

3309 WINTER HEATH WY

19507204

1/7/2008

duponbj

Groundwater and Wastewater Services File Imaging Project

May 2007

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CERTIFICATE OF COMPLETION/OPERATION PERMIT

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 4949 B DATE: 11-18-03

TC: 195-071-0210 ☒ L ☐ CRT

SERIAL 19397

Name of Owner Ryan Hawes Juris.:

Address of Property Lot 42 Heathfield 3309 Winter Heath Way

Inspection Data:

Tank Material PCC

Total Length of Drainfield 360'

Number of Lines 3 @ 120'

Cover Depth 12" - 24"

Water Supply Source Comm.

Distance to Water Source >100'

Excavation Inspected 11-18-03

Tank(s) Inspected 11-18-03

Wash Line Inspected N/A

High Water Alarm Inspected N/A

PLOT

See Approved Plan on file

Design 1500 ST 1080 SFT INV P.S. CTR# RCS.

The undersigned has inspected the Septic Tank System described above, and certifies it has been

☑ installed or constructed ☐ altered or repaired

☑ in accordance with the permit issued ☐ as detailed in the plot above

and meets the provisions of I5A NCAC 18A. 1900, "Laws And Rules For Sewage Treatment and Disposal Systems" in effect on the date of issuance of the permit. This issuance of this

☐ Certificate of Completion ☑ 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 I5A NCAC 18A. 1990 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/revocation of this permit.

COMMENTS: Type III B2, system for a (4) bedroom design unit Type III (B) (2) repair

Joshua R. Allen R.S. IREHS
Environmental Health Specialist

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

INSTALLATION, CONSTRUCTION, ALTERATION, AND/OR REPAIR APPROVAL

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
700 NORTH TRYON ST., SUITE 211
CHARLOTTE, NC 28202
PHONE (704) 336-5102

FILE: 4949B DATE: 11-11-03

TC: 155-07-04 V/L

SERIAL 19585

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 05-06-02. All work shall be completed on or before 12-08-03, after which date this permit shall be null and void. The system shall meet all of the construction requirements of 15A NCAC 18A. 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.

See approved Plan on file

copy provided to contractor 11-11-03

PLOT OF SYSTEM

Liquid Capacity of Septic Tank 1500 gallons

Liquid Capacity of Dosing Tank 1000 gallons

Tank Construction PCC

Trench Depth ≤ 36"

Absorption and/or Nitrification Lines:

Trench Width 3' feet

Trench Walls Scored and Porous yes

Total Line Length 348' feet

Number of Lines 3@116'

Depth of Stone ~~6~~ N/A inches

Distance from House ~~@~~ >75' feet

Distance from Property Line >10' feet

Distance from Well >100' feet

NOTICE: This system shall not be installed while soils are in a wet condition.

NAME OF OWNER Ryan Homes

LOCATION OF PROPERTY 3315 Winter Heath Way

Comments: Type III(B)(2) System designed for a (4) bedroom design unit Type III(B) 2. repair Warranty and Agreement forms Required

Joshua R. Sellers RS/REHS
Environmental Health Specialist

WHITE - HEALTH DEPARTMENT's COPY • CANARY - E.H.S. COPY • PINK - OWNER OR AGENT's COPY

NORTH CAROLINA
FIVE YEAR LIMITED WARRANTY
Approved Effective April 24, 2002

Ring Industrial Group ("Ring") hereby extends, for a period of FIVE (5) YEARS, the following Limited Warranty to the system owner who acquires through an authorized EZflow Brand drain field system installer a new EZflow Brand drain field system located in the State of North Carolina. The drain field system is warranted to be free from defective materials and workmanship and to perform in accordance with the state performance requirements (15A NCAC 18A Section .1900) in effect on the date of installation. This Limited Warranty applies only to those EZflow Brand drain field systems whose trench length modification has greater than a 25% reduction as compared to the sizing standard for a conventional gravel trench as permitted by the State of North Carolina. This Limited Warranty is subject to the terms and conditions stated below.

I. WARRANTY ELIGIBILITY:

The system owner is eligible for this Limited Warranty provided all of the terms and conditions of this Limited Warranty are strictly followed. The terms of this warranty shall transfer from the original system owner to subsequent system owners for the duration of this Limited Warranty. This Limited Warranty covers only the performance of the EZflow Brand drain field system as manufactured and installed in accordance with the manufacturer's design specifications and current state regulatory approval.

II. CONDITIONS OF LIMITED WARRANTY:

This Limited Warranty shall only apply if the EZflow Brand drain field system is installed for use with domestic strength effluent and located in the State of North Carolina and all of the following terms and conditions are satisfied:

(i) The design and installation of the EZflow Brand drain field system is according to all applicable plumbing and building codes, ordinances, requirements and regulations.

(ii) The design and installation of the EZflow Brand drain field system is strictly according to the rules and regulations of the North Carolina state agency or state-authorized agency that is responsible for inspection and approval.

(iii) The design and installation of the EZflow Brand drain field system is strictly according to all applicable permitting procedures for the EZflow Branddrain field systems adopted by the North Carolina state agency or state-authorized agency that is responsible for inspection and approval.

(iv) The EZflow Brand drain field system is subject to use permitted by the applicable North Carolina rules and regulations for on-site systems.

(v) Only an authorized EZflow Brand drain field system installer shall perform the installation of the EZflow Brand drain field system.

III. WHAT IS WARRANTED AND FOR HOW LONG:

The EZflow Brand prefabricated nitrification drain field system is warranted for FIVE (5) YEARS from the date of issuance of the Certificate of Occupancy, or the date of issuance of the Operation Permit, which ever is later.

If the EZflow Brand drain field system fails within the five (5) year period of this Limited Warranty and all of the terms, conditions and requirements of this Limited Warranty have been met, Ring shall provide all materials and labor that may be necessary to provide a fully functional wastewater system at no cost to the system owner. This section shall not be construed to require that a manufacturer warrant an innovative wastewater system that is not properly sized to meet the design load required for a particular use, that is improperly installed, or that is improperly operated and maintained, in accordance with 15A NCAC 18A .1900 et. seq. Warranty repairs such as full replacement of the nitrification system, extension of the nitrification system or other repairs shall be completed pursuant to a repair Authorization to Construct to be issued by the local health department in accordance with 15A NCAC 18A .1900 et. seq. Rule .1961(1).

A system failure is defined by North Carolina 15A NCAC 18A .1900 rules.

IV. WHAT IS NOT COVERED BY THIS LIMITED WARRANTY:

1. The septic tank and all septic tank filters, unless required to make the system fully functional.
2. Effluent distribution box(es) and headers, unless required to make the system fully functional.
3. Improper installation
4. Plastic pipe not authorized by Ring to be used with the EZflow Brand drain field system.
5. Failure due to excessive use or improper use as defined by state rules for on-site wastewater systems, including, but not limited to, excessive water usage, improper grease disposal, or failure to remove septic tank solids (digested sludge).
6. Landscaping costs other than those specified by rule
7. Failure due to improper sizing as defined by state rules.
8. Repair work performed prior to a claim or which is done without Ring authorization.
9. This Limited Warranty does not extend to incidental, consequential, special, indirect or punitive damages.
10. Drain fields repaired or modified by an unauthorized EZflow installer.

V. RING OBLIGATIONS:

No representative of the company has the authority to change this warranty in any manner whatsoever, or to extend this warranty. No warranty applies to any party other than the original system owner or subsequent system owner.

VI. OWNER'S OBLIGATION:

1. Must have a signed and dated Operation Permit from the duly authorized representative of the North Carolina state agency or state-authorized agency that is responsible for EZflow Brand drain field system inspection and approval.
2. Must have a Warranty Certificate from an authorized EZflow Brand drain field system installer.
3. The system owner must notify the company in writing at its corporate headquarters within 90 days of being notified by an authorized agent of the state that the system has failed. Notice shall be sent to Ring Industrial Group, 65 Industrial Park Road, Oakland, TN 38060.
4. The system owner must have the septic tank solids (digested sludge) properly removed in accordance with state rules for on-site systems.

VII. DISCLAIMER AND LIMITATION ON IMPLIED WARRANTIES:

ALL WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND THERE ARE NO OTHER WARRANTIES. ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, IMPOSED ON THE SALE OF EZFLOW BRAND DRAIN FIELD SYSTEM TO THE NORTH CAROLINA SYSTEM OWNER, ARE, BY LAW, LIMITED TO FIVE (5) YEAR DURATION FOR THE EZFLOW BRAND DRAIN FIELD SYSTEM AND ITS CONSTITUENT PARTS, AND ARE SUBJECT TO THE TERMS AND CONDITIONS OF THIS LIMITED WARRANTY. THIS WARRANTY DOES NOT EXTEND TO INCIDENTAL, CONSEQUENTIAL, SPECIAL, DIRECT OR INDIRECT DAMAGES, WHETHER ARISING IN CONTRACT OR TORT. THE COMPANY SHALL NOT BE LIABLE FOR LOSS OR DAMAGE TO PERSONAL PROPERTY, PENALTIES OR LIQUIDATED DAMAGES, LOSS OF PRODUCTION AND PROFITS, OVERHEAD COSTS, OR OTHER LOSS OR EXPENSE. SPECIFICALLY EXCLUDED ARE DAMAGE DUE TO WATER DAMAGE, ORDINARY WEAR AND TEAR, ALTERATION, ACCIDENT, MISUSE, ABUSE, OR NEGLECT; THE UNITS BE SUBJECTED TO STRESSES OR VEHICULAR TRAFFIC GREATER THAN THOSE PRESCRIBED IN THE INSTALLATION INSTRUCTIONS OR OPERATION INSTRUCTIONS; FAILURE TO MAINTAIN THE MINIMUM GROUND COVERS SET FORTH IN THE OPERATION INSTRUCTIONS; THE SYSTEM FAILURES DETERMINED TO BE DUE TO NON-COMPLIANCE WITH THE ON-SITE WASTEWATER LAW OR RULES (130A-133, et. seq.; 15A NCAC 18A Section .1900) INCLUDING BUT NOT LIMITED TO IMPROPER SITING, EXCESSIVE WATER USAGE, IMPROPER GREASE DISPOSAL, PLACEMENT OF IMPROPER MATERIALS INTO THE SYSTEM, IMPROPER OPERATION OR IMPROPER MAINTENANCE; OR ANY OTHER EVENT NOT CAUSED BY THE COMPANY. THIS PERMIT SHALL BE VOID IF THE SYSTEM OWNER FAILS TO COMPLY WITH ALL OF THE TERMS SET FORTH IN SECTION II AND IV OF THIS WARRANTY.

FURTHERMORE, IN NO EVENT SHALL THE COMPANY BE RESPONSIBLE FOR ANY LOSS OR DAMAGE TO THE ORIGINAL OR SUBSEQUENT SYSTEM OWNER(S), THE DRAIN FIELD SYSTEM, OR ANY THIRD PARTY RESULTING FROM SHIPMENT OF THE DRAIN FIELD SYSTEM, OR FROM ANY PRODUCT LIABILITY CLAIMS OF THE ORIGINAL OR SUBSEQUENT SYSTEM OWNER(S) OR ANY THIRD PARTY.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. NORTH CAROLINA LAW MAY GIVE YOU CERTAIN SPECIFIC OTHER RIGHTS WHICH ARE NOT MENTIONED HEREIN.

VIII. TRANSFER OF WARRANTY

This warranty extends to the original system owner and to each subsequent owner of the system during the term of this Limited Warranty.

"I acknowledge to the company and the system owner that the wastewater system and the EZflow Brand drain field system have been installed in accordance with the installation instructions of the company, state wastewater laws and rules, the innovative wastewater system approval, the improvement permit and authorization to construct, and any conditions on the permit or authorization to construct, and other applicable laws and rules."

IX. INSTALLER CERTIFICATION

Business Name of Installer R.C.S. INC.

Name of Person signing (Print) Cathy Hudson

Date 11-19-03

This warranty is provided in triplicate. One copy shall go to Ring Industrial Group, one to the local health department, and one to the system owner.

Write: Ring Industrial Group
65 Industrial Park Road
Oakland, TN 38060
Toll Free Phone: (800) 280-6333

Lot 42 Heath Field 4949B

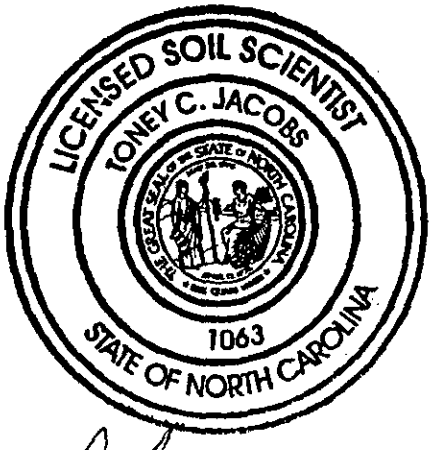
RESIDENTIAL INFILTRATOR CHAMBER SEPTIC SYSTEM WITH PRESSURE MANIFOLD DOSING FOR SUBSURFACE WASTEWATER DISPOSAL 3315 WINTER HEATH WAY HEATHFIELD SUBDIVISION - LOT 42 MINT HILL

MCHD FILE # 4949B

Prepared for:
Ryan Homes
10815 David Taylor Drive
Charlotte, North Carolina 28027

Prepared by:
Toney C. Jacobs & Associates, Inc.
168 Broadbill Drive
Mooresville, North Carolina 28117
office (704) 663-6905
fax (704) 662-9845
e-mail jacobs@i-america.net

March 13, 2003



Toney C. Jacobs, LSS

Copy: Mr. Josh Sellers, R.S.
Mecklenburg County Health Dept.-IWWS
700 N. Tryon Street
Charlotte, N.C. 28202

BACKGROUND

This is a combination of previously platted lots 41 and 42. Because Lot 41 was unsuitable for a drainfield it was combined to give a building unit. Much of the lot is excluded for use because of the pond located at the rear and the required 50'setback.

A 35% reduction system is used to preserve the mature trees on the lot and for conserving space. The system uses a wide 116' aerial window and should offer an excellent potential for service. The required 50 foot setback for the pond is observed to all parts of the septic. The repair will be a 25% reduction Infiltrator with pressure distribution because of unequal lines. All soil profiles by Mr. Bill Marlin (MCHD) were ps soils to > 48" and 0.3LTAR.

APPLICATION INFORMATION

1. Owner: Ryan Homes
   10815 David Taylor Drive
   Charlotte, N. C. 28227

   Soil Scientists
   and Designers: Toney C. Jacobs, LSS
   Toney C. Jacobs & Associates, Inc.
   168 Broadbill Drive
   Mooresville, NC 28117
   (704) 663-6905 (Office)
   (704) 662-9845 (fax)
   e-mail jacobs@i-america.net

2. Water supply is provided by public water system.
3. Facility to be served by the proposed system is a 4-bedroom single family residence.

LOCATION

The property is located at 3315 Winter Heath Way.

REFERENCES

Law and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment Health and Natural Resources, August 1, 1998.

PLANS AND SPECIFICATIONS FOR SPECIFIC SYSTEM COMPONENTS

Septic Tank

1. The septic tank receives wastewater directly from the house.
2. A septic tank shall be watertight, structurally sound, and not subject to excessive corrosion or decay.

3. The septic tank must be of two-compartment design for maximum solids and retention. The inlet compartment of two-compartment tank shall hold between two-thirds and three-fourths of the total tank capacity.
4. Effluent from the two-compartment septic tank flows by gravity through a State approved effluent filter and a four-inch solid PVC pipe to the pumping tank.
5. Both the septic tank and pumping tank must be provided with above ground approved manhole risers to provide easy access for clean-out and pump service.
6. When prefabricated concrete tanks or tanks of other material are used, they shall be constructed in accordance with the plans which have been approved by the State and shall comply with all requirements of Section .1953 of 15A NCAC 18A.
7. On the outlet tee of the septic tank an effluent filter must be installed. This filter should be equivalent to a Zabel Model A1800 or other State approved unit supplied by the tank manufacturer.

Pumping Tank

1. The pumping tank shall have an access manhole extending at least 6 inches above finished grade.
2. A septic tank effluent pump that will not be corroded by sewage shall be used in the pumping tank.
3. The pump must be placed on two concrete blocks set next to each other on the bottom of the tank. This prevents the pumping of any solid particles that can clog the system.
4. A piece of nylon 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.
5. The lower level control or "pump-off" must be positioned above the pump, so that the pump remains submerged at all time.
6. The pump outlet pipe should be connected to the supply manifold with a threaded PVC union to allow quick removal
7. Pump and Simplex control circuits shall be provided with manual circuit disconnects within a watertight, corrosion-resistant, outside enclosure (NEMA 4X or equivalent) adjacent to the pump tank, securely mounted at least 12 inches above finished grade. Pump control (Simplex) may be mounted on side of house if long cord pump is used. The pump shall be manually operable without requiring the use of special tools or entrance into the tank for testing purposes. Conductors shall be conveyed to the disconnect enclosure through water proof, gas proof, and corrosion-resistant conduits, with no splices or junction boxes provided inside the tank. Wire grips, duct seal or other suitable material shall be used to seal around wire and wire conduit openings inside the pump tank and disconnect enclosure. There shall be two electric circuits for controls: one for pump power, one for the alarm. These will require 2 circuit breakers.
8. The pump tank shall have a properly functioning high-water alarm. The alarm circuit shall be supplied ahead of any pump overload and short circuit protective devices. It should be on a separate electrical circuit from the pump power line. The alarm shall be audible and visible by system users and included in the pump and control enclosure (Simplex Panel). The alarm is activated if the water level in the pump tank rises above the "pump-on" float control. The tank provides at least one day or more of

excess storage capacity (depending on water use in the home) during which time the system must be repaired.

9. Float switch for the high water alarm shall be set no more than 3 inches above the high water level of pump cycle.
10. Float switch tie downs to be made of corrosion resistant material, no tape or metal hose clamps. For maintenance flexibility, tree must be used to set floats.
11. Watertight testing per .1900 rules shall be required on two piece pump tanks.
12. Wiring between the pumping tank and the house should meet State and local code requirements.

Pipe and Fittings

1. All pipes and fitting should be made of SCH 40 PVC.
2. All joints must be sealed with appropriate PVC-solvent cement.
3. There should be a threaded PVC union above the pump to allow easy removal or replacement.
4. A gate valve for final pressure adjustment is installed in the supply line inside the pumping tank.
5. Manifold and valve as shown in specifications.

CONSTRUCTION INSTALLATION

Site Preparation

1. One of the most important concerns for an on-site system is to protect the site from soil disturbance by heavy equipment.
2. Now that the absorption area has been designed and flagged, it should be roped off and protected from construction traffic. No site preparation or construction work should occur if the soil is wet.
3. After the soil is dry enough, the site should be cleared of brush and trees.
4. After the area has been cleared and shaped, the location of the lateral lines and supply manifold should be accurately re-flagged according to design specifications. Each lateral line must be laid out along a level contour using a transit. This step can be completely avoided if flags are protected during clearing.

Tank Installation

1. The two-compartment septic tank is installed.
2. The pumping tank is installed next to the septic tank.
3. The tanks are connected with an appropriate length of solid, four-inch PVC pipe.

Supply Manifold

1. The supply manifold conveys effluent from the pump to the distribution laterals.
2. Design of the pressure manifold is shown on attached diagram.

3. After the supply manifold has been placed in its trench and lateral lines connected, it should be backfilled with tightly tamped soil. The supply manifold trench must not be backfilled with gravel, or the trench may become a conduit for downslope flow effluent from the laterals.

Lateral Lines

1. Infiltrator chambers shall be used.
2. Sand backfill shall be placed over the vents on the side of the chambers.
3. A minimum of 12" of cover shall be placed over the chambers.
4. Follow manufacturer's guides.

PROPER OPERATION CHECK AND PRESSURE HEAD ADJUSTMENT

1. After all connections have been installed and connected, the system should be checked for proper operation. With electrical power turned off, fill the pump tank with a garden hose until the liquid rises to the level of the high-water alarm float.
2. Turn on the electrical power. The alarm light should go off when the liquid level falls below the high-water float. The pump should turn off when the liquid reaches the lowest float control. Be sure the pump is still completely submerged.
3. The pressure head is measured as the height liquid will rise above the pressure manifold when the pump is running. To set or check the pressure head:

    - Glue a three-foot length of pipe (preferable clear) to a threaded adapter that will screw into the pressure manifold.
    - Turn the power on to allow liquid to rise in the pipe.
    - Adjust the gate valve until the effluent reaches the desired height in the pipe.

FINAL LANDSCAPING

1. After the system is installed, the following should be checked to ensure that the system will not be overloaded with excess rainwater and runoff:
    - The distribution field is shaped to shed rainwater and is free of low areas.
2. Finally, the entire area should be planted with grass in order to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized before planting. After applying an appropriate grass seed, the area should be heavily mulched with straw or other suitable material.

QUALITY ASSURANCE REQUIREMENTS

The system must be installed by a qualified, contractor that is on the Mecklenburg County list of competent contractors. Critical stages of the installation, which should be checked, are:

1. System layout

2. Septic and pump tank installation prior to backfilling.
3. Manifold and lateral installation prior to backfilling.
4. Final landscaping, operation and pressure head check.

The system design is based on a maximum waste flow of 480 gallons per day. Homeowners should pay particular attention to the section titled Homeowner Suggestions for ways to minimize the burden on the system.

OPERATION AND MAINTENANCE PROCEDURE

The system is classified as Type III and does not require a maintenance contract with a certified operator. The following are operating, maintenance and inspection procedures the homeowner should follow.

- Septic system shall be pumped every 4 years or when solids accumulate to 1/3 the volume of the tank.
- At 6 month intervals inspect the effluent filter. When washing the filter, debris must be sprayed directly back into the septic tank and not onto the lawn.
- Pressure head at manifold should be checked and adjusted one month after installation and annually thereafter.
- All piping and fittings shall be checked annually for damage and/or proper operation and corrections made immediately.
- The property should be inspected to insure all surface water is diverted away from the fields and tank. Any ponding of surface water should be corrected.
- Grasses shall be mowed and maintained and any erosion shall be corrected promptly.
- The nitrification field area shall be checked for leakages, blowouts or malfunction, indications of damp or mushy areas compared to surrounding area or evidence of noticeable odor of sewage. Repairs shall be made immediately.
- The pump electrical should be checked to insure tight, clean connections with no corrosion and proper operation.
- Pump switches shall be checked for free operation and proper level set.
- Pump draw down depth and delivery rate shall be checked each year.
- Check septic tank and pump tank for evidence of damage or leakage. Check the quality of effluent including grease and sludge accumulation.

HOMEOWNER SUGGESTION

Most systems do not require much effort to operate and maintain. Even though the effort is small, the system must be maintained properly so that it operates reliably and at a minimum cost. Following are suggestions for the homeowner to minimize the burden on the septic system.

1. Garbage disposals should not be used in on-site systems. The ground garbage adds large amounts of solids to a septic tank, causing sludge to build up at a quicker rate than without. If disposal is installed, use should be limited.
2. Grease, cooking oils and coffee grounds should never be put into a septic tank.
3. Items such as disposable diapers, cigarettes, facial tissues and other solid or paper wastes should not be flushed into the on-site system.
4. Used motor oil and other such oily liquids should not be put into a septic tank.
5. Using less water can reduce the amount of water flowing to the treatment and disposal field.
6. Water-saving fixtures and devices can be installed on sinks, toilets and showers to reduce the rate at which the water flows from the fixture.
7. Dishwashers and washing machines should only be run with full loads.
8. Leaky faucets and toilets can add large volumes of water to the daily flow of water into the on-site system. Repair the leaks to save water and give the treatment and disposal field a rest.
9. Roof drains, basement sump pumps, foundation drains, and other such drains should not empty into or onto the surface above the on-site system. These drains should be directed to another part of the lot away from the treatment and disposal field.

DESIGN SPECIFICATIONS

3315 Winter Heath Way

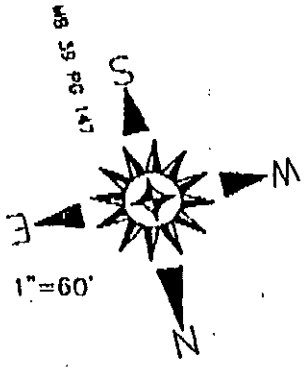
Daily design flow:	480 gpd.
Septic tank size:	1500 gal. (2 compartments)
Pumping tank size:	1500 gal.
Effluent loading rate:	0.3 gpd/ft^2
Total length and diameter of supply pipe:	app. 165' of 2" SCH 40 PVC
Number and length of laterals:	3 @116' long
Number and length of repair laterals:	5 lines ,1 @90', 75', 130', 70', 35'
Pressure Manifold:	3 taps at ½" (SCH 40 PVC)
Flow rate through the system:	21.3 gpm capability
Elevation head:	Approx. 16.0'
Pressure head:	2.0'
Friction head:	6.0'
20% contingency	4.8'
Total head:	28.8' (to be verified at installation after tanks are set)
Pump requirements:	21.3 gpm at 28.8' of head; use Goulds WE05H ½ hp pump or equivalent with compatible electrical
Dosing volume:	295 gal. – 1.2 doses/day at design flow
Depth of water pumped per dose:	calculated to specific tank by measure or dealer engineering specifications(1 cubic ft. of water equals 7.48 gal.)
Pump run per dose:	approx. 13.8 min
Check valve:	No
Siphon break hole:	No
Water service:	cross perpendicular beneath water service with a minimum of 18" of separation if applicable.

SITE DEVELOPMENT PLAN

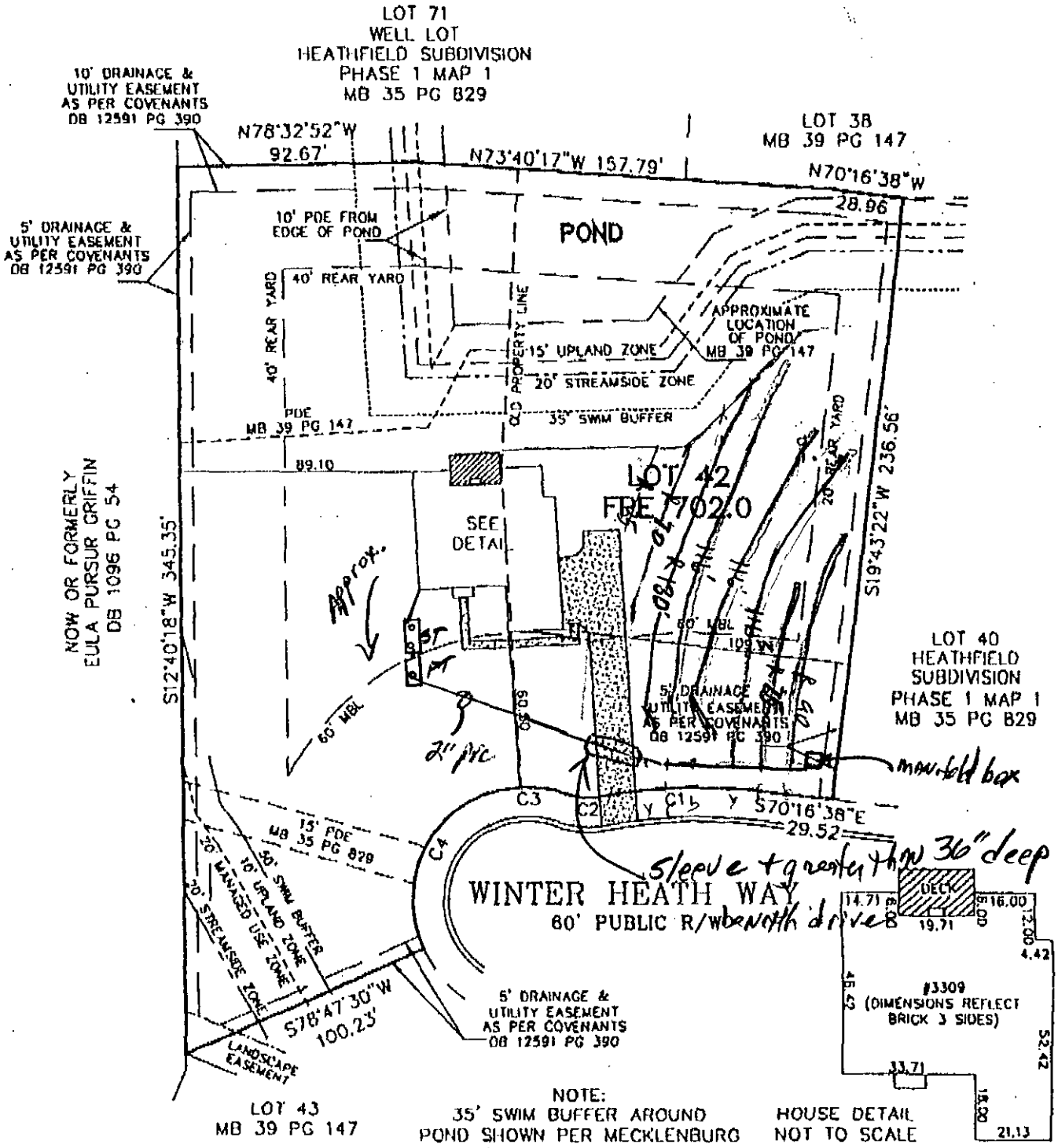
PREPARED BY:

DELTA LAND SERVICES, INC.
6033 FLORENCE AVENUE, SUITE 100
CHARLOTTE, NORTH CAROLINA 28212
(704) 536-6190

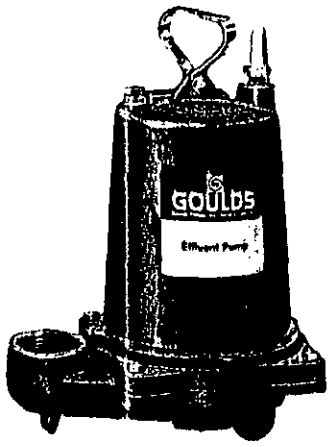
THIS SITE PLAN IS TO SHOW THE PROPOSED LOCATION OF THE HOUSE ON THE LOT AND IS NOT TO BE RELIED UPON FOR CONSTRUCTION.



SCALE: 1"=60'



Curve Table					
CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C1	110.00'	59.11'	58.65'	S79°11'07"E	18°48'51"



Goulds

Submersible Effluent Pump

MODEL

3885

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Farms
- Trailer courts
- Motels
- Schools
- Hospitals
- Industry
- Effluent systems

SPECIFICATIONS

Pump

- Solids handling capabilities: ¾" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 128 GPM.
- Total heads: up to 123 feet TDH.
- Mechanical seal: silicon carbide-rotary seal/silicon carbide-stationary seal, 300 series stainless steel metal parts, BUNA-N elastomers.
- Temperature: 104°F (40°C) continuous 140°F (60°C) intermittent.
- Fasteners: 300 series stainless steel.
- Capable of running dry without damage to components.

Motor

Single phase:

- ⅓ HP, 115 V, 200 V, 230 V, 60 Hz, 1750 RPM; ½ HP, 115 V, 60 Hz, 3500 RPM; ½ HP – 1½ HP, 230 V, 60 Hz, 3500 RPM.
- Built-in overload with automatic reset.
- Class B insulation.

Three phase:

- ½ HP – 1½ HP 200/230/460 V, 60 Hz, 3500 RPM.
- Class B insulation.
- Overload protection must be provided in starter unit.
- Shaft: threaded, 400 series stainless steel.
- Bearings: ball bearings upper and lower.
- Power cord: 20 foot standard length (optional lengths available).

Single phase:

- ⅓ and ½ HP – 16/3 SJTO with 115 V or 230 V three prong plug.
- ¾-1½ HP – 14/3 STO with bare leads.

Three phase:

- ½-1½ HP – 14/4 STO with bare leads. On CSA listed models – 20 foot length SJTW and STW are standard.

FEATURES

■ **Impeller:** Cast iron, semi-open, non-clog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Silicon bronze impeller available as an option.

■ **Casing:** Cast iron volute type for maximum efficiency. 2" NPT discharge adaptable for slide rail systems.

■ **Mechanical Seal: SILICON CARBIDE VS. SILICON CARBIDE** sealing faces. Stainless steel metal parts, BUNA-N elastomers.

■ **Shaft:** Corrosion-resistant stainless steel. Threaded design. Locknut on three phase models to guard against component damage on accidental reverse rotation.

■ **Motor:** Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.

■ **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage.

■ **Bearings:** Upper and lower heavy duty ball bearing construction.

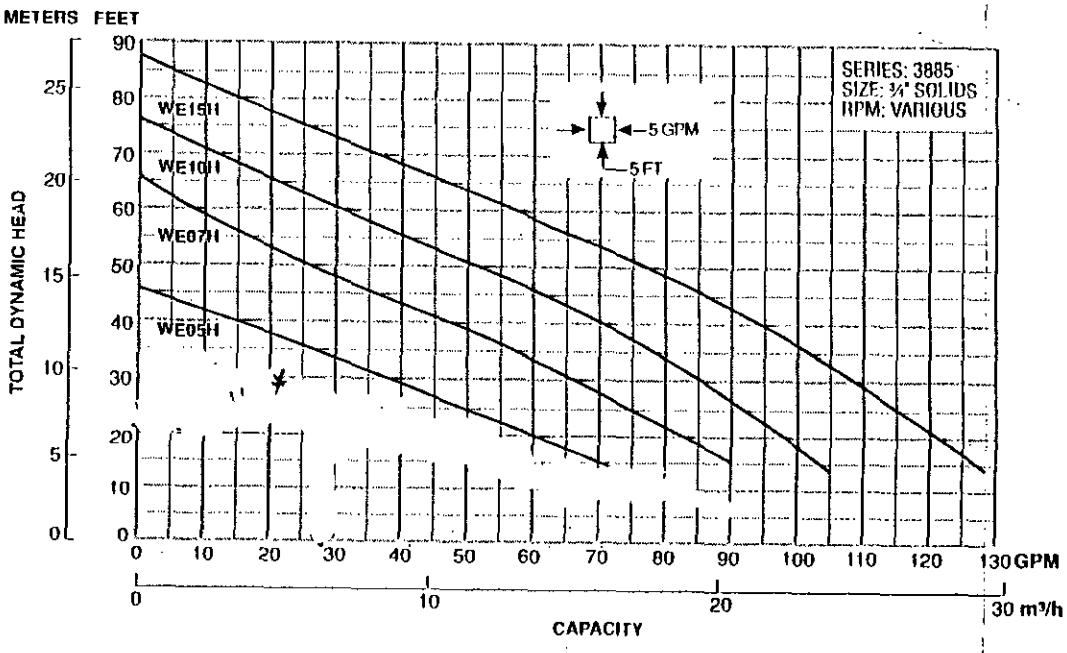
■ **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking.

■ **O-ring:** Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS

Canadian Standards Association

Underwriters Laboratories



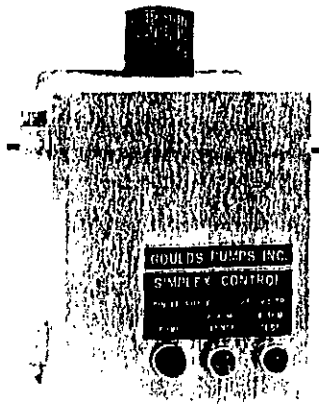
© 1995 Goulds Pumps

Effective May, 1995
B3885

Goulds

SES Series Customized Control Panels

Simplex/Weather Proof Controller with Alarm



APPLICATIONS

Superior quality simplex liquid level controller, automatically maintains pump operation, includes high level alarm warning for a variety of sump, effluent, sewage and water transfer applications.

SPECIFICATIONS

- Accepts single or dual power feed.
- Hand-off automatic pump selection switch.
- On-off control circuit switch.
- Oversized magnetic contactor.
- Numbered terminal strip-screw type.
- NEMA 4X, 30 watt, flashing red light.
- NEMA 4X, fiberglass enclosure with gasketed, hinged door and stainless steel hardware.
- NEMA 4X, alarm horn – 95db.
- 115 V, 3 amp, control circuit breaker.

Single Phase

- Field adjustable for 115 or 230 V, 60 Hz.

Maximum Pump Running Amps	Panel Order No.
20	S10020
27 (3 HP)	S10027*
36 (5 HP)	S10036*

*For 3 and 5 HP single phase, includes run capacitors and pilot duty overloads.

Three Phase

- Field adjustable for 208/230 /460/575 V, 60 Hz.
- 115V control circuit transformer.
- Adjustable motor overload protectors.
- **Heaters not required.**

Maximum Pump Running Amps	Panel Order No.
1.6 to 2.5	S31625
2.5 to 4.0	S32540
4.0 to 6.3	S34063
6.3 to 10	S36310
10 to 16	S31016
16 to 20	S31620
20 to 25	S32025

FEATURES

■ Rugged NEMA 4X construction withstands even the most severe weather conditions and prevents corrosion.

■ Hinged door with lockable stainless steel latch for safe operation indoors and out.

■ High level alarm circuit includes spring loaded through door mounted silence switch for manual silence of alarm horn.

■ Through door mounted alarm test switch insures proper operation of the alarm circuit without the need to open the panel.

■ Through door mounted pump run light.

■ Top mounted high intensity flashing red light provides 360° visibility.

■ Pulsating, corrosion proof alarm horn.

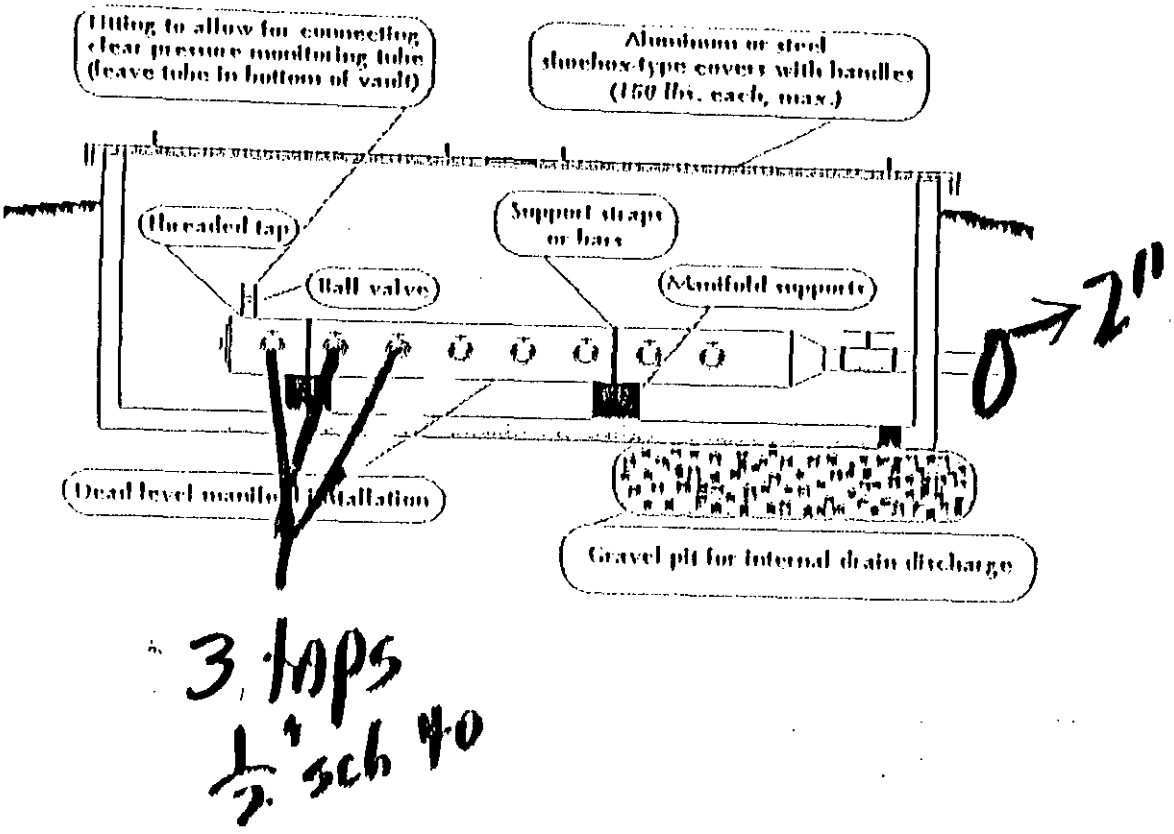
■ Color coded wiring, screw type terminals and plug in sockets, ensure ease of field servicing.

■ Field wiring diagram, panel schematic and installation instructions included.

■ Panel can be wired for a single power feed for pump and control circuit or the control circuit can be wired to a separate power supply to insure alarm integrity in case of a tripped pump breaker.

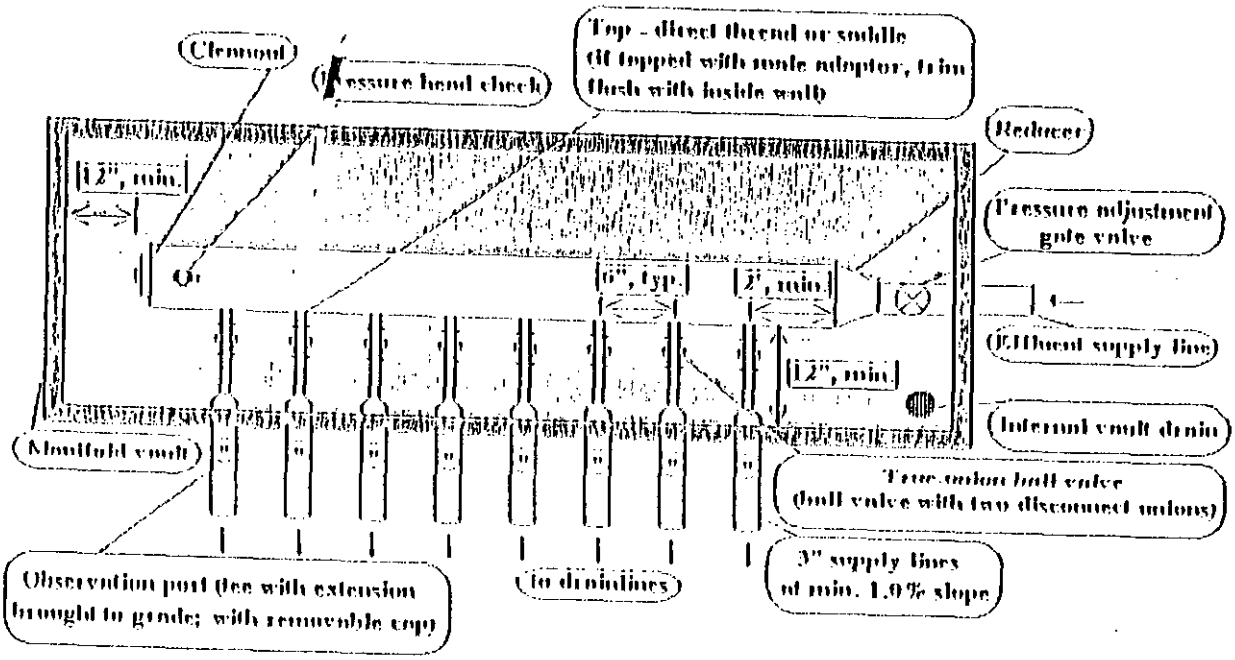
■ Entire unit is UL/CSA approved and listed.

© 1995 Goulds Pumps

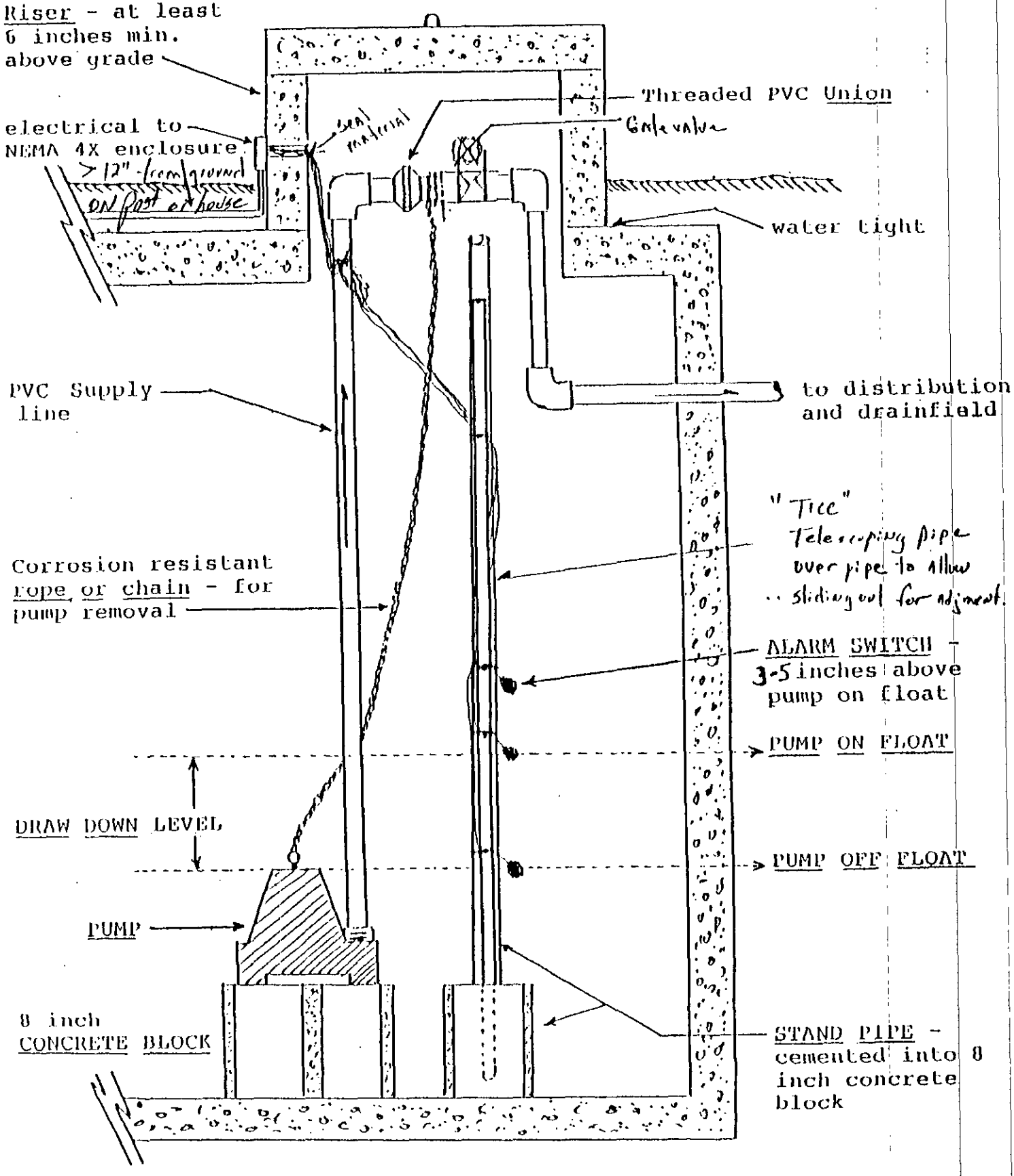


Profile View of Pressure Manifold for Sloping Site Installation

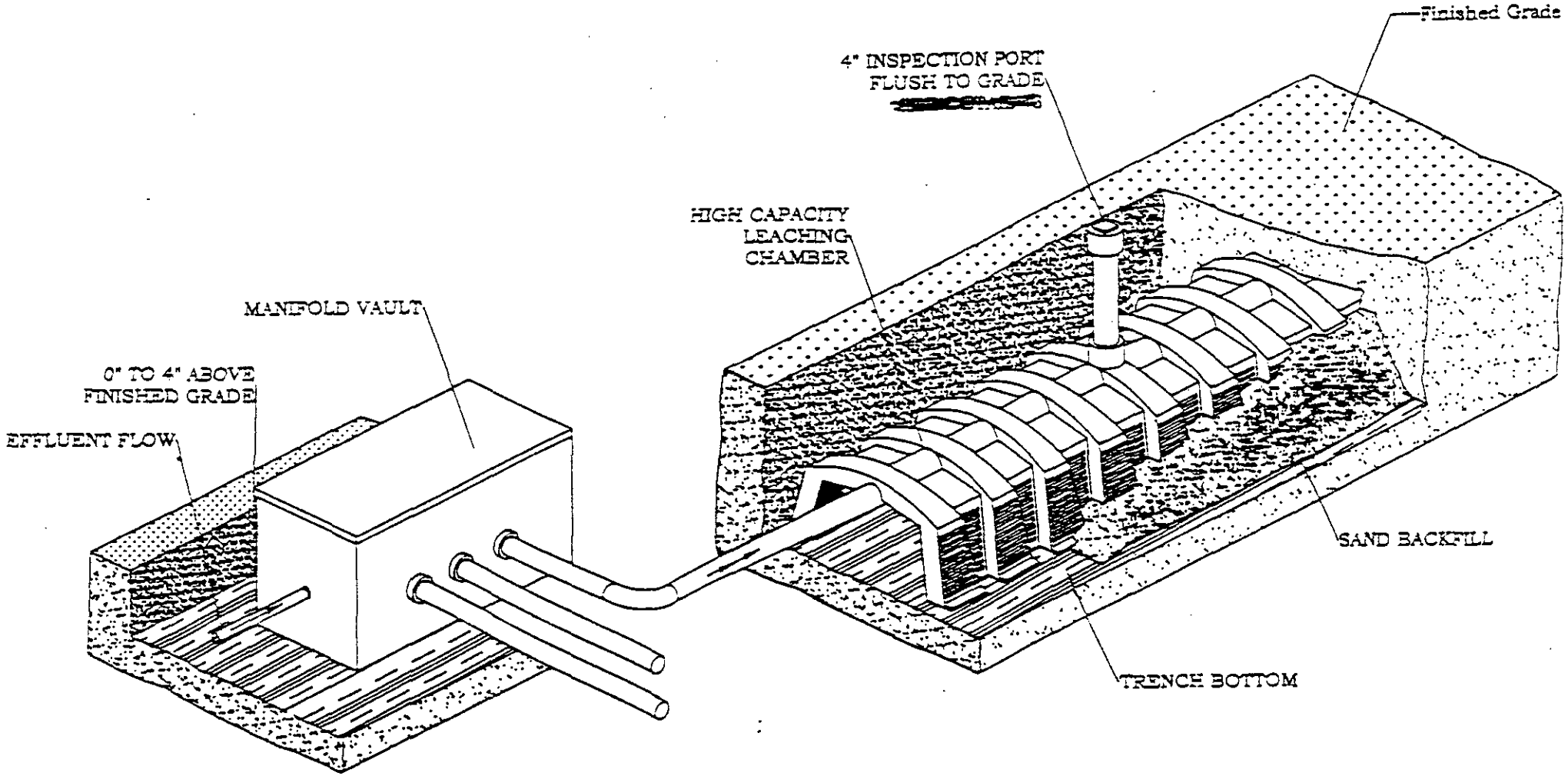
(not to scale)



PUMP DIAGRAM



GRAVITY FED LEACHING CHAMBER
FED BY PRESSURE MANIFOLD
DETAIL 1.2A



FROM THE POINT ON NORMAN
SEPTIC INFO
(TRI-COUNTY WASTEWATER MGT 199

oo Paid X33525

AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION

FEE: 390 / AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION ~~LDS~~ ACS
DATE: 3/18/03 gc / VOID SIXTY (60) MONTHS FROM DATE OF ISSUANCE

DATE: _____ PERMIT NO: 49498

PARCEL NO: 195-072 04

JOB LOCATION ADDRESS: 3309 Winter Heath Way
PROPERTY OWNER: Ryan Homes
BUILDING CONTRACTOR: Same
SUBDIVISION NAME: Heathfield
AUTHORIZATION ISSUED BY: Joshua R. Sellers RS/REHS DATE: 03-19-03
DEHNR AUTHORIZED AGENT

AUTHORIZATION CONDITIONS

1. WASTEWATER SYSTEM CONSTRUCTION AND INSTALLATION MUST MEET ALL CONDITIONS AND SPECIFICATIONS AS SET FORTH IN IMPROVEMENT PERMIT NO. 49498, 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 approved plan on file.

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.

X MaryBeth Walsh — 3-18-03
SIGNATURE OF OWNER/OWNER'S REPRESENTATIVE — DATE

~~LDS~~ #32196

CONDITIONS OF IMPROVEMENT PERMIT

Permit Number: 4/98B

Tax Number: 195-072-

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	
.3 Long-term acceptance rate	480 Max gallons/day wastewater flow	1040 Absorption Area (sq ft)	9' Trench spacing (min. on centers)	
N Serviced by private well	1500 Gallon septic tank	348' Total trench length (ft)	36" Maximum trench depth (At least 12" of provisionally suitable soil must remain between trench bottom and unsuitable soil conditions)	
4 Bedrooms in residence	~~000~~ 1500 Gallon pump tank	N/A Depth of stone		
Any surface waters present: Y	Type: Lake	Minimum separation distance: >50'		
Site modifications required:				
Additional Conditions: ② See approved Plans on file. Warranty Forms to be on file before final release. Agreement forms also required.				
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	
.3 Absorption Area (Sq ft) 400 Total Trench Length (Ft)	N/A Depth of Stone Trench	9' Trench spacing (min. on centers)	36" 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.

Joshua D. Collins RSI REHS
DEHNR Authorized Agent — Date 3-19-03

K. MaryBeth Walsh 3-18-03
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

HF1041

FOR REGISTRATION JUDITH A. GIBSON
REGISTER OF DEEDS
MECKLENBURG COUNTY, NC
2002 SEP 05 01:20 PM
BOOK:14029 PAGE:164-167 FEE:$20.00
INSTRUMENT # 2002171782

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

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

FILE # 4949B
PARCEL # 195-072-05

The undersigned, NVR Inc dba Ryan Homes, owner of property located at 3315 Winter Heath Way, (the "site") and described in an instrument recorded in Book 35 at Page 879, 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 conditions will apply to the site:

This instrument was prepared by: NVR Inc dba Ryan Homes
Mail after recording to: 10815 David Taylor Dr
Charlotte NC 28262

FILE COPY	
FILED FOR REGISTRATION	DOC. #
DATE 3-18-03	TIME 13:05
BOOK 14996	PAGE 107
STAMPS	REC FEE 20.00
JUDITH A. GIBSON, REGISTER OF DEEDS MECKLENBURG COUNTY, NC	

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

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

49

FILE # 14929 B

PARCEL # 195-072-04

The undersigned, NVR, Inc DBA Ryan Homes, owner of property located at 3309 Winter Heath Way, (the "site") and described in an instrument recorded in Book 39 at Page 147, 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 conditions will apply to the site:

This instrument was prepared by: NVR, Inc DBA Ryan Homes

Mail after recording to: 10515 Davis Taylor Dr

Charlotte NC 28262

4949B
4929B
(combined)

2-13
41 + 42
Combined
Additional
3.5% U.S.T
Fee

#100 ck # X33525
2/25/03
SC

FROM : DELTA LAND SERVICES INC PHONE NO. : 704 568 8860 Feb. 28 2003 04:13PM P1

SITE DEVELOPMENT PLAN

PREPARED BY:

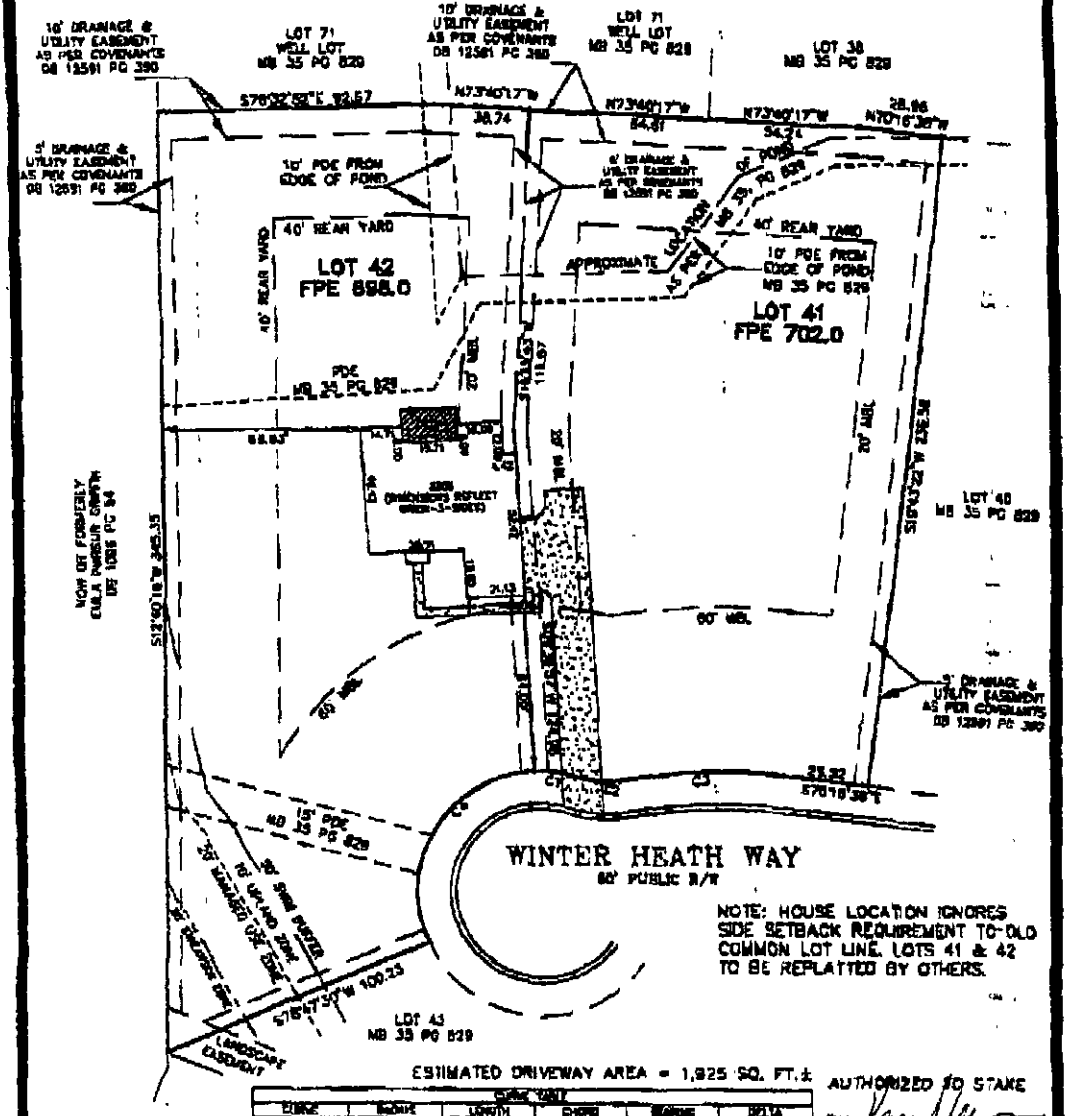
DELTA LAND SERVICES, INC.
6033 FLORENCE AVENUE, SUITE 100
CHARLOTTE, NORTH CAROLINA 28212
(704) 536-6190

HP1042

SITE DEVELOPMENT PLAN

SCALE: 1"=50'

THIS SITE PLAN IS TO SHOW THE PROPOSED LOCATION OF THE HOUSE ON THE LOT AND IS NOT TO BE RELIED UPON FOR CONSTRUCTION.



NOTE: HOUSE LOCATION IGNORES SIDE SETBACK REQUIREMENT TO OLD COMMON LOT LINE. LOTS 41 & 42 TO BE REPLATTED BY OTHERS.

ESTIMATED DRIVEWAY AREA = 1,925 SQ. FT.±

Curve Table					
CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C1	45.00	70.69	63.64	S28°43'30"E	90°00'00"
C2	25.00	39.27	35.36	N61°16'30"E	90°00'00"
C3	1460.00	39.27	39.27	S13°23'43"W	1°32'00"
C4	45.00	70.69	63.64	S61°16'30"W	90°00'00"

AUTHORIZED TO STAKE

BY _____

STAKEOUT ☐

NOT FOR RECORDATION, CONVEYANCES OR SALES

Subdivision HEATHFIELD SUBDIVISION, PHASE 1, MAP 1 County MECKLENBURG
Address 3309 WINTER HEATH WAY Owner RYAN HOMES
Lot 41/42 Block ___ Plan AVALON Elevation A Drive (Left) ___ (Right) X (Courtyard) ___ Deck X
Patio ___ Fireplace X Garage (1 Car) ___ (2 Car) ___ (3 Car) Side Brick Sides Basement X Curtain Wall ___
Crawl ___ Slab ___ Other SUNROOM, MORNING ROOM, EXTENSION, BONUS ROOM

REVISED: ADD LOT 41, MOVE HOUSE TO COMMON LINE DWN: CRB CKD: MP DATE: 02/ 19/ 03

G:\HEATHFIELD\HF-0041-42.DWG - CRB

FEB.24.2003 9:58AM RYAN HOMES CTE NO. 330 P.2/2

070

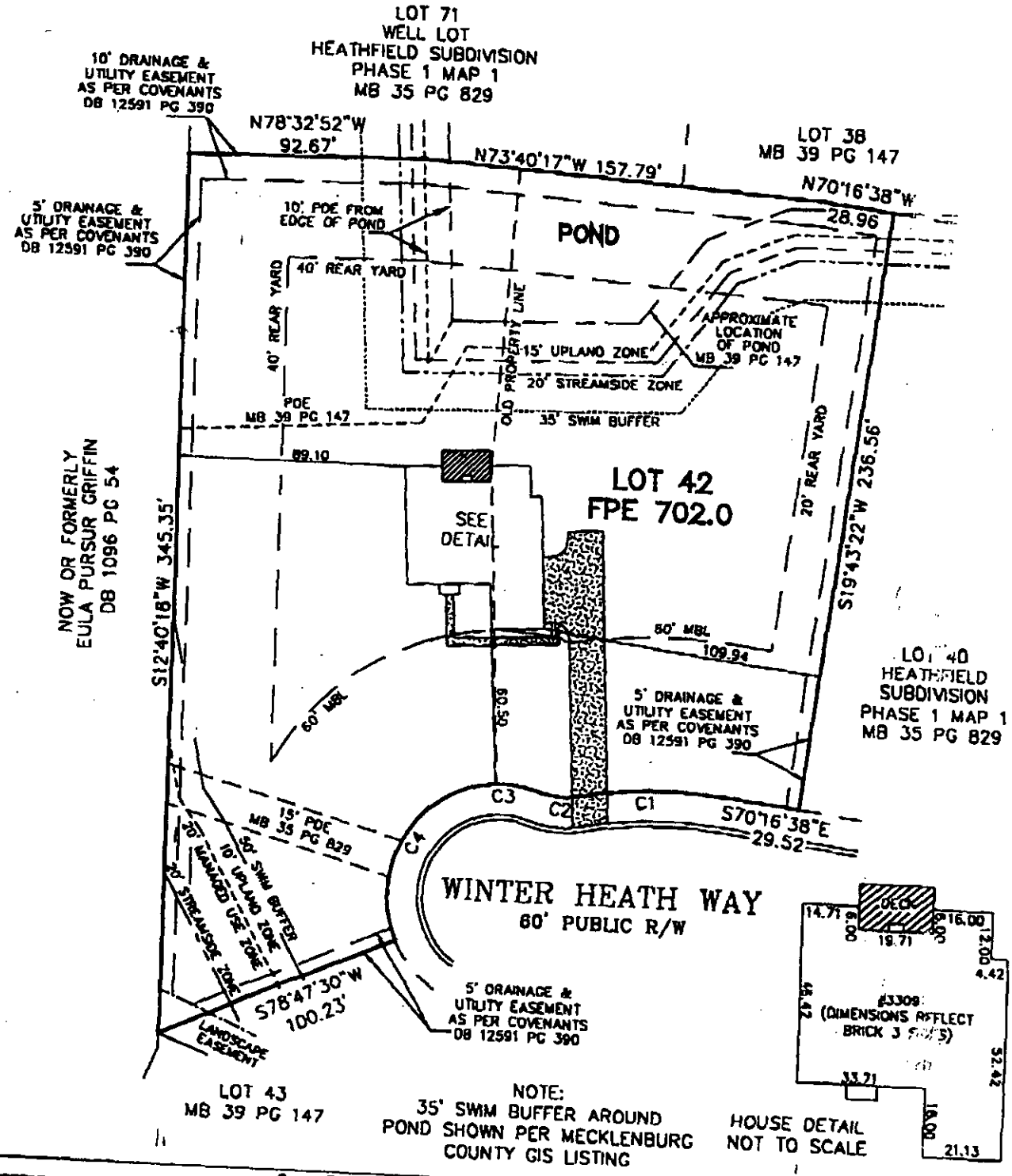
SITE DEVELOPMENT PLAN

PREPARED BY:

DELTA LAND SERVICES, INC.
6033 FLORENCE AVENUE, SUITE 100
CHARLOTTE, NORTH CAROLINA 28212
(704) 536-6190

THIS SITE PLAN IS TO SHOW THE PROPOSED LOCATION OF THE HOUSE ON THE LOT AND IS NOT TO BE RELIED UPON FOR CONSTRUCTION.

SCALE: 1"=60'



Curve Table

CURVE	RADIUS	LENGTH	CHORD

C2	25.00'	13.82'	13.65'	N73°15'22"W	31°40'28"
C3	45.00'	18.00'	17.88'	S68°52'36"E	22°54'54"
C4	45.00'	87.08'	74.12'	N44°13'43"E	110°52'28"

STAKEOUT [ ]

NOT FOR RECORDATION, CONVEYANCES OR SALES

HEATHFIELD SUBDIVISION, PHASE 1, MAP 1

Subdivision LOTS 3,4,38,39,41,42 & 43 (REVISED)

Address 3309 Winter Heath Way County Mecklenburg

Lot 42 Block ___ Plan Avalon Elevation A Drive (Left) ___ (Right) Side (Courtyard) ___ Deck X

Patio ___ Fireplace X Garage (1 Car) ___ (2 Car) ___ (3 Car) X Brick 3 Sides Basement ___ X Curtain Wall ___

Crawl ___ Slab ___ Other Sunroom, Morning Room, 4' Extension, Bonus Room

REVISED: MOVE HOUSE RIGHT AND FORWARD

DWN: JA CKD: GMO DATE: 03/06/03

C:\HEATHFIELD\HF-0041-42.DWG - JA

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

Sheet: 1
Property ID: 195-072-05
Lot #: 41
File #: 4949B
Code: 2

RCS

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: NVR, Inc., dba Ryan Homes
Applicant:
Address: 10815 David Taylor Drive, Charlotte, N. C 28262
Date Evaluated: 05/16/2002
Proposed Facility: Residence
Design Flow (.1949): 480gpd
Property Size: .75a.
Location of Site: 3315 Winter Heath Way
Property Recorded:
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] 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, 8	0-3	GR/SCL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	PS, IV .3GPD/FT^2
		3-40	SBK/C	FI/SEXP/S/P					
		40-48+	SBK/CL	FR/SEXP/SS/SP					
2	LS, 12	0-3	GR/CL	FR/SEXP/SS/SP	"	"	"	"	"
		3-7	SBK/CL	FR/SEXP/SS/SP					
		7-48+	SBK/C	FI/SEXP/S/P					
3	LS, 8	0-3	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	"
		3-8	SBK/SCL	FR/SEXP/SS/SP					
		8-48+	SBK/C	FI/SEXP/S/P					
4	"	0-5	GR/SCL	FR/SEXP/SS/SP	"	"	"	"	"
		5-44	SBK/SC	FI/SEXP/S/P					
		44-48+	SBK/SCL	FR/SEXP/SS/SP					
5	"	0-3	GR/CL	FR/SEXP/SS/SP	"	48	"	"	"
		3-45	SBK/C	FI/SEXP/S/P					
		45-48	SBK/CL	FR/SEXP/SS/SP					
6	"	0-4	GR/CL	FR/SEXP/SS/SP	>50" TO SOIL WETNESS	50	"	"	"
		4-45	SBK/C	FI/SEXP/S/P					
		45-50	SBK/CL	FR/SEXP/SS/SP					

Description	Initial System	Repair System
Available Space (.1945)	PS	US
System Type(s)		
Site LTAR	.3GPD/FT^2	.3GPD/FT^2

Other Factors (.1946): _____
Site Classification (.1948): UNSUITABLE
Evaluated By: W. R. Marlin, LSS, 5/16/02, W. R. Marlin
Others Present:

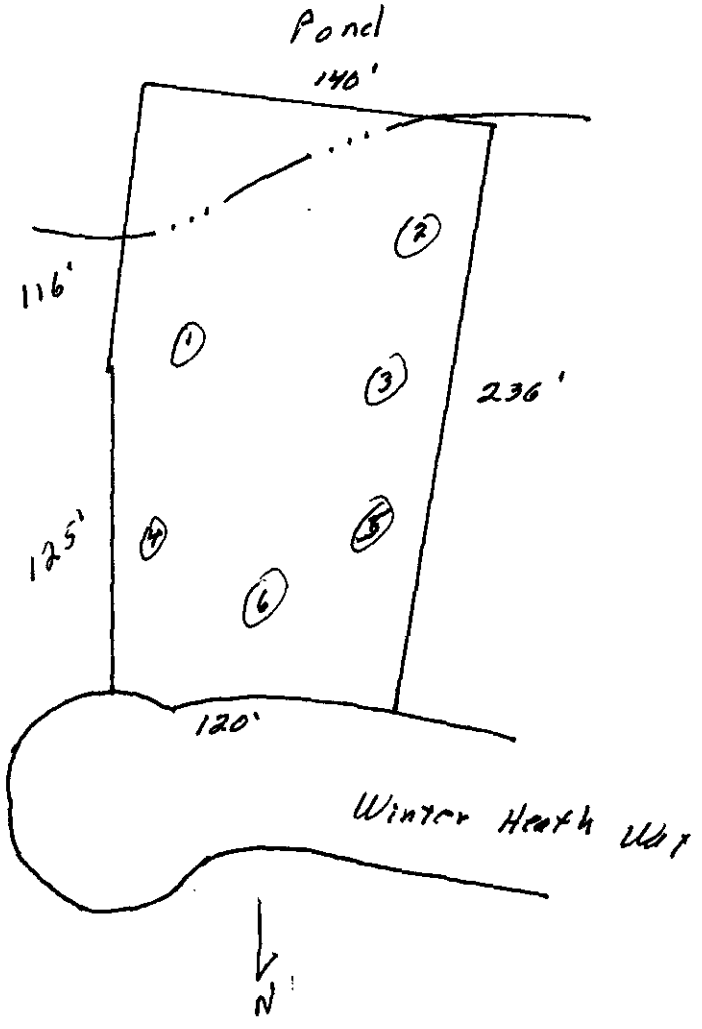
FILE # 49499

COMMENTS 100% Repair

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: 200.00 CK
DATE: 5/8/02 734/995

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 #: 494/98

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 195-072-05

STREET ADDRESS: 3315 Winter Heath Way

SUBDIVISION OR MOBILE HOME PARK NAME:

LOT NUMBER: 41

TYPE OF BUILDING (CHECK ONE):

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

HEATED SQUARE FOOTAGE:

NUMBER OF BEDROOMS:

NUMBER OF OCCUPANTS:

FOUNDATION FOR RESIDENCE:

___ WITHOUT BASEMENT ON SLAB
X CRAWL SPACE
___ WITH BASEMENT /PLUMBING
___ WITH BASEMENT /NO PLUMBING

TOWNSHIP (CHECK ONE):

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

CLOSING DATE_____

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

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE: ___ YES X NO TYPE: _____

WATER SUPPLY (CHECK ONE):
X 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 X NO
EXISTING WASTEWATER SYSTEMS ___ YES X NO
EASTMENTS OR RIGHT-OF-WAYS X YES ___ NO
WELL, SPRINGS OR WATERLINES X YES ___ NO
DESIGNATED WETLANDS X YES ___ NO

PROPERTY OWNER: NVR, INC DBA Ryan Homes

NAME: (LAST) (FIRST) (MI)

ADDRESS: 10815 David Taylor Dr

CITY Charlotte STATE: NC ZIP: 28262

DAYTIME PHONE: 704 - 548-3534

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: (LAST) (FIRST) (MI)

DAYTIME PHONE: ( ) -

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? _____

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: Kathleen Warner DATE: 5/6/02

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

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date: 05/08/02
Receipt #: 8062
Check / Auth #: CHECK 7349
Received By: CRAIGGY

Amount: 200.00
Tendered: 200.00
Returned: 0.00

Account Information

Account #: 200000
Contractor: RYAN HOMES
Attn:
Address: 10815 DAVID TAYLOR DRIVE
Address:
City/State/Zip: CHARLOTTE, NC 28262

Item	Description	Permit#	Quantity	Unit Price	Total Price
0701	Improvment Permit App-Residen 3315 WINTER HEATH WAY		1	200.00	200.00

----------Outstanding Balances----------

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance

HF 1841

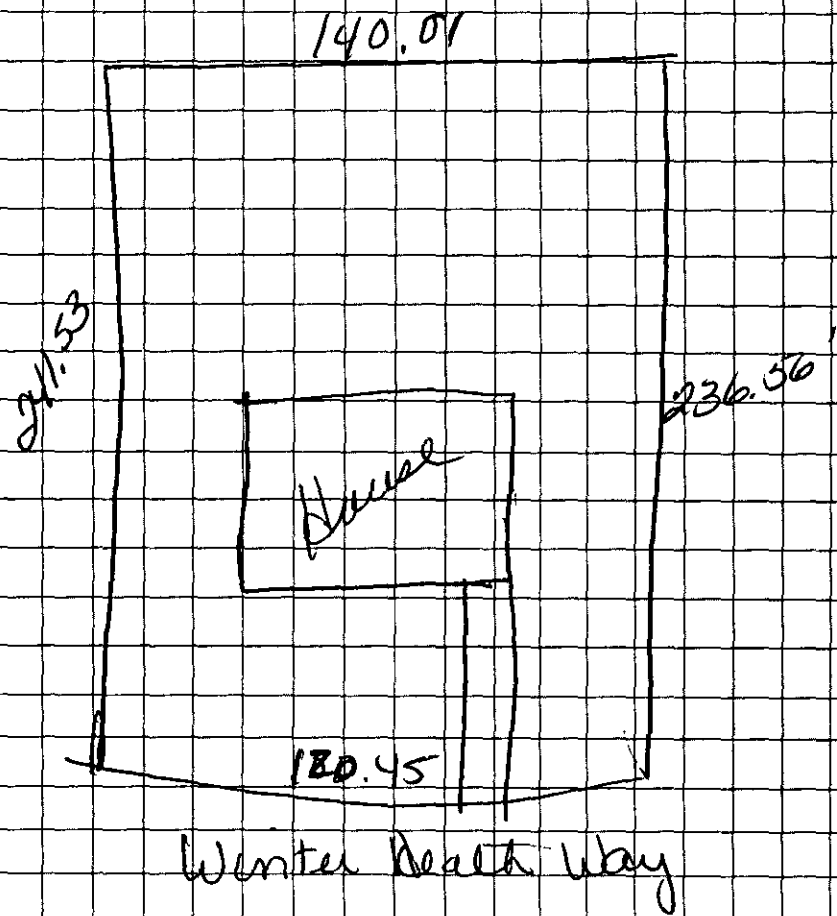
PROPOSED PLOT PLAN

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

FILE: 49498

TC: 195-072-05

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.



Kathleen Jarmon
OWNER/AGENT SIGNATURE

DATE 5/6/02

APPROVAL DATE _____

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

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

Sheet: 1
Property ID: 195-072-04
Lot #: 42
File #: 4929B
Code: 3

ACS

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: NVR, Inc., dba Ryan Homes East
Applicant:
Address: 10815 David Taylor Drive, Charlotte, N. C. 28262
Date Evaluated: 04/22/2002
Proposed Facility: Residence
Design Flow (.1949): 360gpd
Property Size: .89a
Location of Site: 3309 Winter Heath Way
Property Recorded:
Water Supply: [x] Public [ ] Individual [ ] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [ ] 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	0-20	GR/CL	FR/SEXP/SS/SP	>48" TO SOIL WETNESS	48+	N/A	NONE	PS, IV
		20-48+	SBK/C	FI/SEXP/S/P					.3GPD/FT^2

Description	Initial System	Repair System
Available Space (.1945)	US	US
System Type(s)		
Site LTAR	.3GPD/FT^2	.3GPD/FT^2

Other Factors (.1946): _____
Site Classification (.1948): UNSUITABLE
Evaluated By: W. R. Marlin, LSS, 4/24/02. W. R. Marlin
Others Present:

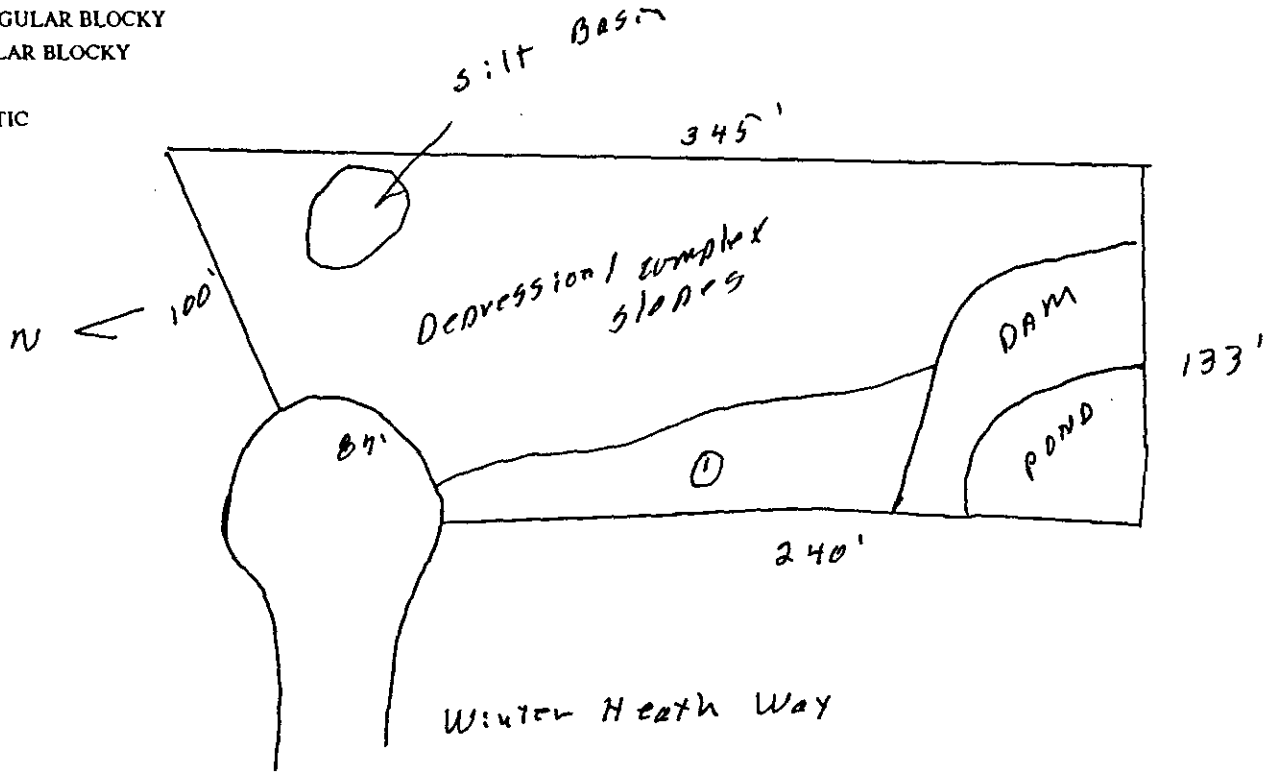
FILE # 4929B

COMMENTS 100% Repair

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	



HP1042

FOR REGISTRATION JUDITH A. GIBSON
REGISTER OF DEEDS
MECKLENBURG COUNTY, NC
2002 SEP 05 01:20 PM
BOOK 14029 PAGE:168-171 FEE:$20.00
INSTRUMENT # 2002171783

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

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

FILE # 4929B
PARCEL # 195-072-04

The undersigned, NVR Inc dba Ryan Homes, owner of property located at 3309 Winter Heath Way, (the "site") and described in an instrument recorded in Book 35 at Page 829, 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 conditions will apply to the site:

This instrument was prepared by: NVR Inc dba Ryan Homes
Mail after recording to: 10815 David Taylor Dr.
Charlotte NC 28262

RECEIVED AUG 15 2002

FEE: 200.00 chk 73495 DATE: 4/12/02 JC

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

I ICRT

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 #: 49298

PROPERTY INFORMATION (FROM ENGINEERING FORM) FOR JOB LOCATION:

TAX/PARCEL NUMBER: 195-072-.04

STREET ADDRESS: 3309 Winter Heath Way

SUBDIVISION OR MOBILE HOME PARK NAME: Heathfield

LOT NUMBER: #42

TYPE OF BUILDING (CHECK ONE):

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

HEATED SQUARE FOOTAGE: 2753

NUMBER OF BEDROOMS: 3 NUMBER OF OCCUPANTS:

FOUNDATION FOR RESIDENCE:

___ WITHOUT BASEMENT ON SLAB
X CRAWL SPACE
___ WITH BASEMENT /PLUMBING
___ WITH BASEMENT /NO PLUMBING

TOWNSHIP (CHECK ONE):

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

CLOSING DATE: _____

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

WILL THERE BE A HOME BUSINESS IN THE RESIDENCE: ___ YES X NO TYPE: _____

WATER SUPPLY (CHECK ONE):
X 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 X NO
EXISTING WASTEWATER SYSTEMS: _ YES X NO
EASTMENTS OR RIGHT-OF-WAYS: X YES _ NO
WELL, SPRINGS OR WATERLINES: X YES ___ NO
DESIGNATED WETLANDS: X YES ___ NO

PROPERTY OWNER: NVR, d/b/a Ryan Homes East

NAME: (LAST) (FIRST) (MI)

ADDRESS: 10815 David Taylor Dr

CITY: Charlotte STATE: NC ZIP: 8262

DAYTIME PHONE: ( ) 704 - 548-3534

LEGAL AGENT FOR PROPERTY OWNER, IF APPLICABLE:

NAME: (LAST) (FIRST) (MI)

DAYTIME PHONE: ( ) –

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? _____

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SIGNED: Kristen Warner DATE: 4/16/02

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

MECKLENBURG COUNTY
LAND USE AND ENVIRONMENTAL SERVICES
Payment Receipt

Receipt Information

Date:	04/17/02	**Amount:**	200.00
Receipt #:	7590	**Tendered:**	200.00
Check / Auth #:	CHECK 7349	**Returned:**	0.00
Received By:	CRAIGGY		

Account Information

Account #:	200000
Contractor:	RYAN HOMES
Attn:	
Address:	10815 DAVID TAYLOR DRIVE
Address:	
City/State/Zip:	CHARLOTTE, NC 28262

Item	Description	Permit#	Quantity	Unit Price	Total Price
0701	Improvment Permit App-Residen 3309 WINTER HEATH WAY		1	200.00	200.00

Outstanding Balances

Month-To-Date	Prior Month	30 Days	60 Days	90 Days	Balance
100.00					

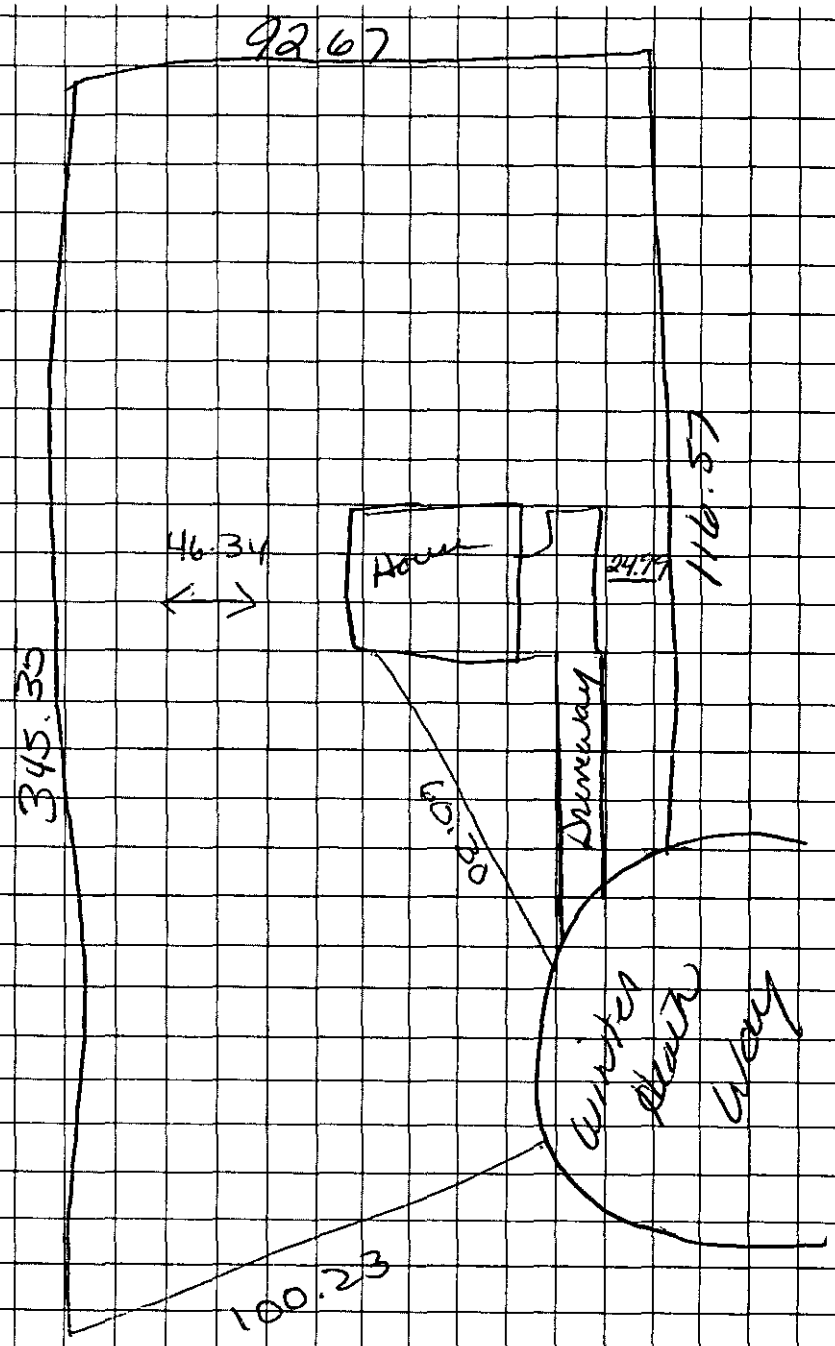
PROPOSED PLOT PLAN

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

FILE: 4929B

TC: _____

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.



Kathleen Warner Ryan Homes East
OWNER/AGENT SIGNATURE

DATE 1/16/02

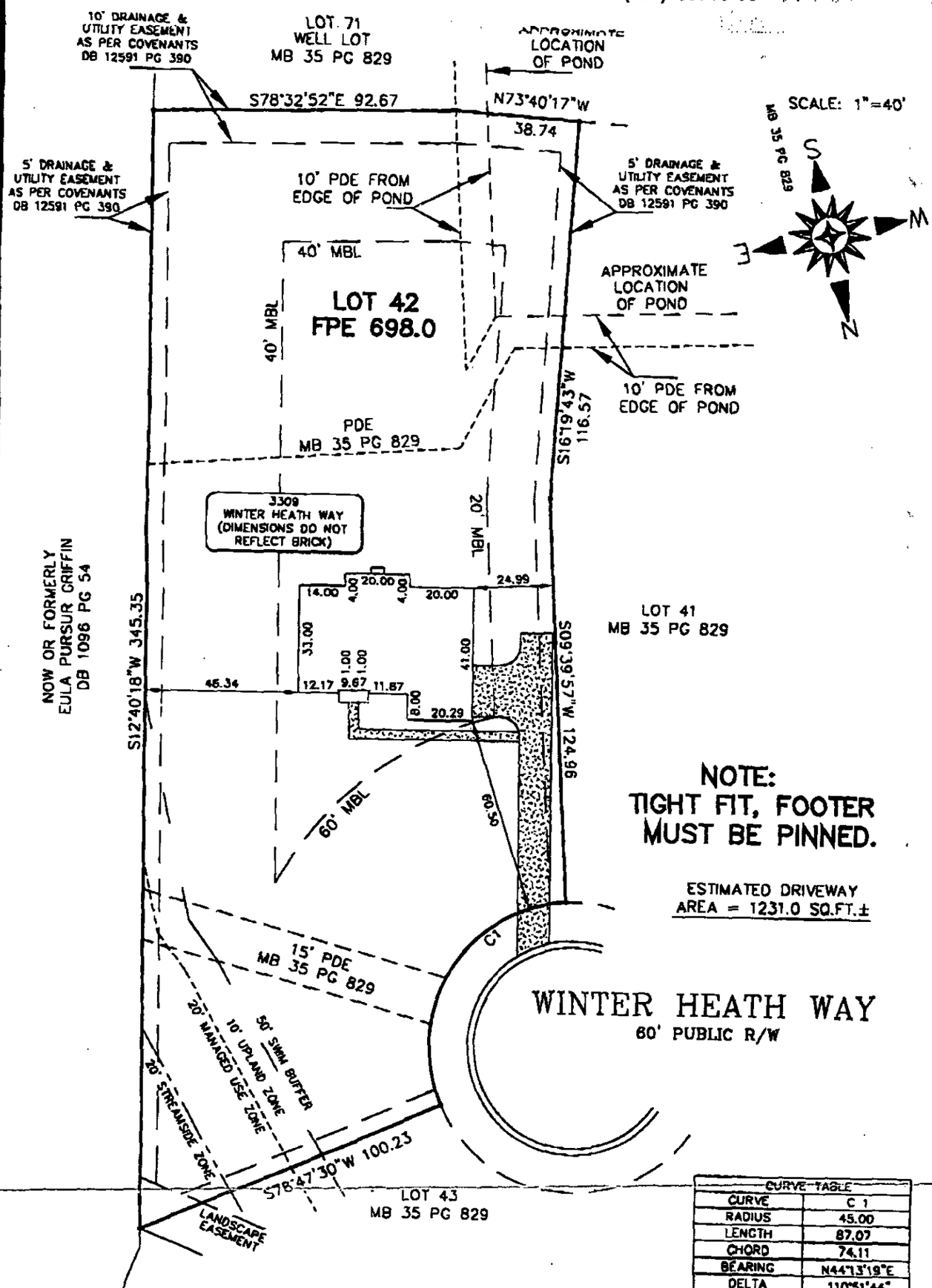
APPROVAL DATE _____

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

SITE DEVELOPMENT PLAN

THIS SITE PLAN IS TO SHOW THE PROPOSED LOCATION OF THE HOUSE ON THE LOT AND IS NOT TO BE RELIED UPON FOR CONSTRUCTION.

PREPARED BY:
DELTA LAND SERVICES, INC.
6033 FLORENCE AVENUE, SUITE 100
CHARLOTTE, NORTH CAROLINA 28212
(704) 536-6190



NOTE:
TIGHT FIT, FOOTER MUST BE PINNED.

ESTIMATED DRIVEWAY AREA = 1231.0 SQ.FT.±

CURVE TABLE	
CURVE	C 1
RADIUS	45.00
LENGTH	87.07
CHORD	74.11
BEARING	N44°13'19"E
DELTA	110°51'44"

NOT FOR RECORDATION, CONVEYANCES OR SALES

Subdivision HEATHFIELD SUBDIVISION, PHASE 1, MAP 1 County Mecklenburg
Address 3309 Winter Heath Way Owner Ryan Homes
Lot 42 Block ___ Plan Avalon Elevation C Drive (Left) ___ (Right) Side (Courtyard) ___ Deck ___
Patio ___ Fireplace X Garage (1 Car) ___ (2 Car) X (3 Car) ___ Brick ___ Basement ___ Curtain Wall ___
Crawl X Slab ___ Other ___

REVISED: FLIPPED HOUSE DWN: TMC CKD: MB DATE: 04 / 10 / 02

C:\HEATHFIELD\HF-0042.DWG - TMC