

# HAL OWEN & ASSOCIATES, INC.

SOIL & ENVIRONMENTAL SCIENTISTS

P.O. Box 400, Lillington, NC 27546-0400

Phone (910) 893-8743 / Fax (910) 893-3594

www.halowensoil.com

**Site Address:** 157 Rainbow Drive, Dunn, NC 28334

**County:** Harnett

**PIN** 1506-18-7356

**LHD Reference:** SFD2411-0084

**HOA Permit #:** HOA-AOWE-2409-06

**Applicant:**

**Name:** BVA Builders Inc.

**Address:** 1300 Benson Road, Ste. 110 Garner, NC 27529

I, Anna B. Ford, acknowledge receipt of the

Licensed Soil Scientist Report which includes:

- Signed and sealed copy of the AOWE's report that includes the information in G.S. 130A-336.2(k)
- Authorization to Operate
- Operation and Management Program

I accept the septic system installation and understand that I will be responsible for continued adherence to the Operations and Management program established by the AOWE.

  
Signature

4.11.25

Date

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28 February 2025

BVA Builders Inc.  
1300 Benson Road, Ste. 110  
Garner, NC 27529

Reference: LSS Report for Authorization to Operate (ATO)  
157 Rainbow Drive, Dunn, NC 28334  
LHD # SFD2411-0084  
AOWE # HOA-AOWE-2409-06

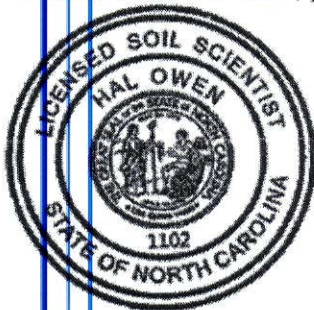
Dear BVA Builders Inc.,

**This LSS Report is being provided pursuant to and meets the requirements of G.S. 130A-336.** This report is based on information provided by the property owner or their representative. Hal Owen & Associates, Inc. is not responsible for false or misleading information that may have been provided to us in pursuit of this permit, nor for concealed conditions on the property. Hal Owen & Associates Inc. does not warrant that the septic system will continue to function satisfactorily in the future.

The septic system for the above referenced property has been installed and was inspected by Hal Owen & Associates staff on 25 February 2025. The system has been installed in compliance with applicable NC General Statutes, Rules for Sewage Treatment and Disposal, and all conditions of the AOWE Permit. The system was installed in conformance with the Permit design and specifications. Enclosed with this report are the *Septic System Final Inspection Report*, *As-Built map* (Figure 1), and *Operation and Management Program*.

You will need to sign a document confirming receipt of this report and acceptance of the installed system (pg 1) and submit this report to the Local Health Department (LHD). The LHD shall issue a certificate of occupancy upon receipt of a complete ATO.

I appreciate the opportunity to provide this service. If you have any questions or need additional information, please contact me at your convenience.



Sincerely,

Hal Owen  
Licensed Soil Scientist  
Authorized Onsite Wastewater Evaluator





## Contacts

### APPLICANT

Applicant Name	BVA Builders Inc.
Mailing Address	1300 Benson Rd, Suite 110, Garner, NC 27529
Telephone Number	919-520-2181
E-mail Address	aford@vfgrealty.com

### SOIL SCIENTIST

Company Name	Hal Owen & Associates, Inc.
Mailing Address	PO Box 400, Lillington, NC 27546
Telephone Number	910-893-8743 Fax: 910-893-3594
E-mail Address	hal@halowensoil.com
Licensed Soil Scientist	Hal Owen, LSS#1102 and AOWE# 10036E
System Designer	Jocelyn Proulx
System Inspector	Jocelyn Proulx #9943I

### INSTALLER

Company Name	Pro Septic Tanks, LLC
Mailing Address	136 Sugartree Ln, Mount Olive, NC 28365
Telephone Number	(919) 273-1784
E-mail Address	proseptic tanks@gmail.com
Installer & Certification #	Litzy Herrera #11274

### LOCAL HEALTH DEPARTMENT

Agency Name	Harnett County Health Department Environmental Health Division
Mailing Address	307 W Cornelius Harnett Blvd, Lillington, NC 27546
Telephone Number	(910) 893-7547
LHD Application #	SFD2411-0084



# Septic System Final Inspection Report

## Property Identifiers

County	Harnett	PIN	1506-18-7356
Size (Acre)	0.34	County PID	06150601 0050
Site Address	157 Rainbow Dr, Dunn, NC 28334		
S/D Name and Lot#	Hannah Heights Lot 15 & 16		

## System Description

Facility Type	Single Family Residence
Basement	No
Basis of flow	3 bedrooms
Wastewater Strength	Domestic
Design Wastewater Flow	360 gpd
Water Supply	Public
.0403 Eng Low Flow	No
Soil LTAR	0.35
System Type	IIIbg

## Installation

Date	25 February 2025
System Inspector	Jocelyn Proulx, #99431
Installer	Litzy Herrera #11274

## Septic Tank:

Volume (gallons)	1000
Brand and Tank ID#	MCP STB 814
Date of Manufacture	NA
Certified watertight	NA
Distance to Structure	6'
Elevation of tank inlet	4' 11"
Elevation of tank outlet	5' 2"

## Effluent Filter:

Make and Model	Polylok PL-68
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## Pump Tank:

Volume (gallons)	1000
Brand and Tank ID#	MCP PT 53
Date of Manufacture	NA
Certified watertight	NA
Elevation of tank inlet	5' 3 1/2"
Elevation of tank outlet	5' 6"





Pump:

Make and Model	Liberty LE40 Series
Pump Sys- Elevation Head	6.56
Pump Sys- Friction Loss	0.90
Pump Sys- Design Head	2.0
Pump Sys- TDH	9.46
GPM (actual)	21.0

Control Panel:

Manufacturer	APS Simplex Model No. APS120-AB
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Distribution:

Supply Line Length to Distribution	28'
Supply Line Diameter	2"
Distribution Device:	Pressure Manifold
Number of outlets (laterals)	3

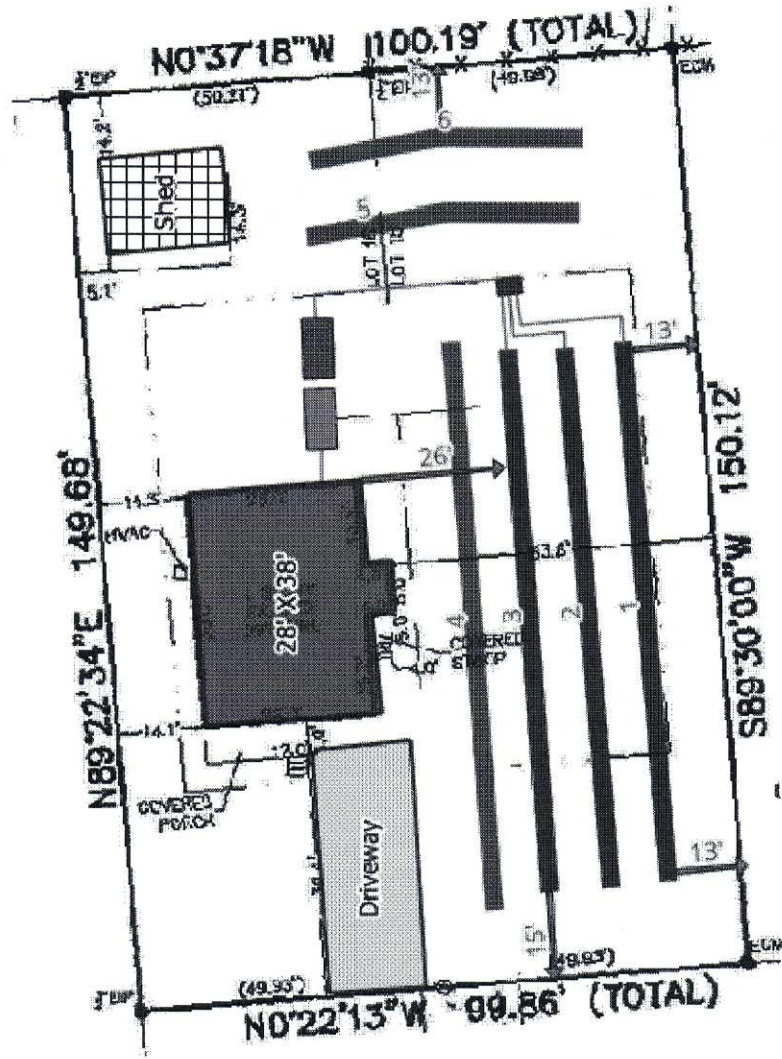
Drainfield:

Type	Quick4 Standard Chamber			
Distance to Structure	26'			
Distance to Well	NA			
Trench Depth	24"	Trench width	36"	
Trench Spacing	9'	Aggregate	chamber	
	<u>Length (ft)</u>	<u>Start</u>	<u>Middle</u>	<u>End</u>
Line 3	86	4' 10"	4' 10"	4' 10"
Line 2	86	4' 11"	4' 11"	4' 11"
Line 1	86	5' 1"	5' 1"	5' 1"
Total	258			

All elevations are given as relative grade rod reading.

Notes:





# Legend

- House
- Shed
- Driveway
- Distances
- Septic Components
- Septic Tank
- Pressure Manifold
- Pump Tank
- Septic Drainlines
- Initial
- Repair
- Supply Line

157 Rainbow Drive  
Harnett County  
28 February 2025

0 30 60 ft

For reference only. Not a survey.

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919-893-8743

LSS Report for Authorization to Operate (ATO)

157 Rainbow Dr.

AOWE # HOA-AOWE-2409-06

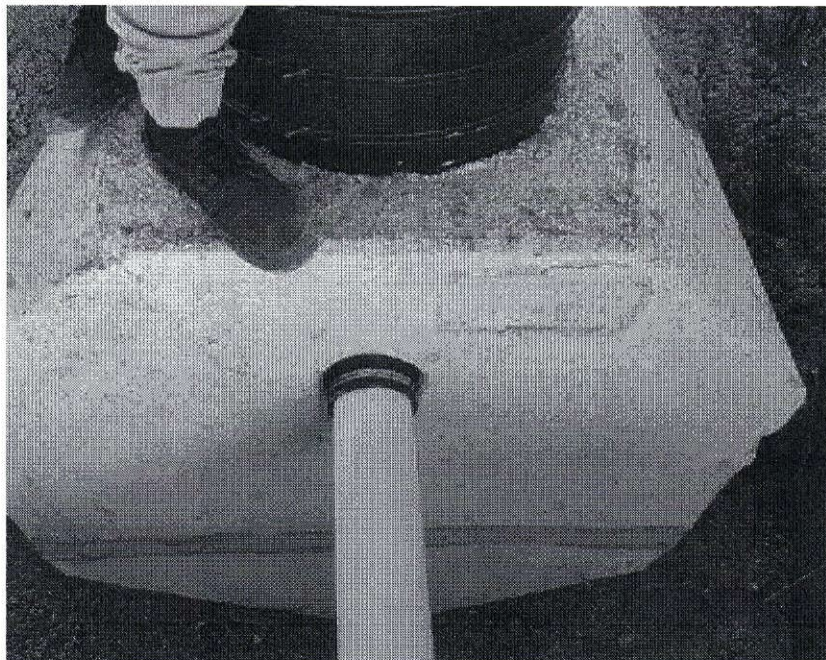
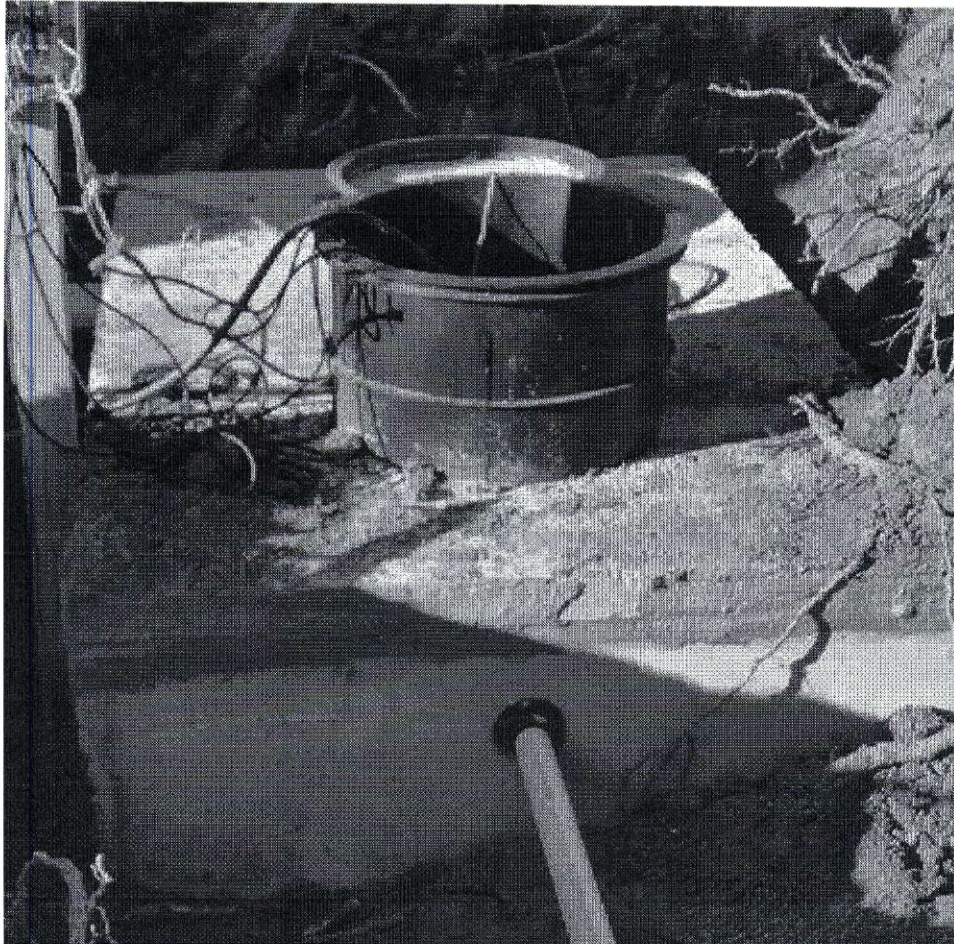
28 February 2025

As-Built Septic Layout



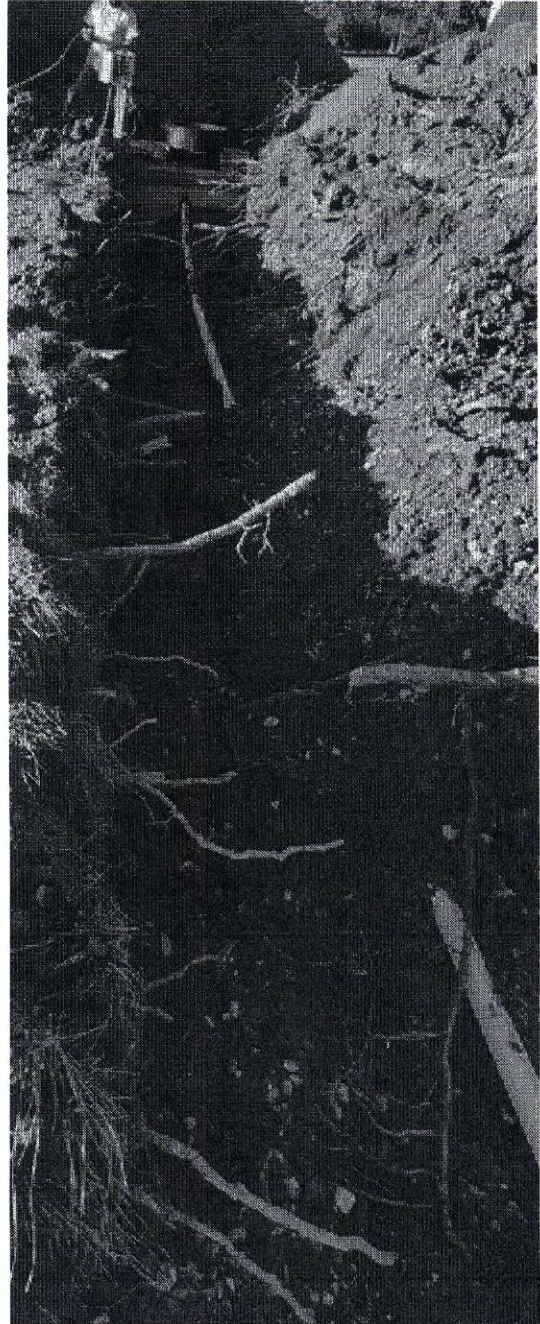
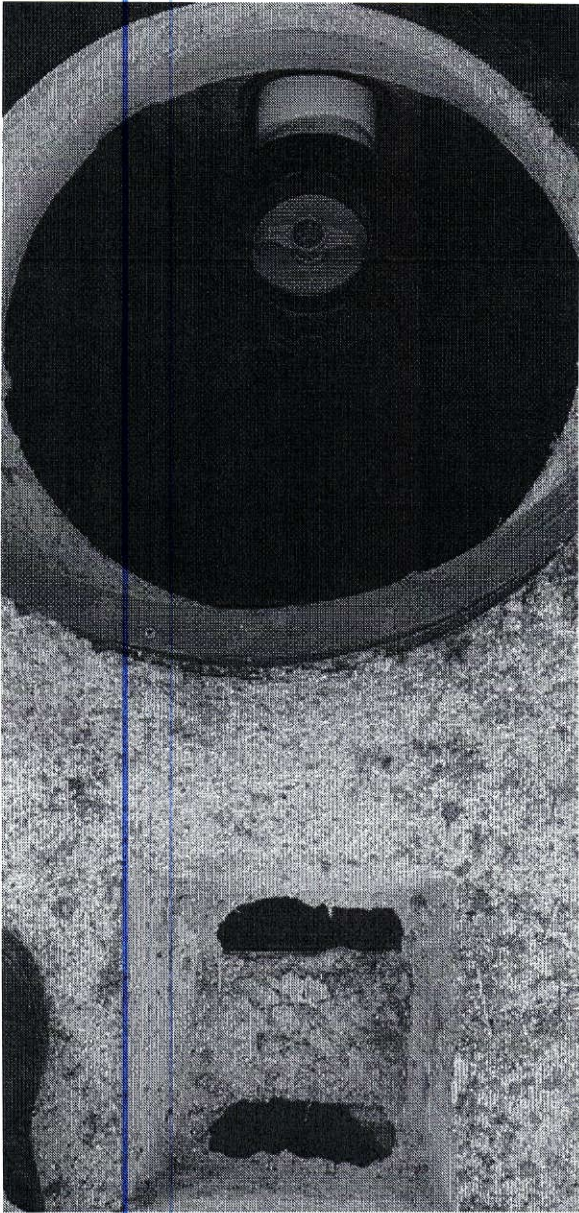


Installation pictures



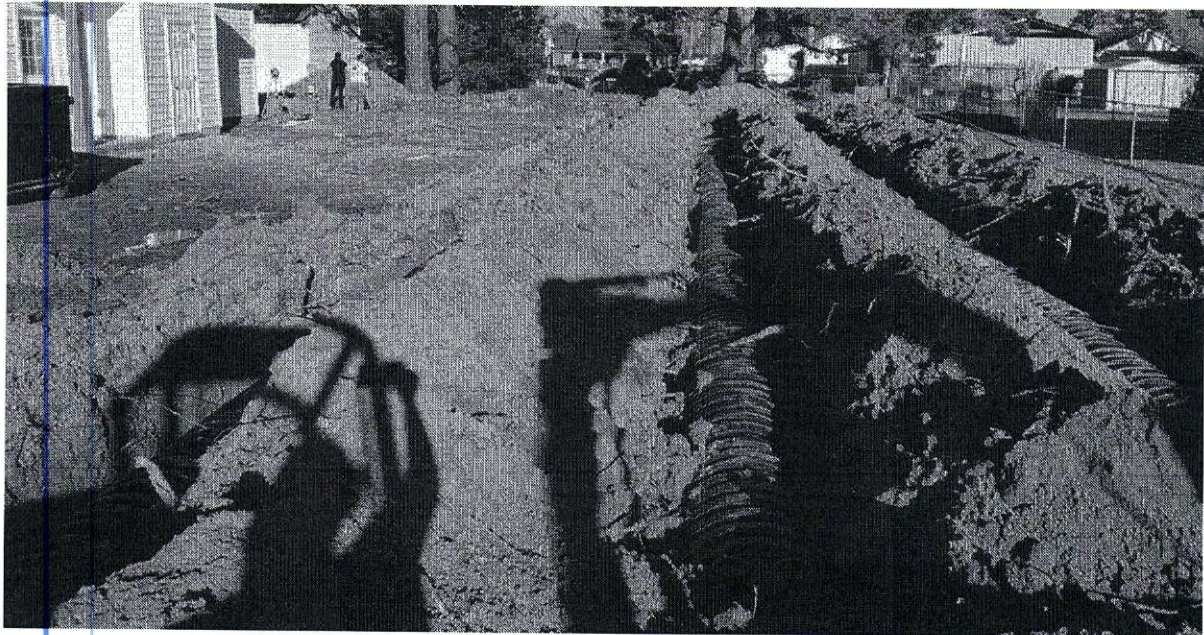
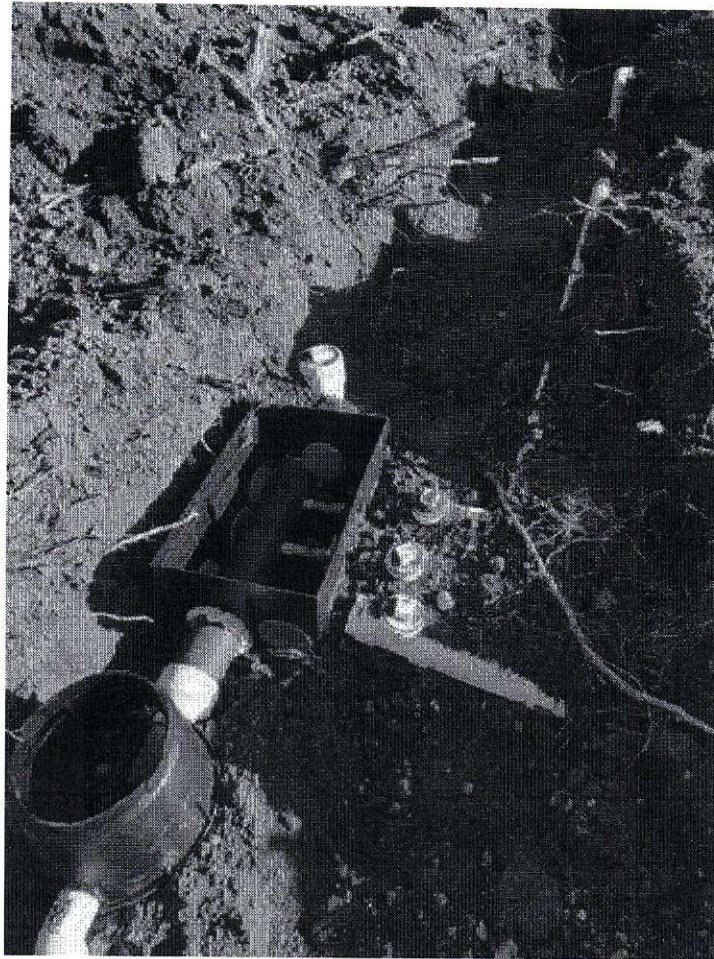








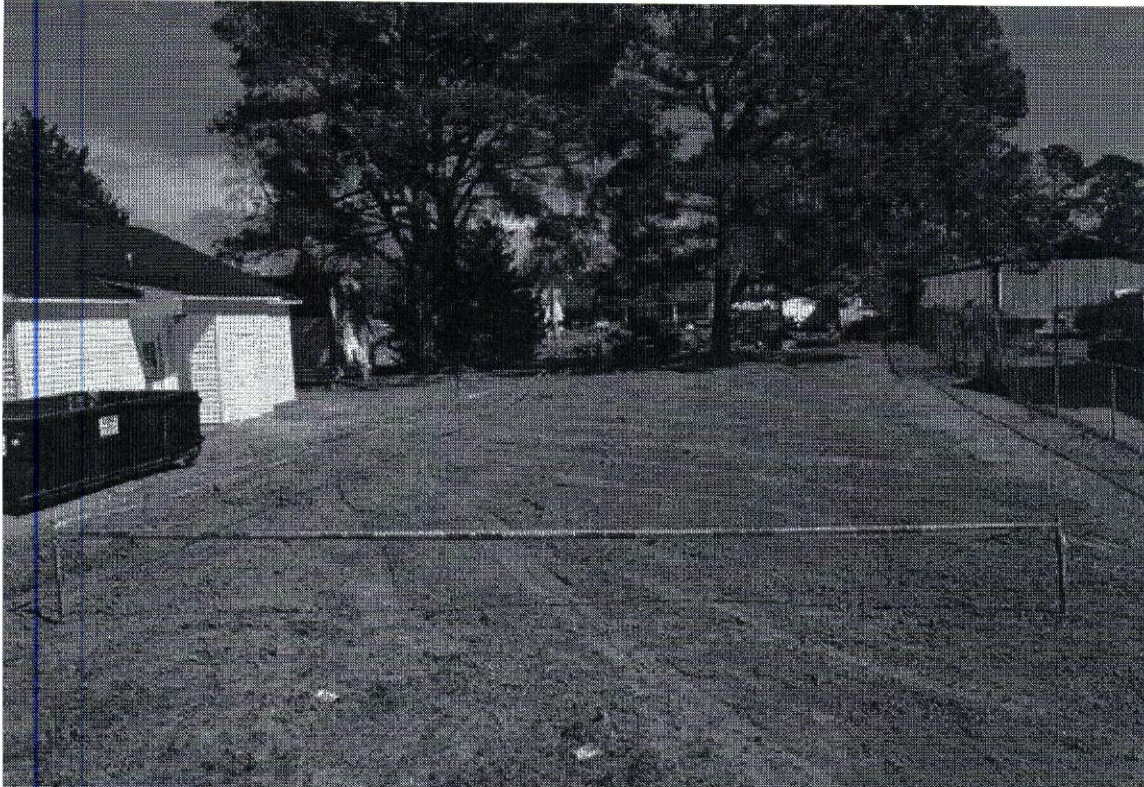
















## Operation and Management Program

In accordance with G.S. § 130A-336.2, the owner is responsible for continued adherence to the operations and management program. Septic systems safely treat and dispose of wastewaters produced in the bathroom, kitchen, and laundry. These wastewaters may contain disease-causing germs and pollutants that must be treated to protect human health and the environment. Septic systems must be properly used, operated, and maintained by the homeowner to assure the long-term performance of the system.

### PERMIT CONDITIONS:

- I. Performance: System shall perform in accordance with Section .1300.
- II. Monitoring: As required by Section .1300.
- III. Maintenance: Ground absorption sewage treatment and disposal systems shall be checked, and the contents of the septic tank removed, periodically from all compartments, to ensure proper operation of the system. The contents shall be pumped whenever the solids level is found to be more than 1/3 of the liquid depth in any compartment.  
Other: \_\_\_\_\_  
Subsurface system operator required? Yes \_\_\_\_\_ No ☒ X \_\_\_\_\_  
If yes, see attached sheet for additional operation conditions, maintenance and reporting.
- IV. Operation: \_\_\_\_\_
- V. Other: \_\_\_\_\_

**TABLE XXXII. Management responsibilities based on wastewater system classification type and description.**

System Classification Type and Description	LHD Compliance Inspection Frequency	Management Entity	Management Entity Minimum Maintenance Inspection Frequency
IIb- Accepted wastewater gravity system	N/A	Owner	N/A
IIIg- Other non-conventional systems	N/A	Owner	N/A



## **KNOW WHERE YOUR SEPTIC SYSTEM IS LOCATED**

Your property has an onsite subsurface sewage waste disposal system. Familiarize yourself with the location of the system including the tanks, distribution devices, and disposal fields (including repair area). These areas shall be protected from excavation, building additions, outbuildings, pool construction, and soil disturbing activities. Prohibit vehicular traffic over the ground absorption field.

## **DAY-TO-DAY MANAGEMENT**

Don't use too much water.

- ◆ The drainfield does not have unlimited capacity.
- ◆ Typical daily water use is 50 gallons per person.
- ◆ The soil drainfield usually has a maximum daily design capacity of 120 gallons per bedroom, even for short periods of time.
- ◆ Overloads can occur seasonally, daily, or on the weekend.
- ◆ Water conservation will extend the life of your system.
- ◆ Repair dripping faucets and toilets.

Limit disposal to sewage.

- ◆ Don't use your septic tank as a trash can for cigarette butts, tissues, sanitary napkins, cotton swabs, cat box litter, coffee grounds, or disposable diapers.
- ◆ Restrict the use of your garbage disposal. These add quite a lot of extra solids.
- ◆ Don't pour grease or cooking oil down the drain.
- ◆ Don't poison your system with harmful chemicals such as solvents, oils, paints, thinners, discarded medications, disinfectants, pesticides, poisons, and other substances.
- ◆ Save money. Commercial septic tank additives are usually not necessary.

Protect the system from physical damage (site maintenance).

- ◆ Keep the soil over the drainfield covered with vegetation to prevent soil erosion.
- ◆ Don't drive vehicles over the system.
- ◆ Avoid construction over the system and repair area.
- ◆ Don't cover the tank or drainfield with asphalt or concrete.
- ◆ Do not install irrigation systems over your drainfield as these could damage the system and/or hydraulically overload the soils.

Dispose of all wastewater in an approved system.

- ◆ Don't put in a separate pipe to carry wash waters to a side ditch or the woods. This is illegal.
- ◆ Don't connect pipes from air conditioners or ice makers to the septic system.





**PERIODIC MAINTENANCE AND REPAIR**

Home and yard (site maintenance):

- ◆ Protect and maintain the site of your septic tank and drainfield.
- ◆ In the drainfield area, cut down and remove trees that like wet conditions. This includes willows, elms, sweetgums, and some maples.
- ◆ Landscape the yard to divert surface waters away from the tank and drainfield. Eliminate depressional areas within the drainfield.
- ◆ Be sure that the water from the roof, gutters, and foundation drains does not flow over the system.
- ◆ Maintain drainage ditches, subsurface tiles, and drainage outlets so that water can flow freely from them.

Septic tank:

- ◆ Ensure tank risers remain accessible for measuring and pumping solids as well as cleaning the effluent filter.
- ◆ Measure how quickly sludge and scum accumulate in the tank. Pump septage when solids occupy 1/3 to 1/4 of the liquid capacity of the tank (frequency 1 to 3 years).
- ◆ Don't wait until your drainfield fails to have your tank pumped. By then, the drainfield may be ruined. With septic systems, an ounce of prevention is worth a ton of cure!

Table 1. Estimated septic tank inspection and pumping frequency (in years). Tank Size (gallons)

Tank Size (gallons)	Number of People Using the System				
	1	2	4	6	8
900	11	5	2	1	<1
1000	12	6	3	2	1
1250	16	8	3	2	1
1500	19	9	4	3	2



### **SIGNS OF POSSIBLE SEPTIC SYSTEM PROBLEMS**

- ◆ Sewage backing up into your toilets, tubs, or sinks.
- ◆ Slowly draining fixtures, particularly after it has rained.
- ◆ The smell of raw sewage accompanied by soggy soil or sewage discharged over the ground or in nearby ditches or woods.
- ◆ Note: pump systems sewage may come to the ground surface when the pump is turned on and then disappear after the pump turns off. This is still a system failure and must be repaired.
- ◆ An alarm flashing (red light) or beeping in the house or in the yard indicating a pump is not working properly or that the water level in a pump tank is too high and close to failure.
- ◆ Don't attempt to repair a failing system yourself. Get a repair permit and hire an experienced contractor.

### **REGULATIONS AND PRECAUTIONS:**

- ◆ Sewage contains germs that can cause diseases. Never enter a septic tank. Toxic and explosive gases in the tank present a hazard. Old tanks may collapse. Electrical controls present a shock and spark hazard. Secure the septic tank lid so that children cannot open it.

For more information about septic systems, contact your county Extension agent or local health department. <https://content.ces.ncsu.edu/septic-system-owners-guide>





Experience and study have shown that pressure manifold systems require routine maintenance in order to function properly. Items 1, 4, and 6 are also recommended for conventional septic systems. The maintenance schedule frequency is as follows:

<u>System Component</u>	<u>Frequency</u>	<u>Maintenance</u>
Septic Tank	6-12 months  1-3 years	Check riser condition (must be accessible from ground surface), excess in/exfiltration, entry of water at riser, and solids accumulation. Check and clean septic tank filter. Pump septage when 1-3 to ¼ of the liquid capacity of the tank is occupied by solids.
Pump or Dosing Tank	6-12 months	Check riser conditions (must be accessible from ground surface), excess in/exfiltration, entry of water at riser, and solids accumulation. Pump sludge accumulation as required and when septic tank is pumped. Check pump(s), controls, floats, electrical connections, and alarm for proper operation. Wash (hose) sludge accumulation from pump housing.
Supply Lines (Manifold)	6-12 months	Check for settling, pipe exposure and leakage
Ground Absorption Field	1-4 weeks  6-12 months	Maintain vegetative cover (mow grass and remove weeds and brush). Check for settling, erosion and surfacing effluent. Check site drainage, eliminate low or settled areas and divert surface or shallow groundwater movement around fields.
Pressure Manifold	6-12 months	Flush sludge from pressure manifold (any discharge sludge and effluent is to be treated with a chlorine solution). Check and reset pressure head.
General	At all times	Prohibit vehicular or equipment traffic on ground absorption field. Prohibit tillage (gardening) or other soil disturbance over septic field. Practice water conservation to reduce wastewater load on system. Do not permit entry of grease and non-domestic waste to system. Use of garbage disposal is prohibited. Addition of chemical or biological additives has <u>not</u> been demonstrated to be necessary to maintain proper system function. Prevention of root intervention on lateral lines and trenches may be necessary on certain sites. Surface and groundwater diversion structures must be maintained.



**PREVENTIVE MAINTENANCE RECORD**

Your Septic System Pumper

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Date System Installed:

Date	Work Done	Firm	Cost







# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

1/17/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Powells Insurance P.O. Box 376  Clinton NC 28329		<b>CONTACT NAME:</b> Bertha Sanchez Cruz <b>PHONE (A/C, No, Ext):</b> (910) 590-2800 <b>FAX (A/C, No):</b> 9105903600 <b>E-MAIL ADDRESS:</b> bcruz@powellsinsurance.com	
<b>INSURED</b> Pro Septic Tanks LLC 136 Sugartree Ln  Mount Olive NC 28365-5425		<b>INSURER(S) AFFORDING COVERAGE</b> <b>INSURER A:</b> OHIO SECURITY INS CO <b>INSURER B:</b> MID SOUTH INSURANCE CO <b>INSURER C:</b> <b>INSURER D:</b> <b>INSURER E:</b> <b>INSURER F:</b>	
		<b>NAIC #</b> 24082 55326	

**COVERAGES****CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			BKS68225495	09/13/2024	09/13/2025	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
							COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY						
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
B	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> Y	N/A	WC 08263 2024	09/19/2024	09/19/2025	PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

**CERTIFICATE HOLDER****CANCELLATION**

Hal Owen & Associates Inc.  PO BOX 400  Lillington NC 27546	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE  Bertha Sanchez Cruz
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