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

Project Name: 528 Longleaf Dr, Tract 2-A

County: Harnett **LHD Reference**: BRES2405-0070

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 _____ Date 10/31/2024

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30 October 2024

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

Reference: LSS Report for Authorization to Operate (ATO)
528 Longleaf Dr, Tract 2-A
LHD # BRES2405-0070

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. 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.* The well location has not been finalized and will need to be approved by the appropriate regulatory authority.

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	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	Jocelyn Proulx
System Inspector	Jocelyn Proulx #9943I

INSTALLER

Company Name	Eastern Septic Service
Mailing Address	283 Pump Station Rd, Erwin, NC 28339
Telephone Number	910-580-1500
E-mail Address	easternseptic@gmail.com
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 #	BRES2405-0070

Septic System Final Inspection Report

Facility Type	Single Family Residence
Wastewater Type	Domestic
Water Supply	Public Water
Design Wastewater Flow	600 gpd
Soil LTAR	0.70

Installation

Date	12 September 2024
System Inspector	Jocelyn Proulx, #9943I
Installer	Shane MacDonald #5572

Septic Tank:

Volume (gallons)	1250
Brand and Tank ID#	MCP STB 381
Certified watertight	NA
Distance to Structure	7'
Elevation of tank inlet	8' 0"
Elevation of tank outlet	8' 2 ½"

Effluent Filter:

Make and Model	Polylok PL-68

Pump Tank:

Volume (gallons)	1230
Brand and Tank ID#	MCP PT 364
Certified watertight	NA
Elevation of tank inlet	8' 3
Elevation of tank outlet	8' 5 ¾"

Pump:

Make and Model	Zoeller 152
Pump Sys- Elevation Head	10.7
Pump Sys- Friction Loss	1.65
Pump Sys- Design Head	2.0
Pump Sys- TDH	14.33
GPM (actual)	27.37

Control Panel:

Manufacturer	Alderon Industries APS Simplex- APS120-AB

Distribution:

Supply Line Length to Distribution	40'

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

Drainfield:

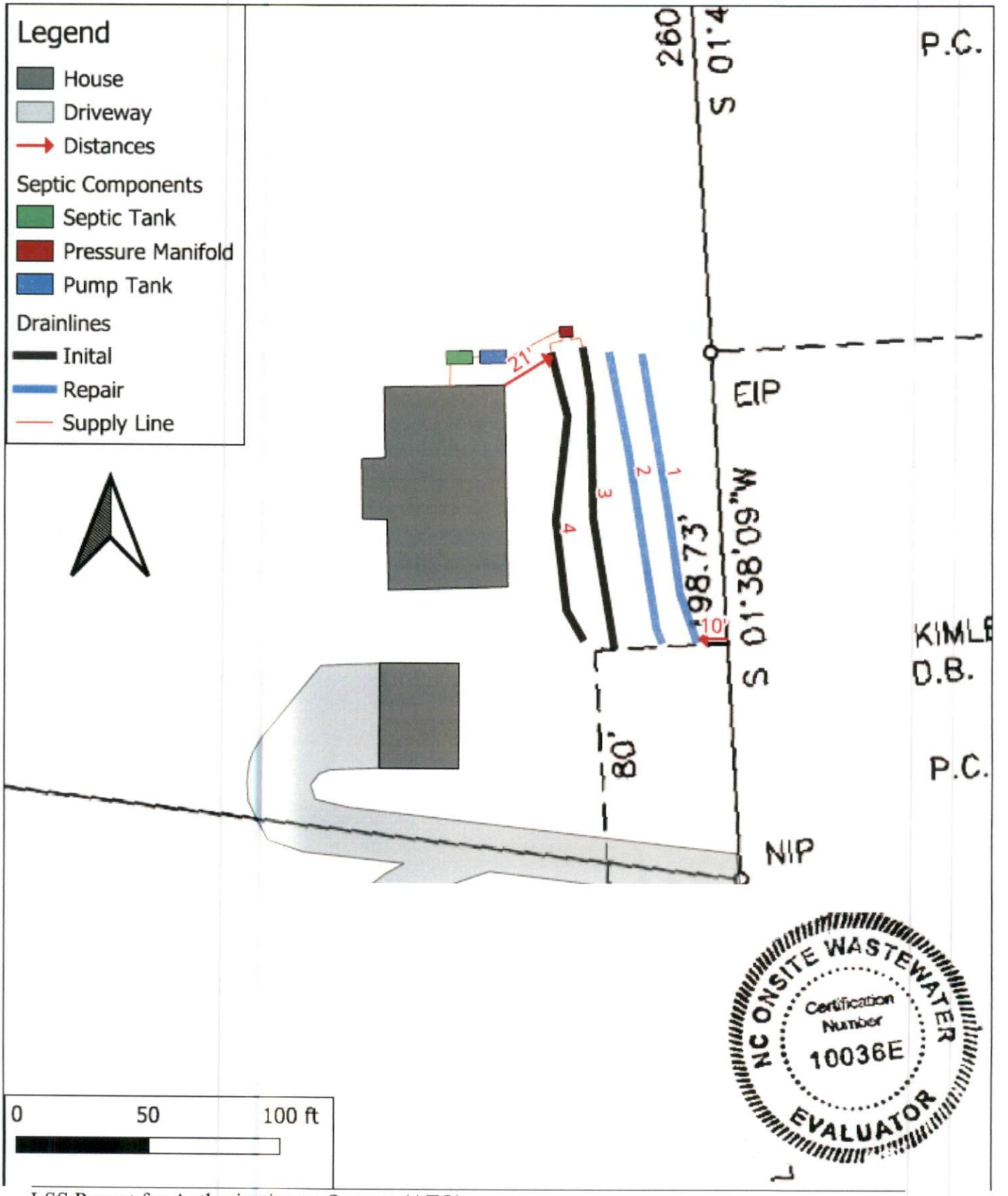
Type	Quick4 Standard Chamber
Distance to Structure	21'
Distance to Well	Well on adjacent property

Trench Depth		18"	Trench width	36"
Trench Spacing		9'	Aggregate	chamber
	Length (ft)	Start	Middle	End
Line 1	110	5' 3 ¼"	5' 3 ¼"	5' 3 ¼"
Line 2	110	5' 10 ½"	5' 10 ½"	5' 10 ½"
Total	220			

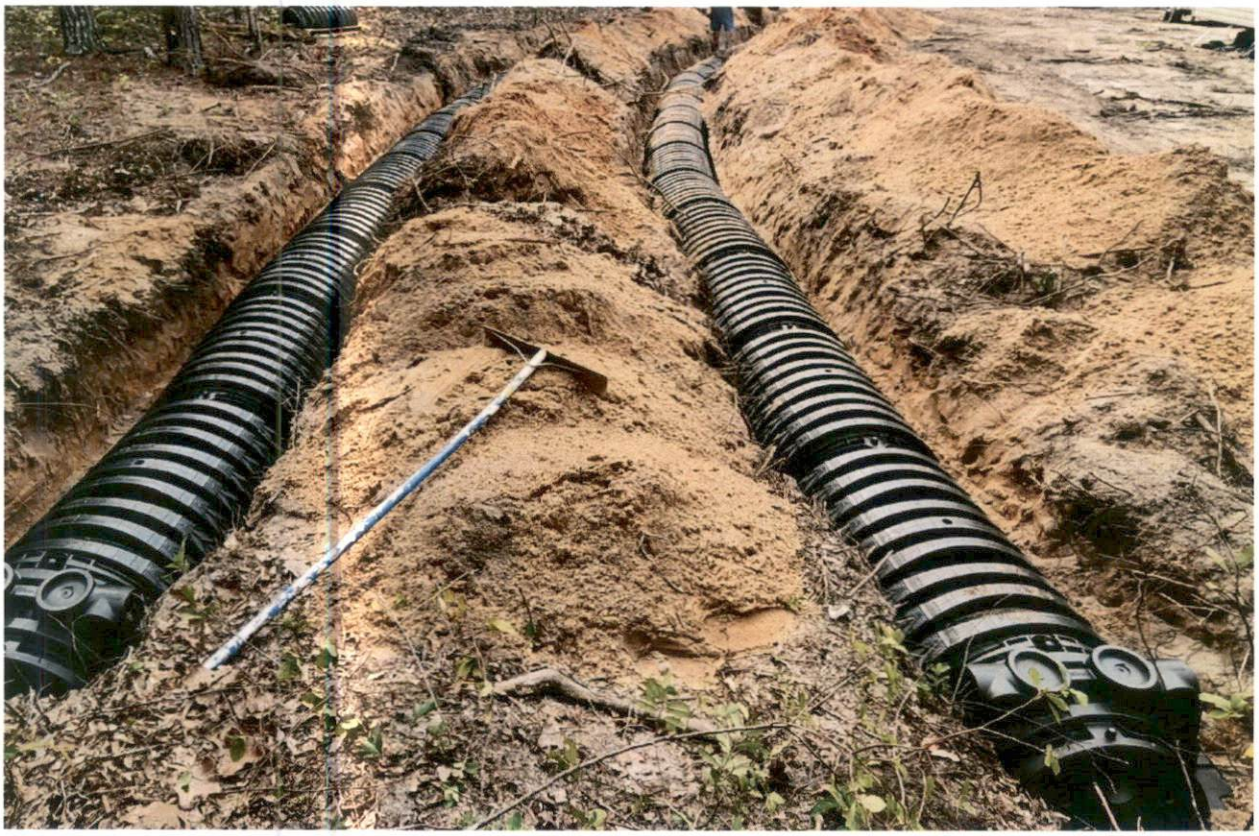
All elevations are given as relative grade rod reading.

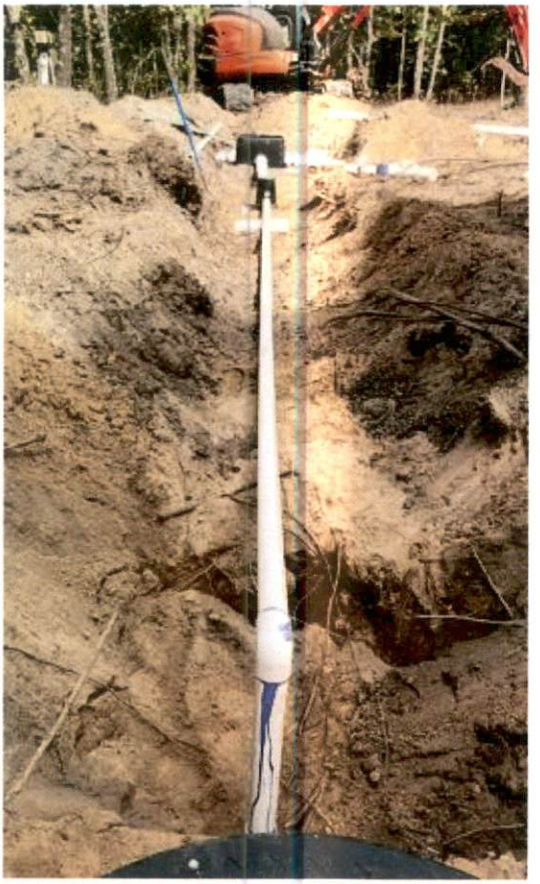
Notes:

Figure 1. As-built Septic System Installation




SIMPLEX





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___X____
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)

	Number of People Using the System				
Tank Size (gallons)	**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

PREVENTIVE MAINTENANCE RECORD

Your Septic System Pumper

Name: EASTERN SEPTIC SERVICE

Address: 283 PUMP STATION RD ERWIN NC 28339

Phone: 910-580-1500 Email: EASTERNSEPTIC@GMAIL.COM.

Date System Installed:

Date	Work Done	Firm	Cost

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 8/22/2024

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).

PRODUCER
Bankers Insurance, LLC
128 NC-65
Reidsville NC 27320

License#: 6387078

CONTACT NAME: Blair Comer
PHONE (A/C, No, Ext): 3362800317 FAX (A/C, No):
E-MAIL ADDRESS: bcomer@bankersinsurance.net

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Frankenmuth Insurance Company	13986
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Eastern Septic & Inspections, LLC
283 Pump Station Rd.
Erwin NC 28339

EASTSEP-01

COVERAGES **CERTIFICATE NUMBER:** 1440984124 **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	X COMMERCIAL GENERAL LIABILITY			6730469	8/15/2024	8/15/2025	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 300,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
A	AUTOMOBILE LIABILITY			6730468	8/15/2024	8/15/2025	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N			6730467	8/15/2024	8/15/2025	X PER STATUTE OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$ 100,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 100,000
							E.L. DISEASE - POLICY LIMIT	$ 500,000
A	Professional Liability Pollution			6730469	8/15/2024	8/15/2025	Aggregate Aggregate	2,000,000 2,000,000

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

CERTIFICATE HOLDER

Hal Owen & Associatess
PO Box 400
Lillington NC 27546

CANCELLATION

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