

21109 ALTO TIERRA DR

00129309

6/28/2007

duponbj

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

JUDITH A GIBSON REG OF DEEDS MECK NC
BK: 07192 PG: 0852/0852 #:0053 6.00
FILED FOR REGISTRATION 02/09/93 09:13

7356A

STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

ACKNOWLEDGEMENT OF REQUEST BY OWNER FOR RECLASSIFICATION OF SITE FROM "UNSUITABLE" TO "PROVISIONALLY SUITABLE" UNDER 15A NCAC 18A .1957(c)

The undersigned, RONALD T. BOWERS owner of property located at 2109 ALTO TERRA ("the site") and described in an instrument recorded in Book 07192 at Page 0783/0784 Mecklenburg Public Registry, hereby acknowledges that he 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 pursuant to 15A NCAC 18A .1957(c) 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 can reasonably be expected to function satisfactorily and thus that the findings specified in 15A NCAC 18A .1957(c)(1), (2), and (3) can be made; and that the Department therefore reclassified the site as "provisionally suitable" and issued on 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 his responsibility 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 agrees for himself, his heirs and assigns that he shall indemnify and hold harmless the Department, its employees, and officials, as well as Mecklenburg County and its employees and officials, for any damages or other claims of any person or persons whatsoever arising out of the installation, operation, or failure of said septic tank system.

The undersigned further agrees for his heirs and assigns that, in the event any septic tank system installed under authority of the aforesaid permit falls to perform adequately in any respect, he will take whatever measures are required to correct same; or if such is impossible he will discontinue use of said system immediately.

Use of the singular masculine pronoun forms herein shall be deemed to also include the plural and feminine forms as the context may require.

This document shall be placed on the public records of the Register of Deeds of Mecklenburg County and indexed therein under the Grantor Index in the name or names of the undersigned, and the foregoing acknowledgements shall henceforth be binding on all persons claiming any right, title, or interest in the site.

This 9th day of FEBRUARY 1993

Ronald T. Bowers (SEAL)

(SEAL)

STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

I, Marlene Wise, a Notary Public for said County and State, do hereby certify that Ronald T. Bowers personally appeared before me this date and acknowledged the due execution of the foregoing instrument.

WITNESS my hand and notarial seal, this 9th day of February, 1993.

Marlene Wise
Notary Public

My Commission Expires 3-15-93

STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

I, _____, a Notary Public for said County and State, do hereby certify that

_____ personally came before me this day and acknowledged that he is

_____ of _____, and that by authority duly given and as the act and deed of said corporation, the foregoing instrument was signed in its name by its _____, sealed with its corporate seal and attested by _____.

WITNESS my hand and notarial seal, this _____ day of _____, 199_____.

_____
Notary Public

My Commission Expires _____

9356A

COPY

[illegible] A GIBSON REG OF DEEDS MECL NC
FILED FOR REGISTRATION 02/09/93 04:49
BK: 07192 PG: 0783/0784 0:0033 8.00
**** NC EXCISE TAX: 34.00 ****

Excise Tax $34.00 | Recording Time, Book and Page

Tax Lot No. 001-293-09 and 001-293-21 Parcel Identifier No.

Verified by County on the day of , 19

by

Mail after recording to

This instrument was prepared by Yates W. Faison, III, Attorney at Law

Brief description for the Index

NORTH CAROLINA GENERAL WARRANTY DEED

THIS DEED made this 8th day of February, 19 93, by and between

GRANTOR	GRANTEE
WILLIAM C. LEWIS and wife, ROBERTA L. LEWIS	RONALD T. BOWERS and wife, THERESA H. BOWERS

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 , Lemley Township, Mecklenburg County, North Carolina and more particularly described as follows:

BEING all of Lots 124 and 125 in Section 2 of BAHIA BAY (revised), as shown on map thereof recorded in Map Book 25, Page 320 of the Mecklenburg Public Registry.

Being a portion of the property conveyed to Grantors by deed recorded in Book 4723, Page 235 of the Mecklenburg Public Registry.

SAVE AND EXCEPTING, however, an easement to be reserved unto Grantors, as owners of Lots 126 and 127 in said Section of Bahia Bay for the purpose of constructing and maintaining thereon a septic tank drain field, the same to run with the land, more particularly described as follows:

BEGINNING at an iron in the common line of Lots 125 and 126 in Section 2 of BAHIA BAY (revised), as shown on map thereof recorded in Map Book 25, Page 320 of the Mecklenburg Public Registry, the same being located 33.31 feet along said line from the common front corner of said Lots 125 and 126, and running thence with said common line, N. 55-06-51 E. 46.30 feet to an iron; thence S. 21-40-57 E. 24.59 feet to an iron; thence S. 67-03-10 W. 44.52 feet to an iron; thence N. 23-49-55 W. 15.01 feet to an iron, the point and place of BEGINNING.

Said easement is granted by Grantees on the condition that in the event of failure of the septic system contructed thereon, Grantors and/or their successors in title

N. C. Bar Assoc. Form No. 3 © 1976, Revised © 1977 — Long Printing Co., 2725 Millbrook Rd. Suite 113 Raleigh, NC 27604

shall affirmatively abandon the use of said easement, to be confirmed in writing recorded in the Mecklenburg Public Registry, to be done immediately, and shall thereon begin use for septic purposes of a newly created area within Lot 127. In the event Grantors or their successors in title shall fail to abandon this easement, Grantees or their successors in title shall be entitled to seek relief through the Courts to enforce the same, in which case Grantors or their successors in title shall be liable for reasonable attorney fees incurred.

The property hereinabove described was acquired by Grantor by instrument recorded in .....

.....

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

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

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

Subject to restrictions recorded in Book 2777, Page 181, to rights reserved unto Duke Power Company in Book 2293, Page 450 of the Mecklenburg Public Registry, and to 1993 ad valorem taxes.

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate 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 above written.

USE BLACK INK ONLY

..... (Corporate Name)

By: .....

..... President

ATTEST:

.....

..... Secretary (Corporate Seal)

William C. Lewis (SEAL)

William C. Lewis

Roberta L. Lewis (SEAL)

Roberta L. Lewis

..... (SEAL)

..... (SEAL)

SEAL-STAMP

Use Black Ink

NORTH CAROLINA, Mecklenburg County.

I, a Notary Public of the County and State aforesaid, certify that William C. Lewis and wife, Roberta L. Lewis Grantor, personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this 8th day of February, 19 93.

My commission expires: 2/20/98 Notary Public

SEAL-STAMP

Use Black Ink

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.....

My commission expires: ..... Notary Public

The foregoing Certificate(s) of .....

.....

.....

is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the first page hereof.

..... REGISTER OF DEEDS FOR ..... COUNTY

By ..... Deputy/Assistant - Register of Deeds

N.C. Bar Assoc. Form No. 3 © 1976, Revised © 1977 — Long Printing Co., 2725 Millbrook Rd. Suite 113, Raleigh, NC 27604

400 ☑

File # 7356-A

INDIVIDUAL WATER AND WASTEWATER SYSTEMS PROGRAM
APPLICATION FOR SERVICES

LPP 2 lots 1-15-93 CRT

Mecklenburg County Health Dept.
Environmental Health Division
c/o Hal Marshall Ctr., Suite 211
700 N. Tryon St.
Charlotte, NC 28202

(704)336-5102

Date: 1/15/93

PROPERTY INFORMATION (FROM ENGINEERING FORM):

TAX/PARCEL NUMBER: 00129309 00129321 (part of)

STREET ADDRESS: 21109 Alta Terra
Davidson, N.C. 28036

ZONING: R3

SUBDIVISION OR MOBILE HOME PARK NAME: Bahia Bay

PERSON FILING APPLICATION:

NAME: Bowers (last) Ronald (first) T. (mi)

ADDRESS: 1815 Orris Ave. PHONE: (407) 452-2511

CITY: Merritt Island, STATE: FL ZIPCODE: 32952

PROPERTY OWNER:

NAME: Lewis (last) William (first) C. (mi)

ADDRESS: 21025 Rio Oro PHONE: (__) 892-8371

CITY: Davidson, N.C. STATE: N.C ZIPCODE: 28036

Township (check one):
- [x] 0 Mecklenburg County
- [ ] 1 Charlotte
- [ ] 2 Davidson
- [ ] 3 Cornelius
- [ ] 4 Pineville
- [ ] 5 Matthews
- [ ] 6 Huntersville
- [ ] 7 Mint Hill

LOT NUMBER: 124 and part of 125 LOT SIZE (in acres): .461 ac.

TYPE APPLICATION (check one):

- [ ] SOIL TEST - INDIVIDUAL LOT (D)
- [ ] NEW CONSTRUCTION ON VACANT LOT - 4 BEDROOMS OR LESS (N)
- [ ] EXCHANGE MOBILE HOME - SAME # BEDROOMS (Y)
- [ ] ADDITION - INCREASE ROOMS/OCCUPANCY/MOBILE HOME SIZE (A or M)
- [ ] COMMERCIAL OR INDUSTRIAL (N)
- [ ] SOIL TEST DEVELOPMENT (P)
- [ ] ADDITION - GARAGE OR RENOVATION/NO MAJOR CHANGES (X)
- [x] MODIFIED /ALTERNATIVE/ OR RESIDENCE > 4 BEDROOMS (Z)
- [ ] REPAIR TO SYSTEM (R)

RESIDENTIAL PROPERTY (Type Building, check one):
- [ ] SINGLE MOBILE HOME (S)
- [x] HOUSE (H)
- [ ] MULTIPLE FAMILY (U)
- [ ] DOUBLE WIDE (D)
- [ ] MODULAR HOME (M)
- [ ] OTHER _____ (O)

NUMBER BEDROOMS: 2 NUMBER OCCUPANTS: 4

SYSTEM CLASSIFICATION: LPP

COMMERCIAL/INDUSTRIAL PROPERTY:
Type Business _____ # Employees ___ Per Shift ___ ___ ___
Industrial Wastes (Y/N) ___
Underground Storage Tanks On Property (Y/N) ___ Type _____

WATER SUPPLY (check one):
- [x] Community (C)
- [ ] Municipal (M)
- [ ] Private Well (P)
- [ ] Shared Well (S)
- [ ] Other 'spring' (O)

FUTURE ADDITIONS - ALL PLANNED ADDITIONS MUST BE ENTERED (check all that apply):
- [ ] Swimming Pool
- [ ] Jacuzzi
- [ ] Stable/Barn
- [ ] Workshop
- [ ] None
- [ ] Garage
- [ ] Storage Building
- [ ] Deck/Patio
- [ ] Bedrooms
- [ ] 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 agents of the MECKLENBURG COUNTY HEALTH DEPARTMENT to enter onto the property for the purpose of processing this request.

Signed: Ronald T. Bowers Date: 1-15-93

NOTICE:

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the 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 by this Department.

...This permit is not transferable.

... agreement form on file

LPP design

- [x] IMPROVEMENT PERMIT - VALID 60 MONTHS FROM ISSUANCE
- [ ] MOBILE HOME EXCHANGE APPROVAL - VALID 6 MONTHS FROM ISSUANCE
- [ ] ADDITION/RENOVATION APPROVAL - VALID 1 YEAR FROM ISSUANCE

Environmentalist Date

Kelly Rudd 2-9-93

Director or Authorized Section Head Date

WWATER : 122791

TO: ENVIRONMENTAL HEALTH DEPT.
BUILDING STANDARDS DEPT.
DEPT. OF ENVIRONMENTAL PROTECTION/
SOLID AND HAZARDOUS WASTE

DATE: 1/4/93

FROM: COUNTY ENGINEERING DEPARTMENT

EHD FILE _____ JURISDICTION CODE Corn

PARCEL NUMBER 001-293-09

ASSIGNED ADDRESS 21109 Alto Terra Dr

EXISTING ADDRESS _____

PROJECT NAME N/A Project Name Bahia Bay Not on System

THE ABOVE DESCRIBED LOCATION HAS BEEN CHECKED CONCERNING:

		APPROVED	DISAPPROVED
1.	SUBDIVISION REGULATIONS	_____	_____*
2.	FLOODWAY REGULATIONS	_____	_____*
3.	EROSION CONTROL REGULATIONS	_____	_____*
4.	PUBLIC UTILITY EASEMENT	_____	_____*

		PRESENT	NOT PRESENT
5.	PUBLIC UTILITY EASEMENT	_____*	_____
6.	PROPERTY FRONTS ON THOROUGHFARE	_____*	_____
7.	DRIVEWAY PERMIT REQUIRED	_____*	_____

*If checked, further investigation will be required to determine whether a building permit can be issued by Building Standards for the site.

REMARKS: Septic tank

NOTE: THIS FORM MUST BE TURNED IN AT THE CASHIER'S OFFICE AT BUILDING STANDARDS WHEN PAYING PERMIT FEES.

A CERTIFICATE OF OCCUPANCY WILL NOT BE GRANTED UNTIL THE TRANSPORTATION DIVISION GRANTS FINAL APPROVAL ON DRIVEWAYS.

SIGNED: Pwee

OPWEAR 06-88

NEW ADDRESS _____*

FORM 100

MECKLENBURG COUNTY HEALTH DEPARTMENT
SITE EVALUATION REPORT
SERIAL NUMBER 17093

File: 7356-A Action _____

Parcel: 001-293-09, 10 PC

Location: 21109 ALTO TIERRA DR

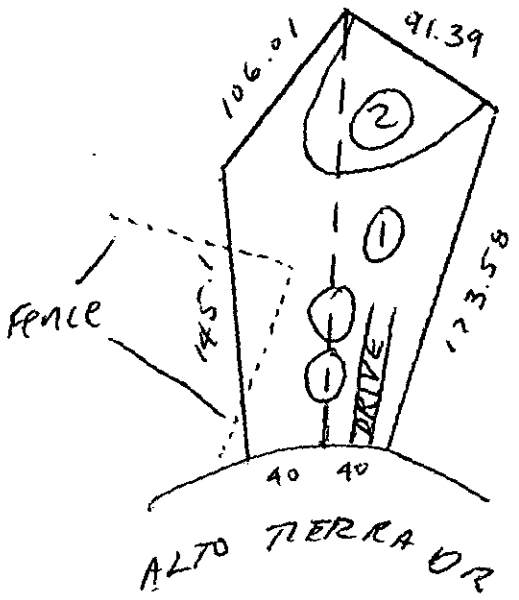
Subdivision: BAHIA BAY

Lot: Block: Acres: .60

Owner: WILLIAM C LEWIS
Address: 21025 RIO ORO DR
DAVIDSON NC 28036

Comments: LOTS COMBINED
100% REPAIR
MAY REQUIRE LIFT PUMP

Described by: Wally Rankin
Date: 4-8-91



*** EVALUATION KEY ***
S = Suitable U = Unsuitable
PS = Provisionally Suitable
The "Area Classification" below indicates the suitability of areas in the diagram.

FACTORS	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6
Topography	(S) PS U 2-6%	(S) PS U 2-6%	S PS U	S PS U	S PS U	S PS U
Texture	S (PS) U CLAY	S (PS) U CLAY	S PS U	S PS U	S PS U	S PS U
Structure	S (PS) U SUB ANG BLOCK	S (PS) U SUB ANG BLOCK	S PS U	S PS U	S PS U	S PS U
Drainage	S (PS) U >36"	S (PS) U >36"	S PS U	S PS U	S PS U	S PS U
Depth	S (PS) U >36"	S PS (U) 29"-34"	S PS U	S PS U	S PS U	S PS U
Restrictive Horizons	S PS U NONE	S PS U NONE	S PS U	S PS U	S PS U	S PS U
Available Space	S (PS) U VERY LIMITED	S PS (U)	S PS U	S PS U	S PS U	S PS U
Other (specify)	S PS U —	S PS U PALEET ~~CECIL~~ LIKE	S PS U	S PS U	S PS U	S PS U
Soil Group/Series	CECIL LIKE					
Area Classification	S (PS) U	S PS (U)	S PS U	S PS U	S PS U	S PS U

N356A

DATE 1/4/93

TO: CHARLOTTE-MECKLENBURG BUILDING STANDARDS
PERMIT ISSUING SECTION

FROM: MECKLENBURG COUNTY ENGINEERING

JURISDICTION Coun

001-293-09
PARCEL NUMBER

21109 Alto Terra Dr
ASSIGNED STREET ADDRESS (ADDRESS OF RECORD)

EXISTING STREET ADDRESS (IF DIFFERENT FROM ASSIGNED)

~~Bahia Bay~~ N/A
PROJECT NAME (IF APPLICABLE)

THE ABOVE DESCRIBED LOCATION HAS BEEN CHECKED CONCERNING:

1. SUBDIVISION REGULATIONS	APPROVED	NOT APPROVED
2. FLOODWAY REGULATIONS	APPROVED	NOT APPROVED
3. EROSION CONTROL REGULATIONS	APPROVED	NOT APPROVED
4. COMMERCIAL DRAINAGE PLAN	APPROVED	NOT APPROVED
5. PUBLIC UTILITY EASEMENT	PRESENT	NOT PRESENT
6. PROPERTY FRONTS ON THOROUGHFARE	YES	NO
7. DRIVEWAY PERMIT REQUIRED	YES	NO
8. DOES PROJECT CONFLICT WITH ROAD PROJECT?	YES	NO

REMARKS: None Or

NOTE: THIS FORM MUST BE TURNED IN AT THE CASHIERS OFFICE WHEN PAYING PERMIT FEE. CERTIFICATE OF OCCUPANCY WILL NOT BE GRANTED UNTIL TRANSPORTATION DIVISION GRANTS FINAL APPROVAL ON DRIVEWAY(S).

ALL OTHER FORMS OBSOLETE

☐ NEW ADDRESS

SIGNED: Pierce

REVISED 1/91

Mecklenburg County
Health Department

January 25, 1993

Betty S. Snow, R.N., M.A.
Health Director

Mr. Ronald Bowers
1815 Orris Avenue
Merritt Island, FL 32952

Re: 21109 Alto Tierra
File: 7356-A
Parcel: 001-293-21PO

Dear Mr. Bowers:

Receipt of your plans for an alternative waste disposal system are hereby acknowledged. The plans as submitted are approved with the following comments.

1). The system must be installed according to the plan submitted my Mr. Toney Jacobs, Dated January 14, 1993. Any proposed deviations from the Plan must be proposed and approved in writing.

2). The proposed easement on the property must be executed and recorded at the Mecklenburg County Register of Deeds office. Please include a metes and bounds description with a corresponding survey plat.

3). The enclosed "Septic Tank Agreement Forms" must be executed and recorded at the Mecklenburg County Register of Deeds office.

If you have any questions regarding these matters please contact me at 336-5575.

Sincerely,

Kelly Randall

Kelly Randall, R.S., Soil Scientist
Individual Water and Wastewater Systems

cc: William Lewis
21025 Rio Oro Drive
Charlotte, NC 28036

U

Mecklenburg County
Health Department

January 25, 1993

Betty S. Snow, R.N., M.A.
Health Director

Mr. Ronald Bowers
1815 Orris Avenue
Merritt Island, FL 32952

COPY

Re: 21109 Alto Tierra
File: 7356-A
Parcel: 001-293-21PO

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Receipt of your plans for an alternative waste disposal system are hereby acknowledged. The plans as submitted are approved with the following comments.

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3). The enclosed "Septic Tank Agreement Forms" must be executed and recorded at the Mecklenburg County Register of Deeds office.

If you have any questions regarding these matters please contact me at 336-5575.

Sincerely,

Kelly Randall, R.S., Soil Scientist
Individual Water and Wastewater Systems

cc: William Lewis
21025 Rio Oro Drive
Charlotte, NC 28036

+

Mecklenburg County
Health Department

Re:
File:
Parcel:

Gentlemen:

Receipt of your plans for a modified waste disposal system for the property referenced above is acknowledged.

Your plans for the modified system for the above property as submitted are approved with the following comments:

- The Well should be located 100 feet or no less than 50 feet away from any part of the sewage disposal system and repair area.
- Water saving plumbing devices and low flush toilets should be installed when constructing the residence.
- Occupants to utilize maximum water conservation measures wherever possible.
- Effectively rake and lime all trench sidewalls
- Landscaping of repair area to be undisturbed. No grading, shaping, or altering in anyway.

Upon execution and recording with the Register of Deeds Division Office, Mecklenburg County, of the enclosed "Septic Tank Agreement Form", an Improvements Permit may be issued by this office.

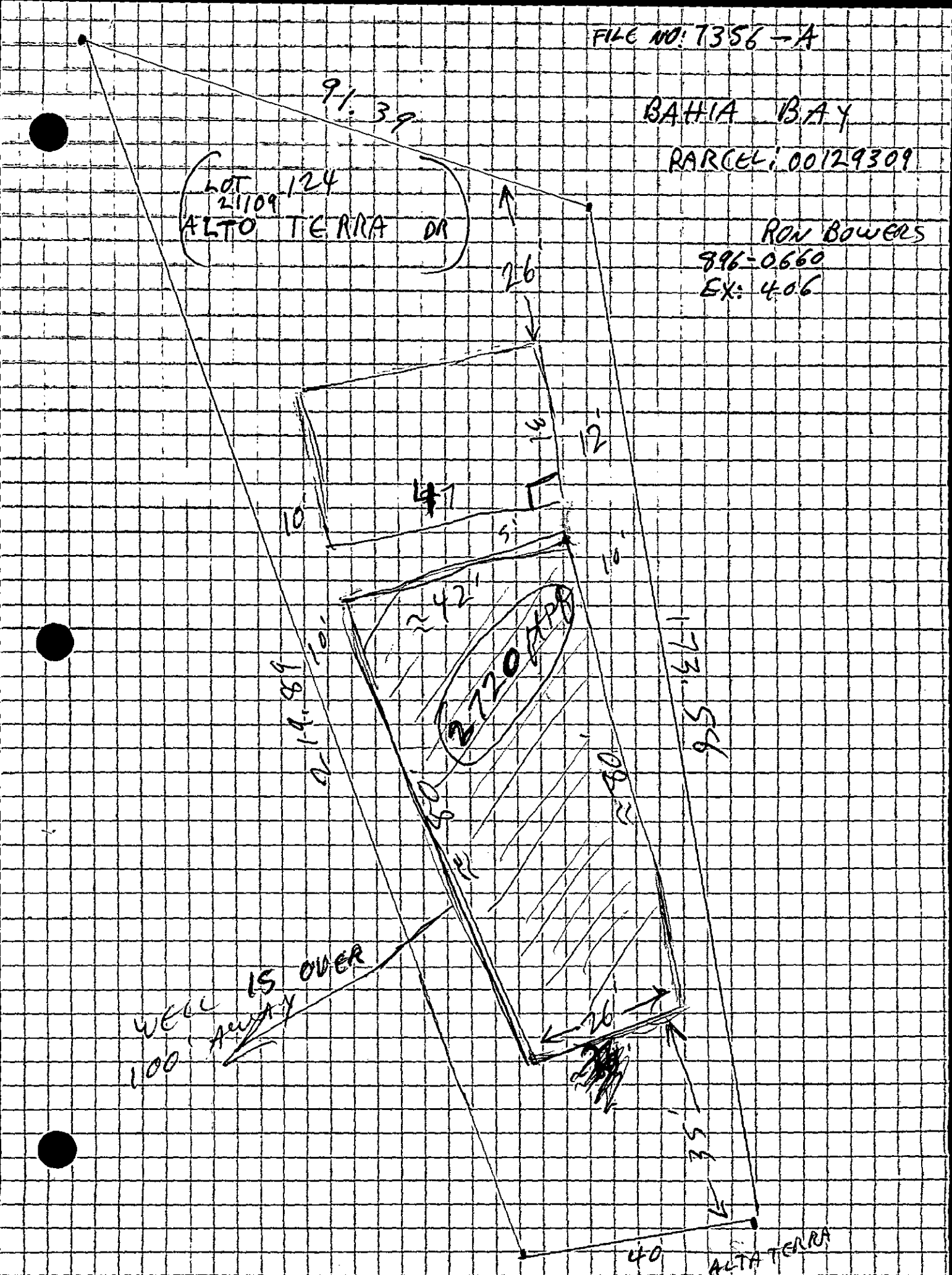
Sincerely,

Gene Vaughan, R.S., Supervisor
Individual Water and Wastewater Systems

G/kgb

Enclosures - 3 Septic Tank Agreement Forms

Environmental Health Division
1200 Blythe Boulevard • Charlotte, North Carolina 28203 • (704) 376-4603


FILE NO: 7356-A
BAHIA BAY
PARCEL: 00129309
ROW BOWERS
896-0660
EX: 406
91.39
LOT 124
21109
ALTO TERRA DR
26
12
10
47
5
10
~42'
10
14.86
2720 APP
26
IS OVER
WELL
100' AWAY
ALTA TERRA

INSTALLATION, CONSTRUCTION, ALTERATION, AND/OR REPAIR PERMIT

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

FILE: 7356A DATE: 7/14/93
001 293 09
TC: 001 293 21
SERIAL Nº 13526 400 ☑

Permission is hereby given to ✓ Install or Construct, _____ Alter or Repair the individual septic tank wastewater treatment system with subsurface, soil absorption, effluent discharge as specified herein at the described location. This permit is granted based upon the information supplied in the application dated 2/9/93. All work shall be completed on or before 8/14/93, after which date this permit shall be null and void. The system shall meet all of the construction requirements of 10 NCAC 10A .1900 which are in effect on the date of the granting of this permit. A Certificate of Completion or an Operation Permit must be obtained from the Mecklenburg County Health Department before any system can be covered up or placed into service. The issuance of this permit does not in any way guarantee that the system anticipated to be constructed 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.

system to be installed in accord with approved plot plan.

Liquid Capacity of Septic Tank 1500 gallons

Liquid Capacity of Dosing Tank 1000 gallons

Tank Construction PCC

Absorption and/or Nitrification Lines:

Trench Width 1 feet

Total Line Length 320' LPP feet

Number of Lines 8

Depth of Stone – inches

Distance from House 75 feet

Distance from Property Line 710 feet

Distance from Well com well 7100' feet

PLOT OF SYSTEM

NAME OF OWNER William Lewis

LOCATION OF PROPERTY 21109 Alto Terra

Comments: 320' LPP System / System to be installed in accord with approved plot plan

Division or Section Head: Joan for S. Daniel

Environmentalist: Phila A. Walker R.S.

* If this permit is for the installation or construction of a new system, it must be signed by the division or a section head of the Mecklenburg County Health Department in order to be valid. Only the signature of the Environmentalist is required where an existing system is being altered or repaired.

WHITE - HEALTH DEPARTMENT'S COPY • CANARY - ENVIRONMENTALIST'S COPY • PINK - OWNER OR AGENT'S COPY

A356A

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

ABANDONMENT
OF EASEMENT

THIS AGREEMENT, made this 8th day of February, 1993, by and between WILLIAM C. LEWIS and wife, ROBERTA L. LEWIS (the "Lewises") and RONALD T. BOWERS and wife, THERESA H. BOWERS (the "Bowerses");

W I T N E S S E T H:

WHEREAS, the Lewises have conveyed to the Bowerses that certain real property located in Lemley Township, Mecklenburg County, North Carolina, which such property includes Lot 125 in Section 2 of Bahia Bay, as shown on map thereof recorded in Map Book 14, Page 125 of the Mecklenburg Public Registry (since revised in Map Book 25, Page 320 of said Registry); and

WHEREAS, the Lewises continue to hold title in fee simple to Lots 126 and 127 in said Section of Bahia Bay; and

WHEREAS, as part of the consideration for said transfer to the Bowerses, the Lewises have agreed to abandon and terminate those certain easement rights created under that certain Easement Agreement recorded in Book 5546, Page 834 of the Mecklenburg Public Registry;

NOW, THEREFORE, for valuable consideration paid, the receipt of which is hereby acknowledged, the Lewises, for themselves and their heirs, personal representatives, successors and assigns, do hereby abandon and terminate all rights heretofore granted to them as owners of Lots 126 and 127 above-described by that certain Easement Agreement recorded in Book 5546, Page 834 of the Mecklenburg Public Registry, it being understood and agreed that said Lot 125 shall be no longer subject to any easement rights contained therein.

IN WITNESS WHEREOF, the Lewises have hereunto set their hands and seals, this the day and year first above written.

William C. Lewis (SEAL)

Roberta L. Lewis (SEAL)

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

I Yates W. Faison, III, a Notary Public in and for said County and State do hereby certify that William C. Lewis and wife, Roberta L. Lewis personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

WITNESS my hand and official seal this 8th day of February, 1993.

Yates W. Faison, III
Notary Public

My commission expires: 2/20/98

RONALD BOWERS (PURCHASER/CONTRACTOR)

RIO ORO DRIVE-MECKLENBURG COUNTY

NORTH CAROLINA

(MCHD File: 7356-A)

by

Toney C. Jacobs
Consulting Soil Scientist
215 Broadbill Drive
Mooresville, N. C. 28115

January 14, 1993

APPROVED
ENVIRONMENTAL HEALTH
DIVISION
MECKLENBURG COUNTY
HEALTH DEPARTMENT
Kelly Randall
Date 2-9-93

AMERICAN REGISTRY OF CERTIFIED PROFESSIONALS
CROPS SOILS
ARCPACS
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SOIL SCIENTIST
No. 2830 EXP.

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Merritt Island, Florida 32952

William Lewis (owner)
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Davidson, N. C. 28036

Kelly Randall, R. S.
Mecklenburg County Health Dept.
Charlotte, N. C. 28202

SOIL SCIENCE SOCIETY OF N.C.
CERTIFIED PROFESSIONAL
CERT.
#53
SOIL SCIENTIST
TONEY C. JACOBS

Toney C. Jacobs, CPSS

Lewis Lot - Rio Oro Drive

LOW-PRESSURE PIPE SYSTEM (LPP) WITH FILL CAP

Design Considerations

This system is proposed for a single family residential house on a lot in the highly urbanized Bahia Bay community on Lake Norman. This area was originally platted when repair areas were not required and 5' setbacks were allowed, however, because of changes in continuous ownership, repair areas are needed. The system is designed for a 2 bedroom home which will be moved on to the lot by a moving contractor. The proposed drainfield system does require a repair area, which was laid out in the field and there is still limited additional usable area after initial installation and repair.. The soil on most of the lot is of good quality clay or heavy clay loam (Cecil or Pacolet-like) for ground absorption. The main limitation for the lot is the depth to a highly weathered granite rock below the soil solum. By measure and evaluation this was usually a minimum of 29". There were numerous areas with a deeper solum, but the entire system is designed for the minimum. The repair area, should it ever be utilized, will also be installed as an LPP. Should drip irrigation become widely accepted, it would be the desired method of distribution.

Only an LPP distribution system was considered permittable with above soil and site criteria. A caution to the installer includes no cutting or leveling of the soil, except by fill added to the surface. A 36-48" deep French drain, along the existing surface swail across the back of the lot are required as shown on the plan. This interceptor drain must be checked by inspector before trench is closed because of importance to the system.

Location

The combined parts of lots 124 and 125 are approximately 0.53 Ac building lots on the left of Rio Oro Drive near Torrence Chapel Road, Mecklenburg County, N. C. The community is served by a water system and no wells are within 100'. There is a well on lot 126 (see enclosure). No other septic systems on either side of the proposed house are located within 20' of this system, nor is the easement area within 20' of any part of this system. Should either system fail it would be very obvious which was failing.

Reference Material

(1) *Design and Installation of Low Pressure Pipe Wastewater Treatment Systems,* by Craig Cogger, Bobby L. Carlisle, Dennis Osborne, and Ed Holland. UNC Sea Grant UNC-SC-82-03, May 1982.

(2) *Laws and Rules for Ground Absorption Sewage Disposal Systems 15A NCAC 18A. 1900,* NCDEHNR-DEH.

Recommendation

Three hundred and twenty (320) lineal feet of LPP lines with 320 feet repair immediately downslope.

Ownership/Contractor/Builder Responsibility for an LPP System

Conservation measures should be undertaken in plumbing fixture specifications to minimize the volume of wastewater entering the disposal system, including, but not limited to the following precautions:

(a) Provide water conserving plumbing fixtures within the facility. Because this is a "move-in," fixtures should be replaced. Waterclosets should be 1.6 gal. flush, owner should have a certification or ask the sanitarian to inspect as such. This is a voluntary action, but very important to the Health Department and system designer. Shower head should also have restrictions or be of low volume design.

(b) Develop conservative water use habits. If weekends are the time of more water use and weekdays are less, system should be reworked with timer rather than floats for flow equalization. This can be retrofitted to control panel with minimum labor and materials.

(c) Monitor and maintain the system as necessary for proper operation. A Certificate of Completion will require a maintenance contract to be on file with the Mecklenburg County Health Department. It is recommended that the owner aggressively utilize this requirement because of its importance to system longevity. The management entity should be a part of installation process so that he knows exactly what and where all components are located.

System must be properly installed by a qualified and competent contractor following the requirements of the Mecklenburg County Department of Environmental Health, DEH, the N. C. Building Code, Plumbing Code, and the Electrical Code. This plan, as any, is a guide to a minimum standard, but cannot take the place of experience and common sense.

Components of System

1. Two compartment septic tank - 1500 gal.
2. Pumping tank - 1000 gal.
3. Submersible effluent pump and level controls - SSOMA certified
4. High water alarm signals which are UL approved
5. Supply pipe
6. Gate valve

7. Laterals with LPP trench in ground absorption trenches, 1 foot wide, level end to end, and placed to the exact level specifications in plan.
8. Drainfield area leveled by hauling cover over system to avoid impounding any waters over the surface, even for a short period of time. Absolutely no cutting of the existing surface.

Construction Sequence

1. Lines have been flagged as noted on drawing (double crosses in center at manifold). French drain should be installed 6" inside back property line. Swail should be left as is with minimal disturbance.

2. Leave the drainfield area as is with no soil disturbance (do not grade).

3. Install trenches per cited reference material and this plan. Top grade on pipes to be "level" from end to end. Vertical separation of lines is critical and will be checked by sanitarian. Refer to plan for elevational changes from each line on the manifold. (Note: This is a one valve designed system rather than eight valve with one on each lateral that makes elevational separations critical. Both installer and inspector need to plan extra time in checking this!)

4. All joints in lateral manifold piping shall be watertight connections to insure that the only source of the water seepage from the system is through the orifices as designed. Carefully install manifold and lateral network according to the attached designed layout. Protect valves with valve box. A larger diameter protective sleeve with cap or approved box with lid shall be placed over the turned up lateral and positioned level with the ground surface (to avoid damage by mowing machine.) Turn-up with two 45 ells, not one 90.

5. Carefully backfill and tamp manifold trenches to grade with clean fill material. Over the entire field add loam or fine loam soil material to get it level. This can be topsoil improved by mixing with clay loam soil. Before hauling to site, make sure of this material. See from regulations (F) which is last page of plan.

6. The installation contractor shall stabilize the area of construction by planting and mulching with Kentucky 31 tall fescue. Area to be limed and fertilized with 2 each 50# bags of lime and 2 each 40# bags of 10-10-10 granular fertilizer, evenly broadcast and incorporate into fill material or surface soil.

7. The septic tank shall consist of a 1500 gallon capacity reinforced, precast concrete tank with full baffle and shall have easy access to each chamber from ground level for inspection. The first chamber of the septic tank shall consist of 2/3 to 3/4 of the volume of the total tank

and the baffle shall contain a horizontal opening across the tank at about midway its height. Locate the septic tank at such height as to provide approximately 8" of cover soil over top of the tank.

8. The dosing tank shall consist of a 1000 gallon capacity, reinforced, precast concrete tank without baffle and shall have a concrete mounting pad (concrete blocks) for accommodating the pump. Provide access for entry into the tank directly over the pump location, and extending 6" above final grade. Use a 30" diameter concrete well casing and concrete well cap or other approved type cover. There must be a seal between well tile and top of tank.

9. All piping and fitting shall be SCH 40 PVC. Glue for all PVC pipe joints shall be as recommended by the pipe manufacturer. Note: On the distal end of each lateral turn-up should be 2 each 45 degree elbows, rather than one 90 to facilitate maintenance.

10. Pump: The submerged pump shall be Model "97" manufactured by Zoeller, or equal, 1/2hp 115v/lph; capable of pumping 19 gallons per minute at 18.0' head.

11. Pump controls and alarm to meet specifications of .1952, all being compatible.

12. A "warning sign" shall be located within the house to inform the occupants of action to take in case the "high water alarm" is activated. This sign shall contain the name, address, telephone number, and emergency telephone number of the person to contact upon malfunction of the system (management entity).

13. Pump and Controls: Details of pump installation are shown in the plan. The pump must be placed on concrete blocks on the bottom of the tank. This prevents the pumping of any solid particles which can clog the pipe system. A piece of nylon and rope or other non-corrodible material should be attached to the pump; and to the outlet pipe for lifting the pump in and out of the chamber. Controls are fastened to the "tree" or outlet pipe with clamps or brackets supplied by the manufacturer. The lower level control or "pump-off" must be positioned above the pump, so that the pump remains submerged at all times. The level control "pump-on" is positioned to pump a specified volume of effluent. The high water control float is then mounted about 3" above the upper pump-on control. (Note: Care must be taken to insure that floats do not become fouled by other components in the tank, such as the electric power cord or the lifting rope. It is highly recommended that a telescoping "tree" be used for floats and adjustments.) The pump outlet pipe should be connected to the supply manifold with a threaded PVC union (or dresser coupling) to allow quick removal.

14. Electrical Connections: The pump and high water alarm must be placed on separate electrical circuits. (If the pump circuit fails, the alarm must still be able to operate). Follow the manufacturers recommendations for the proper fuses or circuit breakers. All electrical connections must be made outside the pumping chamber. Power cords from the pumps and controls should be plugged into a NEMA 4X approved outdoor receptacle mounted outside of the pumping chamber, a minimum of 1 foot above finished grade. The receptacle must not be located inside the pumping chamber due to the corrosive and explosive gasses that may form from the sewage. Some level control switches have a box built into the housing, but are more expensive than the plug-in devices. Wiring between the pumping chamber and the station should meet State and local code requirements. A lightning arrester is recommended to protect the pump and controls from electrical surges.

15. Proper Operation Check: After all components have been installed and connected, the system should be checked for proper operation. With electrical power turned off, fill the pumping chamber with water from a garden hose until the liquid rises to the level of the high-water alarm float. Turn on the electrical power. The alarm light should go on in the house, and the pump should start operating. The alarm light should go off when the liquid reaches the lowest float control. Be sure the pump is still completely submerged.

16. Pressure Head Adjustment: The pressure head must be adjusted to match that specified in the design. The pressure head is measured as the height liquid will rise above the turn-up elbow when the pump is running. To adjust the head:

(a) Glue a 4' length of pipe (preferably clear) to a threaded adapter that will screw onto the turn-up adapters. (Call this the "test tube")

(b) Replace the turn-up cap with the "test tube".

(c) Adjust the gate valves until the effluent reaches the desired height in the "test tube". Remember to include the distance below the ground surface to the lateral line when measuring the height. The pressure head should be as specified for each line. This is the height above the lateral where the liquid should be in the temporary "test tube".

Note: At this step it is suggested that management entity be present if different from installer.

17. Final Landscaping: After the system is installed, the following should be checked to insure that the system will not be overloaded with excess rainwater and runoff:

(a) The distribution field is shaped to shed rainwater and is free of low areas.

(b) Seeded and mulched to prevent surface erosion.

Concluding Note:

This plan was made to facilitate permitting by the Mecklenburg County Health Department as a service to the county by the property owner. Any additions, or additional requirements, or deletions to enhance design or workability which will facilitate a permit are welcomed and may be made by note on this plan without returning entire design. The designer realizes a plan with as many details as this can be changed and/or improved upon. Any change by the installer must be approved by the Health Department.

Design Specifications

Lewis to Bowers Lot - Rio Oro Drive

Daily design flow:	240 gpd - 2 bedroom house being moved from another location
Septic tank size:	1500 gal (2 compartments)
Pumping tank size:	1000 gal
Effluent loading rate:	0.15 gpd/sf LPP
Total length and diameter of supply manifold:	app. 110 lf - 3" sch 40 PVC
Number and length of laterals:	System(4) 1-1/4"dia., 80'length center-fed. Repair the same
Hole size:	5/32"
Hole spacing:	See table
Total number of holes:	See table
Flow rate through the system:	18.3 gpm
Elevation head:	approx. 11.0
Pressure head:	2.0'
Friction head:	2.0'
20% over design	3.0'
Total head:	18.0'
Pump requirements:	19 gpm at 18.0' of head; use Zoeller "97"(1/2hp)pump or equivalent with compatible electrical
Dosing volume:	139 gal - 1.73 doses/day at design flow
Depth of water pumped per dose:	calculated to specific tank by measure or dealer engineering specifications
Pump run per dose:	approx. 8.0 min.
Check valve:	No
Syphon break hole:	No

Lewis to Bower Lot

Initial System

Line	Color	length	elevat.	hole size	hole spac	head	flow/hole	flow/line min	# holes
A	yellow	80	99.0	5/32	6.7	2.0	0.41	4.92	12
B	white	"	98.45	"	8.0	2.55	0.46	4.6	10
C	orange	"	98.0	"	8.9	3.0	0.50	4.5	9
D	white	"	97.6	"	10.0	3.4	0.53	4.24	8
			dif 1.4					18.26	

Repair

E	yellow	80	97.1	5/32	6.7	2.0	0.41	4.92	12
F	orange	"	96.7	"	7.3	2.4	0.446	4.90	11
G	white	"	96.0	"	8.9	3.1	0.508	4.57	9
H	blue	"	95.3	"	10	3.8	0.564	4.51	8
			dif 1.8					18.9	

Dosing Volume

Supply

30
60
cont 10
100 3" Manifold

$V_{dose} = V_{supply} + 5(V_{lat})$

$= 36.7 + 5(6.4 \times 3.2)$

$= 139.1$

Check Valve Cal

$V_{storage} = V_{supply} + V_{lat}$

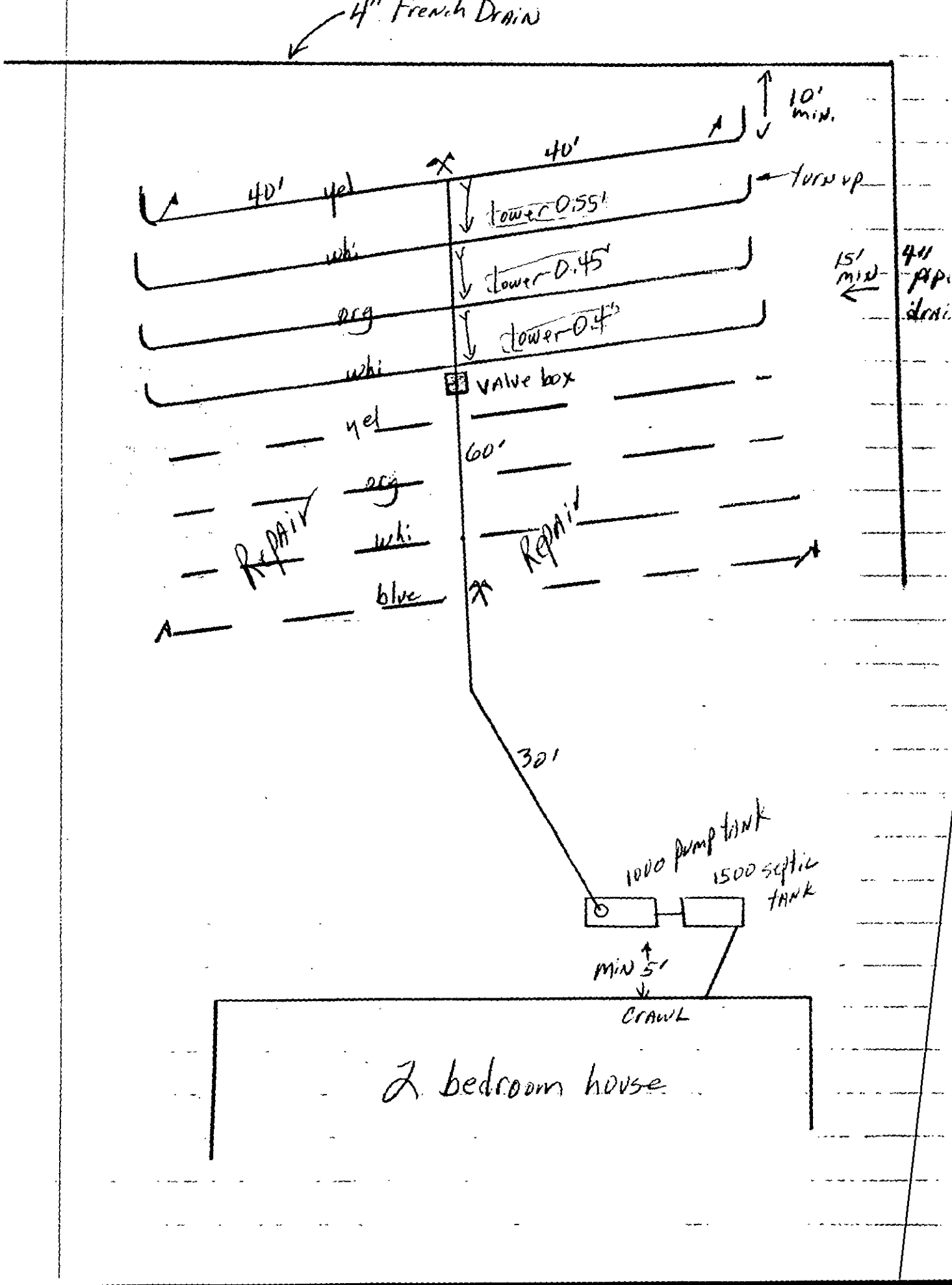
$= 36.7 + 20.48$

$= 57.2$

240 gpd X .25 = 60

57 < 60 ∴ No check valve needed

Schematic


4" French Drain
10' min.
40'
40'
yel
turn up
lower 0.55'
whi
lower 0.45'
org
lower 0.4'
whi
valve box
yel
60'
org
Repair
whi
Repair
blue
15' min
4" pp
drai
30'
1000 pump tank
1500 septic tank
min 5'
crawl
2 bedroom house

I-77

3" PVC to 4ea. 3/4 x 1/4 tees

to

GAK valve

3" supply AVC sch 40

1" = 30'

Trench drain

4" pipe gravel to surface

S08°-08'-00"E

36" deep 1% slope

#4 REBAR

#5 REBAR

96.49'

263.65'

14.08'

SET #5 REBAR

104.80 91.39

VALVE BOX

REBAR W/ CAP 0.09' OFF LINE

85.60'

TURN-UP ON EACH END.

S50°-04'-33"W

A 0.461 AC.

B

C

D

E

F

G

H

LOT 125E

LOT 124

LOT 128
MITCHELL DEAN
MARION
4906-285

N77°-23'-51"E 104.98'

205.20'

S44°-04'-55"E

#5 SET REBAR

61.74'

SET #5 REBAR

New 2 br home

Proposed new property line

173.38'

100' of PPBPS

130.49'

S20°-04'-25"E

to Setback

N36°-01'-24"E 175.61'

4ea 100' x 3' gravel trench

171.76'

LOT LINE

LOT 127
WILLIAM C. LEWIS
4626-913

LOT 126
WILLIAM C. LEWIS
4626-913

Cut

4" PVC

Tank

4ea @ 25' PANEL

Garage

3 bedroom house

Pool

Existing 6" well

Old septic

89.1

Septic set

1" set

Old Lot

Set

N77°-23'-51"E

>50'

1" PIPE

R=189.93
L=55.29

CHORD = N21°-00'-18"W
55.09'

R=189.93
L=46.23

CHORD = N04°-24'-25"W
54.57'

S76°-48'-10"E 30.09'

SET #5 REBAR

R=180.00
L=80.79'

CHORD = N46°-28'-38"W
79.19'

Easement

R=180.00
L=46.43

CHORD = N68°-08'-38"W
46.27'

ALTO TERRA DR.

S44°-04'-55"E 205.20'

S20°-04'-25"E

to Setback

S89°-30'-46"E 44.65'

CHORD = N44°-54'-14"E 44.62'

4" PIPE

SET #5 REBAR

N51°-26'-35"E 61.58'

60' R/W

much wider than Actual road

RIO ORO DRIVE

R/W

60' R/W

R/W

R/W

No well on lot
Comm. water

"Quality Pumps Since 1939"

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

Zoeller Co.

3280 Old Millers Lane
P.O. Box 16347 • Louisville, Kentucky 40216
(502) 778-2731 • FAX (502) 774-3624

COMPARE THESE FEATURES

- Non-clogging vortex impeller design.
- Durable cast construction. Cast switch case, motor and pump housing, base and impeller. No sheet metal parts to rust or corrode.
- Stainless steel screws, float rod, guard, handle and arm and seal assembly.
- Float operated submersible (NEMA 6) 2 pole mechanical switch.
- Oil filled motor-hermetically sealed.
- Entire unit pressure tested after assembly.
- Automatic reset thermal overload protection.
- Carbon and ceramic shaft seal.
- Water tight neoprene "□" ring between motor and pump housing.
- Maximum temperature for effluent or dewatering—130° F. - 54° C.
- 60 cycles, 1525 RPM.
- Passes ½ inch solids (sphere).
- No screens to clog.
- Standard cord length 15' (UL listed).
- 1½" NPT Discharge.
- On point—8".
  Off point—2½".
  Major width—10".
  Height—10¾".

SIMPLEX AND DUPLEX SYSTEMS AVAILABLE

PACKAGED SYSTEMS AVAILABLE

Zoeller Co.

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P.O. Box 16347 • Louisville, Kentucky 40216
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Manufacturers of . . .

"Quality Pumps Since 1939"

"97" Cast Iron Series

"FLOW MATE"

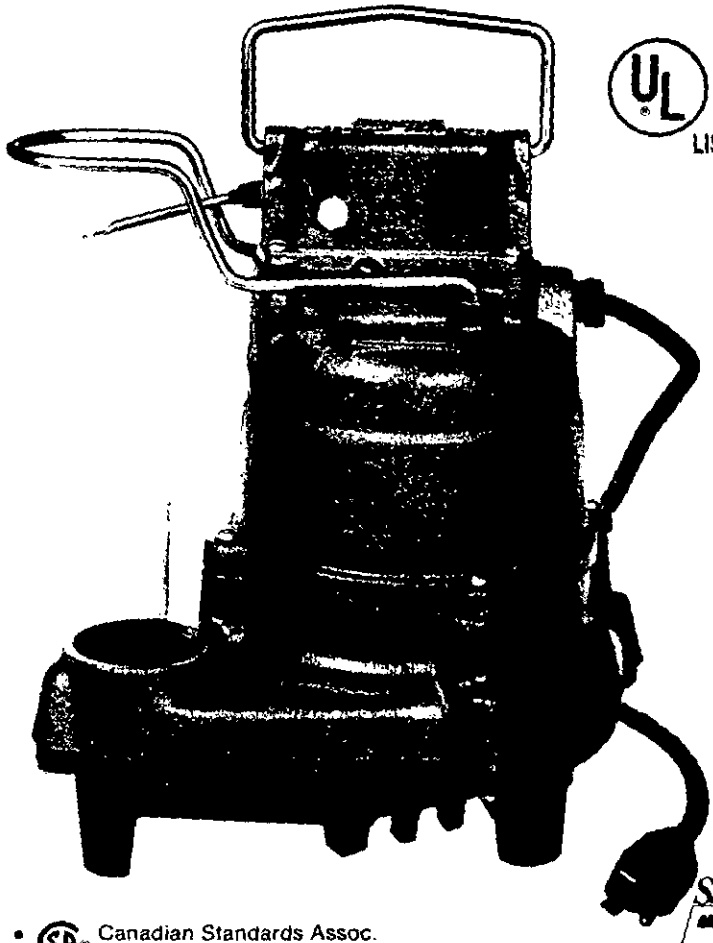
FOR SEPTIC TANK SYSTEMS

EFFLUENT

OR DEWATERING PUMP

SUBMERSIBLE

1½" NPT DISCHARGE



UL LISTED

- CSA Canadian Standards Assoc. Approval available

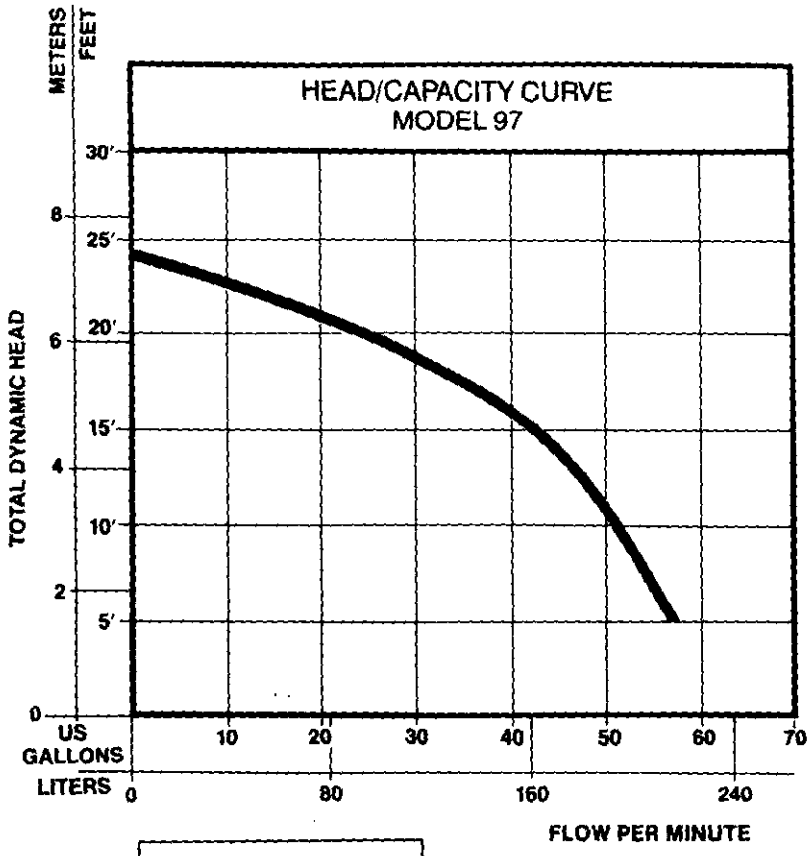
SSPMA MEMBER
SUMP AND SEWAGE PUMP MFRS. ASSN.

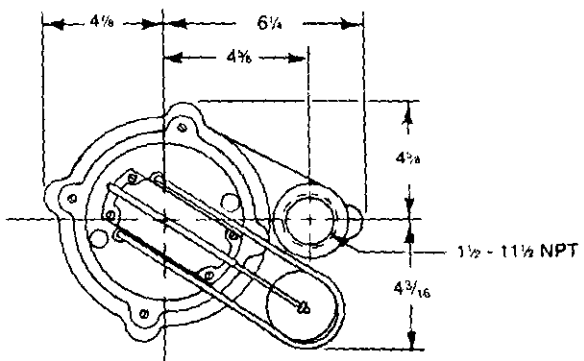
Sump & Sewage Pump Mfg. Assoc.
SSPMA Specification
Number
97 Series SC-2225

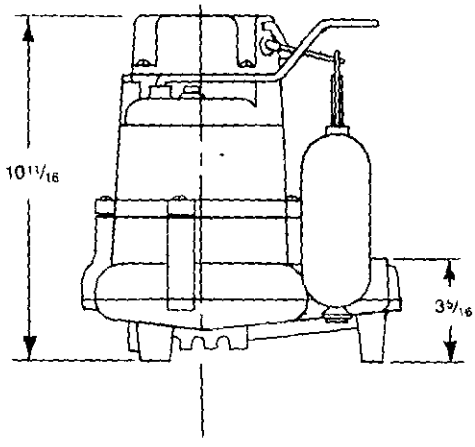
MODELS AVAILABLE

- Automatic or Non-Automatic
- ½ H.P., 1 Ph., 115V or 230V.
- N97 available packaged with Piggyback Mercury Float Switch.

NOTE: No UL listing for Extra Duty (ED) pumps.







TOTAL DYNAMIC HEAD/FLOW PER MINUTE EFFLUENT AND DEWATERING			
HEAD		CAPACITY UNITS/MIN	
FEET	METERS	GAL	LTRS
5	1.52	57	216
10	3.05	51	193
15	4.57	43	163
20	6.10	27	104
Lock Valve		24.5'	

CONSULT FACTORY FOR SPECIAL APPLICATIONS

- Electrical alternators, for duplex systems, are available and supplied with an alarm.
- Mechanical alternators, for duplex systems, are available with or without alarm switches.
- Mercury float switches are available for controlling single and three phase systems.
- Double piggyback mercury float switches are available for variable level long cycle controls.

Standard All Models - Weight 33 lbs. - ½ HP

97 Series				Control Selection	
Model	Volts-Ph	Mode	Amps	Simplex	Duplex
M97	115 1	Auto	12.0	1 or 1 & 7	—
N97	115 1	Non	12.0	2 or 2 & 6	3 or 4 & 5
D97	230 1	Auto	6.0	1 or 1 & 7	—
E97	230 1	Non	6.0	2 or 2 & 6	3 or 4 & 5

SELECTION GUIDE

1. Integral float operated 2 pole mechanical switch, no external control required.
2. Single piggyback wide angle mercury float switch or double piggyback mercury float switch. Refer to FM0477.
3. Mechanical alternator 10-0072 or 10-0075.
4. See FM0712 for correct model of Electrical Alternator, "E-Pak"
5. Mercury sensor float switch 10-0225 used as a control activator, specify duplex (3) or (4) float system.
6. Four (4) hole "J-Pak", junction box, for watertight connection or wired-in simplex or 2 pump operation, 10-0002.
7. Two (2) hole "J-Pak", for watertight connection or splice, 10-0003.

For information on additional Zoeller products refer to catalog on Combination Starter, FM0514; Piggyback Mercury Float Switches, FM0477; Electrical Alternator, FM-0486; Mechanical Alternator, FM0495; Alarm Package, FM0513; and Sump/-Sewage Basins, FM0487.

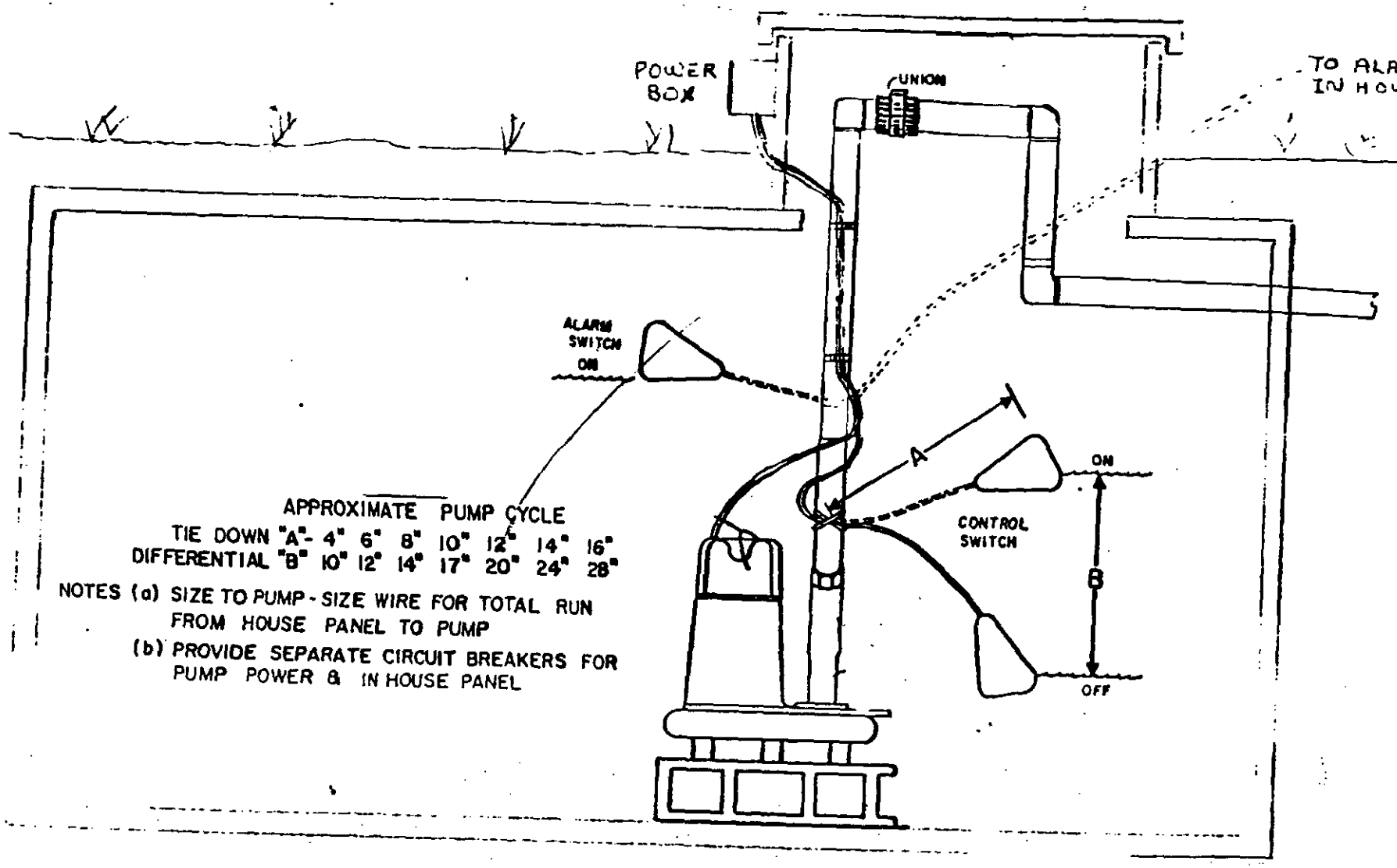
CAUTION

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).

RESERVE POWERED DESIGN

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.

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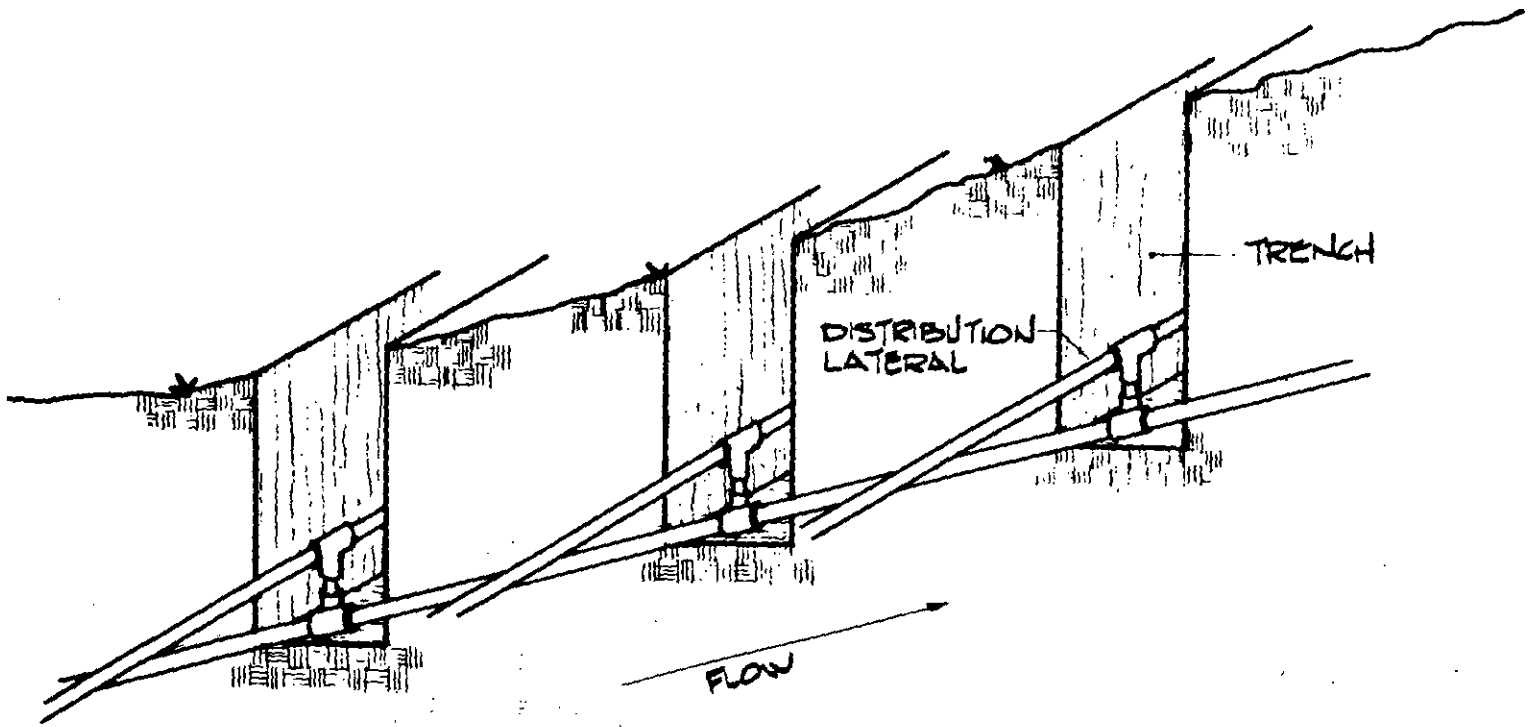


APPROXIMATE PUMP CYCLE

TIE DOWN "A" - 4" 6" 8" 10" 12" 14" 16"
DIFFERENTIAL "B" 10" 12" 14" 17" 20" 24" 28"

NOTES (a) SIZE TO PUMP - SIZE WIRE FOR TOTAL RUN FROM HOUSE PANEL TO PUMP

(b) PROVIDE SEPARATE CIRCUIT BREAKERS FOR PUMP POWER & IN HOUSE PANEL



A PUMPING UPHILL

TCJ CONSULTING

SITE / SOIL EVALUATION

JOB: Lewis PHONE: DATE: 1/13/23

LOCATION: PIN: COUNTY: PROPERTY SIZE: 61

PROPOSED FACILITY: WATER SUPPLY: On-Site Well Community Public EVALUATION: Auger Boring Pit Cut

WEATHER: 60° fair ANTECEDENT MOISTURE: WET SURFACE WATER: Nil

Nelson Site

FACTORS	PROFILE 1	PROFILE 2	PROFILE 3	PROFILE 4
LANDSCAPE POSITION	LS	LS - T	LS	LS
HORIZON I DEPTH	0-.3	0-.2	0-.3	0-.3
Color - Munsell	dk br	br to dk br	br	br
Texture	fsl / sl	l	h c l	c l / l
Structure	gr	gr	m-w sbk	gr
Consistence	vfr NS NP	vfr NS NP	SS SP	vfr NS NP
	weak	m wet	Cgravel/cobbles	
Boundary	C	C	C	C
HORIZON DEPTH II	.3-.6 (E)	.2-1.7 E	.3-.6 (E)	.3-1.3
Color - Munsell	br	br br	br	br
Texture	fsl	fsl / ls	l	c l / l
Mottles	NA	NA	NA	NA
Structure	gr	gr	gr w sbk	
Consistence	vfr NS NP	vfr NS NP		
Boundary	C	C	C	
HORIZON III DEPTH	.6-1.9	1.4-3.1	.8-1.2	1.3-2.2
Color - Munsell	red	red	dk br	red
Texture	c	c	c	c
Mottles	few/com yel/br	NA	gravel/cobble	NA
Structure	SAB	w sbk	matrix	w sbk
Consistence	SS SP	fr SS SP		SS SP
		fr mois		
				wet
Boundary	C	C		
HORIZON IV DEPTH	1.9-3.4	3.1-3.7	packed to 2.6'	2.2-3.1
Color - Munsell	red	red	thin band	red
Texture	h c l	h c l	SAP -	h c l
Mottles	silic	NA		NA
Structure	w SAB	w SAB		w sbk
Consistence	vfr SS NP	fr mois	Clayey cl to 2.6'	vfr SS NP
	fr mois/wet			fr mois/wet
	fr com mois	Not enc		
Boundary				
SOIL WETNESS				
RESTRICTIVE HORIZON				
SAPROLITE				
LTAR				
CLASSIFICATION				

LEGEND

LANDSCAPE POSITION
R - Ridge
S - Shoulder
L - Linear slope
S - Free slope
N - Nose slope
H - Head slope
Cc - Concave slope
Cv - Convex slope
T - Terrace
F - 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
MOIST / 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
efi - extremely firm

STRUCTURE
sg - single grain
m - massive
gr - granular
gbk - subangular blocky
ab - angular blocky
pl - platy
pr - prismatic

use is specifically approved in writing by the designating agency. The following requirements shall also be met:

(A) Nitrification trenches shall be installed with at least 24 inches separating the trench bottom and any soil horizon unsuitable as to soil structure, clay mineralogy, organic soil, rock or saprolite. However, if a low pressure pipe system is used, the minimum separation distance shall be 18 inches.

(B) Nitrification trenches shall be installed with at least 18 inches separating the trench bottom and any soil wetness condition. This separation requirement for soil wetness conditions may be met with the use of a groundwater lowering system only in Soil Groups I and II, with suitable structure and clay mineralogy. However, if a low pressure pipe system is used, the minimum separation distance shall be 12 inches.

(C) Systems shall be installed only on sites with uniform slopes less than 15 percent. Storm water diversions and subsurface interceptor drains or swales may be required upslope of the system.

(D) The long-term acceptance rate shall be based on the most hydraulically limiting soil horizon within 18 inches of the naturally occurring soil surface or to a depth one foot below the trench bottom, whichever is deeper. The lowest long-term acceptance rate for the applicable soil group shall be used for systems installed pursuant to this Rule. However, the long-term acceptance rate shall not exceed 1.0 gallons per day per square foot for gravity distribution or 0.5 gallons per day per square foot for low-pressure pipe systems installed on sites with at least 18 inches of Group I soils below the naturally occurring soil surface or to a depth of one foot below the trench bottom, whichever is deeper.

(E) If the fill system uses low-pressure pipe distribution, all the requirements of Paragraph (a) of this Rule, except Paragraph (a)(2)(B), shall apply. Systems with a design daily flow greater than 480 gallons per day shall use low-pressure pipe distribution.

(F) Fill material shall have such soil texture to be classified as sand or loamy sand (Soil Group I) up to the top of the nitrification trenches. The final six inches of fill used to cover the system shall have a finer texture (such as Group II, III) for the establishment of a vegetative cover. Existing fill material shall have no more than ten percent by volume of fibrous organics, building rubble, or other debris and shall not have discreet layers containing greater than 35 percent of shell fragments.

(G) Where fill material is added, the fill material and the existing soil shall be mixed to a depth of six inches below the interface. Heavy vegetative cover or organic litter shall be removed before the additional fill material is incorporated.

(H) The fill system shall be constructed as an elongated berm with the long axis parallel to the ground elevation contours of the slope.

(I) The side slope of the fill shall not exceed a rise to run ratio of 1:4. However, if the first 18 inches below the naturally occurring soil surface is Group I soil, the side slope of the fill shall not exceed a rise to run ratio of 1:3.

(J) The outside edge of the nitrification trench shall be located at least five feet horizontally from the top of the side slope.

5'

(K) The fill system shall be shaped to shed surface water and shall be stabilized with a vegetative cover against erosion.

(L) The setback requirements shall be measured from the projected toe of the slope. However, if this setback cannot be met, the setback requirements shall be measured from a point five feet from the nearest edge of the nitrification trench if the following conditions are met:

(i) Slope of the site shall not exceed two percent;

(ii) The first 18 inches of soil beneath the naturally occurring soil surface shall consist of Group I soils;

(iii) The lot or tract of land was recorded on or before December 31, 1989; and

(iv) A condition is placed upon the Improvement Permit to require connection to a public or community sewage system within 90 days after such system is available for connection and after it is determined that 300 feet or less of sewer line is required for connection.

(M) The available space requirements of Rule .1945 of this Section shall apply.

(2) An existing fill site that does not meet the requirements of Paragraph (b)(1) of this Rule may be utilized for a sanitary sewage system if the following requirements are met:

(A) Substantiating data are provided by the lot owner (if not readily available to the local health department) indicating that the fill material was placed on the site prior to July 1, 1977.

File # 7356-A

INDIVIDUAL WATER AND WASTEWATER SYSTEMS PROGRAM
APPLICATION FOR SERVICES

[ ] CRT

Mecklenburg County Health Dept.
Environmental Health Division
c/o Hal Marshall Ctr., Suite 211
700 N. Tryon St.
Charlotte, NC 28202

(704)336-5102

COPY

Date: 1/15/93

PERSON FILING APPLICATION:

NAME: Bowers (last) Ronald (first) T. (mi)

ADDRESS: 1815 Orris Ave. PHONE: (407) 452-2511

CITY: Merritt Island STATE: FL. ZIPCODE: 32952

PROPERTY INFORMATION (FROM ENGINEERING FORM):

TAX/PARCEL NUMBER: 00129309 00129321 (part of)

STREET ADDRESS: 21109 Alta Terra Davidson, N.C. 28036

ZONING: R3

PROPERTY OWNER:

NAME: Lewis (last) William (first) C. (mi)

ADDRESS: 21025 Rio Oro PHONE: (__) 892-8371

CITY: Davidson, N.C. STATE: N.C. ZIPCODE: 28036

SUBDIVISION OR MOBILE HOME PARK NAME: Bahia Bay

Township (check one):
[X] 0 Mecklenburg County [ ] 2 Davidson [ ] 4 Pineville [ ] 6 Huntersville
[ ] 1 Charlotte [ ] 3 Cornelius [ ] 5 Matthews [ ] 7 Mint Hill

LOT NUMBER: 124 and part of 125 LOT SIZE (in acres): .461 ac.

TYPE APPLICATION (check one):

[ ] SOIL TEST - INDIVIDUAL LOT (D)
[ ] NEW CONSTRUCTION ON VACANT LOT - 4 BEDROOMS OR LESS (N)
[ ] EXCHANGE MOBILE HOME - SAME # BEDROOMS (Y)
[ ] ADDITION - INCREASE ROOMS/OCCUPANCY/MOBILE HOME SIZE (A or H)
[ ] COMMERCIAL OR INDUSTRIAL (N)
[ ] SOIL TEST DEVELOPMENT (P)
[ ] ADDITION - GARAGE OR RENOVATION/NO MAJOR CHANGES (X)
[X] MODIFIED /ALTERNATIVE/ OR RESIDENCE > 4 BEDROOMS (Z)
[ ] REPAIR TO SYSTEM (R)

RESIDENTIAL PROPERTY (Type Building, check one):
[ ] SINGLE MOBILE HOME (S) [X] HOUSE (H) [ ] MULTIPLE FAMILY (U)
[ ] DOUBLE WIDE (D) [ ] MODULAR HOME (M) [ ] OTHER _____ (O)

NUMBER BEDROOMS: 2 NUMBER OCCUPANTS: 4

SYSTEM CLASSIFICATION: LPP

COMMERCIAL/INDUSTRIAL PROPERTY:
Type Business _____ # Employees ___ Per Shift ___ ___ ___
Industrial Wastes (Y/N) ___
Underground Storage Tanks On Property (Y/N) ___ Type _____

WATER SUPPLY (check one):
[X] Community (C) [ ] Shared Well (S)
[ ] Municipal (M) [ ] Other 'spring' (O)
[ ] Private Well (P)

FUTURE ADDITIONS - ALL PLANNED ADDITIONS MUST BE ENTERED (check all that apply):
[ ] Swimming Pool [ ] Jacuzzi [ ] Stable/Barn [ ] Workshop [ ] None
[ ] Garage [ ] Storage Building [ ] Deck/Patio [ ] Bedrooms [ ] 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 agents of the MECKLENBURG COUNTY HEALTH DEPARTMENT to enter onto the property for the purpose of processing this request.

Signed: Ronald T. Bowers Date: 1-15-93

NOTICE:

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the 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 by this Department.

...This permit is not transferable.

...

[ ] IMPROVEMENT PERMIT - VALID 60 MONTHS FROM ISSUANCE
[ ] MOBILE HOME EXCHANGE APPROVAL - VALID 6 MONTHS FROM ISSUANCE
[ ] ADDITION/RENOVATION APPROVAL - VALID 1 YEAR FROM ISSUANCE

_____ Environmentalist Date

_____ Director or Authorized Section Head Date

WWATER : 122791

TONEY C. JACOBS, CPSS

Rt. 9 Box 164-1
Mooresville, N. C. 28115
(704) 664-6687

CONSULTING SOIL SCIENTIST
NCRCPS ARCPACS

January 13, 1993

MEMORANDUM

To: Mecklenburg County - IWWS (Sylvia Daniel and Kelly Randall)

From: Toney C. Jacobs, CPSS

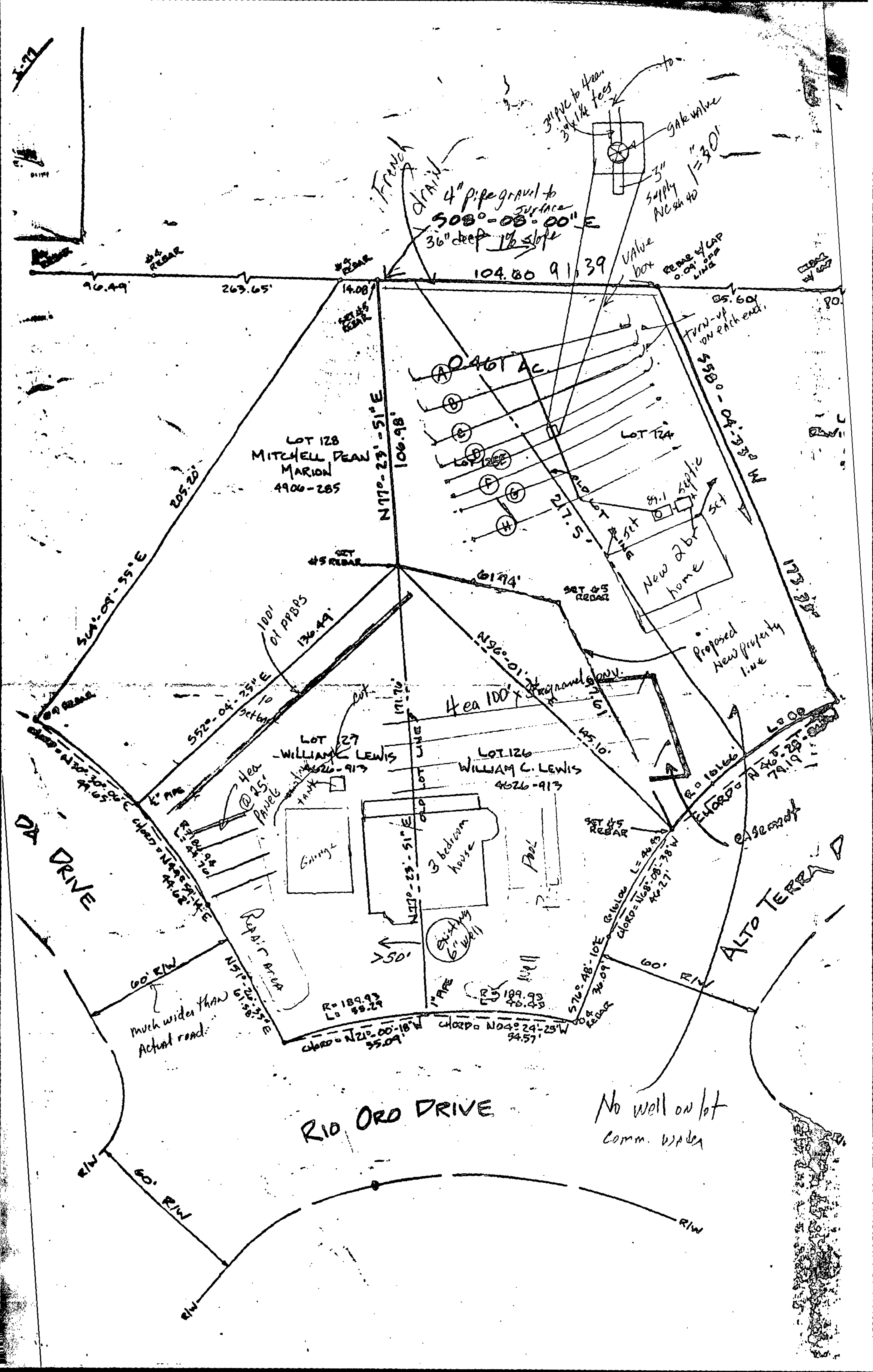
Ref: Changes in septic easements and permit for combined 2 lots in Bahia Bay

Present situation: William Lewis owns lots 124, 125, 126, and 127. His home is on 126 and 127 with the existing septic lines extending on to 125, which has a recorded easement.

I have evaluated 127 and found sufficient provisionally suitable area for an approved modified repair. This would be a pump system, but area is sufficient for pump tank.

William Lewis wants to sell most of 125 and 124 to Ron Bowers for a two bedroom home to be moved in by a house mover. I have designed a modified system (LPP) which I believe meets all sewage regulations.

Request for consideration: Allow change of septic easement on lot 125 from all of lot to a call-and-meet definition, duly recorded with the register of deeds. Consideration of LPP design of January 14, 1993.



French drain
4" pipe gravel to surface
S08°-08'-00" E
36" deep 1% slope
3" PVC to 4 ea. 3"x1¼" tees
gate valve
1"=30'
3" supply PVC sch 40
Valve box
104.80 91.39
96.49
263.65'
14.08'
85.60
Turn-up on each end.
0.46 Ac.
LOT 124
LOT 125E
S58°-04'-33" W
LOT 128
MITCHELL DEAN MARION
4906-285
N77°-23'-51" E
106.98'
205.20'
S41°-09'-55" E
septic
Old Lot line
217.5'
New 2br home
SET #5 REBAR
61.94'
Proposed New property line
173.33'
100' of PPBPS
136.49'
S52°-04'-25" E
10' setback
4 ea 100' x 3' gravel only
N36°-01'
145.10'
LOT 127
WILLIAM C. LEWIS
4626-913
LOT 126
WILLIAM C. LEWIS
4626-913
LOT LINE
171.76'
4ea @25' Panel
tank
cut
Garage
3 bedroom house
Pool
N77°-23'-51" E
easement
Existing 6" well
>50'
Repair area
60' R/W
much wider than Actual road.
R=189.93
L=58.29
1" PIPE
CHORD=N21°-00'-18" W
55.09'
CHORD=N04°-24'-29" W
94.57'
S76°-48'-10" E
36.09'
ALTO TERRA
RIO ORO DRIVE
No well on lot
Comm. water
R/W
60' R/W
DRIVE

APPLICATION FOR SOIL INVESTIGATION

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

(OFFICE USE ONLY)

FILE: 7356A

TC: _____

☐ PC ☐ REPT

JOB LOCATION

① ADDRESS: 21109 ALTO Tierra DR

② SUBDIVISION: Bahia Bay ③ LOT: 124-125 ④ BLOCK: _____

⑤ PARCEL REFERENCE: BOOK NO.: 001 PAGE NO.: 293 PARCEL NO.: 09

⑥ DEED REFERENCE: BOOK NO.: 4723235 PAGE NO.: _____

OWNER

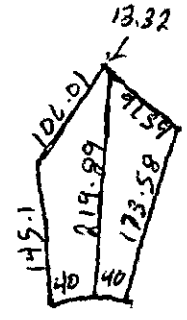
⑦ NAME: William (FIRST) C (MIDDLE) Lewis (LAST)

⑧ MAILING ADDRESS: 21025 Rio ORO DR

⑨ CITY: Davidson ⑩ STATE: NC ⑪ ZIP: 28036

⑫ PHONE: (WORK) 704 892-8371 (HOME) 704 892-8371

⑬ Accurately diagram and dimension lot.



Lot 9-10

⑭ The undersigned, 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: William C. Lewis / Roberta L Lewis

Mecklenburg County services are available without regard to ethnic origin, sex, or disability.

Date: 4-1-91

WHITE - HEALTH DEPARTMENT'S COPY • CANARY - ENVIRONMENTALIST'S COPY • PINK - OWNER'S COPY

MECKLENBURG COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION

CHARGE SLIP

Date: 4-2-91

Name/Company: William C. Lewis

Sanitation _____

Vector Control _____

O.P.W.D. ✓

Service: App. Soil Test
21109 Alto Tierra Drive
File 9356A
TP: 001-293-09

ENVIRONMENTAL HEALTH DIVISION
PAID

APR 2 1991

Fee: $ 50.00 Cash

NOTICE:

A processing fee of $15.00 will be charged for all returned checks in accordance with N.C. General Statute 25-3-512.

Completed by

Collected by

MECKLENBURG COUNTY HEALTH DEPARTMENT
SITE EVALUATION REPORT
SERIAL NUMBER 17093

File: 7356-A Action: 1

Parcel: [illegible] ☑ PC

Location: [illegible]

Subdivision: [illegible]

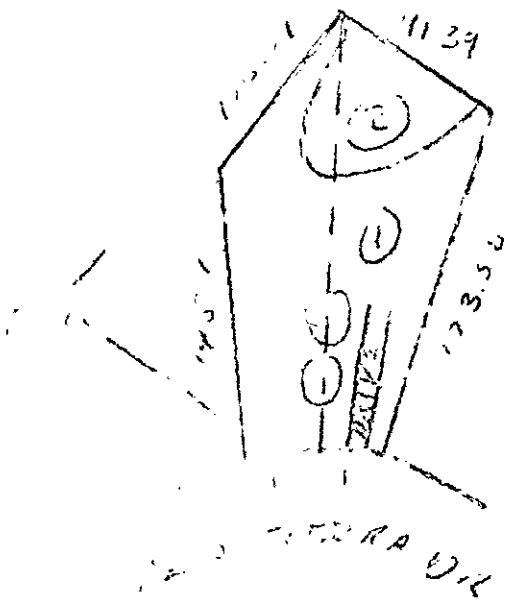
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Owner: [illegible]
Address: [illegible]

Comments: [illegible]

Described by: [illegible]

Date: [illegible]



***** EVALUATION KEY *****

S = Suitable U = Unsuitable
PS = Provisionally Suitable
The "Area Classification" below indicates the suitability of areas in the diagram.

FACTORS	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6
Topography	S (PS) U	S PS U	S PS U	S PS U	S PS U	S PS U
Texture	S (PS) U	S PS U	S PS U	S PS U	S PS U	S PS U
Structure	S (PS) U	S PS U	S PS U	S PS U	S PS U	S PS U
Drainage	S (PS) U	S PS U	S PS U	S PS U	S PS U	S PS U
Depth	S (PS) U	S PS (U)	S PS U	S PS U	S PS U	S PS U
Restrictive Horizons	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Available Space	S PS (U)	S PS U	S PS U	S PS U	S PS U	S PS U
Other (specify)	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Soil Group/Series	[illegible]	[illegible]				
Area Classification	S PS (U)	S PS U	S PS U	S PS U	S PS U	S PS U

APPLICATION FOR SOIL INVESTIGATION

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

(OFFICE USE ONLY)

FILE: 9356 H

TC: _____

☐ PC ☐ REPT

JOB LOCATION

① ADDRESS: 21109 ALTO Tierra DR

② SUBDIVISION: Bahia Bay ③ LOT: 124-125 ④ BLOCK: _____

⑤ PARCEL REFERENCE: BOOK NO.: 001 PAGE NO.: 293 PARCEL NO.: 09

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OWNER

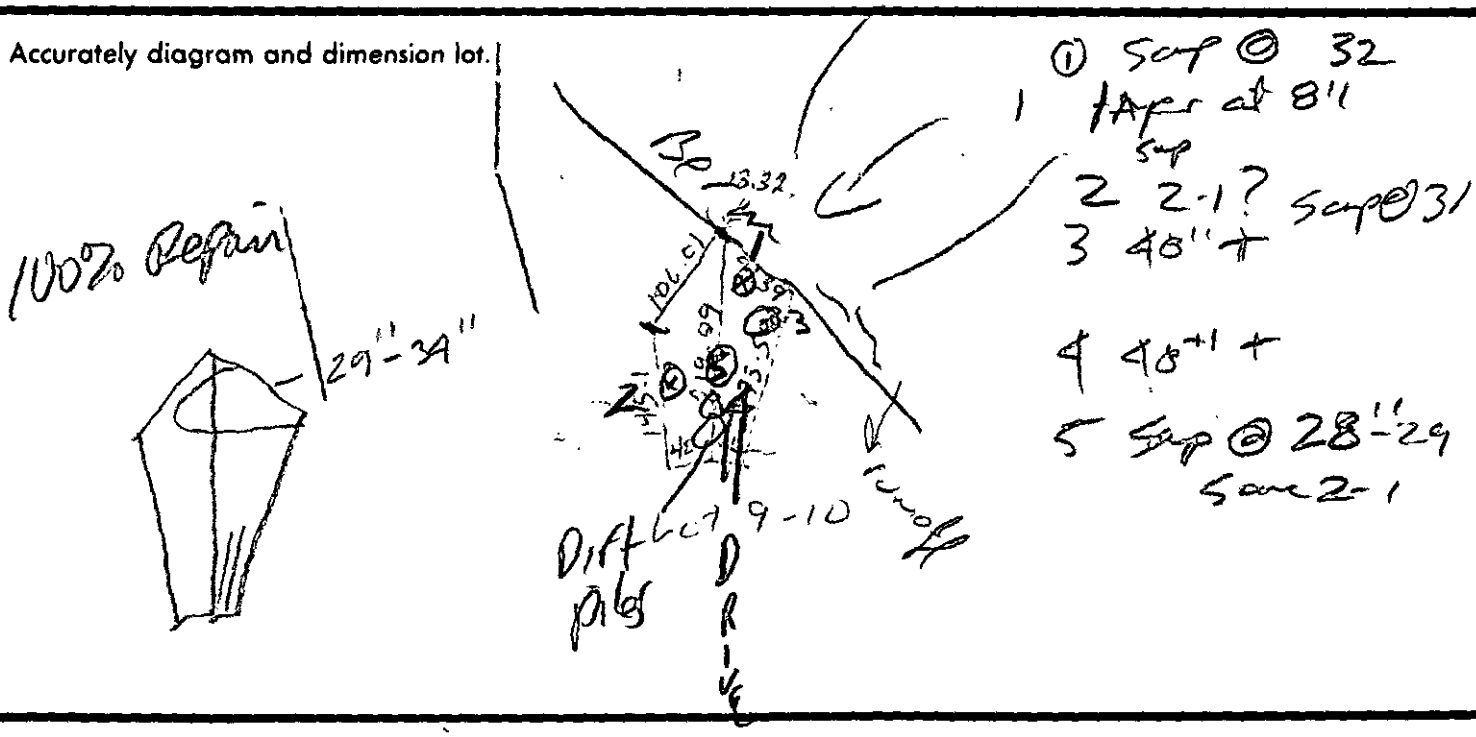
⑦ NAME: Whitfield (FIRST) C (MIDDLE) Lewis (LAST)

⑧ MAILING ADDRESS: 21025 Rio ORO DR

⑨ CITY: Davidson ⑩ STATE: NC ⑪ ZIP: 28036

⑫ PHONE: (WORK) 704 892-8371 (HOME) 704 892-8371

⑬ Accurately diagram and dimension lot.



⑭ The undersigned, 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: 4-1-91

Mecklenburg County services are available without regard to ethnic origin, sex, or disability.

WHITE - HEALTH DEPARTMENT'S COPY • CANARY - ENVIRONMENTALIST'S COPY • PINK - OWNER'S COPY

Mecklenburg County
Health Department

April 10th, 1991

William C. Lewis
21025 Rio Oro Drive
Davidson, NC 28036

RE: Property located at 21109 Alto Tierra Drive
FILE: 7356A
PARCEL: 001-293-09,10

Dear Sir:

At your request, a field investigation was conducted on the property designated above for the purpose of determining site suitability for the installation of a ground absorption sewage disposal system. The property was found to contain a limited area of soils which were classified as PROVISIONALLY SUITABLE for such an installation. A copy of the Site Evaluation Report (Serial Number 17093) is enclosed for your information.

Should you desire to file for permission to install a ground absorption sewage disposal system, please submit an Application For An Improvement Permit with an ACCURATELY dimensioned plot plan detailing the location of current and/or proposed buildings, wells and sewage disposal systems to this office. The plan will be reviewed and if it is found that the area of provisionally suitable soils is adequate for the proposed construction, an Improvement Permit will be issued by this Department.

If there are any questions concerning this matter, do not hesitate to contact me.

Sincerely,

Gene Vaughan, R.S., Supervisor
Individual Water and Wastewater Systems

Enclosure

Environmental Health Division
1200 Blythe Boulevard • Charlotte, North Carolina 28203 • (704) 376-4603