROLINA County

I, a Notary Public of the County and State aforesaid, certify that ..... Grantor, personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this day of , 19....

I use Black Ink

My commission expires: ..... Notary Public

SEAL - STAMP

NORTH CAROLINA, County.

I, a Notary Public of the County and State aforesaid, certify that ..... Grantor, personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this day of , 19....

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I use Black Ink

My commission expires: ..... Notary Public

SEAL - STAMP

NORTH CAROLINA County

I, a Notary Public of the County and State aforesaid, certify that ..... personally came before me this day and acknowledged that he is ..... Secretary of a North Carolina corporation, and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its ..... President, sealed with its corporate seal and attested by ..... as its ..... Secretary. Witness my hand and official stamp or seal, this day of , 19....

I use Black Ink

My commission expires: ..... Notary Public

SEAL - STAMP

NORTH CAROLINA, County

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I use Black Ink

My commission expires: ..... Notary Public

The foregoing Certificate(s) of Sue C. Harrington, a Notary Public of Iredell County, North Carolina

Certified to be correct. This

LAKE NORMAN
THISTLE COURT
SCHOONER DRIVE
Boundary SURVEY
N 35-39 E
456
N 9-26 E
40.5
S 82-08 E
380.28
N 18-20 W
55 C
N 18-20 W
25
26
27