

9418 WINDYGAP RD

19939114

1/2/2008

duponbj

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

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

OPERATION PERMIT for an ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

File #: 2934B Permit #: _____ Tax Parcel #: 199-391-14

Property Owner: MICHAEL KIVI

Job Location Address: 9418 WINDY GAP RD.

City: CHARLOTTE State: NC Zip Code: 28278

Operation Permit Issuance Date: 9/20/06 Contractor Name: AUTRY

Permitted Design Flow: 360 GPD

Liquid Capacity of Septic Tank: EXIST gallons

Liquid Capacity of Dosing Tank: NA gallons

Effluent Pump Model: NA

Drainfield Installation ☐ N/A

Trench Depth: 30 inches

Trench Width: 9 feet

Line Spacing: _____ feet (O.C.)

Total line length: ~~180~~ 135 feet

# of Lines: 1 @ 45 feet

Depth of Media: 18 inches (Type) #5 STONE

Depth of Cover: 12 inches

Distribution Device: D-BOX

Bed Installation *(For Repair Installations ONLY.)* ☐ N/A

Bed Depth: _____ inches

Bed Width: _____ feet

Total line length: _____ feet

# of Lines: _____ @ _____ feet

Depth of Media: _____ inches (Type) _____

Depth of Cover: _____ inches

Distribution Device: _____

Water Supply Source

☐ Municipal ☑ Private Well ☐ Community Well

☐ Other _____

System Installation Setbacks

Distance from Building Foundation: 10+ feet

Distance from Property Line: 10 feet

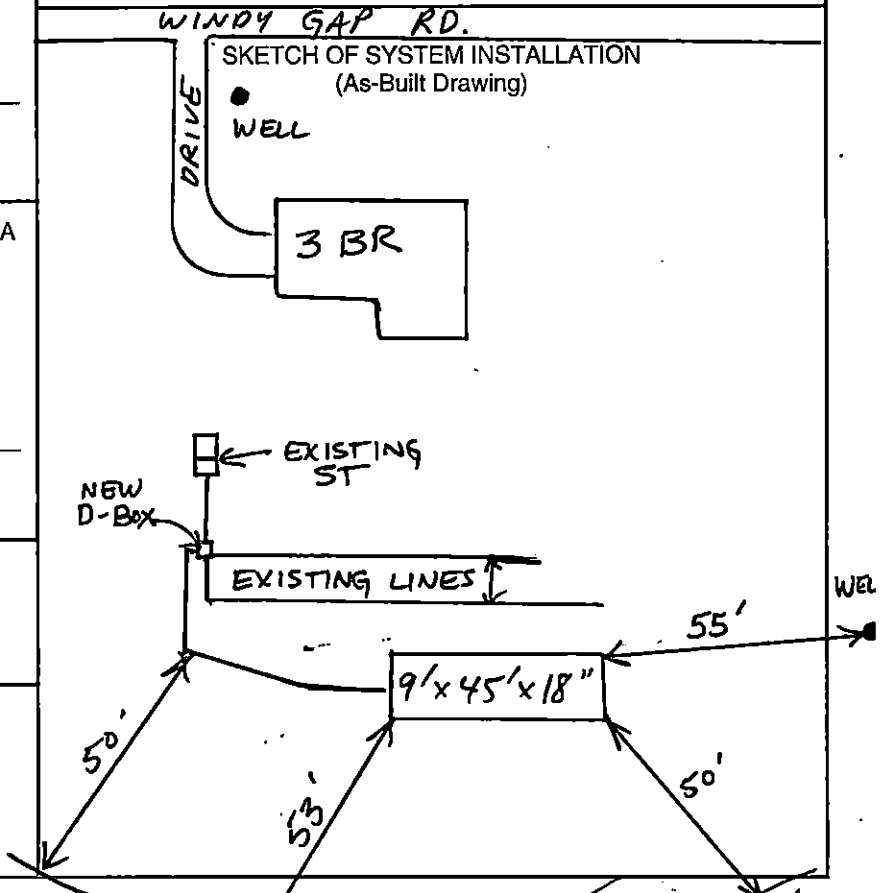
Distance from Water Supply Source: 50+ feet

Inspection Dates

Tank(s) Inspected: _____

Excavation Inspected: _____

Pump & Controls Inspected: _____



The undersigned has inspected the Septic Tank System described above, and certifies it has been ☐ installed ☑ altered ☐ repaired ☑ as detailed in the plot above ☐ in accordance with the permit issued and meets the provisions of 15A NCAC 18A. 1900, "Laws and Rules for Sewage Treatment and Disposal Systems" in effect on the date of issuance of the permit. The issuance of this Operation Permit does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This document is issued subject to those restrictions and conditions shown on the permit(s) and the provisions of 15A NCAC 18A. 1900 in addition to those listed below under "Comments." This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

Notice: Disturbance of the designated repair area may result in the Suspension or Revocation of this permit.

Comments: System Classification & Type: TYPE II CONVENTIONAL

DENR Authorized Agent: Chris Sherrill, RS, LSS Signature: Christopher M Sherrill

FEE: 0.00

DATE: 5/31/2006

CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

MECKLENBURG COUNTY

GROUNDWATER & WASTEWATER SERVICES

FILE NUMBER: 2934B

PERMIT NUMBER: 2934B

PARCEL NUMBER: 19939114

JOB LOCATION INFORMATION

ADDRESS: 9418 WINDYGAP RD

CITY: CHARLOTTE **STATE: NC** **ZIP:** 28278

ISSUED TO: Michael G. Kivi

CONSTRUCTION AUTHORIZATION ISSUANCE DATE: 5/31/2006

CONSTRUCTION AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER , AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

2. AN INSTALLATION APPROVAL MUST BE SECURED PRIOR TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A REGISTERED SEPTIC TANK CONTRACTOR WITH THE MECKLENBURG COUNTY HEALTH DEPARTMENT.

3. ANY ALTERATION IN SITE OR SOIL CONDITIONS (INCLUDING LOCATION OF STRUCTURES AND APPURTENANCES) OR MODIFICATION IN USE, DESIGN WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS AS SPECIFIED IN THE ASSOCIATED IMPROVEMENT PERMIT AND APPLICATION, MAY SUBJECT THIS CONSTRUCTION AUTHORIZATION AND ASSOCIATED PERMIT(S) TO REVOCATION.

4. THIS CONSTRUCTION AUTHORIZATION AS PROVIDED IN G.S. 130A-335(f) AND G.S. 130A-336(b) SHALL BE VALID FOR A PERIOD EQUAL TO THE VALIDITY OF THE IMPROVEMENT PERMIT, NOT TO EXCEED 60 MONTHS.
   *CONSTRUCTION AUTHORIZATION EXPIRATION DATE: 5/31/2011

CONDITIONS OF IMPROVEMENT PERMIT for an ALTERATION TO AN EXISTING ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit Number: 2934-B Tax Number: 149-391-14

- The IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be NO grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is NOT transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

Basement: ☒ Yes ☐ No ☐ Partial Basement

Primary Wastewater System

Type: ☐ I ☒ II ☐ III ☐ IV ☐ V ☐ VI

☒ Conventional
☐ Prefabricated, permeable block panel system
☐ Shallow Placed Conventional
☐ Low Pressure Pipe
☐ Large Diameter Pipe
☐ Fill
☐ Other
☐ Innovative or Experimental:

.25 Long-term acceptance rate (GPD/ft^2)	360 Max gallons/day wastewater flow	480 Absorption Area (ft^2)	9 Trench spacing (min. on centers) (ft)
Serviced by private well: ☒ Yes ☐ No	1500 Gallon septic tank	160 Total trench length (ft)	24 Maximum trench depth (in) (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions.)
3 Bedrooms in residence	na Gallon pump tank	12 Depth of media (in)	

Any surface water present: y Type: Lake Wylie Minimum separation distance (ft): 50

Additional conditions: see plot plan- use existing system for 2 bdr - add 160 feet for third bedroom

Repair Area System

Type: ☐ I ☐ II ☐ III ☐ IV ☐ V ☐ VI

☐ Conventional
☐ Prefabricated, permeable block panel system
☐ Shallow Placed Conventional
☐ Low Pressure Pipe
☐ Large Diameter Pipe
☐ Fill
☐ Other
☐ Innovative or Experimental:

____ Absorption Area (ft^2) ____ Total trench length (ft)	__ Depth of media (in)	__ Trench spacing (min. on centers) (ft)	__ Maximum trench depth (in)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the Request for the Job Location contained in this document. The approval is granted in accordance with the provisions of Laws and Rules For Sewage Treatment, and Disposal Systems in effect at the time of issuance of the permit and is subject to the following provisions:

*** No work shall be conducted on the septic tank system until an Installation Approval is granted by this Department.

*** This Improvement permit is transferable.

5-4-06
DENR Authorized Agent Date

5-04-06
Owner/Agent Signature Date

MECKLENBURG COUNTY
GROUNDWATER & WASTEWATER SERVICES
700 N. TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE: (704) 336-5103
FAX: (704) 336-6894

NC DENR
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

FOR REGISTRATION JUDITH A. GIBSON
REGISTER OF DEEDS
MECKLENBURG COUNTY, NC
2006 FEB 02 02:33 PM
BK:19976 PG:793-796 FEE:$20.00

INSTRUMENT # 2006021684

2006021684

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

WASTEWATER TREATMENT AND DISPOSAL SYSTEM DESIGN AGREEMENT: 15A NCAC 18A .1948 AN ANY OF THE FOLLOWING RULES: .1956; .1957(a); .1957(b); OR .1957(c); OR .1969

FILE #: 29343

PARCEL #: 199-391-14

The undersigned, Michael G Kivi, owner of property located at 9418 Windy Gap rd. Lot #75, Sec. 38, (the "site") and described in an instrument recorded in Book 18 at Page 58, Mecklenburg Public Registry, hereby acknowledges that the undersigned applied to the Mecklenburg County Health Department (the "Department") for a permit to install a septic tank sewage disposal system on the site; that the Department evaluated the site for suitability for such a system in accordance with the regulations promulgated by the North Carolina Commission for Health Services as 15A NCAC 18A .1900 et seq.; that the Department originally classified the site as "unsuitable" pursuant to the standards set forth in the regulations; that the undersigned requested that the Department reclassify the site as "provisionally suitable" in light of the particular septic tank system proposed by the undersigned; that the Department considered various studies, data, and other information which indicate to the Department that the septic tank system proposed by the undersigned is allowed by the rules; and that the Department therefore reclassified the site as 'provisionally suitable" and issued an appropriate permit for such proposed septic tank system.

The undersigned further acknowledges that the proper design, construction, operation and maintenance of such septic tank system is the responsibility of the designer, owner, developer, installer, or user of the system, as applicable, and that neither the Department nor its officials, employees, or agents warrant or guarantee that the said system installed pursuant to the permit issued by the Department will function in a satisfactory manner for any given period of time or that the Department, its officials, employees or agents assume any liability for any damages of any kind which are caused, or which may be caused, by a malfunction of such system.

The undersigned further acknowledges that the following will apply to the site:

This instrument was prepared by: Michael Kivi

Mail after recording to: 9418 Windy Gap rd, Charlotte NC. 28278

JAN-31-2006 10:16 MECKLENBURG CO GWS 704 336 6894 P.02/05

FEE: 100.00
DATE: 10/31/05
CRT [ ] Check 0091
JKA

~~[illegible]~~ David 4794

APPLICATION FOR APPROVAL TO USE AN EXISTING ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM
MECKLENBURG COUNTY - GROUNDWATER & WASTEWATER SERVICES
700 N. Tryon St., Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

GWS – UES.APP 01/05

FILE #: 29346

TYPE APPLCATION: Add site evaluation for soils pd #100 12/29/05

- [X] ADDITION - INCREASE ROOMS/OCCUPANCY/MOBILE HOME SIZE (A / M)
- [ ] ADDITION - RENOVATION OR GARAGE WITH NO MAJOR CHANGES (X)
- [ ] EXCHANGE MOBILE HOME - SAME # BEDROOMS (Y)
- [ ] COMMERCIAL OR INDUSTRIAL (N)

Assigned to Zach 5/4/06

PERSON FILING APPLICATION:
NAME: Michael G Kivi
ADDRESS: 9418 Windy Gap Rd
CITY: Charlotte
STATE: NC ZIP: 28278
PHONE: ~~[illegible]~~ fax 704-525-
ALTERNATE PHONE: 704-~~[illegible]~~ wife 9434
641-3789 cell (704) 672-2756 work (704) 576 0139 (cell)

PROPERTY OWNER:
NAME: same
ADDRESS:
CITY:
STATE: ZIP:
PHONE:
ALTERNATE PHONE:

JOB LOCATION INFORMATION
TAX/PARCEL #: 199-391-14
STREET ADDRESS: 9418 Windy Gap
CITY: Charlotte
STATE: NC ZIP: 28278
SUBDIVISION OR MOBILE HOME PARK NAME: Steele Creek
LOT #: 75

TOWNSHIP:
- [X] 0-MECKLENBURG
- [ ] 1-CHARLOTTE
- [ ] 2-DAVIDSON
- [ ] 3-CORNELIUS
- [ ] 4-PINEVILLE
- [ ] 5-MATTHEWS
- [ ] 6-HUNTERSVILLE
- [ ] 7-MINT HILL

WATER SUPPLY:
- [ ] MUNICIPAL (M)
- [ ] COMMUNITY (C)
- [X] PRIVATE WELL (P)
- [ ] SHARED WELL (S)
- [ ] OTHER 'SPRINGS' (O)

RESIDENTIAL PROPERTY TYPE:
- [X] HOUSE (H)
- [ ] MODULAR HOME (M)
- [ ] MULTIPLE FAMILY (U)
- [ ] SINGLE MOBILE HOME (S)
- [ ] DOUBLE WIDE (D)
- [ ] OTHER (O)

NUMBER OF BEDROOMS: 2
NUMBER OF OCCUPANTS: 2

COMMERCIAL / INDUSTRIAL PROPERTY TYPE:
TYPE OF BUSINESS:
EMPLOYEES PER SHIFT:
OF SHIFTS:
INDUSTRIAL WASTES? [ ] YES [ ] NO
UNDERGROUND STORAGE TANKS? [ ] YES [ ] NO

ADDITION TYPE ATTACHED TO EXISTING STRUCTURE:
- [X] BEDROOM
- [X] BATHROOM
- [ ] KITCHEN
- [ ] DINING ROOM
- [ ] LIVING ROOM
- [ ] DEN
- [X] GARAGE
- [X] SUNROOM
- [ ] PORCH
- [ ] DECK
- [ ] OTHER

ADDITION TYPE DETACHED FROM EXISTING STRUCTURE:
- [ ] DETACHED GARAGE
- [ ] DETACHED GARAGE WITH PLUMBING
- [ ] POOL HOUSE
- [ ] SHOP
- [ ] BARN
- [ ] STORAGE SHED
- [ ] DETACHED PORCH / DECK
- [ ] OTHER

*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 the Mecklenburg County Health Department to enter onto the property for the purpose of processing this request.

Michael Kivi — Owner's/Agent's Signature
10-31-05 — Date

*The undersigned, an authorized agent of the Mecklenburg County Health Department, certifies that the Department has approved the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws and Rules for Sanitary Sewage Collection, Treatment and Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

- No work shall be conducted on the septic tank system until an installation, construction, alteration and/or repair approval is granted y this Department.
- This permit is not transferable.

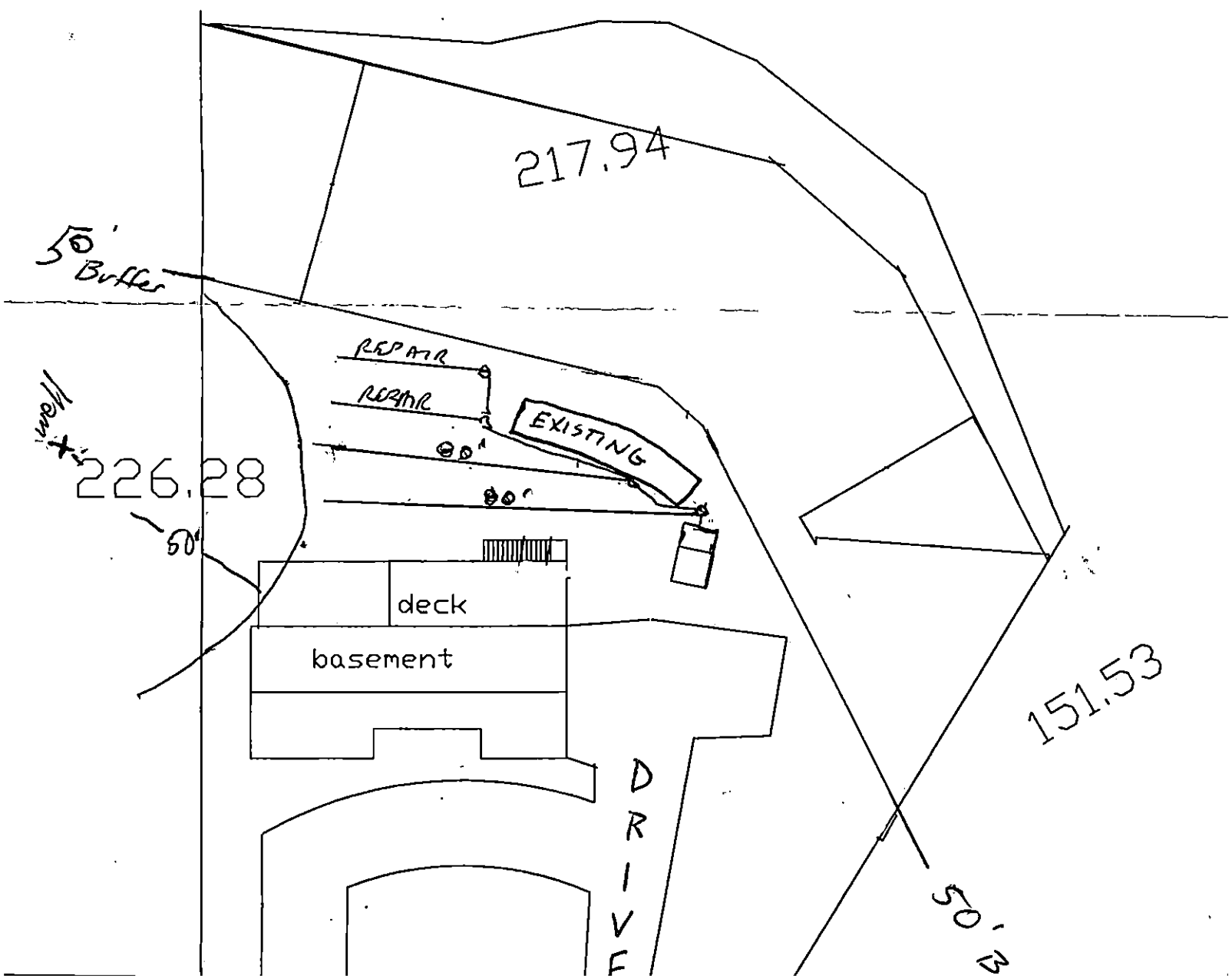
- [ ] ADDITION / RENOVATION APPROVAL - VALID 1 YEAR FROM ISSUANCE
- [ ] MOBILE HOME EXCHANGE APPROVAL - VALID 6 MONTHS FROM ISSUANCE

DENIED. LOCATION OF EXISTING SEPTIC DRAINFIELD UNDER HOUSE

[illegible] MINDERS — EHS Signature — Date 12/2/05

- USE EXISTING SYSTEM AND TANK
- ADD 135' OF NEW LINE TO EXISTING SYSTEM FOR EXTRA BDR
- EXISTING HOUSE WILL BE REMOVED
- INSTALL 2 LINES @ 65' x 3' wide x 12" rock
- TYPE II CONVENTIONAL SYSTEM.
- ALL PARTS OF SEPTIC 50'+ FROM ANY WELLS
- SYSTEM DESIGN FOR ALTERATION OF 3 BDR HOUSE W/ DAYLIGHT BASEMENT.

File# 2934/B



Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30000645** GWS File #: **2934B** Tax Parcel #: **199-391-14**

- This IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be NO grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is **NOT** transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

I. This Improvement Permit Shall: Expire in Five (5) Years **Expiration Date (If Applicable):** 4/11/2011

Type of Installation: Residential - New System Lot Number: 75

Structure Type: HOUSE Size (ft^2): 2365 # Bedrooms: 3 # Occupants: 2

Building Foundation: Crawl Space Water Supply: Private Well

II. Initial System Type: Innovative or Experimental **System Classification:** IIIg

Initial System Specifications:

Design Flow (gpd): 360 LTAR (gpd/ft^2): 0.25 Septic Tank Size (gal): 1500 Pump Tank Size (gal): N/A

Trench Width (ft): 3 Trench Spacing (ft): 9 Absorption Area (ft^2): 1440 Total Trench Length (ft): 480

Maximum Trench Depth (in): 24 Depth of Media (in): 12 Distribution Device: Distribution Box

III. Repair System Type: N/A **System Classification:** N/A

Repair System Specifications:

Design Flow (gpd): 0 LTAR (gpd/ft^2): 0.0 Septic Tank Size (gal): 0 Pump Tank Size (gal): N/A

Trench Width (ft): 0 Trench Spacing (ft): 0 Absorption Area (ft^2): 0 Total Trench Length (ft): 0

Maximum Trench Depth (in): 0 Depth of Media (in): 0 Distribution Device: N/A

IV. Permit Conditions/Comments:

(Please See the Following Page for Permit Conditions.)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment, and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Zach Petersen Owner/Legal Agent: Carol Kivi

Signature: Joshua R. Sellers P.S. Signature: Carol Kivi

Print Name

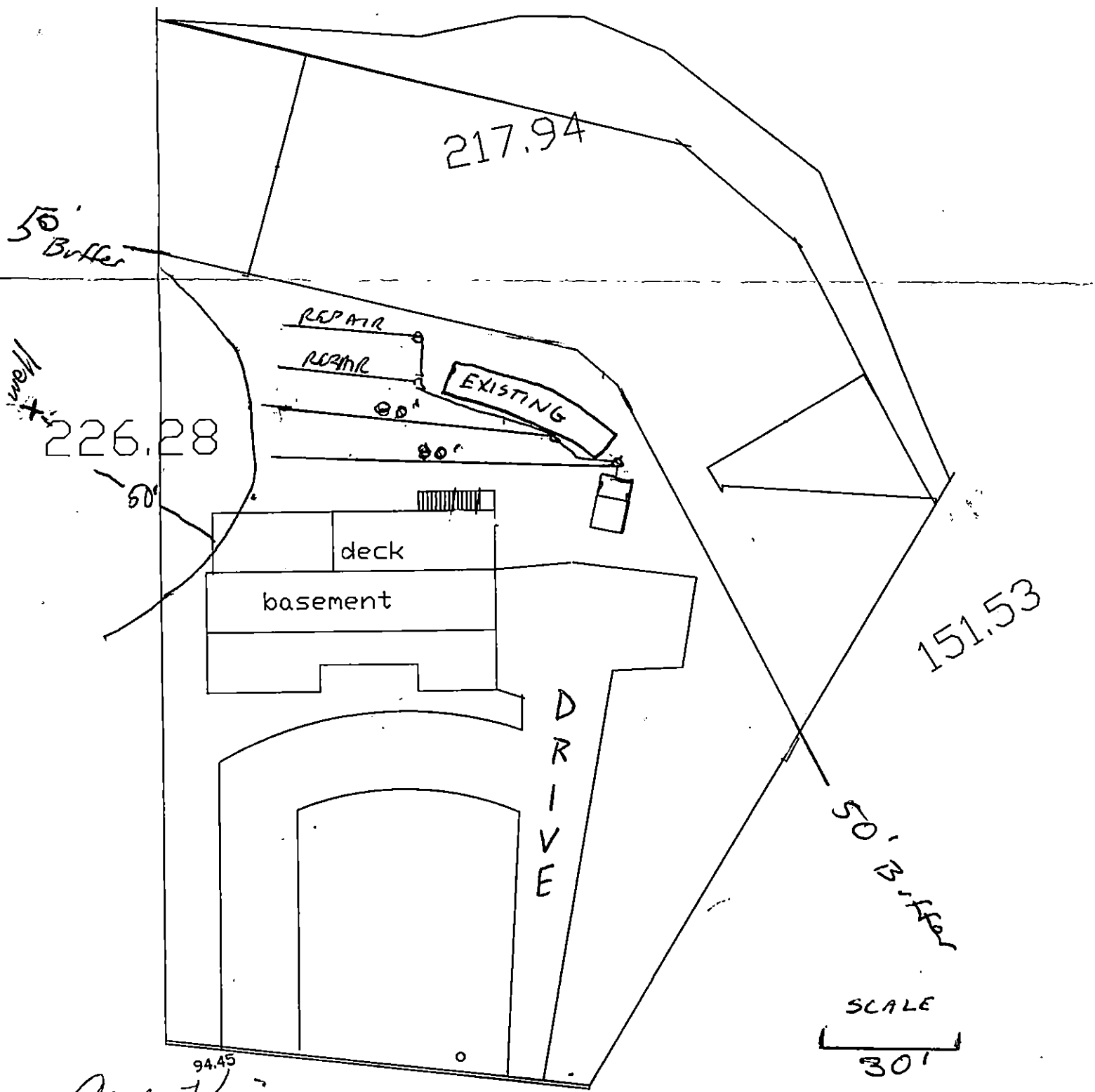
Date Issued: 4/11/2006

for Zach Peterson

• ITE FIELDS OF SOILS SO [illegible]

• SYSTEM DESIGN FOR ALTERATION OF 3BDR HOUSE W/ DAYLIGHT BASEMENT.

Filed
2934B



Carol Kivi

Michael Kivi
Signature

5-04-06
Date

Mecklenburg County Groundwater & Wastewater Services
700 N. Tryon St, Suite 211 Charlotte, NC 28202
Phone: (704) 336-5103 Fax: (704) 336-6894

NC DENR
Division of Environmental Health
On-Site Wastewater Section

IMPROVEMENT PERMIT for a RESIDENTIAL ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

Permit #: **30000645** GWS File #: **2934B**

IV. Permit Conditions/Comments:

- Owner agreement forms for site reclassification shall be on file prior to issuance of Construction Authorization.
- 100% repair area is not required for this property. However, the maximum feasible area shall be allocated for a repair area.
- All components of the septic system must be installed in accordance with the required setbacks listed on the corresponding plot plan.
- All components of the septic system must be located at least 100 ft. (50 ft. minimum) from all private wells.

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department is issuing an IMPROVEMENT PERMIT for the above referenced property. This permit is being issued in accordance with the *Laws and Rules For Sewage Treatment and Disposal Systems* and is subject to the following provisions:

- No work shall be conducted on the septic system until an INSTALLATION APPROVAL is granted by the Department.
- The septic system installer shall be a registered septic contractor with Mecklenburg County Health Department.
- The permitted system shall be installed in accordance with the included PLOT PLAN.
- This IMPROVEMENT PERMIT is transferable.

DENR Authorized Agent: Zach Petersen

Signature: Joshua R. Gillespie R.S. for Zach Peterson

Date Issued: 4/11/2006

Owner/Legal Agent: Carol Kivi
Print Name

Signature: Carol Kivi

FEE: 300.00

DATE: 4/11/2006

CONSTRUCTION AUTHORIZATION FOR AN ON-SITE WASTEWATER TREATMENT & DISPOSAL SYSTEM

MECKLENBURG COUNTY

GROUNDWATER & WASTEWATER SERVICES

FILE NUMBER: 2934B

PERMIT NUMBER: 30000645

PARCEL NUMBER: 19939114

JOB LOCATION INFORMATION

ADDRESS: 9418 WINDYGAP RD

CITY: CHARLOTTE **STATE: NC** **ZIP:** 28278

ISSUED TO: Mike Kivi

CONSTRUCTION AUTHORIZATION ISSUANCE DATE: 4/11/2006

CONSTRUCTION AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER 30000645, AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

2. AN INSTALLATION APPROVAL MUST BE SECURED PRIOR TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A REGISTERED SEPTIC TANK CONTRACTOR WITH THE MECKLENBURG COUNTY HEALTH DEPARTMENT.

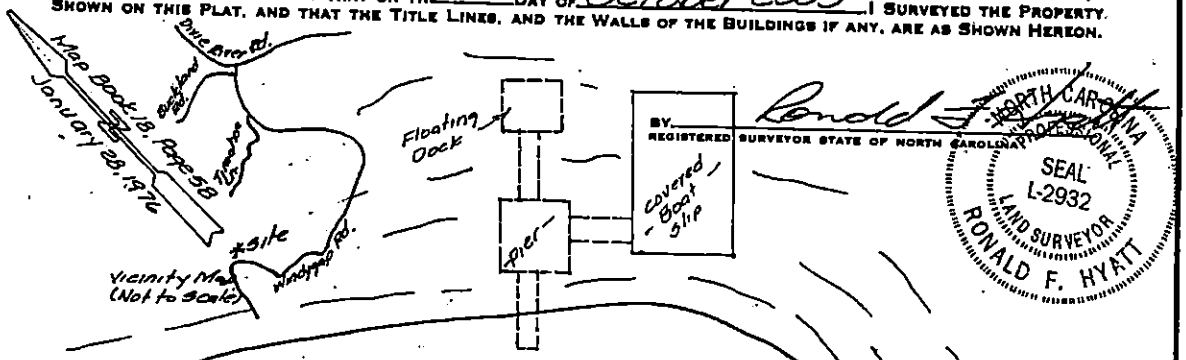
3. ANY ALTERATION IN SITE OR SOIL CONDITIONS (INCLUDING LOCATION OF STRUCTURES AND APPURTENANCES) OR MODIFICATION IN USE, DESIGN WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS AS SPECIFIED IN THE ASSOCIATED IMPROVEMENT PERMIT AND APPLICATION, MAY SUBJECT THIS CONSTRUCTION AUTHORIZATION AND ASSOCIATED PERMIT(S) TO REVOCATION.

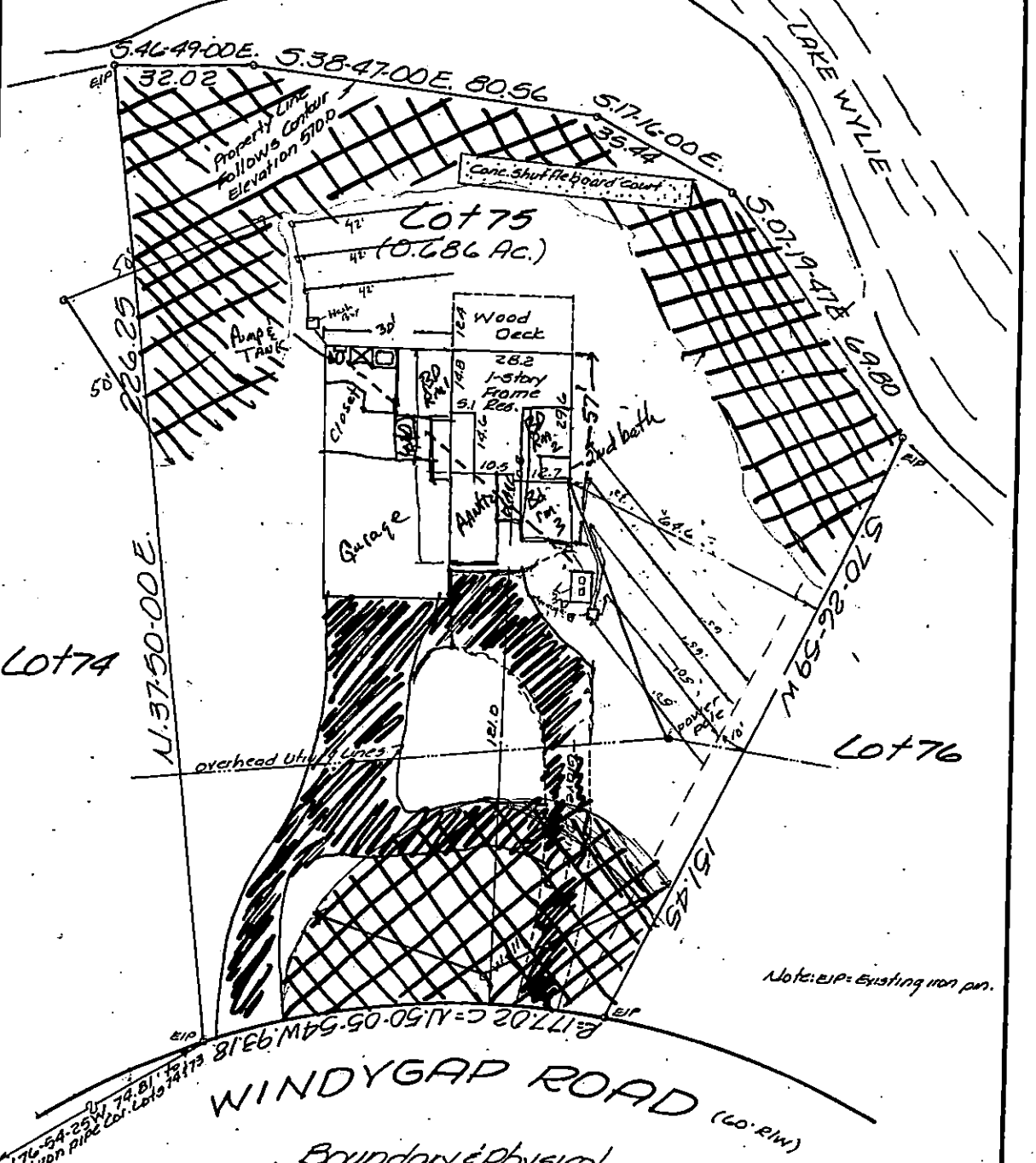
4. THIS CONSTRUCTION AUTHORIZATION AS PROVIDED IN G.S. 130A-335(f) AND G.S. 130A-336(b) SHALL BE VALID FOR A PERIOD EQUAL TO THE VALIDITY OF THE IMPROVEMENT PERMIT, NOT TO EXCEED 60 MONTHS.
   *CONSTRUCTION AUTHORIZATION EXPIRATION DATE: 4/11/2011

THIS IS TO CERTIFY THAT ON THE 25th DAY OF October 2005 I SURVEYED THE PROPERTY SHOWN ON THIS PLAT, AND THAT THE TITLE LINES, AND THE WALLS OF THE BUILDINGS IF ANY, ARE AS SHOWN HEREON.

BY Ronald F. Hyatt
REGISTERED SURVEYOR STATE OF NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL L-2932 LAND SURVEYOR RONALD F. HYATT





Boundary & Physical SURVEY OF

LOT IN Steele Creek TOWNSHIP, Meck. COUNTY, NORTH CAROLINA, IN THE CITY OF _____ ON Windygap Road HOUSE NO. 9418 SHOWN AS LOT NO. 75

IN BLOCK NO. _____ ON MAP OF Crescent Land & Timber Corp. Sec. 1, 38 Lake Wylie Recreation Lots MAP RECORDED IN BOOK 18 PAGE 58

DEED RECORDED IN BOOK _____ PAGE _____ OFFICE OF THE REGISTER OF DEEDS FOR Mecklenburg

COUNTY, N. C. THE PROPERTY OF Steven Keblin

SCALE - 1" = 25 FT. DATE 10-25-2005

RONALD F. HYATT, SURVEYOR
132 E. MAIN STREET
MARSHVILLE, N.C. 28103
704-624-3340

ACS

FEE: _____ **AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION**
DATE: _____ **VOID SIXTY (60) MONTHS FROM DATE OF ISSUANCE**

DATE: _____ PERMIT NO: ~~[illegible]~~ 2934B
PARCEL NO: 199-391-14

JOB LOCATION ADDRESS: 9418 Windy Gap Road
PROPERTY OWNER: Hubert C. Mathews
BUILDING CONTRACTOR: Scott Kuhlkin Builders
SUBDIVISION NAME: NA
AUTHORIZATION ISSUED BY: Jeanny P. Mechlin R.S. DATE: 7/3/01
~~DEHNR~~ AUTHORIZED AGENT

AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NO. 4682B, AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

2. AN INSTALLATION, CONSTRUCTION, ALTERATION AND/OR REPAIR APPROVAL MUST BE SECURED **PRIOR** TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A REGISTERED SEPTIC TANK CONTRACTOR WITH MECKLENBURG COUNTY HEALTH DEPARTMENT.

3. ANY ALTERATION IN SITE OR SOIL CONDITIONS (INCLUDING LOCATION OF STRUCTURES AND APPURTENANCES) OR MODIFICATION IN USE, DESIGN WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS AS SPECIFIED IN THE ASSOCIATED IMPROVEMENT PERMIT AND APPLICATION, MAY SUBJECT THIS AUTHORIZATION AND ASSOCIATED PERMIT(S) TO REVOCATION.

4. OTHER CONDITIONS: See Conditions of I.P.

OWNER CERTIFICATION

I CERTIFY THAT THERE HAVE BEEN NO ALTERATIONS IN SITE OR SOIL CONDITIONS OR MODIFICATIONS TO FACILITY, WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS FROM THOSE SPECIFIED IN THE ORIGINAL APPLICATION OR ASSOCIATED IMPROVEMENT PERMIT UNLESS AUTHORIZED IN WRITING BY THE MECKLENBURG COUNTY HEALTH DEPARTMENT. I ALSO UNDERSTAND THAT ANY SUCH ALTERATIONS, MODIFICATIONS, OR FALSE INFORMATION ARE GROUNDS FOR REVOCATION OF PERMITS AND AUTHORIZATION TO CONSTRUCT.

SIGNATURE OF OWNER/OWNER'S REPRESENTATIVE DATE

Unit Number [redacted] of 7545 Tax Number: [illegible]

- The IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be NO grading, filling or disturbance of the soil in the area of the septic tank system or repair area.

CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is NOT transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.

Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

Basement	✓ Yes	___ No	___ Partial Basement
Type Primary Wastewater System Type (circle one): I (II) III IV V VI	✓ Conventional ___ Prefabricated, permeable block panel system ___ Shallow Placed Conventional	___ Low Pressure Pipe ___ Large Diameter Pipe ___ Fill ___ Other	___ Innovative or Experimental: ___ IWWS-93-1 ___ IWWS-93-2 ___ IWWS-94-1

0.3 Long-term acceptance rate	360 Max gallons/day wastewater flow	1200 Absorption Area (sq ft)	9' Trench spacing (min. on centers)
yes Serviced by private well	1500 Gallon septic tank	400' Total trench length (ft)	24" Maximum trench depth (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions)
3 Bedrooms in residence	NA Gallon pump tank	12" Depth of stone	

Any surface waters present: Yes Type: Lake Wylie Minimum separation distance: 50'

Site modifications required:

Additional Conditions: Existing house torn down / New 3 Bdrm Constructed
Install 4 lines x 100' x 3' x 12" Stone
Does not require 100% Repair

Repair Area System Type Type (circle one): I II III IV V VI	___ Conventional ___ Prefabricated, permeable block panel system ___ Shallow Placed Conventional	___ Low Pressure Pipe ___ Large Diameter Pipe ___ Fill ___ Other	___ Innovative or Experimental: ___ IWWS-93-1 ___ IWWS-93-2 ___ IWWS-94-1

___ Absorption Area (Sq ft) ___ Total Trench Length (Ft)	___ Depth of Stone Trench	___ Trench spacing (min. on centers)	___ Maximum Trench Depth

For existing system, enter the year originally installed:

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws and Rules For Sewage, Treatment and Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

- No work shall be conducted on the septic tank system until an Installation, Construction, Alteration and/or Repair Approval is granted by this Department.
- This Improvement permit is transferable.

Tommy P. Mullaney 7/3/01
DEHNR Authorized Agent Date

[signature] 1-19-06
Owner/Agent Signature Date

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

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

PROPOSED PLOT PLAN

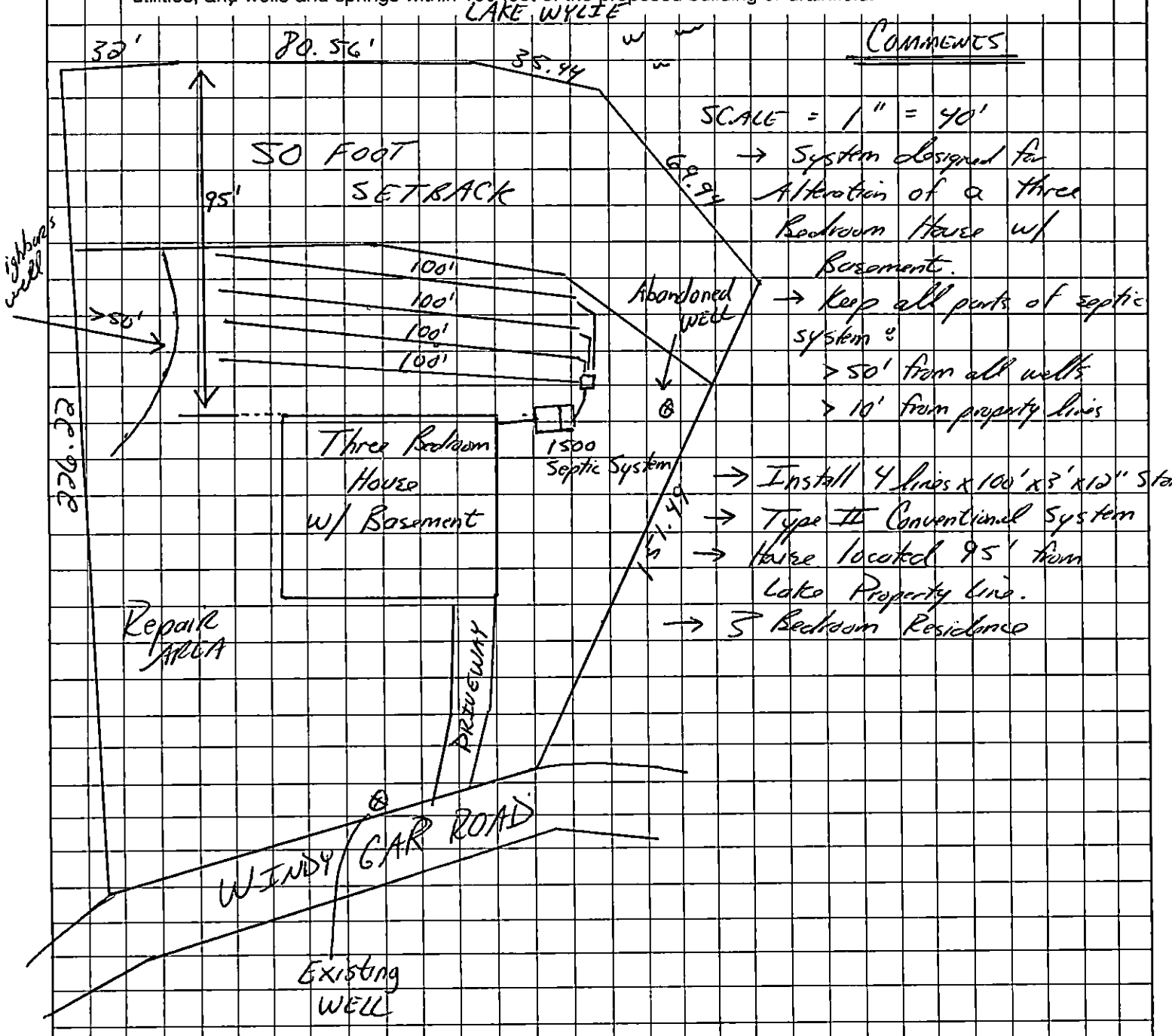
HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON STREET
CHARLOTTE, NC 28202
PHONE (704) 336-5102

2934B

FILE: ~~4682B~~

TC: 199-391-14

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.



APPROVAL DATE Jeremy P. Meekle R.S. 7/3/14

OWNER/AGENT SIGNATURE

DATE

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

Mecklenburg County
Health Department

May 6, 1999

Carol H. Matthews
2311 Providence Road
Charlotte, NC 28211

Re: 9418 Windygap Road
File: 2934B
Parcel: 199-391-14

Dear Ms. Matthews:

Receipt of your Application for Improvement Permit for the above referenced property is acknowledged. A soil and site evaluation have been conducted. The results of the evaluation indicated that the site is **UNSUITABLE** under Rules .1943 **SOIL Depth,** and .1945 **AVAILABLE SPACE.** For these reasons your Application for Improvement Permit is denied. A possible way to develop the site exists under Rule .1948(d), which reads as follows:

> A site classified as **UNSUITABLE** may be used for a ground absorption sewage treatment and disposal system specifically identified in Rules .1955, .1956, or .1957 of this Section or a system approved under Rule .1969 if written documentation including engineering, hydrogeologic, geologic or soil studies, indicates to the local health department that the proposed system can be expected to function satisfactorily. Such sites shall be reclassified as **PROVISIONALLY SUITABLE** if the local health department determines that the substantiating data indicate that:
>
> (1) a ground absorption system can be installed so that the effluent will be non-pathogenic, non-infectious, non-toxic, and non-hazardous;
> (2) the effluent will not contaminate ground or surface water; and
> (3) the effluent will be exposed on the ground surface or be discharged to surface waters where it could come in contact with people, animals, or vectors.

The State shall review the substantiating data if requested by the local health department.

You may also wish to obtain the services of a private consultant to collect the site-specific data and submit such a system design to the Health Department for technical review. A site may be reclassified to Provisionally Suitable provided written documentation, including engineering, hydrogeologic, geological, or soil studies indicates to the local Health Department that a proposed septic tank system or a proposed alternative system can reasonably be expected to function satisfactorily.

Please be advised that you have the right to an informal review by this department. You also have the right to appeal under G.S. 130A-24, and to have the appeal held in Mecklenburg County

If you have any questions regarding this matter, please call me at 336-5570.

Sincerely,
Philo S. Walker R.S.

Philo S. Walker, R.S.
Individual Water and Wastewater Systems

Cc: Thomas I. Viar

DEP/ [redacted] OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES
DIVI [redacted] VIRONMENTAL HEALTH
ON-[redacted] WASTEWATER SECTION

400
#2

Sheet: _____
Property ID: 199-391-14
Lot #: L 75 SEC 3B
File #: 29346

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: W. Carol Matthews
APPLICANT: Thomas I. Ellis
ADDRESS: 2311 Providence Rd
DATE EVALUATED: 4-30-99
PROPOSED FACILITY: residence PROPOSED DESIGN FLOW (.1949) 360gpd /PROPERTY SIZE: .69
LOCATION OF SITE: 9416 Windy Hope Drive PROPERTY RECORDED:
WATER SUPPLY: ~~☐Private~~ ☐Public ~~☐Well~~ ☐Spring ☐Other
EVALUATION METHOD: ~~☐Augur Boring~~ ☐Pit ☐Cut
TYPE OF WASTEWATER: ~~☐Sewage~~ ☐Industrial Process ☐Mixed

PROFILE #	Slopes 10-20% .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	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS &LTAR
1	LS	0-7"	gr/cl	Fr/SE/SP/SS/SP	730" to Soil wetness	30"	N/A	None	US 125%/P2 IC
		7-30"	SBK/C	Fi/SE/SP/SP					
2	LS	0-6"	gr/cl	Fr/SE/SP/SS/SP	724" to Soil wetness	24"	N/A	None	US
		6-12	SBK/C	Fi/SE/SP/SP					
		12-24"	ABK/C	VFi/~~SE~~ Mix/SP/SS					

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

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): Unsuitable
EVALUATED BY: W.A. Mailis 5-3-99
OTHER(S) PRESENT: LSS T. Vian

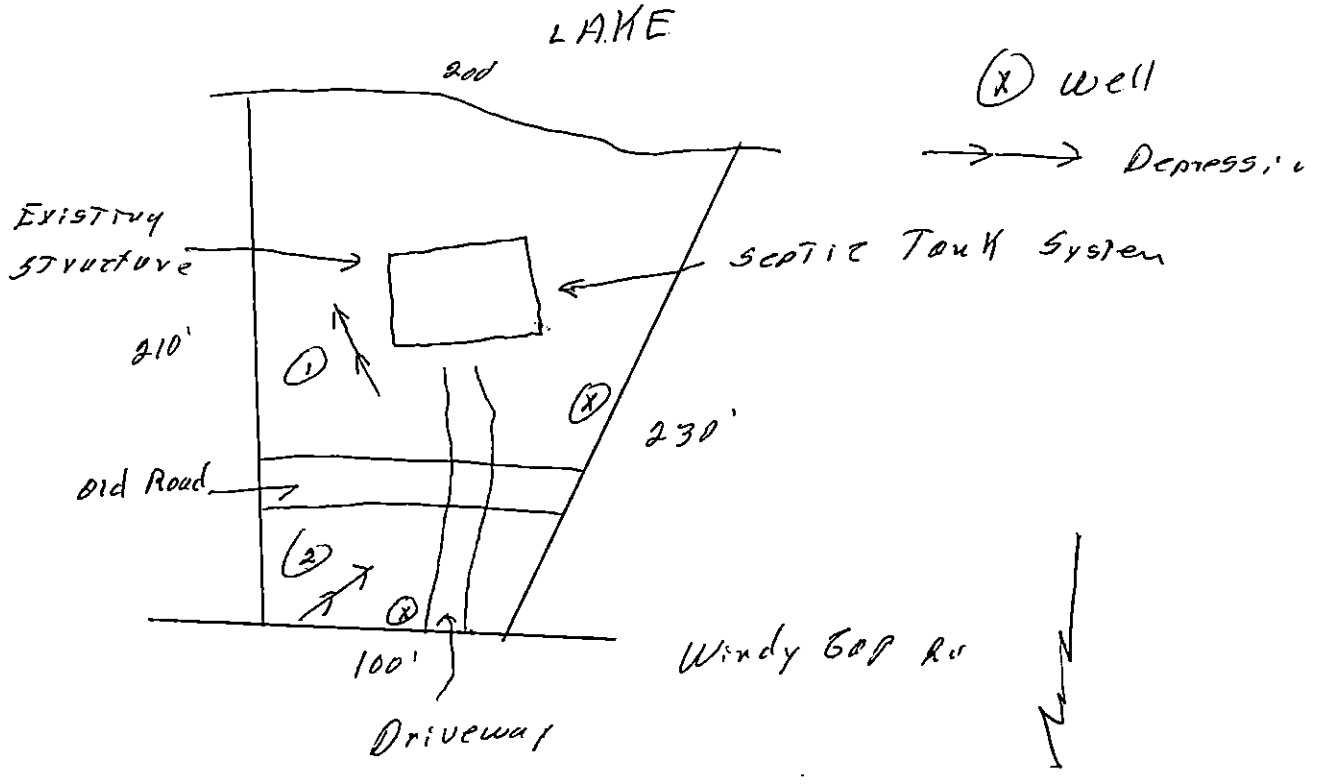
FILE #_____

COMMENTS_____

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



FEE: 100.00 CK/CA 1920
DATE: 4/19/99

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

[ ] CRT

TYPE APPLICATION: ✓ 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 #: 2534B

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 199-391-14

STREET ADDRESS: 9418 Windy Gap Rd

SUBDIVISION OR MOBILE HOME PARK NAME:

LOT NUMBER: 75 Sec 38

TYPE OF BUILDING (CHECK ONE):

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

TOWNSHIP (CHECK ONE):

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

HEATED SQUARE FOOTAGE: 2365.0

NUMBER OF BEDROOMS: 3 | NUMBER OF OCCUPANTS: 2

CLOSING DATE_____

FOUNDATION FOR RESIDENCE:

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

Cabin on lot with old system no record Built 1968

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

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

WATER SUPPLY (CHECK ONE):

__ COMMUNITY (C)
__ MUNICIPAL (M)
__ SHARED WELL (S)
__ OTHER 'SPRING (P)

6/15/99 Located existing system w/ Affordable septic Co. Tank 12" from foundation & drainfield located under the existing cabin. Appr 60' of drainfield line see plot plan

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

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

PROPERTY OWNER:	LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:
NAME: Matthews (LAST) H. (FIRST) Carol (MI)	NAME: Viar (LAST) Thomas (FIRST) I (MI)
ADDRESS: 2311 Providence Rd	DAYTIME PHONE: (704) 588-4234
CITY: Charlotte STATE: NC ZIP: 28211	9418 Windy Gap Rd
DAYTIME PHONE: ( ) —	Charlotte, N.C. 28208

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 1967

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: 4/19/1999

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

FEE: _____

DATE: _____

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

Paid 6/28/01 # 1226 30.00 RF.

[ ] CRT

TYPE APPLICATION: ___ NEW SYSTEM ✓ EXPANSION/ ALTERATION OF EXISTING SYSTEM ___ REPAIR OF EXISTING SYSTEM

Jenny

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

FILE #: ~~#60825~~ 25348

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 199-391-14

STREET ADDRESS: 9418 WINDY GAP RD - CHARLOTTE

SUBDIVISION OR MOBILE HOME PARK NAME:

LOT NUMBER: 75

TOWNSHIP (CHECK ONE): 1968

TYPE OF BUILDING (CHECK ONE):

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

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

HEATED SQUARE FOOTAGE: 2800 SF

NUMBER OF BEDROOMS: 3/4 | NUMBER OF OCCUPANTS: 4

CLOSING DATE_____

FOUNDATION FOR RESIDENCE:

___ WITHOUT BASEMENT
___ ON SLAB
___ CRAWL SPACE
✓ 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 ✓ 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	WELL, SPRINGS OR WATERLINES	✓ YES ___ NO
EXISTING WASTEWATER SYSTEMS	✓ YES ___ NO	DESIGNATED WETLANDS	___ YES ✓ NO
EASTMENTS OR RIGHT-OF-WAYS	✓ YES ___ NO		

PROPERTY OWNER:

NAME: MATHEWS (LAST) HUBERT (FIRST) C (MI)

ADDRESS: 954 Cherokee Road

CITY: Charlotte STATE: NC ZIP: 28207

DAYTIME PHONE: (704) 335-0492

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: (LAST) (FIRST) (MI)

DAYTIME PHONE: ( ) -

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? 8-08-77

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: H. Carroll Mathews DATE: 6/21/01

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

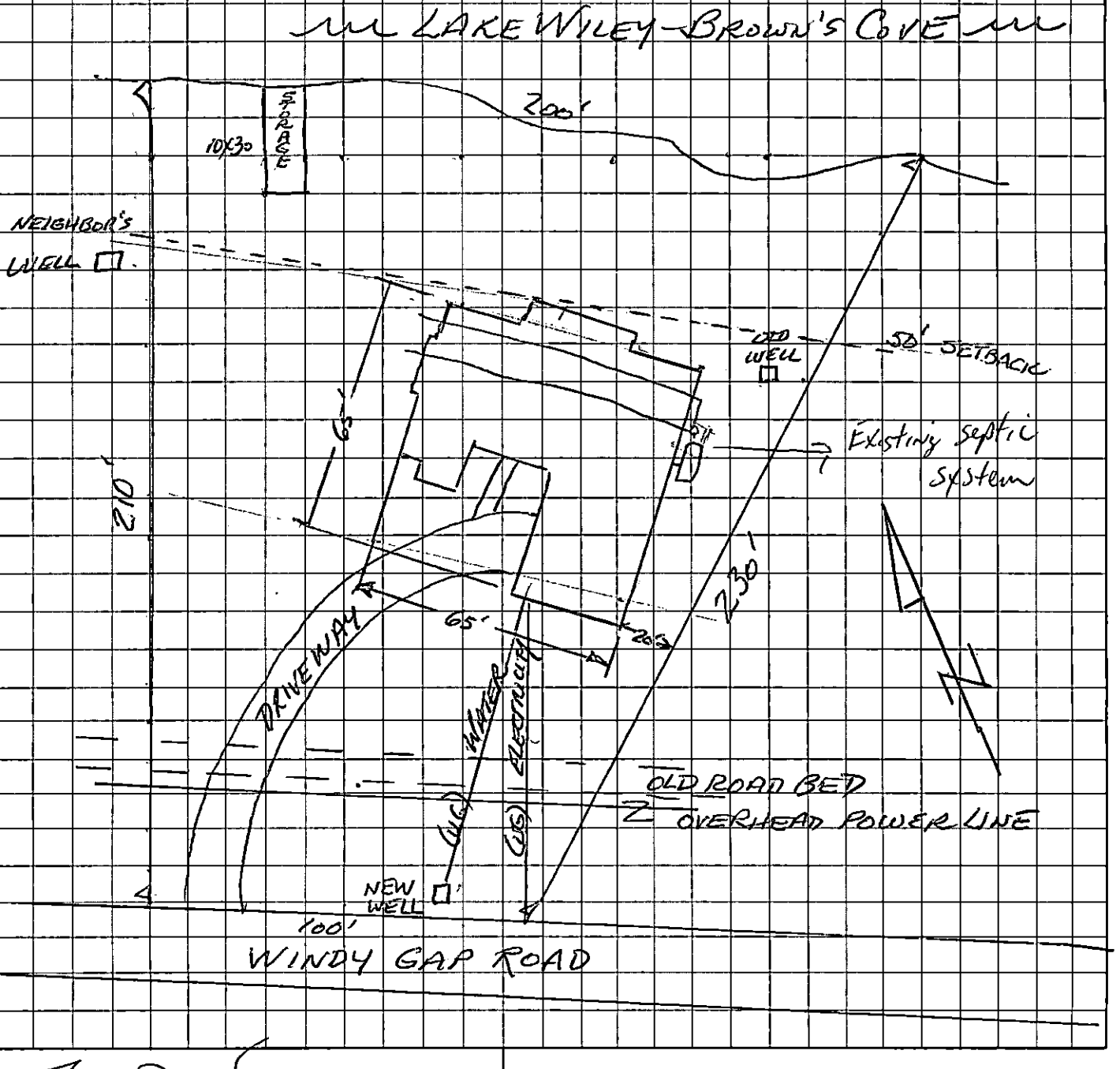
PROPOSED PLOT PLAN

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

FILE: 2934B

TC: 199-391-14

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 4/19/94

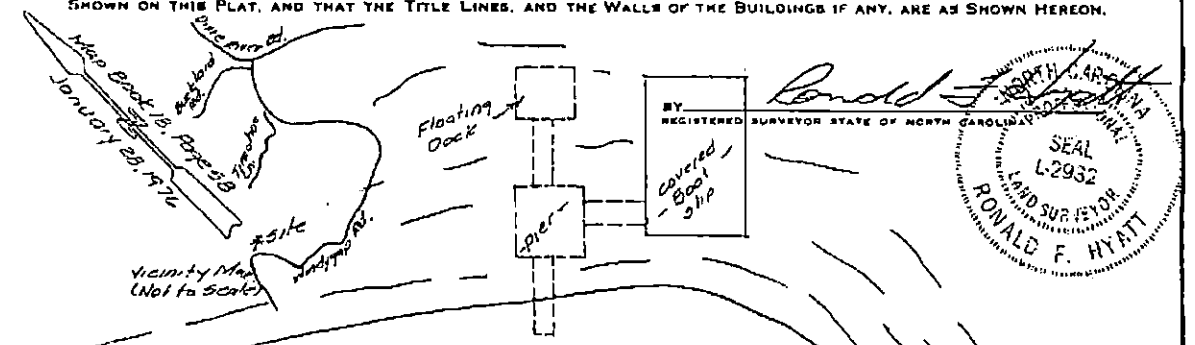
APPROVAL DATE _____

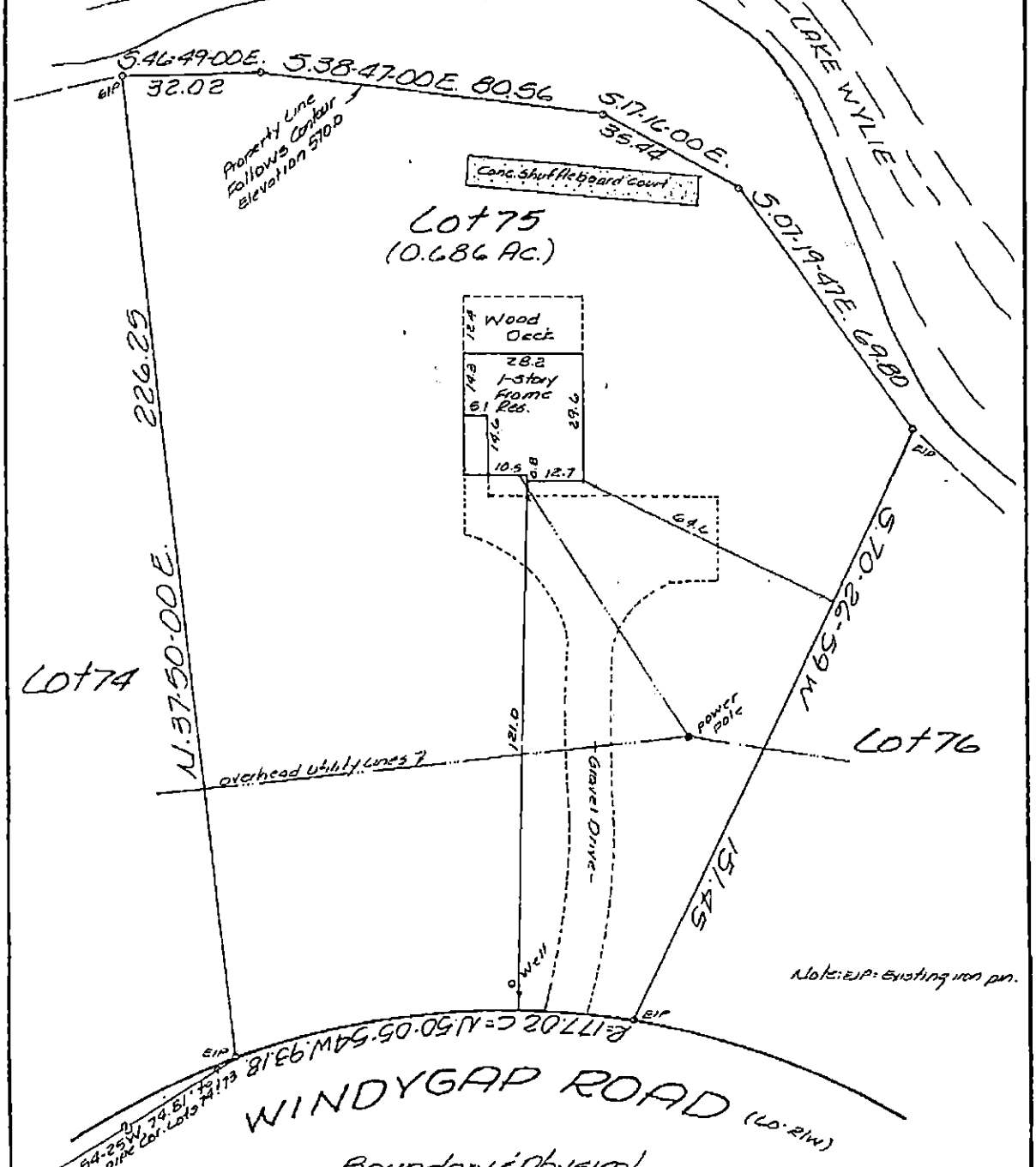
White - Health Department's Copy Canary - E.H.S. Copy Pink - Owner's Copy

THIS IS TO CERTIFY THAT ON THE 25th DAY OF October 2005 I SURVEYED THE PROPERTY SHOWN ON THIS PLAT, AND THAT THE TITLE LINES, AND THE WALLS OF THE BUILDINGS IF ANY, ARE AS SHOWN HEREON.

BY Ronald F. Hyatt
REGISTERED SURVEYOR STATE OF NORTH CAROLINA

SEAL L-2932 LAND SURVEYOR RONALD F. HYATT





Note: E.I.P. = Existing iron pin.

Boundary & Physical SURVEY OF
LOT IN Steele Creek TOWNSHIP, Meck. COUNTY, NORTH CAROLINA, IN THE CITY
OF _____ ON Windygap Road HOUSE NO. 9918 SHOWN AS LOT NO. 75
IN BLOCK NO. _____ ON MAP OF Cleared Land & Timber Co/P. Sec. 38 Lake Wylie Recreation Lots MAP RECORDED IN BOOK 18 PAGE 58
DEED RECORDED IN BOOK _____ PAGE _____ OFFICE OF THE REGISTER OF DEEDS FOR Mecklenburg
COUNTY, N. C. THE PROPERTY OF Steven Keblin

SCALE - 1" = 30 FT. DATE 10-25-2005

RONALD F. HYATT, SURVEYOR
132 E. MAIN STREET

JAN-13-2006 13:54 P.02

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

Sheet: 1 of 2
Property ID: 199-391-14
Lot #: L35 Section 38
File #: 2934B
Code: 2

AC5

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Michael G. Kivi
Applicant:
Address: 9418 Windy Gap Road, Charlotte, N. C. 28278
Date Evaluated: 1/5/06
Proposed Facility: Residence
Design Flow (.1949): 240gpd
Property Size: .69a
Location of Site: 9418 Windy Gap Road, Charlotte, N. C. 28278
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
1	LS, 15	0-7	GR/CL	FR/SEXP/SS/SP	>55" TO SOIL WETNESS	55	N/A	NONE	PS, IV. .25GPD/FT^2
		7-48	SBK/ABK/C	FI/SEXP/S/P					
		48-55	WKSBK/CL	FR/SEXP/SS/SP					
2	"	0-15	DISTURBED		>53" TO SOIL WETNESS	53	"	"	"
		15-19	GR/CL	FR/SEXP/SS/SP					
		19-39	SBK/ABK/C	FI/SEXP/S/P					
		39-53	WKSBK/CL	FR/SEXP/SS/SP					
3	"	0-9	GR/CL	"	>49" TO SOIL WETNESS	49	"	"	"
		9-38	SBK/ABK/C	FI/SEXP/S/P					
		38-49	WKSBK/CL	FR/SEXP/SS/SP					

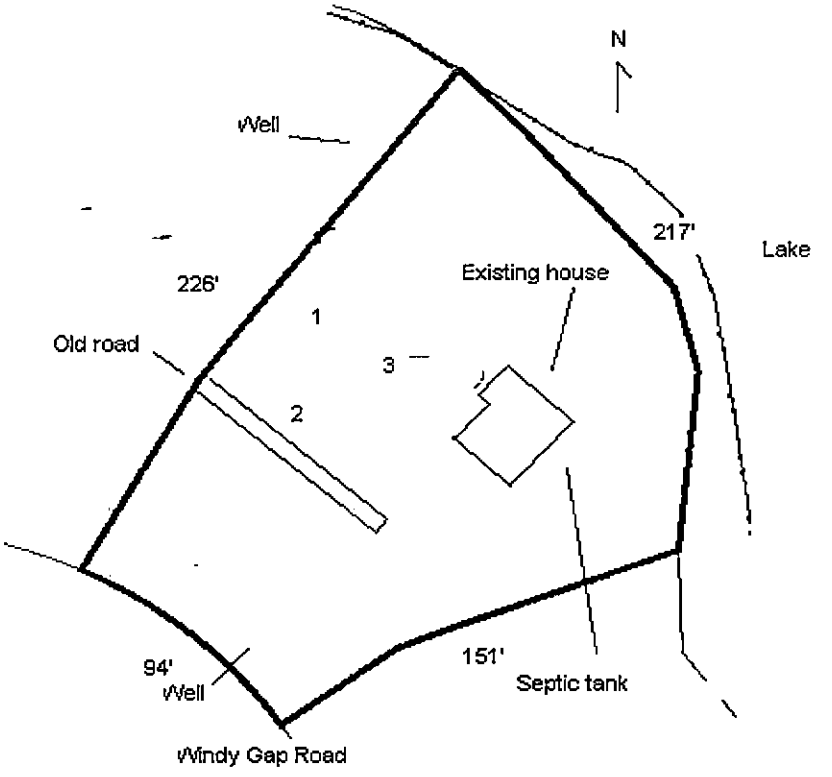
Description	Initial System	Repair System
Available Space (.1945)	US	
System Type(s)		
Site LTAR	.25GPD/FT^2	

Other Factors (.1946):
Site Classification (.1948): UNSUITABLE
Evaluated By: W. R. Marlin, LSS, 1/5/2006,
Others Present:

COMMENTS:
Does not require 100% repair, would need pump, possible subsurface interceptor drain

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-Food 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				
FP-Flood Plain		CL-Clay Loam		
		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	



Check 1187 JRA

FEE: 300.00
DATE: 1/26/06

AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION

PERMIT NUMBER: 2934B
PARCEL NUMBER: 19939112

JOB LOCATION ADDRESS: 9418 Windy Gap Rd.
PROPERTY OWNER: Mr. and Mrs. Mike Kivi
BUILDING CONTRACTOR: n/a
SUBDIVISION NAME: n/a
AUTHORIZATION ISSUED BY: Zach Petersen DATE: 1/30/06

Zach Petersen EH&HS
DENR/DEH AUTHORIZED AGENT

AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NUMBER #, AND THE ATTACHED SITE PLAN WITH SYSTEM DETAILS. CONSTRUCTION AND INSTALLATION MUST ALSO MEET ALL REQUIREMENTS SET FORTH IN THE RULES GOVERNING SANITARY SEWAGE COLLECTION, TREATMENT, AND DISPOSAL AND ANY OTHER APPLICABLE RULES AND LAWS.

2. AN *INSTALLATION, CONSTRUCTION, ALTERATION AND/OR REPAIR APPROVAL* MUST BE SECURED PRIOR TO INSTALLATION OF THE SEPTIC TANK SYSTEM. THE INSTALLER OF THE SYSTEM SHALL BE A REGISTERED SEPTIC TANK CONTRACTOR WITH THE MECKLENBURG COUNTY HEALTH DEPARTMENT.

3. ANY ALTERATION IN SITE OR SOIL CONDITIONS (INCLUDING LOCATION OF STRUCTURES AND APPURTENANCES), OR MODIFICATION IN USE, DESIGN WASTEWATER FLOW, OR WASTEWATER CHARACTERISTICS AS SPECIFIED IN THE ASSOCIATED IMPROVEMENT PERMIT AND APPLICATION, MAY SUBJECT THIS CONSTRUCTION AUTHORIZATION AND ASSOCIATED PERMIT(S) TO REVOCATION.

4. THIS CONSTRUCTION AUTHORIZATION AS PROVIDED IN G.S. 130A-335(f) AND G.S. 130A-336(b) SHALL BE VALID FOR A PERIOD EQUAL TO THE VALIDITY OF THE IMPROVEMENT PERMIT, NOT TO EXCEED 60 MONTHS.

5. OTHER CONDITIONS:
   Owner Agreement forms for site reclassification shall be on file prior to issuance of Construction Authorization.
   This type of septic system requires an inspection once every 3 years by our office. The system owner is responsible for any fees, as determined by the Mecklenburg Co. Board of Commissioners, associated with this inspection.
   This type of septic system requires a Certified Operator to maintain the system. A system maintenance contract with a Certified Operator must be on file prior to issuance of an Operation Permit.
   100% repair area is not required for this property. However, the maximum feasible area shall be allocated for a repair area.
   Septic system shall be installed in accordance with the plans submitted by the wastewater system design consultant.
   All components of the septic system must be located at least 100ft. (50 min.) from all private wells.

CONDITIONS OF IMPROVEMENT PERMIT / CONSTRUCTION AUTHORIZATON

Permit Number: **2934B** Tax Number: **19939114**

- The IMPROVEMENT PERMIT is subject to revocation if site plans or the intended use change. There is to be **NO** grading, filling, or disturbance of the soil in the area of the septic tank system or repair area.
- CONSTRUCTION AUTHORIZATION must be obtained prior to receiving a Building Permit. The Construction Authorization is **NOT** transferable. Do not clear, grade, fill or disturb soil prior to obtaining a Construction Authorization.
- Domestic-type wastewater only. No industrial process wastewater may be discharged into the system.

Basement: ☐ Yes ☒ No ☐ Partial Basement

Primary Wastewater System

Type: ☐ I ☐ II ☐ III ☒ IV ☐ V ☐ VI

☐ Conventional
☒ Prefabricated, permeable block panel system
☐ Shallow Placed Conventional
☐ Low Pressure Pipe
☐ Large Diameter Pipe
☐ Fill
☐ Other
☐ Innovative or Experimental:

.25 Long-term acceptance rate (GPD/ft^2)	360 Max gallons/day wastewater flow	1500 Absorption Area (ft^2)	9' Trench spacing (min. on centers) (ft)
Serviced by private well: ☒ Yes ☐ No	1500 Gallon septic tank	242 Total trench length (ft)	24 Maximum trench depth (in) (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions.)
3 Bedrooms in residence	1000 Gallon pump tank	NA Depth of stone (in)	

Any surface water present: **y** Type: **Lake Wylie** Minimum separation distance (ft): **50'**

Additional conditions: **Crush and fill old Septic Tank**
Owner Agreement forms for site reclassification shall be on file prior to issuance of Construction Authorization.

Repair Area System

Type: ☐ I ☐ II ☐ III ☐ IV ☐ V ☒ VI

☐ Conventional
☐ Prefabricated, permeable block panel system
☐ Shallow Placed Conventional
☐ Low Pressure Pipe
☐ Large Diameter Pipe
☐ Fill
☒ Other no 100% Repair
☐ Innovative or Experimental:

_____ Absorption Area (ft^2) ____ Total trench length (ft)	__ Depth of stone (in)	__ Trench spacing (min. on centers) (ft)	__ Maximum trench depth (in)

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws and Rules For Sewage Treatment, and Disposal Systems in effect at the time of issuance of the permit and is subject to the following provisions:

*** No work shall be conducted on the septic tank system until an Installation, Construction, Alteration and/or Repair Approval is granted by this Department.

*** This Improvement permit is transferable.

EHS/RS 1/31/06
DENR Authorized Agent Date

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 N. TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE: (704) 336-5103
FAX: (704) 336-6894

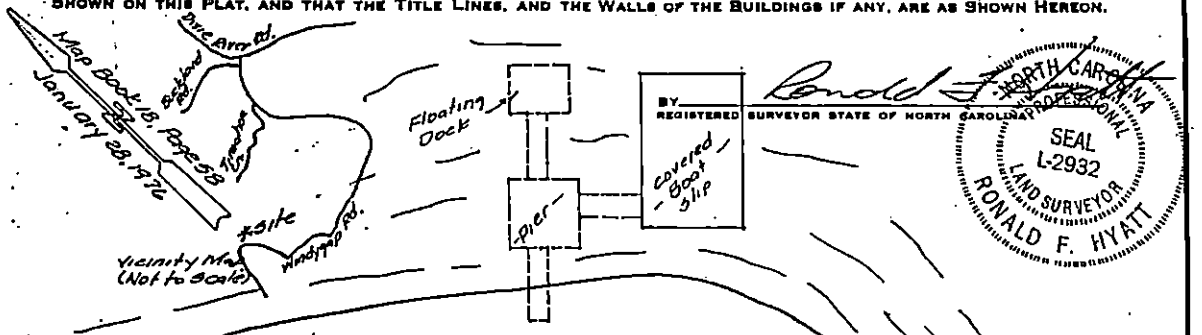
Carol Lewis 2-6-06
Owner/Agent Signature Date

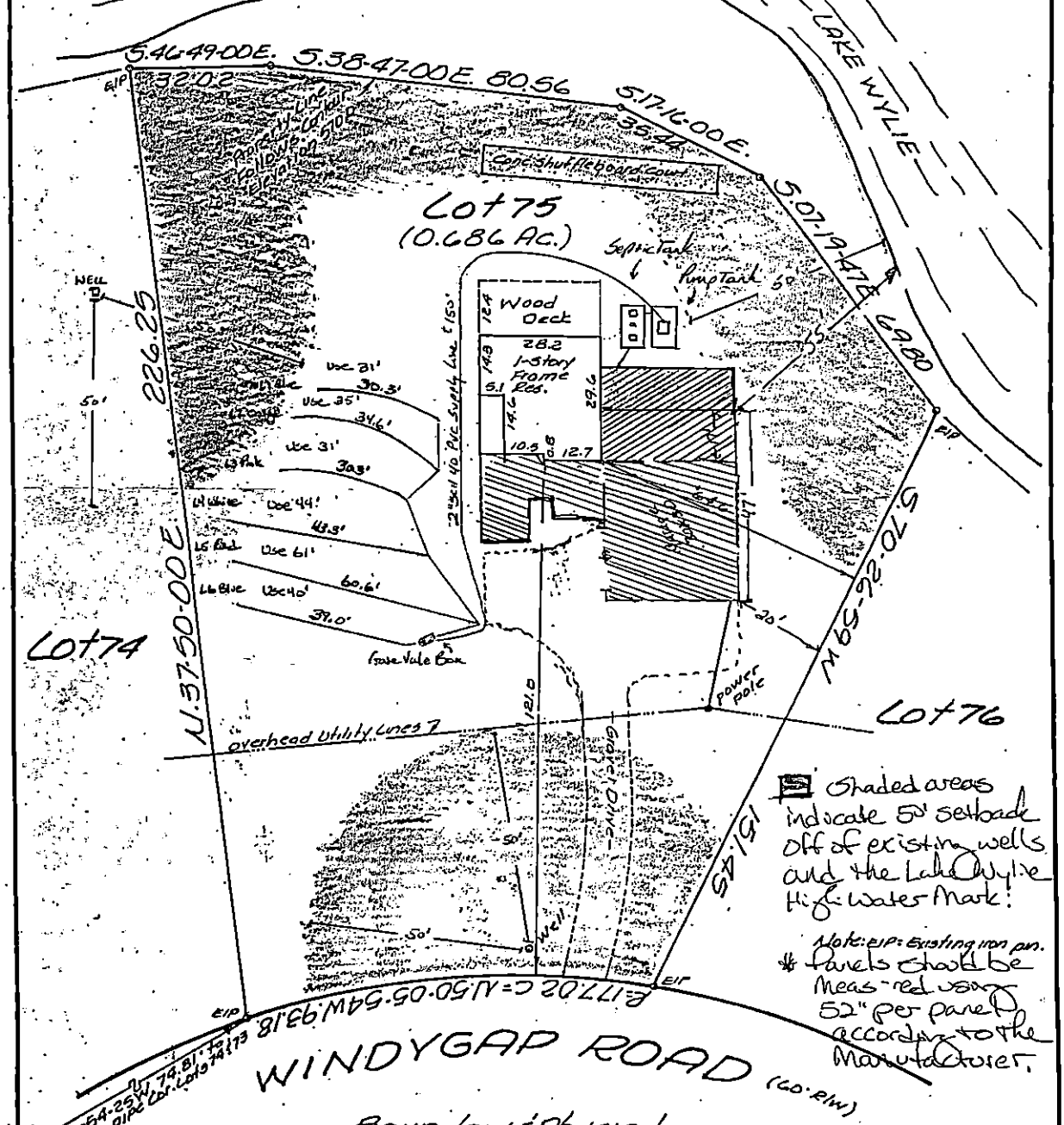
NC DENR
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

THIS IS TO CERTIFY THAT ON THE 25th DAY OF October 2005 I SURVEYED THE PROPERTY. SHOWN ON THIS PLAT, AND THAT THE TITLE LINES, AND THE WALLS OF THE BUILDINGS IF ANY, ARE AS SHOWN HEREON.

BY Ronald F. Hyatt REGISTERED SURVEYOR STATE OF NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL L-2932 LAND SURVEYOR RONALD F. HYATT





Shaded areas indicate 50' setback off of existing wells and the Lake Wylie High Water Mark.

Note: E.I.P.: Existing iron pin.
* Yards should be measured using 52" per yard according to the Manufacturer.

Boundary & Physical SURVEY OF

LOT IN Steele Creek TOWNSHIP, Meck. COUNTY, NORTH CAROLINA, IN THE CITY OF _____ ON Windygap Road HOUSE NO. 9418 SHOWN AS LOT NO. 75

IN BLOCK NO. _____ ON MAP OF Eisedam Land & Timber Corp. Sec. 3B Lake Wylie Recreation Lots MAP RECORDED IN BOOK 18 PAGE 58

DEED RECORDED IN BOOK _____ PAGE _____ OFFICE OF THE REGISTER OF DEEDS FOR Mecklenburg

COUNTY, N. C. THE PROPERTY OF Steven Keblin

SCALE - 1" = 25 FT. DATE 10-25-2005

RONALD F. HYATT, SURVEYOR
132 E. MAIN STREET
MARSHVILLE, N.C. 28103
704-624-3340

8172381

Residential Subsurface Wastewater Treatment and Disposal System Design

for

9418 Windy Gap Road
Charlotte, North Carolina

Tax Parcel # 199-391-12
Mecklenburg County File # 2934B
January 23, 2006

VOID

Prepared for:

Mr. and Mrs. Mike Kivi
9418 Windygap Road
Charlotte, NC 28278

Prepared by:

Thompson Environmental Consulting, Inc.
Larry Thompson, RS, PWS
Orchard Ridge Road
Locust, NC 28097-8748
larry@thompsonenv.com
Phone: 704-301-4881
Fax: 704-888-1496

NORTH CAROLINA REGISTERED SANITARIAN LARRY B. THOMPSON, JR.

CC: Mecklenburg County Environmental Health

Details

In an application for an Improvement Permit filed with the Mecklenburg County Health Department (MCHD), the existing residence was proposed to be renovated into a 3-bedroom residence served by a private well. Based upon this information, a septic system inspection was performed in order to determine if the existing system would support the proposed improvements. At the time of the inspection, a portion of the existing system was discovered to be underneath the rear deck and an Improvement Permit could not be issued. A follow up soil and site evaluation was conducted by the MCHD where the lot was determined to be "Unsuitable" for the installation of a new subsurface wastewater treatment and disposal system in accordance with the *Laws and Rules for Sewage Treatment, and Disposal Systems* 15A NCAC 18A .1900 (North Carolina Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section).

Upon further investigation by Thompson Environmental Consulting, Inc. (TEC), and a change in building plans by the owner, it was determined that a sufficient amount of "Suitable" Group IV soils are located on the property which would allow for the installation of a Type IV pressure dosed prefabricated porous block panel system (PPBPS) for a 3-bedroom residence. It is the desire of the owner that the MCHD consider reclassifying this lot as "Suitable", allowing for the issuance of a Construction Authorization, based upon the following proposal.

Location

The subject property is located 9418 Windy Gap Road, Charlotte, North Carolina. From downtown Charlotte, travel south on I-77, bear right onto I-485 west. Continue on I-485 west taking the Steele Creek Road (NC 160) exit. Turn right onto NC 160 and left onto SR 1155 (Dixie River Road). Continue on Dixie River Road approximately 1.7 miles and turn left onto Windy Gap Road. 9418 Windy Gap Road is approximately 0.9 mile on your right.

References

Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, February 1, 2005.

Onsite Wastewater Treatment and Disposal Systems; EPA 625/R-00/008 Design Manual, February 2002.

Design, Installation and Maintenance of the T & J Panel Wastewater Treatment System; Sixth Edition, published by T & J Panel.

Design and Installation of Low Pressure Pipe Wastewater Treatment Systems; by Craig Cogger, Bobby Carlisle; Dennis Osborne and Ed Holland. Published by UNC Sea Grant College Pub. UNC-SC-82-03, May 1982.

Plans and Specifications

Septic Tank

- The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and 1500 gallons in capacity.
- The septic tank will be fitted with an approved effluent filter and riser for easy access and periodic maintenance.
- It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tank has had time to properly cure and is free of cracks or other structural deficiencies.

Pump Tank

- The pump tank shall be State approved, of one-piece construction, watertight, structurally sound and 1000 gallons in capacity. Again, it is the responsibility of the septic tank contractor to thoroughly inspect each pump tank prior to accepting delivery.
- The pump tank shall have access risers that extend, at a minimum, 6 inches above finished grade and must have less than 36 inches of fill over its top once finished grade has been established (a reinforced concrete tank will be required if finished soil cover is 36 inches or greater in depth).
- The pump and alarm controls shall be provided with manual circuit disconnects within a watertight, corrosion resistant, Nema 4X rated control panel. The control panel must be securely mounted outside, adjacent to the pump tank riser and at a minimum of 12 inches above finished grade. Pump and float control wiring should be long enough to reach from the tank to the control panel without splicing, routed through wire conduit, and sealed at the openings within the pump tank as well as the control panel enclosure. It is paramount that the conduit is properly sealed to prevent the escape of flammable gases from the pump tank. Furthermore, there must be two electrical circuits for the pump tank controls: one for the pump and one for the alarm controls.
- The pump tank shall have a properly functioning high water alarm incorporated into the control panel. The alarm circuit shall be supplied separate from any pump overload and short circuit devices. The alarm shall be both audible and visible by the system users.
- The float switch for the high water alarm should be mounted at a location slightly above the "pump on" elevation for the pump float control switch. The high water alarm float switch shall not be set more than 3 inches above this elevation.

- Pump float(s) shall be mounted so that the effluent at the end of a pump cycle is above the top of the effluent pump. The septic contractor must determine pump draw down and set the float switch accordingly.
- Float switch tie downs must be made of a corrosion resistant material (do not use electrical tape or metal hose clamps to secure these switches). Floats should be mounted on a separate "float tree" rather than the pump supply line (see pump tank detail).
- The pump must be placed on two 4-inch concrete blocks to allow for some settling of solid particulates within the pump tank.

Pump Tank Effluent

- The pump discharge piping shall be fitted with a pressure effluent filter. The filter must be equivalent to the GAG Sim Tech Filter, Boyne City, Michigan, 49712, telephone: 1-888-999-3290. This device provides a very high degree of filtration and is highly recommended.

Pipe and Fittings

- All discharge piping, supply lines, valves and disconnects should be made of PVC.
- All joints must be properly "welded" utilizing the appropriate PVC cement for each application.
- The supply line from the pump tank to the pressure manifold shall be 2 inch Schedule 40 PVC (approximate length of supply line is 150 feet).
- The lateral distribution lines shall be 1¼ inch Schedule 40 PVC. Holes in the laterals should be drilled on site and at the 12 o'clock position (one hole per panel). Lateral hole size is 5/32 of an inch.
- There shall be a threaded PVC union above each pump to facilitate easy removal of the pumps for maintenance or replacement.
- The end of each lateral is to be provided with a "turn up", contained within a turf/gate valve box, that provides above ground access for periodic clean out and pressure head adjustment.

Supply Manifold

- The control valves (gate valves) for each lateral distribution line shall be contained within one manifold box/vault of adequate size. The box should be placed upon a gravel base.
- The supply manifold conveys effluent from the pump to the lateral distribution lines.
- The supply manifold should be constructed by connecting a series of (6) 2" x 2" x 1 ¼" tees to the 2 inch supply line (see manifold detail).

Backfill

- Backfill sand shall be a clean, washed, medium sand that is naturally occurring and falls within the gradation of ASTM C-33 specification (used in the ready mix industry and is readily available).

Drain Field Installation

- The drain field has been previously laid out on-site utilizing metal stemmed flags. Once this area has been approved by the MCHD, the property owner/builder should mark this area and isolate it as much as possible from construction traffic. Prior to the system installation, the septic contractor shall contact the MCHD and the system designer for a preconstruction conference at which time the drain field area will be re-verified.
- Under no circumstances shall any construction take place within the drain field area while the soil is in a wet condition. If the installer has doubts as to whether or not the drain field area is dry enough to begin construction, the Mecklenburg County Health Department should be contacted for permission to proceed with the installation.
- The specified system is a Type IVa, pressure dosed, pre-fabricated permeable block panel system – specifically the 16 inch high panel system manufactured by T&J Panel Wastewater Treatment System, Patent No. 4013559; telephone: 1-800-222-2577. The installer must follow the manufacturer's guidelines for installing the T&J Panel System and should request an installation manual from the manufacturer prior to beginning construction.
- The initial drain field consists of (6) lateral trenches to be constructed 3 feet wide by varying lengths (Actual line lengths using manufacturer's recommendation of 52 inches per panel: Line 1 = 30.3', Line 2 = 34.6', Line 3 = 30.3', Line 4 = 43.3', Line 5 = 60.6', Line 6 = 39'). Based upon Mecklenburg County's recommendation (slightly modified) actual line lengths should be adjusted to the following: Line 1 = use 31 feet, Line 2 = use 35 feet, Line 3 = use 31 feet, Line 4 = use 44 feet, Line 5 = use 61 feet, Line 6 = use 40 feet. It is essential that the lateral trenches be constructed on contour with the land, with each trench being excavated level from beginning to end. The use of a tripod mounted engineer's level is essential to assure that each trench is constructed as level as possible.
- The maximum trench depth for this system shall be 30 inches and each trench shall be placed on a minimum of 9 foot on centers.
- Once trenches are dug, the side walls shall be raked and a light dusting of lime applied.
- Backfill the trench with 6 inches of sand and level to grade. Once leveled, place 1 x 4 or 6 inch boards on top of the sand the entire length of each trench. Once the grade boards have been set, the panels may be set into the trench. The panels should be placed 6 inches apart.
- Once the panels have been set, line the top chamber of each panel with 10 – 12 pounds of clean particle sand (medium sand blasting sand). Coverage depth should be approximately 1 inch thick. *Please note that this sand is not the same material specified for backfill.*

- Tar seal rope should be placed in the "U" outs of each end of the panel to form seals. Once the tar rope is in place, the 1 ¼ inch Schedule 40 PVC laterals can be added and the seal completed by the addition of more tar rope on the top and sides of the pipe. Now that the connection and seals are complete, a block cap is placed on each end of the panel so that all openings are covered.
- The end of each lateral should be fitted with a short turn up topped by a threaded female coupling with cap. Each turn up must be fitted with a turf/gate valve box with lid fitted flush to finished grade.
- Once the lateral has been installed and the panels closed, the trench is ready to be backfilled to the top with the sand used in the trench bottom. At this point, the trenches should be left open for the final inspection by the MCHD.

Proper Operation Check

- After all components of the waste water disposal system have been installed and connected, the system shall be checked for proper operation.
- With the electrical power turned off, fill the pump tank with water until the liquid rises to a level high enough to activate the high water alarm float. Turn on the electrical power. The alarm, alarm light and pump should activate at this time. Turn off the electrical power once these checks have been performed and prepare to set the head pressure at the manifold box.

Pressure Head Adjustment

- The pressure head must be adjusted to match the design specifications. The pressure head is measured by the height of the liquid coming from the turn ups at the end of each lateral when the pump is running (utilizing stand pipes).
- Prepare a length of pipe (stand pipe), cut to the desired head pressure height and fitted with a threaded adapter that will screw into the turn up couplings at the end of each lateral. Thread the stand pipes into each lateral and then turn the power on to the pump, allowing the water to rise within the stand pipes. Adjust the gate valves within the supply manifold box to achieve the specified head pressure (liquid height in the stand pipes should equal the design head pressure).
- Once the pressure head has been adjusted, allow the pump to run through the remainder of the cycle. The pump float switch will automatically turn the pump off if it is operating properly. Make sure that the effluent pump is completely submerged in the remaining water, making adjustments to the float switch(es) as needed. This completes the checks for proper operation of the pump, alarm and float switches.
- At this point, the standpipes may be removed and replaced with the threaded turn up caps.

Final Landscaping

- The drainfield shall be shaped to shed rainwater and be free from low spots.
- The entire area of the drainfield should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized

prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

Utility Conflicts

- The builder and property owner must take special care in planning for water, power, gas, telephone and cable lines. These utilities shall be kept clear of all parts of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage. If there are any questions regarding preferred routes, contact the MCHD as soon as possible.

Well and Lake Setbacks

- All parts of the septic system shall be, at a minimum, 50 feet from any well or the high water mark for the lake.

Maintenance

Operation and Maintenance

The designed system is classified as a Type IVa wastewater treatment and disposal system and will require ongoing maintenance. State regulations require that a system of this type be managed by a person certified (Certified Subsurface System Operator) by the North Carolina Department of Environment and Natural Resources to operate subsurface wastewater systems (Section .1961 Maintenance of Sewage Systems). A "Maintenance Contract" between the system owner and a Certified Operator will be required by the MCHD prior to the issuance of a final system approval or Operation Permit.

- The minimum inspection/maintenance and reporting frequency for a Type IVa system is twice a year by the Certified Operator. The local health department is required to inspect the system once every three years.
- The septic and pump tanks shall be pumped every 4 years or when the solids within the septic tank reach an elevation that is equivalent to 1/3 of the volume of the tank. In some situations, the tanks may need to be pumped more frequently; for example, if you are using a garbage disposal, it is recommended that the septic and pump tanks be cleaned out annually. Regardless, the Certified Operator will be able to advise when it is necessary to pump out tank solids.
- Pressure head for laterals should be checked and adjusted semi-annually, flushing with clean water as necessary to remove any accumulated solids.
- The effluent filters should be inspected semi-annually. When it becomes necessary to clean the effluent filters, the filters should be removed and the accumulated debris washed back into the septic or pump tank – not onto the lawn.
- All piping and valves should be inspected semi-annually for damage and corrections/repairs made immediately.

- The pump and float controls/switches should be inspected semi-annually to assure proper operation
- The drain field area should be maintained to prevent over growth of vegetation. Any damp areas, leakages or malfunctions should be addressed immediately.
- Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

Suggestions to the Homeowner

- As previously mentioned, if you plan to use a garbage disposal in your home you should plan to have your septic and pump tanks cleaned out annually. The ground up garbage adds large amounts of solids into a septic tank that tend to degrade at a very slow rate.
- Grease, cooking oils, coffee grounds and non-degradable solids (disposable diapers, cigarettes and solid paper wastes) should never be put into a septic tank.
- Used motor oil or any oily liquids should not be disposed of in a septic tank.
- Be aware of the amount of water that you are using in your home. Water saving fixtures and devices can be installed on sinks, toilets and showers to reduce the volume of wastewater that you are sending to your drain field.
- Run dishwashers and washing machines only when you have a full load.
- Use liquid detergents. Powdered detergents have binding agents in them that tend to solidify in the wastewater disposal system.
- Repair leaky faucets and toilets. Small drips equal large volumes of water over time and can over burden your drain field.
- Do not use chemical additives in your system. Studies have indicated that they do not increase the biological activity that naturally occurs in the septic system and in some cases certain additives have been found to be detrimental to the life of a system.
- Finally, taking good care of your septic system will help to assure that you experience years of trouble free service at a relatively low cost. On-site wastewater treatment and disposal is still the most environmentally friendly method of treating residential/commercial waste and you should keep your system in use for as long as it is properly functioning! If you have additional questions, please feel free to contact your system designer or the MCHD.

Design Specifics
9418 Windygap Road

Daily Design Flow:	360 GPD – 3 bedroom house
Septic Tank Size:	1500 gallons (2 compartments)
Pump Tank Size:	1000 gallons (one piece)
Effluent Loading Rate:	Design = 0.25 GPD per sq. ft. (50 % reduction for the PPBPS)
Supply Length and Diameter:	Approx. 150 feet of 2 inch Sch. 40 PVC (please see note at the bottom of this page.)
Number and Size of Laterals:	(6) 1 1/4 inch x Varying Lengths (2) at 30.3', (1) at 34.6', (1) at 43.3', (1) at 60.6', and (1) at 39' * Line lengths obtained by using manufacturer's recommendation of 52 inches per panel.
Recommended Line Lengths:	Line 1 = use 31 feet Line 2 = use 35 feet Line 3 = use 31 feet Line 4 = use 44 feet Line 5 = use 61 feet Line 6 = use 40 feet Total Length = 242 Feet
Hole Size:	5/32 inch
Hole Spacing:	1 per panel = 55 total
Dosing Volume:	198 gallons per dose
Flow Rate Through System:	22.5 gallons per minute
Elevation Head:	14.0 feet (may vary, please see note at the bottom of this page)
Pressure Head:	2 feet
Pump Requirements:	22.5 GPM at 20.0 feet of head
Depth of Water Pumped:	9.43" (J&S STB-97-1000 used) check with individual tank manufacturer (1 cu. Ft. of water equals 7.5 gal.)

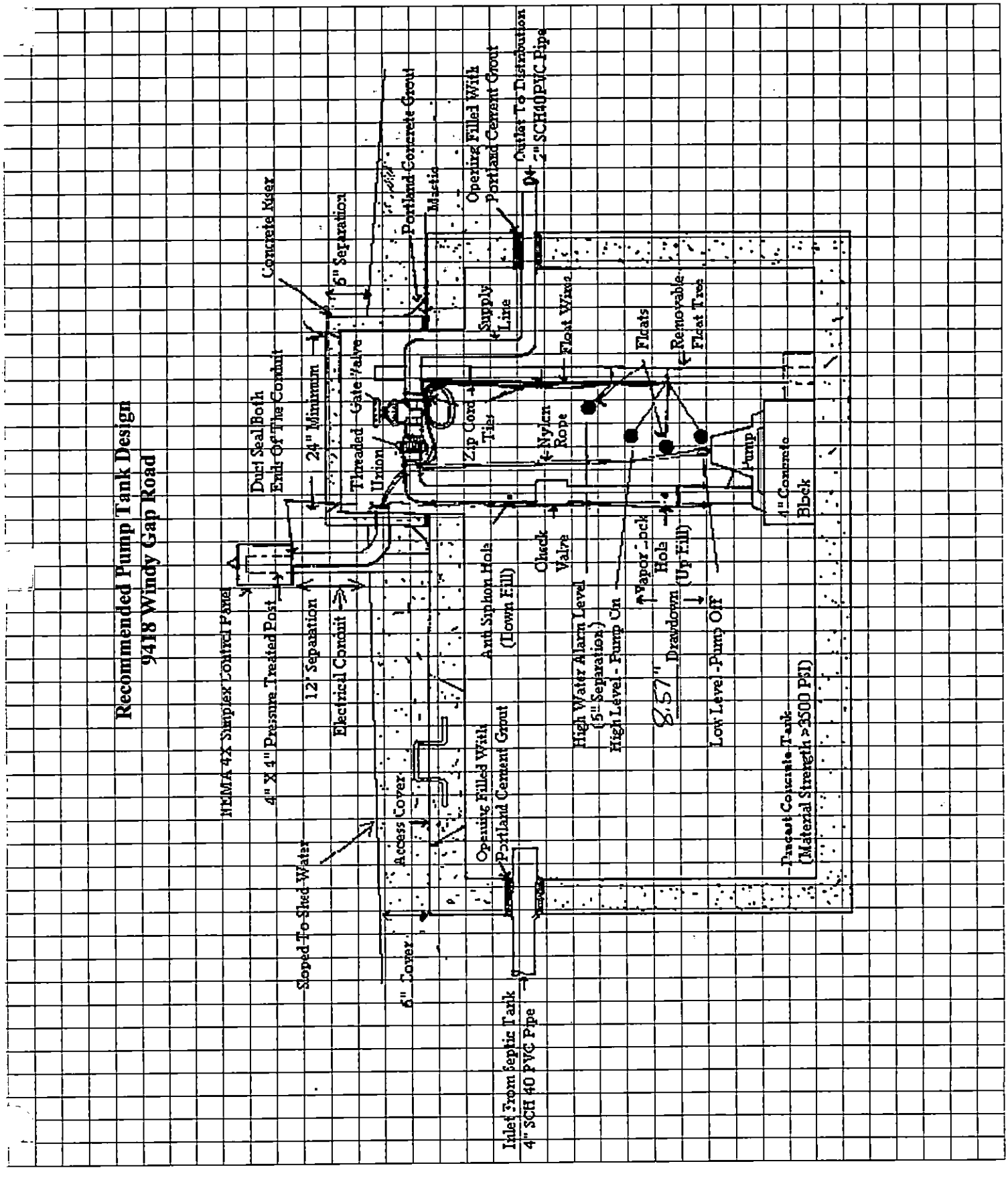
Pump Run:	8.78 minutes
Check Valve:	Yes
Vapor Lock Hole:	Yes (A vapor lock hole can reduce vibrations in the discharge pipe upon start up and shut down)

* Please note that supply line and elevation head measurements are approximate. It is the contractor's responsibility to confirm these values based upon the actual house and plumbing location. If there is a discrepancy, contact the system designer prior to beginning construction.

Thompson Environmental Consulting
114 Orchard Ridge Road
Locust, NC 28097-8748

Location: 9418 Windygap Road

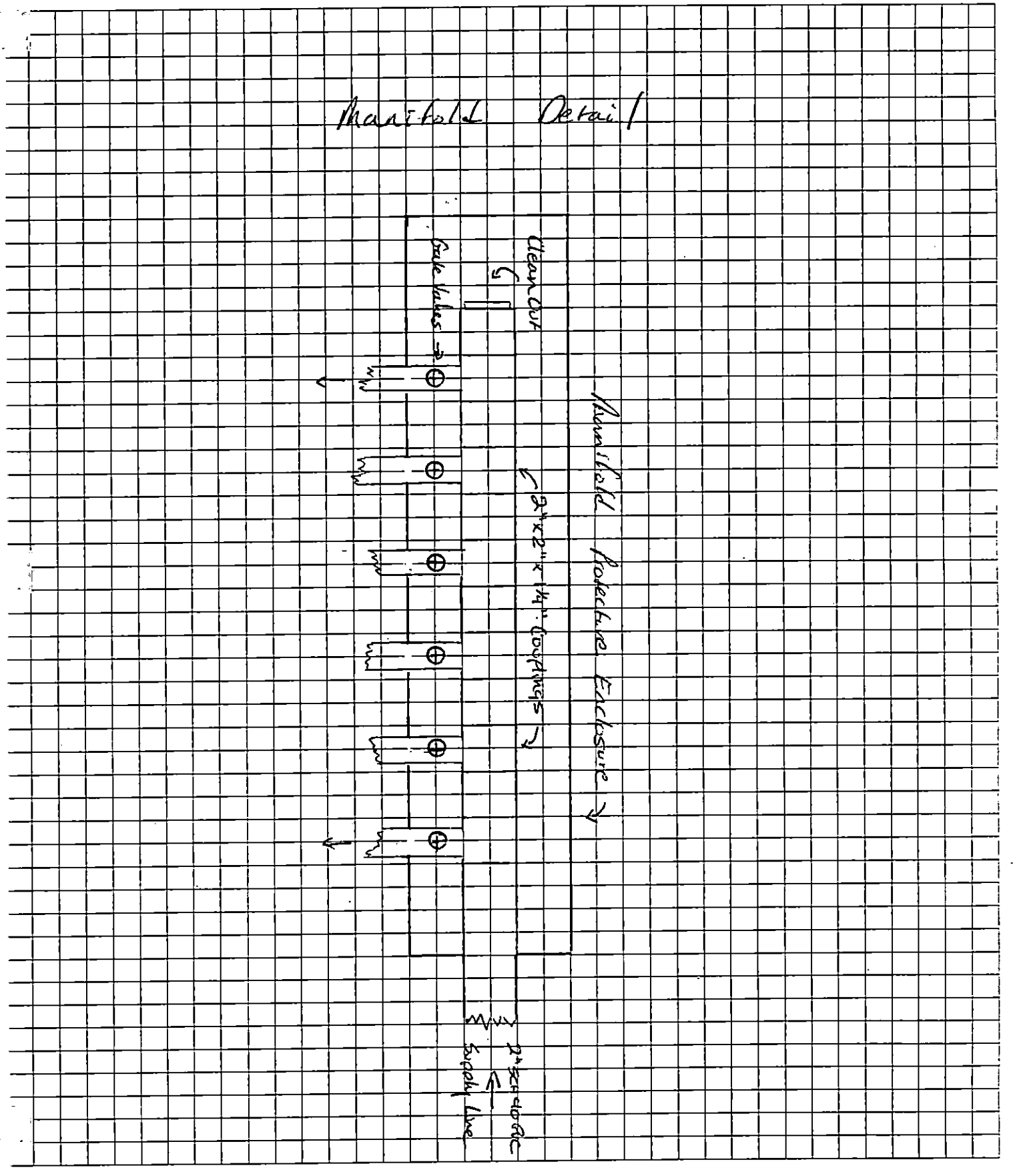
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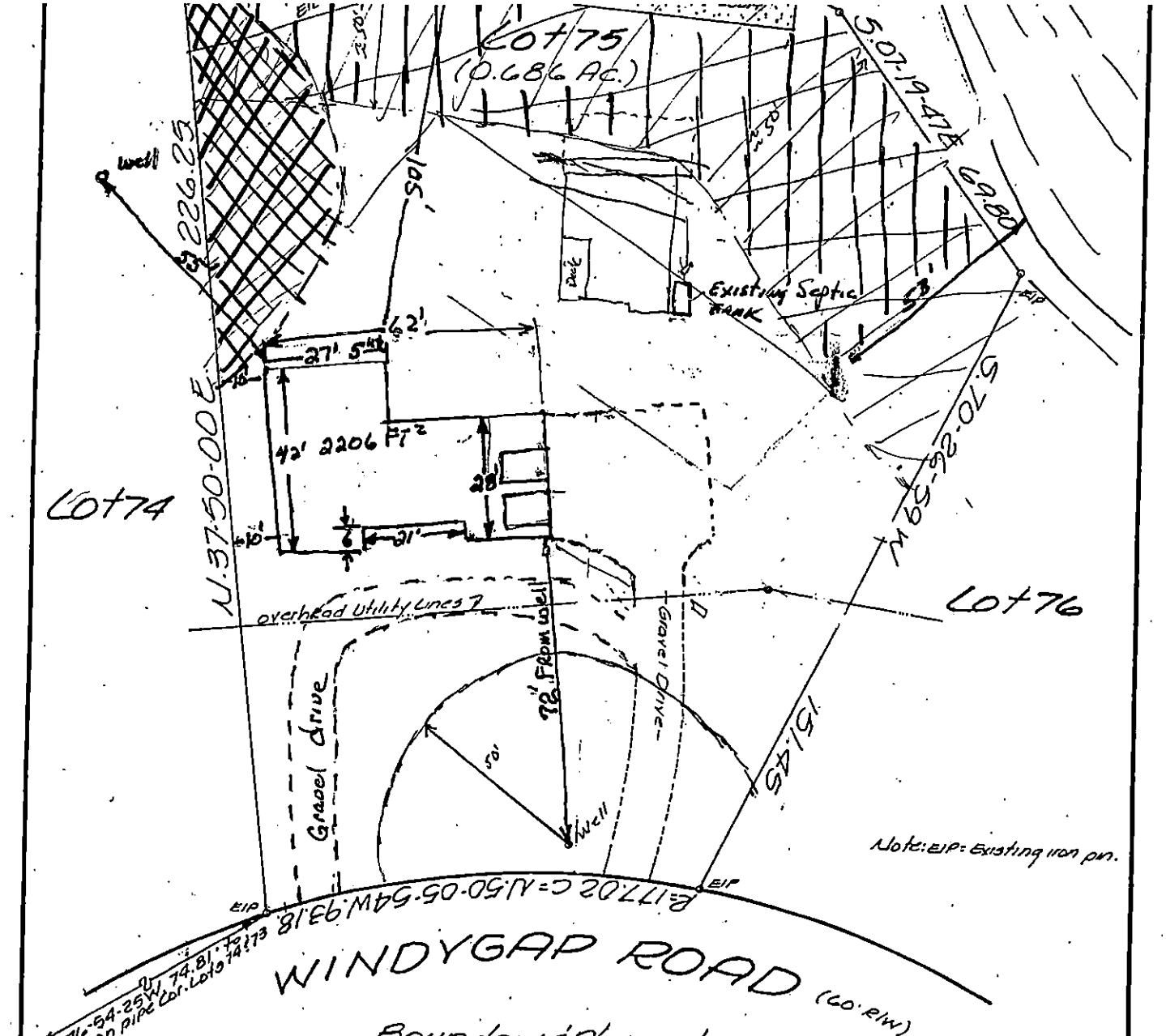


Thompson Environmental Consulting, Inc.
114 Orchard Ridge Road
Locust, NC 28097-8748

Location: 9418 Windygap Road

Date: January 23, 2006





Note: EIP = Existing iron pin.

Boundary & Physical SURVEY OF

LOT IN Steele Creek TOWNSHIP, Meck. COUNTY, NORTH CAROLINA, IN THE CITY OF _____ ON Windygap Road HOUSE NO. 9418 SHOWN AS LOT NO. 75

IN BLOCK NO. _____ ON MAP OF Cleveland Land & Timber Corp. Sect. 38 Lake Wylie Recreation Lots MAP RECORDED IN BOOK 18 PAGE 58

DEED RECORDED IN BOOK _____ PAGE _____ OFFICE OF THE REGISTER OF DEEDS FOR Mecklenburg

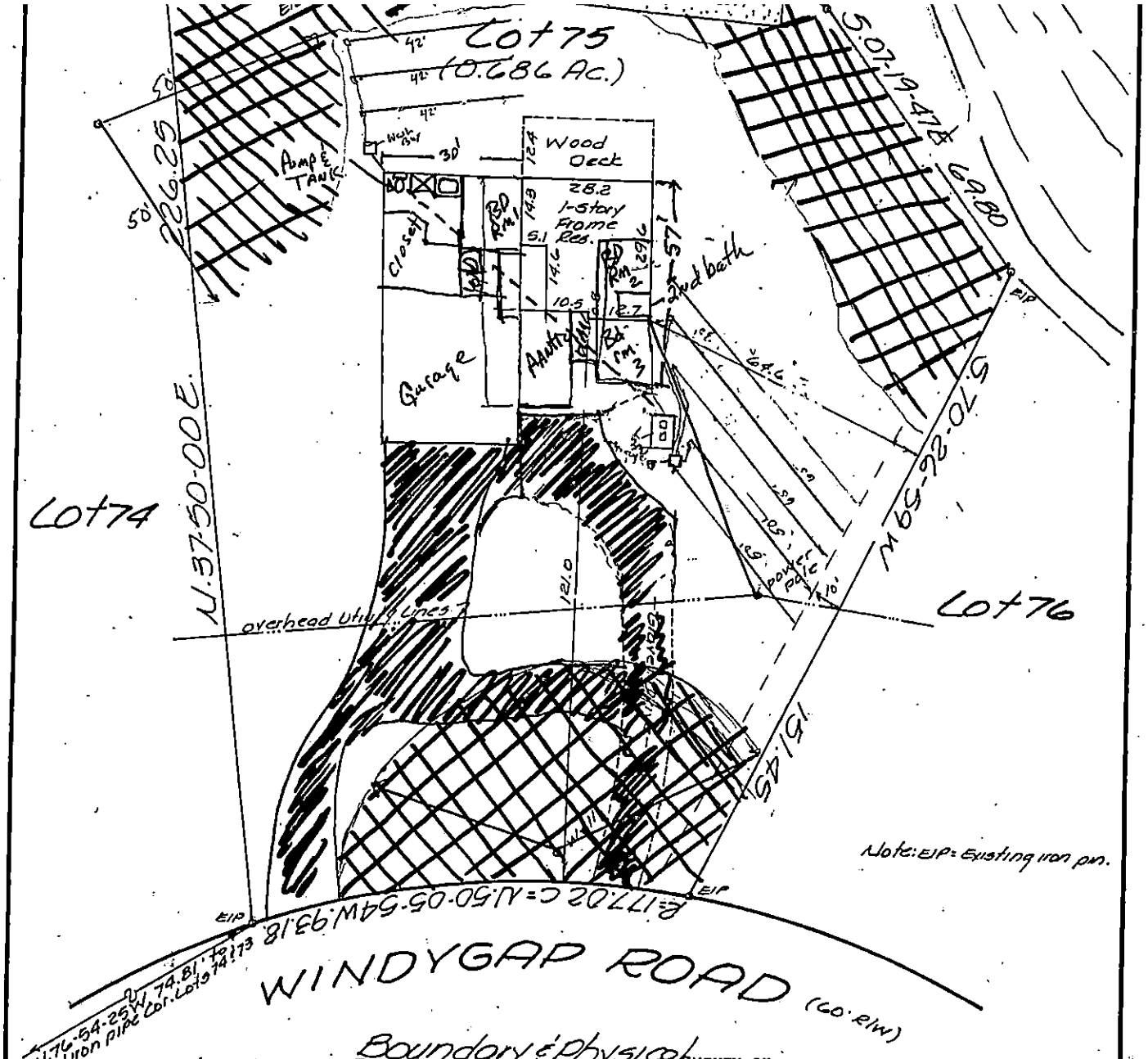
COUNTY, N. C. THE PROPERTY OF _____

Steven Keblin

SCALE - 1" = 24 FT. DATE 10-25-2005

RONALD F. HYATT, SURVEYOR
132 E. MAIN STREET
MARSHVILLE, N.C. 28103
704-624-3340

617381



Boundary & Physical SURVEY OF

LOT IN Steele Creek TOWNSHIP, Meck. COUNTY, NORTH CAROLINA, IN THE CITY OF _____ ON Windygap Road HOUSE NO. 9418 SHOWN AS LOT NO. 75

IN BLOCK NO. _____ ON MAP OF Eleganti Land & Timber Corp. Sec. 3B Lake Wylie Recreation Lots MAP RECORDED IN BOOK 18 PAGE 58

DEED RECORDED IN BOOK _____, PAGE _____ OFFICE OF THE REGISTER OF DEEDS FOR Mecklenburg

COUNTY, N. C. THE PROPERTY OF _____

Steven Keblin

SCALE - 1" = 25 FT. DATE 10-25-2005

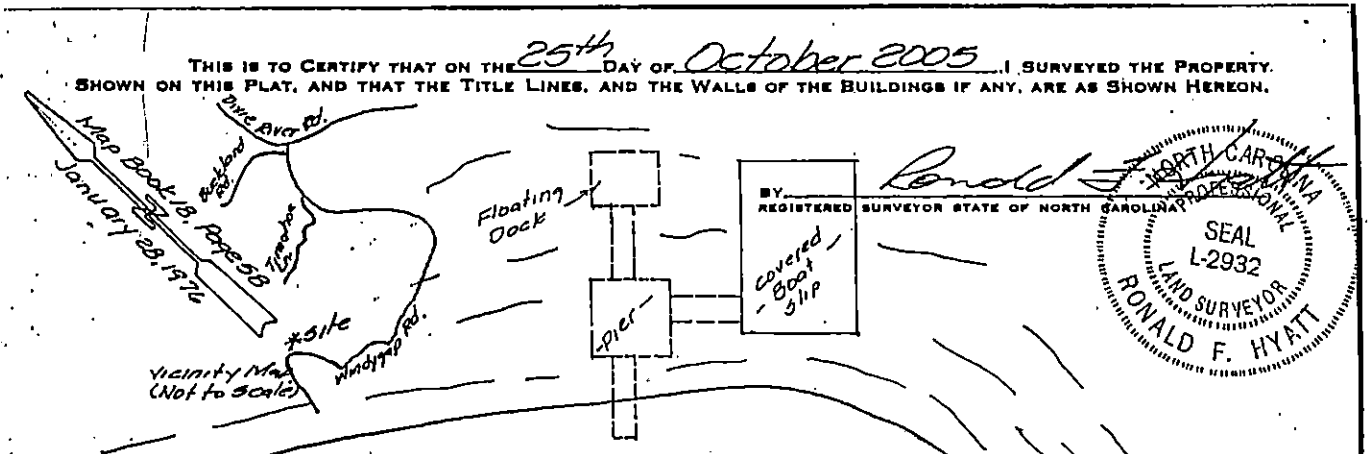
RONALD F. HYATT, SURVEYOR
132 E. MAIN STREET
MARSHVILLE N.C. 28103
704-624-3340

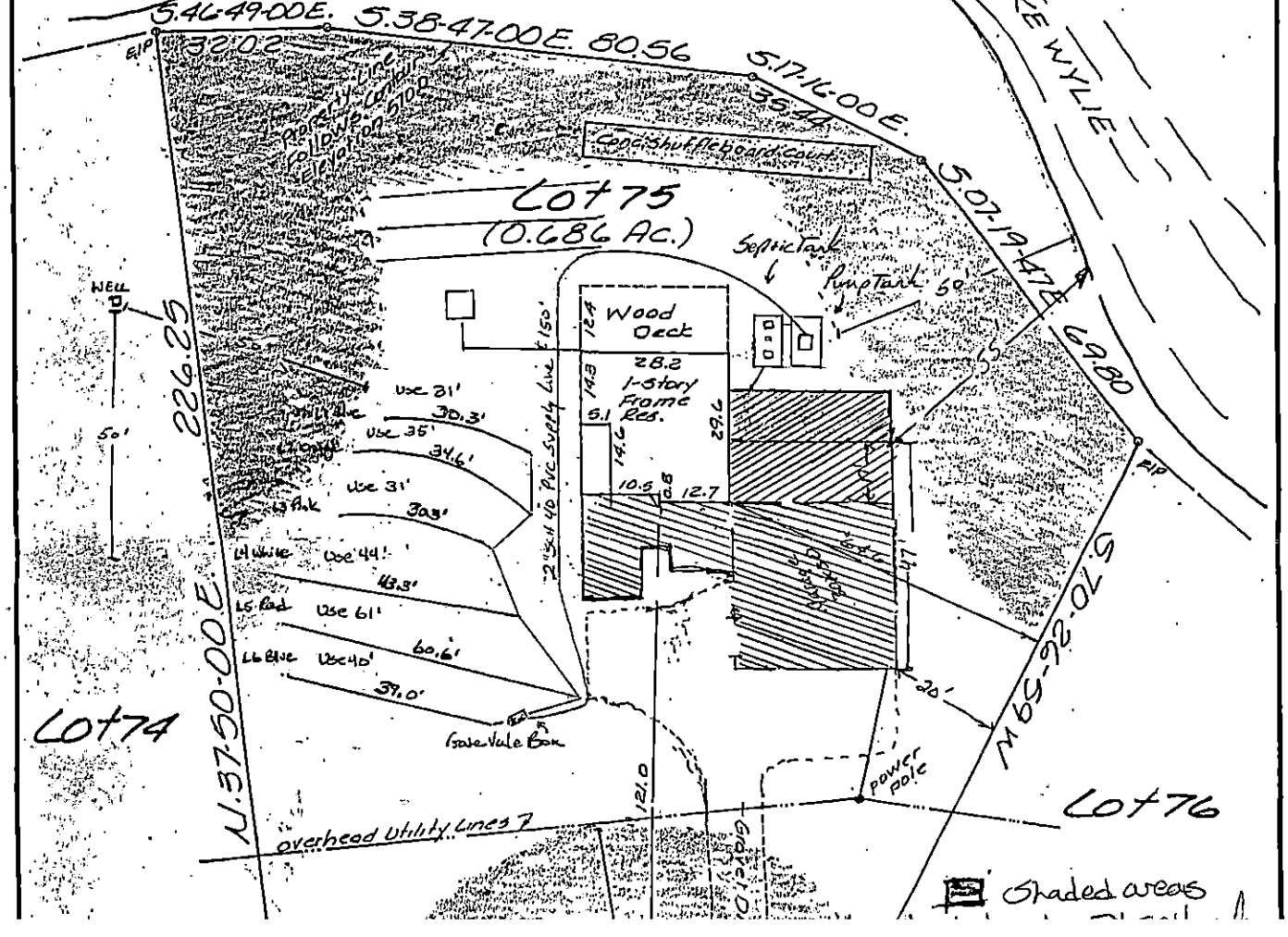
617381

THIS IS TO CERTIFY THAT ON THE 25th DAY OF October 2005 I SURVEYED THE PROPERTY SHOWN ON THIS PLAT, AND THAT THE TITLE LINES, AND THE WALLS OF THE BUILDINGS IF ANY, ARE AS SHOWN HEREON.

BY Ronald F. Hyatt
REGISTERED SURVEYOR STATE OF NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL L-2932 LAND SURVEYOR RONALD F. HYATT





THIS IS TO CERTIFY THAT ON THE 25th DAY OF October 2005 I SURVEYED THE PROPERTY. SHOWN ON THIS PLAT, AND THAT THE TITLE LINES, AND THE WALLS OF THE BUILDINGS IF ANY, ARE AS SHOWN HEREON.

BY Ronald F. Hyatt REGISTERED SURVEYOR STATE OF NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL L-2932 LAND SURVEYOR RONALD F. HYATT

Map Book 18, Page 58 January 28, 1976

Duke River Rd.

Bedford Rd.

Timber Line

*Site

Windyrap Rd.

Vicinity Map (Not to Scale)

Floating Dock

Pier

Covered Boat Slip

LAKE WYLIE

S.46-49-00E. 5.38-47-00E. 80.56 S.17-16-00E. 35.44 S.07-19-47E. 69.80 S.70-22-59W. 226.25 N.37-50-00E.

EIP

3.2'02

Cor.

Property Line Common Ownership

Concrete Shuffleboard Court

LOT 75 (0.686 AC.)

Septic Tank

Pump Tank

WELL

5.0'

Wood Deck

28.2 1-Story Frame Res.

12.4 14.8 5.1 14.6 29.6 10.5 0.8 12.7

Use 31' 30.3' Use 35' 34.6' Use 31' 30.3' Use 44' 48.3' Use 61' 60.6' Use 40' 39.0'

4 White 4 Pink 5 Red 6 Blue

2"SCH 40 PVC Supply Line

Gate Valve Box

Power Pole

20'

47'

121.0

Overhead Utility Lines

LOT 74

LOT 76

Shaded areas