

# 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

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**Project Name:** 524 Longleaf Drive, Tract 2-B

**County:** Harnett **LHD Reference:** BRES2405-0069

**Provided to:**


**Name:** Justin Zimmerle and Bruce Steger

**Address:** 92 Dove Trail, Sanford, NC 27332

I, Justin Zimmerle Bruce Steger 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)
- Operation and Management Program
- Authorization to Operate

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



11-1-24  
Date

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1 November 2024

Justin Zimmerle and Bruce Steger  
92 Dove Trail, Sanford, NC 27332

Reference: LSS Report for Authorization to Operate (ATO)  
524 Longleaf Drive, Tract 2-B  
LHD # BRES2405-0069

Dear Mr. Zimmerle and Mr. Steger,

**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 12 September 2024. 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. 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,

A handwritten signature in black ink that reads "Hal Owen".

Hal Owen  
Licensed Soil Scientist  
Authorized Onsite Wastewater Evaluator

## Contacts

### APPLICANT

Applicant Name	Justin Zimmerle and Bruce Steger
Mailing Address	92 Dove Trail, Sanford, NC 27332
Telephone Number	480-341-5296
E-mail Address	JustinZimmerle32@yahoo.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	Shane MacDonald #5572
System Inspector	Jocelyn Proulx

### INSTALLER

Company Name	Eastern Septic Service
Mailing Address	283 Pump Station Rd, Erwin, NC 28339
Telephone Number	910-580-1500
E-mail Address	<a href="mailto:easternseptic@gmail.com">easternseptic@gmail.com</a>
Installer & Certification #	Shane MacDonald #5572

### 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 #	BRES2405-0069

## Septic System Final Inspection Report

Facility Type	Single Family Residence
Wastewater Type	Domestic
Water Supply	Public
Design Wastewater Flow	480 gpd
Soil LTAR	0.70

**Installation**

Date	12 September 2024
System Inspector	Jocelyn Proulx, #99431
Installer	Shane MacDonald #5572

**Septic Tank:**

Volume (gallons)	1000
Brand and Tank ID#	MCP STB 814
Certified watertight	NA
Distance to Structure	6'
Elevation of tank inlet	10' 7 1/2"
Elevation of tank outlet	10' 9 1/2"

**Effluent Filter:**

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

Volume (gallons)	1000
Brand and Tank ID#	MCP PT-53
Certified watertight	NA
Elevation of tank inlet	10' 10 3/4"
Elevation of tank outlet	11' 1 1/2"

**Pump:**

Make and Model	Zoeller 152
Pump Sys- Elevation Head	15.5
Pump Sys- Friction Loss	3.54
Pump Sys- Design Head	2.0
Pump Sys- TDH	21.04
GPM (actual)	27.37

**Control Panel:**

Manufacturer	Alderon Industries APS220
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**Distribution:**

Supply Line Length to Distribution	80'
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Supply Line Diameter	2"
Distribution Device:	Pressure Manifold
Number of outlets (laterals)	2

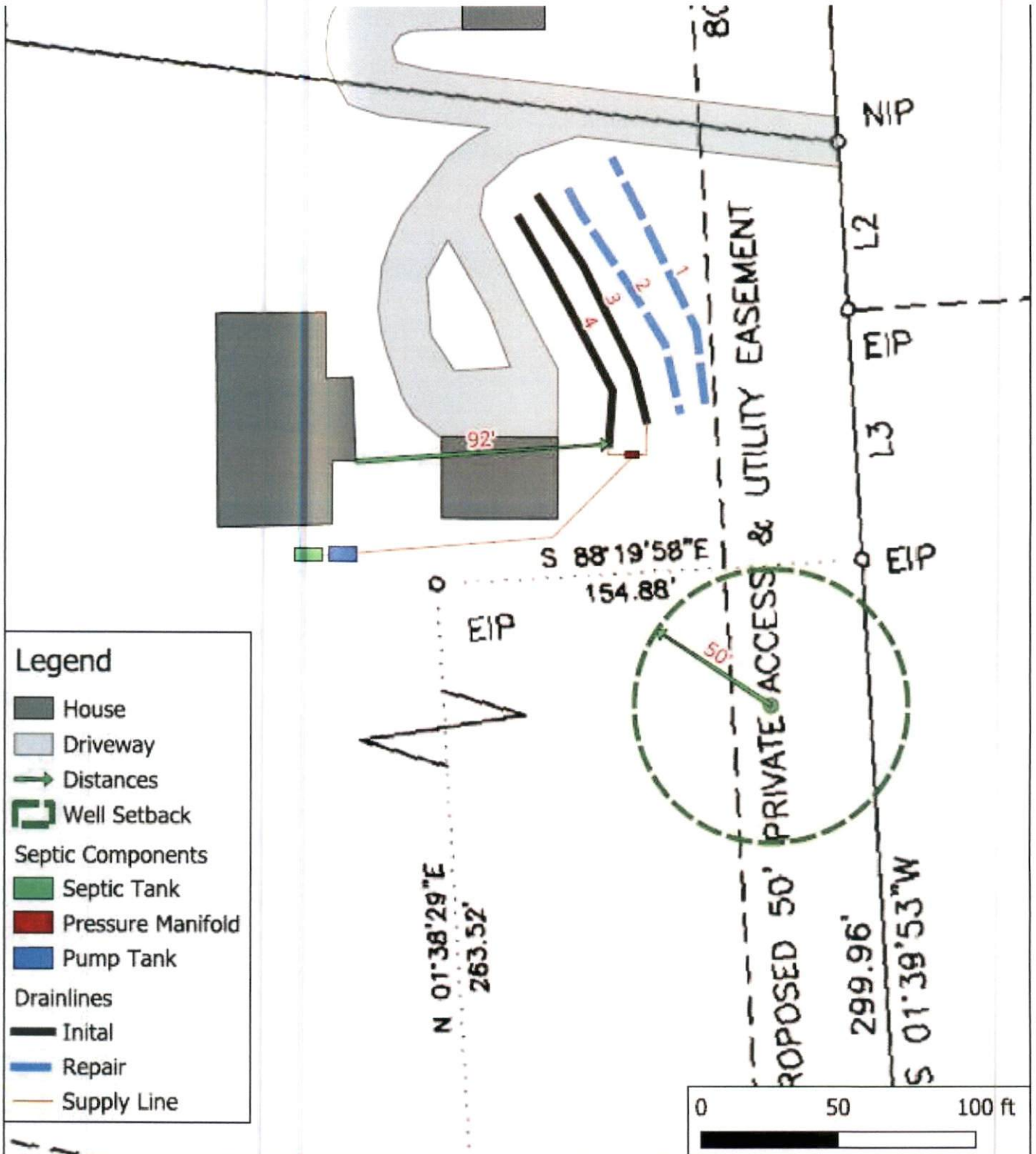
Drainfield:

Type	Quick4 Standard Chamber
Distance to Structure	92'
Distance to Well	>50' to existing well

Trench Depth	18"	Trench width	36"
Trench Spacing	9'	Aggregate	chamber
	<u>Length (ft)</u>	<u>Start</u>	<u>Middle</u>
Line 1	90	1' 4"	1' 4"
Line 2	90	1' 6"	1' 6"
Total	180		

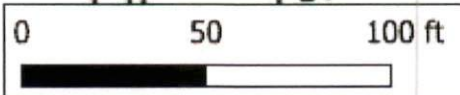
All elevations are given as relative grade rod reading.

Notes:



**Legend**

- House
- Driveway
- Distances
- Well Setback
- Septic Components**
- Septic Tank
- Pressure Manifold
- Pump Tank
- Drainlines**
- Initial
- Repair
- Supply Line

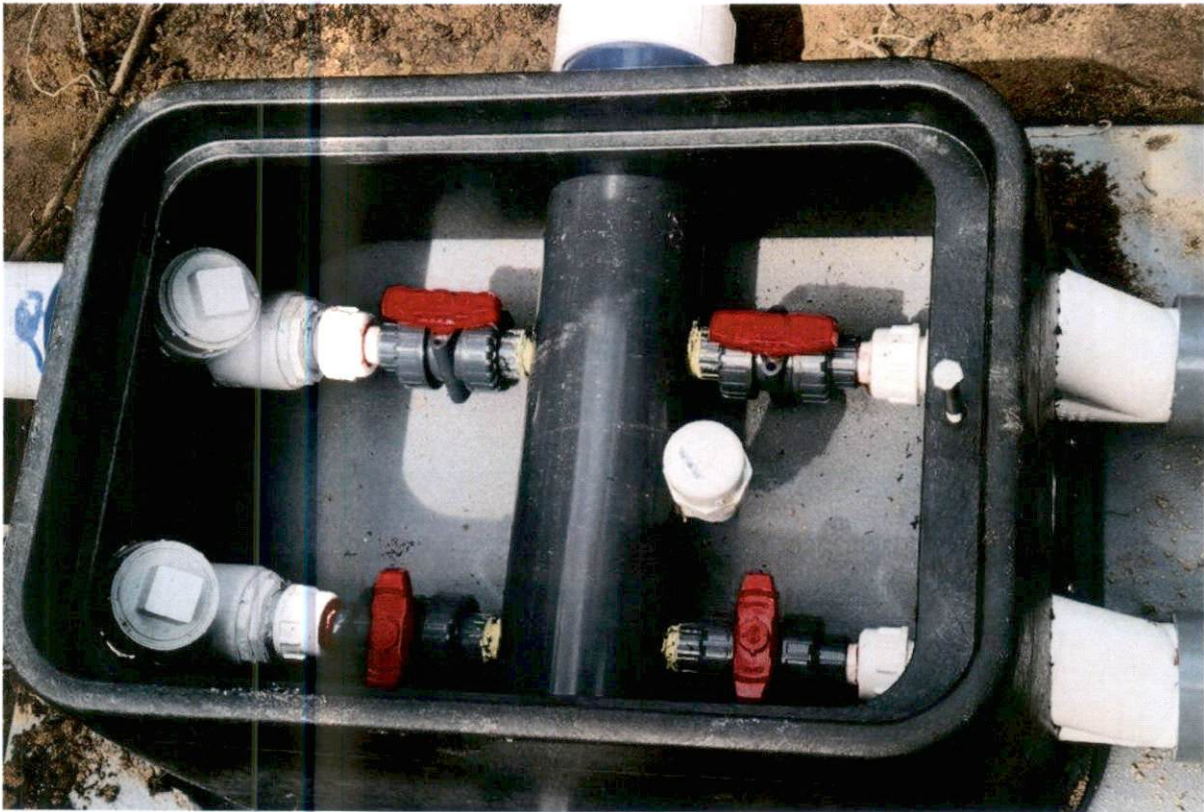


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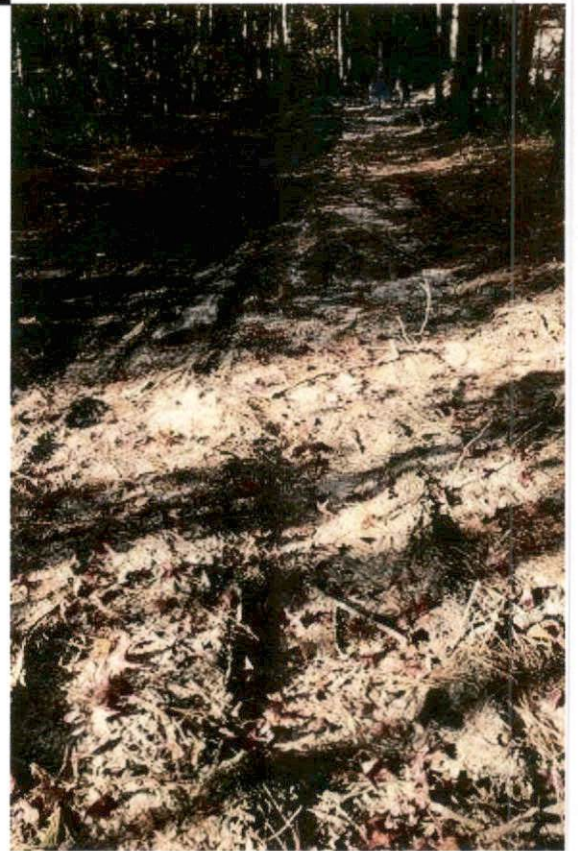
As-Built Septic Layout  
 For reference only. Not a survey.











## 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 Rule .1961.

II. Monitoring: As required by Rule .1961.

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

If yes, see attached sheet for additional operation conditions, maintenance and reporting.

IV. Operation: \_\_\_\_\_

V. Other: \_\_\_\_\_

### 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>



