PIN: 4214-02-9330-0000

Pender County Health Department – Environmental Health Division

RECEIVED
SEP 10 2025
BY:

EHAO-00320-2025

APPLICATION FOR PERMITS

PERMIT #:_____

Please e-mail or bring in the first two pages of this completed form, with payment, including the signature of the owner, a floor plan (where applicable) and a site plan as indicated. Incomplete applications will not be processed. Please speak with our staff if you have any questions about filling out this form.

GENERAL INFORMATION

APPLICANT: Applied Resource Mangagement
ADDRESS: 257 Transfer Station Rd
Hampstead, NC 28443
EMAIL: wdgiese@gmail.com
PHONE NUMBER: 910-270-2919

PROPERTY OWNER: James Clock
ADDRESS: 7 Bohack Court
Sayville, NY 11782
EMAIL: setfuel@gmail.com
PHONE NUMBER: 516-380-6180

PROPERTY ADDRESS: Doral Drive, Hampstead, NC SUBDIVISION / LOT#: Lot 2 Greenway Plantation Block H
DIRECTIONS:_____

PROJECT INFORMATION

☒ NEW STRUCTURE ☐ EXISTING STRUCTURE ☐ REPAIR EXISTING SEPTIC OR WELL
☐ ABANDON EXISTING SEPTIC OR WELL ☐ PERMIT REVISION ☐ OTHER

PROJECT DESCRIPTION:_____

☒ **SINGLE FAMILY HOME** Number of Bedrooms 3 Number of occupants 6 maximum

☐ **BUSINESS/OTHER** _____

Please describe the business, number of employees, square footage, etc. Use attachments if necessary. Floor plans and/or additional info may be required to determine daily design flow.

TYPE OF WATER SUPPLY
☒ PUBLIC
☐ PRIVATE WELL
☐ SHARED WELL
☐ OTHER _____

PLEASE CHECK IF APPLICABLE:
☐ BASEMENT WITH PLUMBING
☐ WASTEWATER OTHER THAN SEWAGE GENERATED
☐ PROPERTY CONTAINS DESIGNATED WETLANDS
☐ SITE IS SUBJECT TO APPROVAL BY OTHER AGENCY
☐ FACILITY WILL HAVE A GARBAGE DISPOSAL

CHECK REQUESTED SYSTEM TYPE:
☐ CONVENTIONAL
☐ MODIFIED
☐ ALTERNATIVE
☐ ANY
☐ OTHER (specify):_____

IMPORTANT: IN ORDER FOR YOUR APPLICATION TO BE PROCESSED, YOU MUST ALSO COMPLETE THE FOLLOWING:

☐ **SUBMIT A SITE PLAN OR PLAT SHOWING:**
☐ EXISTING AND PROPOSED PROPERTY LINES WITH DIMENSIONS
☐ ALL EXISTING AND PROPOSED EASEMENTS, RIGHTS OF WAY, CAMA LINES
☐ LOCATION OF ALL EXISTING AND PROPOSED STRUCTURES AND DRIVEWAY
☐ LOCATION OF ALL EXISTING AND PROPOSED WELLS AND WATER LINES
☐ PREFERRED LOCATION OF SEPTIC AND/OR WELL. **(OPTIONAL)**

☐ **PREPARE THE SITE.**
☐ CLEARLY MARK EXISTING AND PROPOSED PROPERTY LINES/CORNERS/EASEMENTS;
☐ STAKE LOCATION OF PROPOSED STRUCTURES/ADDITIONS/DRIVEWAYS;
☐ MAKE SITE ACCESSIBLE; CLEAR UNDERGROWTH AS REQUIRED.
☐ MARK PREFERRED LOCATION FOR SEPTIC AND/OR WELL. **(OPTIONAL)**
☐ CALL IN AND NOTIFY OUR OFFICE THAT THE SITE IS STAKED AND READY

A REVISIT FEE OF $50 WILL BE CHARGED IF, AFTER NOTIFYING US THAT THE SITE IS READY, THE SITE IS FOUND TO NOT BE READY FOR EVALUATION WHEN THE EHS ARRIVES

THE FOLLOWING ADDITIONAL INFORMATION IS REQUIRED WITH APPLICATIONS FOR CONSTRUCTION AUTHORIZATIONS:

☐ **A FLOOR PLAN** OF THE PROPOSED STRUCTURE SHOWING ALL ROOMS ON EACH FLOOR OF THE BUILDING, INCLUDING BASEMENTS. PLEASE LABEL EACH ROOM AS TO ITS USE, AND SHOW LOCATION OF DOORS AND ANY STAIRS BETWEEN FLOORS.

☐ **SITE PLANS** FOR CA'S MUST SHOW SETBACKS FROM PROPERTY LINES TO PROPOSED STRUCTURES, LOCATION OF DRIVEWAYS, WATER SUPPLIES/LINES AND ANY EASEMENTS. SITE PLANS MUST BE PRE-APPROVED BY PENDER COUNTY BUILDING INSPECTIONS.

☐ **OTHER REQUIRED ADDITIONAL DOCUMENTS** SUCH AS TRI-PARTY AGREEMENTS, EASEMENTS, DESIGN PLANS AND SPECIFICATIONS, ETC. SOME OF THESE DOCUMENTS MUST BE APPROVED BY PCEH AND RECORDED WITH THE PENDER COUNTY REGISTER OF DEEDS PRIOR TO ISSUANCE OF THE CA.

Check All Sections That Apply:

IMPROVEMENT PERMIT SECTION

EVALUATION OF THE SITE AND SOIL FOR SEPTIC SYSTEM SUITABILITY

☐ IMPROVEMENT PERMIT (*Up to 600 GPD/5 bdrms or less*)........ $300
☐ IMPROVEMENT PERMIT (*Over 600 GPD*)........ $600
☐ REPAIR EXISTING SYSTEM........ (NO FEE)

EACH SITE EVALUATION CONSISTS OF UP TO 2 ACRES PER FEE.

***FOR SUBDIVISIONS/RECOMBINATIONS AND OFFSITE PROPOSALS A FINAL PLAT OR PLAN, APPROVED BY PENDER COUNTY PLANNING AND ZONING, MUST BE SUBMITTED WITH THE APPLICATION. OTHER DOCUMENTS, AS APPLICABLE, MAY BE REQUIRED.**

CONSTRUCTION AUTHORIZATION SECTION

A CONSTRUCTION AUTHORIZATION IS NEEDED TO OBTAIN A BUILDING PERMIT AND INSTALL A SEPTIC SYSTEM

☐ CONSTRUCTION AUTHORIZATION (NEW CONSTRUCTION, EXPANSION, RELOCATION, REVISION)........ $300
☐ CONSTRUCTION AUTHORIZATION........ $600
☐ REPAIR EXISTING SYSTEM........ (NO FEE)

ALL PARCELS, EASEMENTS, DECLARATIONS, ETC. MUST BE RECORDED PRIOR TO ISSUANCE OF A CONSTRUCTION AUTHORIZATION.

ENGINEERED OPTION PERMIT SECTION

☐ ENGINEERED OPTION SEPTIC PERMIT (*Up to 600 GPD*)........ $180
☐ ENGINEERED OPTION SEPTIC PERMIT (*Over 600 GPD*)........ $360

AUTHORIZED ON-SITE WASTEWATER OPERATOR AOWE PERMIT SECTION # EHAO-00320-2025

☒ AUTHORIZED ON-SITE WASTERWATER OPERATOR AOWE........ $35

WELL PERMIT SECTION

☐ NEW PRIVATE WELL PERMIT (FEE IS $250 + COST OF SAMPLING KIT)........ $320
If the well will serve more than one purpose (example: drinking water supply AND geothermal), indicate so on page 1 under "Describe your project".
☐ WELL REPAIR/ REPLACEMENT PERMIT........ $100 ☐ ABANDONMENT PERMIT........ (NO FEE)

EXISTING SYSTEM AUTHORIZATION SECTION

ONLY APPLICABLE WHEN THERE IS NO INCREASE IN WASTEFLOW

EXISTING SYSTEM AUTHORIZATION (FIELD VISIT REQUIRED)........ $100
Additions, Outbuildings, Upfits, Constructing or placing a new or used facility on a site with existing septic)
EXISTING SYSTEM AUTHORIZATION (IN-OFFICE AUTHORIZATION)........ $25
MOBILE HOME PARK SPACE RECONNECTION (PER SPACE)........ $100

SIGNATURE SECTION

TOTAL AMOUNT DUE: $ 35.00 RECEIPT # Invoiced 9/10/25 pd. inv. #49469 9/17

APPLICATION MUST BE SIGNED BY THE CURRENT OWNER OF THE PROPERTY OR SUBMIT PERMISSON LETTER FROM PROPERTY OWNER. CHANGES TO APPLICATION INFORMATION, SITE PLANS OR ACCOMPANYING DOCUMENTS WILL REQUIRE NEW APPLICATION AND ADDITIONAL FEES. ANY UNAPPROVED CHANGES MAY VOID YOUR PERMIT.

THE PROPERTY OWNER OR THE PROPERTY OWNER'S LEGAL REPRESENTATIVE. I HAVE READ THIS APPLICATION AND AUTHORIZE THE PCHD TO ENTER THE PROPERTY AND PERFORM THE SERVICE(S) REQUESTED.

OWNER (SIGNATURE): [signature] Per Agent Authorization DATE: 9/10/2025

ARM

Geothermal, Environmental,
& Well Drilling

ARM File # 250111

The following attachments are included as part of an Authorized Onsite Wastewater Evaluator (AOWE) permit package and are submitted in accordance with G.S. 130A-336.2 for the property mentioned below:

Owner: James Clock

Site address: Doral Drive, Lot 2 Greenway

County: Pender

PIN: 4214-02-9330-0000

1. NCOWCICB NOI to construct sealed
2. ATO form
3. AOWE permit application (includes Agent Authorization form)
4. Site plan/Soils report
5. GIS Aerial
6. Pump System Detail
7. Owner Operation and Management Program
8. Approved installer List
9. Inspection schedule sealed
10. COI

Applied Resource Management, PC
P.O. Box 882, 257 Transfer Station Rd., Hampstead, NC 28443 910.270.2919 Fax 910.270.2988

ARM File: 250111

North Carolina Onsite Wastewater Contractor Inspector Certification Board
Authorized Onsite Wastewater Evaluator Permit Option for Non-Engineered Systems
Notice of Intent (NOI) to Construct EHAO-320-2025

x New ___ Expansion ___ Repair ___ Relocation ___ Relocation of Repair Area

Owner or Legal Representative Information:
Name: James Clock
Mailing address: 7 Bohack Court City: Sayville State: NY Zip: 11782
Phone: 516-380-6180 Email: setfuel@gmail.com

Authorized Onsite Wastewater Evaluator Information:
Name: Walter D. Giese, NCLSS, AOWE Certification #: 10000E
Mailing address: 257 Transfer Station RD City: Hampstead State: NC Zip: 28443
Phone: 910-270-2919 Email: wdgiese@gmail.com

Site Location Information:
Site address: Doral Drive, Hampstead, NC
Tax parcel identification number or subdivision lot, block number of property: 4214-02-9330-0000
Lot 2 Greenway Plantation County: Pender

System Information:
Wastewater System Type: pump to prefabricated permeable block panel system; Type III b(e)
Daily Design Flow: 360
Saprolite System: ___Yes x ___No Subsurface Operator Required: ___Yes x ___No
Water Supply Type: ___Private Well x ___Public Water Supply ___Spring ___Other:

Facility Type:
x Residential 3 # Bedrooms 6 Maximum # of Occupants
___Business Type of Business and Basis for Flow: n/a
___Public Assembly Type of Public Assembly and Basis for Flow: n/a

Required Attachments:
x Plat or Site Plan
x Evaluation of Soil and Site Features by Licensed Soil Scientist

Attest: On this the 7th day of Sept, 2025 by signature below I hereby attest that the information required to be included with this NOI to Construct is accurate and complete to the best of my knowledge. Furthermore, I hereby attest that I have adhered to the laws and rules governing onsite wastewater systems in the state of North Carolina.
This NOI shall expire on 7th day of Sept, 2028.

Signature of Authorized Onsite Wastewater Evaluator: Walter D. Giese, LSS, AOWE, REHS

Signature of Owner or Legal Representative: Gene Young, REHS per agent authorization

Disclosure: The owner may apply for a building permit for the project upon submitting a complete NOI to Construct and the fee required (if any) to the local health department. An onsite wastewater system authorized by an authorized onsite wastewater evaluator shall be transferable to a new owner with the consent of the authorized onsite wastewater evaluator.

Local Health Department Receipt Acknowledgement:
Signature of Local Health Department Representative: [signature] Date: 22 Sept 25

ONSITE WASTEWATER EVALUATOR Certification Number 10000E

ARM Project # 250111

Authorization to Operate (ATO)

LHD USE ONLY: Initial submittal of request for ATO received: _____ by _____
Date *Initials*

The following items are included in this Authorization to Operate for an AOWE permit option:

1. Signed and sealed copy of the AOWE's report that includes the information in G.S. 130A-336.2(k). ☒ Yes ☐ No
2. Operation and management program and ORC contract, if applicable. ☒ Yes ☐ No
3. Notarized letter documenting Owner's acceptance of the system from the AOWE. ☒ Yes ☐ No
4. Owner meets requirements of ownership or control of the system per 15A NCAC 18E .0301 or 15A NCAC 18A .1938(j). ☒ Yes ☐ No
5. Letter from the On-site Wastewater Contractor stating that the system was installed according to the AOWE permit and in accordance with 15A NCAC 18E or 18A .1900 regulations. ☒ Yes ☐ No
6. Proof of Errors and Omissions or other appropriate liability insurance for the On-site Wastewater Contractor is attached and includes the name of the insurer, name of the insured, and the effective dates of coverage.
   ☒ Yes ☐ No

Attestation by the Owner Authorization to Operate

I, _____ hereby attest that all items indicated above have been provided to the
Print name of Owner
Pender County LHD, and the system meets applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ _____
Signature of Owner *Date*

Owner or Legal Representative Information:
Name: James Clock
Mailing address: 7 Bohack Court City: Sayville State: NY Zip: 11782
Phone: 516-380-6180 Email: setfuel@gmail.com

Authorized Onsite Wastewater Evaluator Information:
Name: Walter D. Giese Certification #: 10000E
Mailing address: 257 Transfer Station Rd City: Hampstead State: NC Zip: 28443
Phone: 910-270-2919 Email: wdgiese@gmail.com

Site Location Information:
Site address: Doral Drive, Hampstead, NC
Tax parcel identification number or subdivision lot, block number of property: 4214-02-9330-0000
Lot 2 Greenway Plantation County: Pender

System Information:
Wastewater System Type: pump to prefabricated permeable block panel system
Daily Design Flow: 360
Saprolite System: ____Yes __X__No Subsurface Operator Required: ____ Yes __X__No
Water Supply Type: ____Private Well __X__Public Water Supply ____ Spring ____Other: _____

Facility Type:
__X__Residential 3 # Bedrooms 6 Maximum # of Occupants
____Business Type of Business and Basis for Flow: n/a
____ Public Assembly Type of Public Assembly and Basis for Flow: n/a

Applied Resource Management, PC
ON-SITE WASTEWATER SYSTEM APPLICATION FOR AOWE PERMIT

Application is intended to meet requirements of a contract between the AOWE and client/owner

☒ **NEW PERMIT** ☐ **REPAIR PERMIT** ☐ **TRANSFER OF OWNERSHIP**

TAX PARCEL I.D. NUMBER: 4214-02-9330-0000 PROPERTY ADDRESS: 2 Doral Dr. Hampstead NC.

WHAT DATE WAS THE PROPERTY ORIGINALLY DEEDED AND RECORDED? : _____

CLIENT / OWNER NAME:

James Clock

CLIENT / OWNER ADDRESS:

7 Bohack ct. Sayville, N.Y.

CLIENT/OWNER DAY TIME PHONE:

516-380-6180

CLIENT/OWNER EMAIL ADDRESS:

setfuel@gmail.com

REPRESENTATIVE COMPLETE ADDRESSS:

REPRESENTATIVE EMAIL:

REPRESENTATIVE PHONE NUMBER:

DIRECTIONS TO PROPERTY:

Applied Resource Management, PC

ON-SITE WASTEWATER SYSTEM APPLICATION FOR AOWE PERMIT

TYPE OF ESTABLISHMENT

RESIDENCE:
YES ☒ NO ☐ OTHER ☐ SPECIFY:_____

SQ. FOOTAGE OF RESIDENCE OR BUILDING: to be determined

BASEMENT : YES ☐ NO ☒ PLUMBING FIXURE IN BASEMENT? YES ☐ NO ☒

NUMBER OF OCCUPANTS: 6 max

NUMBER OF BEDROOMS (SLEEPING ROOMS AND ANY OTHER ROOMS OR ADDITIONS THAT CAN REASONABLY BE EXPECTED TO FUNCTION AS A BEDROOM):
3

WATER SUPPLY:
PUBLIC ☒ WELL ☐ OTHER ☐ SPECIFY:_____

IF ANY OF THE FOLLOWING ARE LOCATED ON THE PROPERTY, PLEASE SHOW THEM ON THE PLAT / SITE PLAN

DESCRIPTION	YES	NO	Comments
ANY WASTEWATER GENERATED OTHER THAN DOMESTIC SEWAGE		✓	
THE SITE IS SUBJECT TO APPROVAL BY OTHER PUBLIC AGENCIES			unknown
WELL, SPRINGS, OR EXISITING WATRER LINES		✓	
DESIGNATED WETLANDS		✓	
EXISITNG WASTEWATER SYSTEMS		✓	
EASEMENTS OR RIGHT-OF-WAY		✓	

YOU MUST SUBMIT A PLAT OF YOUR PROPERTY OR A SITE PLAN WITH THIS APPLICATION:

- Please show the location of the residence or buildings, including decks, porches, and any other improvements such as pools, driveways and other structures to include water supply on the plat.
- The application must be accompanied by a plat prepared by a Registered Land Surveyor (RLS) that will serve as a base map for the owner or his representative to show to scale the proposed building location, driveway, water supply location (well or water lines), and other pertinent features proposed for the property. If a plat prepared by a RLS is impractical, a site plan must be submitted with the application. If possible, the site plan should be drawn to scale (1" = 40") , but not required. The property must be accurately staked in the field and all property lines readily identifiable.
- Identify any ditches, drains, French drains, sock tiles, farm drainage, or any other similar drainage devices or structures within the proposed lot. Identify any wells located on the lot or within 100ft of the proposed lot.
- If storm water plans exist, the storm water plans shall be made available.
- **If proposed site plan/layout is not provided, it is assumed that the site plan prepared by the AOWE is accepted by the owner/client.**

James Clock
Print Name

James Clock
Signature

7/30/25
Date

Agent Authorization Form

Date: 7/30/25

I, James Clock authorize Walter Giese, Gene Young, Davis McIver, or any employee of Applied Resource Management, PC to act as an agent on my behalf in all matters dealing with wastewater system permitting on my properties in accordance with GS 130A-366.2.

I ACKNOWLEDGE that the lot(s) associated with the AOWE Permit will be billed on a time and materials basis to include but not limited to;

- **Additional onsite work/evaluations associated with the site**
- **Permit Package Preparation**
- **Onsite Pre-Construction Conferences**
- **Onsite System Inspections**
- **Post Construction Conferences and ATO preparations**
- **County fees**

System installation inspections will be required prior to covering any portion of the system regardless of system installer certification level issued by the North Carolina On-site Wastewater Contractors and Inspectors Certification board.

The AOWE reserves the right to stop work on this project at his sole discretion for any reason.

Property Owner Signature: James Clock

Property Owner Printed: James Clock

Property Address/Location: 2 Doral Dr. Hampstead NC. (Parcel ID- 4214-02-9330-0000)

This instrument was signed and sworn before me on this 30 day of July, 2025 by James Clock.

DONNA JEAN POETZSCH
NOTARY PUBLIC, State of New York
No. 01P04871258
Qualified in Suffolk County
Term Expires Sept. 15, 2026

Notary Signature: Donna J. Poetzsch

Notary printed Name: DONNA J. Poetzsch

My commission expires Sept. 15, 2026

Applied Resource Management, P.C.
P.O. Box 882, 257 Transfer Station Road, Hampstead, NC 28443 910.270.2919 Fax 910.270.2988

NCLSS: #1274
AWOE: #10000E
Walter Giese, LSS, REHS, AOWE
Applied Resource Management, P.C

910-270-2919
www.armnc.com
PO Box 882, Hampstead NC 28443

Authorized Onsite Wastewater Evaluator (AOWE) Permit Requirements

- All requirements in 15A NCAC 18E and 15A NCAC 18A .1900 (as applicable) are adopted as part of this permit.
- Pre-construction conference with septic contractor required before beginning site modification and/or system installation.
- The system shall be installed/repaired by a septic system contractor approved by the AWOE. A list of Approved Installers will be included as part of the permit package. The list of Approved Installers may contain one or more certified installers that are employees of Applied Resource Management, P.C. (ARM). Please note that if the system installation is performed by ARM, the AOWE and certified installer will be separate individuals with separate certifications, both employed by ARM. It is required that no evaluator shall allow his or her interest in any business to affect the quality or results of the evaluation work that the evaluator may be called upon to perform, to include all required inspections of onsite wastewater system installations. **If an AOWE permit is issued by ARM, costs and billing associated with preconstruction meetings, site/system inspections, postconstruction meetings, and any paperwork associated will be billed separately from the proposed system installation cost.**
- It is the responsibility of the contractor to call ARM to schedule the installation inspection at least 2 days prior to installation. The system shall not be installed in wet conditions or the AOWE permit may be revoked.
- Any changes to the proposed plans must be approved by the AOWE.
- Do not allow any traffic, construction, excavation, utilities, material storage, or any other disturbance to take place on the designated septic area or repair area. These activities may void your permit.
- The client/owner is responsible for ensuring that property lines are readily identifiable in the field.
- The contractor is responsible for ensuring that the septic system is installed in the proper location and that all setbacks are met. See NCAC 18E .0601 for setback requirements. The contactor is responsible for ensuring that the septic system is installed in accordance with local rules in counties where applicable.
- The system installation must be inspected by the AOWE at certain stages during the installation.
- For systems with pumps, the contractor is responsible for insuring the proper installation of the electrical components. An electrical permit must be obtained and a person with a valid NC Electrical license must provide electrical services to the controller and alarm.
- This NOI/AOWE Permit shall become invalid and/or may be revoked if the site is altered or intended use changes. There shall be no grading, cutting, logging, or other soil disturbance in the septic area. Design does not guarantee functionality or future performance.
- Permit issued by the AOWE will be valid for a period of three (3) years from date of issuance.
- The contractor is responsible for back filling the system components so that no areas are subject to the retention or ponding of surface water. After the installation is completed, some settling of the backfill material may take place. The system owner is responsible for eliminating settled or sunken areas, stabilization, and final landscaping of the ground surface. No heavy equipment or vehicular traffic over the leach field or repair area.
- Installer shall provide written acknowledgment that the system was installed in accordance with 15A NCAC 18E regulations and permit conditions prior to issuance of the Authorization to Operate (ATO).
- **Change of System Ownership**: A wastewater system authorized pursuant to NCGS 130A-336.2 shall be transferable to a new owner with the consent of the AOWE. The new owner and the AOWE shall enter a contract for the wastewater system. Confirmation that the site and intended use is unchanged will be required. The new owner will be responsible for costs associated with site visit to confirm site conditions have not been altered. An application for permit transfer shall be submitted to AOWE/ARM.
- The AOWE reserves the right to make changes to the permit conditions at preconstruction conference and any time prior to the issuance of the ATO.

Owner/Client Acknowledgment of Permit Requirements

James Clark
Owner Signature

7/30/25
Date

Authorization of Operate (ATO)

Prior to issuance of the ATO, the following documents are required:

- Signed and sealed copy of the AOWE's report that includes the information in G.S. 130A-336.2(k).
- Operation and management program.
- Notarized letter documenting Owner's acceptance of the system from the AOWE.
- Letter from the On-site Wastewater Contractor stating that the system was installed according to the AOWE permit and in accordance with 15A NCAC 18E.
- Proof of appropriate liability insurance (COI) for the On-site Wastewater Contractor.
- Other documents, if applicable, including but not limited to recordation of off-site easements, well abandonment record, ORC contract.

Owner/Client Acknowledgment of ATO Requirements

Jane Clark
Owner Signature

7/30/25
Date

SECTION .0600 – LOCATION OF WASTEWATER SYSTEMS

15A NCAC 18E .0601 LOCATION OF WASTEWATER SYSTEMS

(a) Every wastewater system shall be located the minimum setbacks from the site features specified in Table IX. The setback shall be measured on the ground surface, unless otherwise specified in this Rule, from the nearest wastewater system component sidewall or as otherwise specified in a system specific rule or PIA Approval.

TABLE IX. Minimum setbacks from all wastewater systems to site features

Site Features	Setback in feet
Any transient or non-transient non-community water supply well, community well, shared water supply well, well that complies with 15A NCAC 18A .1700, or water supply spring	100
A private drinking water well or upslope spring serving a single family dwelling unit	50
Any other well or source not listed in this table, excluding monitoring wells	50
Surface waters classified WS-I, from ordinary high-water mark	100
Waters classified SA, from mean high-water mark	100
Any Class I or Class II reservoir, from normal water level	100
Lake or pond, from normal water level	50
Any other stream, non-water supply spring, or other surface waters, from the ordinary high-water mark	50
Tidal influenced waters, such as marshes and coastal waters, from mean high-water mark	50

Permanent stormwater retention basin, from normal water level	50
Any water line, unless the requirements of Paragraph (i) have been met	10
Closed loop geothermal wells	15
Building foundation and deck supports	5
Patio, porch, stoop, lighting fixtures, or signage, including supporting structures such as posts or pilings	1
Any basement, cellar, or in-ground swimming pool	15
Buried storage tank or basin, except stormwater	10
Above ground swimming pool and appurtenances that require a building permit	5
Top of slope of embankment or cuts of two feet or more vertical height with a slope greater than 50 percent	15
Top of slope of embankment or cuts of two feet or more vertical height with a slope greater than 33 percent and less than or equal to 50 percent	15
	If the site has suitable soil depth that extends for a minimum horizontal distance of 15 feet from the edge of the dispersal field, no minimum setback is required.
Top of slope of embankment or cuts of two feet or more vertical height with a slope less than 33 percent	0
Groundwater lowering system, as measured on the ground surface from the edge of the feature	25
Downslope interceptor drains and surface water diversions with a vertical cut of more than two feet, as measured on the ground surface from the edge of the feature	15
Upslope and sideslope interceptor drains and surface water diversions with a vertical cut of more than two feet, as measured on the ground surface from the edge of the feature	10
A stormwater collection system as defined in 15A NCAC 02H .1002(48), excluding gutter drains that connect to a stormwater collection system, with a vertical cut of more than two feet as measured from the center of the collection system	10
Bio-retention area, injection well, infiltration system, or dry pond	25
Any other dispersal field, except designated dispersal field repair area for project site	20
Any property line	10
Burial plot or graveyard boundary	10
Above ground storage tank from dripline or foundation pad, whichever is more limiting	5
Utility transmission and distribution line poles and towers, including guy wires, unless a greater setback is required by the utility company	5
Utility transformer, ground-surface mounted	5
Underground utilities	5

(b) Wastewater systems may be located closer than 100 feet but never less than 50 feet from water supply wells or an upslope spring for repairs, space limitations, and other site-planning considerations when one of the following conditions is met:

(1) the well was constructed prior to July 1, 1993, in accordance with 15A NCAC 18A .1720; or

(2) a variance for a reduced well setback has been issued in accordance with one of the following:

(A) 15A NCAC 02C .0118 for a shared water supply well, a wastewater system permitted or installed in saprolite, or for a transient non-community public water supply well; or

(B) 15A NCAC 18C .0203(b) for a non-transient non-community public water system.

(c) Wastewater systems shall not be located closer than 100 feet to springs, uncased wells, and ungrouted wells used as a source of drinking water and located downslope from the dispersal field.

(d) Underground utilities maintain a five-foot setback and shall not encroach on the wastewater system and repair area.

(e) The reduced setbacks in Table X shall apply to septic tanks and pump tanks if a leak test has been performed at the job site on the septic tank and pump tank in accordance with Rule .0805 of this Subchapter that verifies the tank, pipe penetrations, and riser connections are watertight.

TABLE X. Reduced setbacks for tanks to some site features

Site Features	Setback in feet
Permanent stormwater retention basin, from normal water level	35
Bio-retention area, injection well, infiltration system, or dry pond	15
Groundwater lowering system, as measured on the ground surface from the edge of the feature	15
Any water line	5
A stormwater collection system as defined in 15A NCAC 02H .1002(48), excluding gutter drains that connect to a stormwater collection system, with a vertical cut of more than two feet as measured from the center of the collection system	5

(f) No minimum setback shall be required from a well that has been permanently abandoned in accordance with 15A NCAC 02C .0113 and for which a record of abandonment has been submitted in accordance with 15A NCAC 02C .0114.
(g) Initial and repair dispersal field systems shall not be located under impervious surfaces or areas subject to vehicular traffic unless approved in accordance with G.S. 130A-343 and Section .1700 of this Subchapter.
(h) If a collection sewer is installed under areas subject to vehicular traffic or areas subject to soil disturbance or compaction, one of the following pipe materials shall be used:

(1) DIP;
(2) a minimum of Schedule 40 PVC, Polyethylene, or ABS pipe sleeved in DIP;
(3) a minimum of Schedule 40 PVC, Polyethylene, or ABS pipe sleeved in DOT traffic rated culvert pipe;
(4) a minimum of Schedule 40 PVC, Polyethylene, or ABS pipe with 30 inches of compacted material provided over the crown of the pipe; or
(5) other pipe materials may be proposed when designed, inspected, and certified by a PE and approved by the LHD.

(i) In addition to the requirements of Paragraph (a) of this Rule, wastewater systems with a proposed DDF greater than 3,000 gpd, as determined in Rule .0401 of this Subchapter, shall be located the minimum setbacks from the site features in Table XI.

TABLE XI. Minimum setbacks from wastewater systems greater than 3,000 gpd to site features

Feature	Setback in feet
Any Class I or II reservoir or any public water supply source utilizing a shallow, under 50 feet, groundwater aquifer, from feature or normal water level	500
Any other public water supply source, unless a confined aquifer	200
Any private drinking water well or upslope spring, unless a confined aquifer	100
Surface water classified WS- I, from ordinary high-water mark	200
Surface waters classified WS-II, WS-III, B, or SB, from mean high-water mark or ordinary high-water mark	100
Waters classified SA, from mean high-water mark	200
Any property line	25

(j) Wastewater systems with a DDF greater than 3,000 gpd that meet the requirements of Rule .0510(f) of this Subchapter may use the setbacks identified in Table IX of this Rule.
(k) Collection sewers shall be located the minimum setbacks to site features shown in Table IX, unless a different minimum setback is specified in Table XII. When a reduced setback to a collection sewer is utilized, the piping requirements for the reduced setback shall be extended to comply with the unreduced setback. The distribution device shall receive the reduced setback when demonstrated to be watertight with an on-site leak test.

TABLE XII. Minimum setbacks from collection sewers to site features

Feature	Setback in feet
Any public water supply source, including wells, springs, and Class I or Class II reservoirs, from feature or normal water level	100
	50, if constructed of or sleeved in Schedule 80 PVC or DIP with mechanical joints equivalent to water main standards, and the collection sewer is leak tested and shown to be watertight*
Any water supply well excluding those regulated under 15A NCAC 18C	50
	25, if constructed of Schedule 40 pressure rated PVC or DIP with mechanical joints equivalent to

	water main standards, and the collection sewer is leak tested and shown to be watertight*
	15, if constructed of Schedule 80 PVC, sleeved in DIP or Schedule 80 PVC, and the collection sewer is leak tested and shown to be watertight*
Surface waters classified WS-I, WS-II, WS-III, B, SA, or SB, from mean high-water mark or ordinary high-water mark	50
	10, if constructed of or sleeved in Schedule 80 PVC or DIP with mechanical joints equivalent to water main standards, and the collection sewer is leak tested and shown to be watertight*
Any other stream, non-water supply spring, or other surface waters, from the ordinary high-water mark	10
Tidal influenced waters, such as marshes and coastal waters, from mean high-water mark	10
Closed loop geothermal wells	5
Any service connection as defined in 15A NCAC 18C .0102(c)(21)	5
Any basement, cellar, or in-ground swimming pool	10
Top of slope of embankment or cuts of two feet or more vertical height with a slope greater than 50 percent	5
Interceptor drains and surface water diversions, with a vertical cut of more than two feet as measured on the ground surface from the edge of the diversion	5
Permanent stormwater retention basin, from normal water level	10
Bio-retention area, injection well, infiltration system, or dry pond	5
Any other dispersal field, except designated dispersal field repair area for project site	5
Any property line	5
Burial plot or graveyard boundary	5

*Pipe materials other than DIP, Schedule 40 pressure rated PVC, or Schedule 80 PVC shall be acceptable when the materials conform to materials, testing methods, and acceptability standards meeting water main standards and when the line has been designed, installed, inspected, and certified by a PE and approved by the LHD.

(l) The minimum setback from water lines to collection sewers shall be 10 feet, except as follows:
- (1) the water line is laid in a separate trench with the elevation of the bottom of the water line 18 inches above the top of the collection sewer; or
- (2) the water line is laid in the same trench as the collection sewer with the water line located on one side of the trench, on a bench of undisturbed earth and with the elevation of the bottom of the water line 18 inches above the top of the collection sewer. The collection sewer shall be located the width of the trench from the water line.

(m) Collection sewers and water lines shall not cross, except as follows:
- (1) 18 inches clear vertical separation is maintained, with the collection sewer crossing under the water line; or
- (2) the water line crosses under the collection sewer or 18 inches clear vertical separation is not maintained and the following criteria are met:
  - (A) the collection sewer is constructed of DIP with joints equivalent to water main standards and extends 10 feet on each side of the point of crossing, with full sections of pipe centered at the point of crossing; and
  - (B) the water line is constructed of ferrous materials with joints equivalent to water main standards and extends a minimum of 10 feet on each side of the point of crossing, with full sections of pipe centered at the point of crossing.

(n) Collection sewers shall not cross storm drains, except as follows:
- (1) 12 inches clear vertical separation is maintained between the collection sewer and storm drain;
- (2) the collection sewer is constructed of DIP with mechanical joints or restrained push-on joints equal to water main standards; or

(3) the collection sewer is encased in concrete or DIP for a minimum of five feet on either side of the crossing.

(o) Collection sewers shall not cross under a stream, except as follows:

(1) a minimum of 36 inches of separation from the stream bottom is maintained;

(2) the collection sewer is constructed of DIP with mechanical joints or restrained push-on joints equal to water main standards; or

(3) the collection sewer is encased in concrete or DIP for a minimum of 10 feet on either side of the crossing and protected against the normal range of high and low water conditions, including the 100-year flood or wave action.

(p) Collection sewer aerial crossings shall be constructed of DIP with mechanical joints or restrained push-on joints equal to water main standards and freeze protected. Pipe shall be anchored for a minimum of 10 feet on either side of the crossing.

(q) If septic tanks, pump tanks, grease tanks, raw sewage lift stations, wastewater treatment plants, sand filters, and other advanced pretreatment systems are located in areas subject to flooding at a frequency greater than a 10-year storm, they shall be designed and installed to be watertight and to remain operable during all flooding events.

History Note: *Authority G.S. 130A-334; 130A-335(e) and (f); S.L. 2019-215, s.2.*

1:985

0 0.0075 0.015 0.03 mi

0 0.0125 0.025 0.05 km

Pender County

1 inch = 82 feet

N W E S

PIN: 4214-02-9330-0000

Owner: CLOCK, JAMES E
7 BOHACK CT
SAYVILLE, NY 11782

Deed Ref: /

Property Address:

Description: L2,PB 12/64 GREENWAY PLANTATION

Subdivision: GREENWAY PLANTATION
Tax Codes: G01 F22 R40
Sale Price:
Sale Date:
Plat: 00120064
Account No: 21586
Township: TOPSAIL

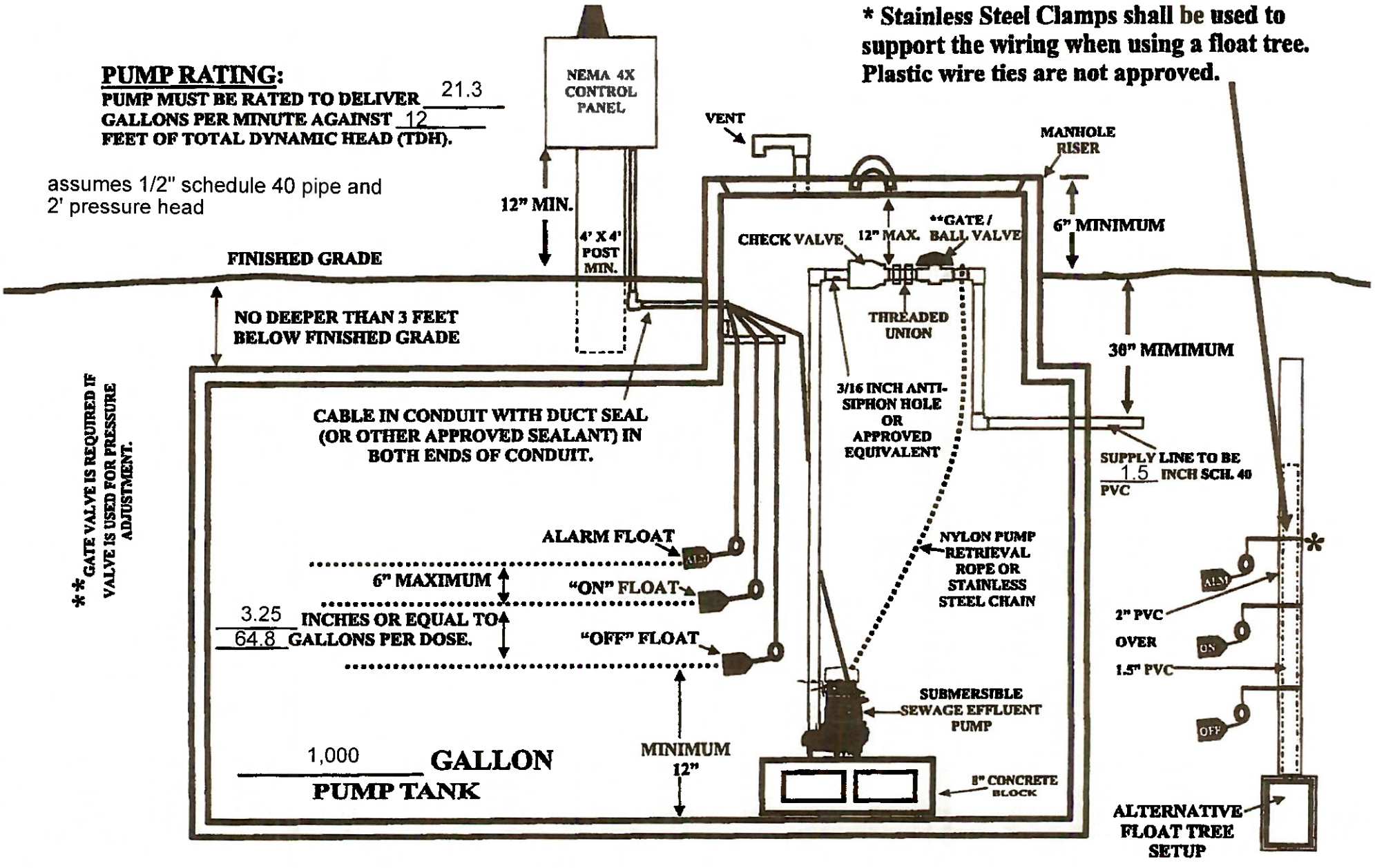
Acres: 0
Land Value:
Building Value:
Total value:
Deferred Value:
Exempt Amount: EXEM_AMT
PCL Class: R
Heated Sq Feet:

PUMP SYSTEM DETAIL SHEET

*** Stainless Steel Clamps shall be used to support the wiring when using a float tree. Plastic wire ties are not approved.**

PUMP RATING:
PUMP MUST BE RATED TO DELIVER 21.3 **GALLONS PER MINUTE AGAINST** 12 **FEET OF TOTAL DYNAMIC HEAD (TDH).**

assumes 1/2" schedule 40 pipe and 2' pressure head



****GATE VALVE IS REQUIRED IF VALVE IS USED FOR PRESSURE ADJUSTMENT.**

Tank Water Tightness Testing Procedure*

1. **Hydrostatic Leak Testing Procedure:**

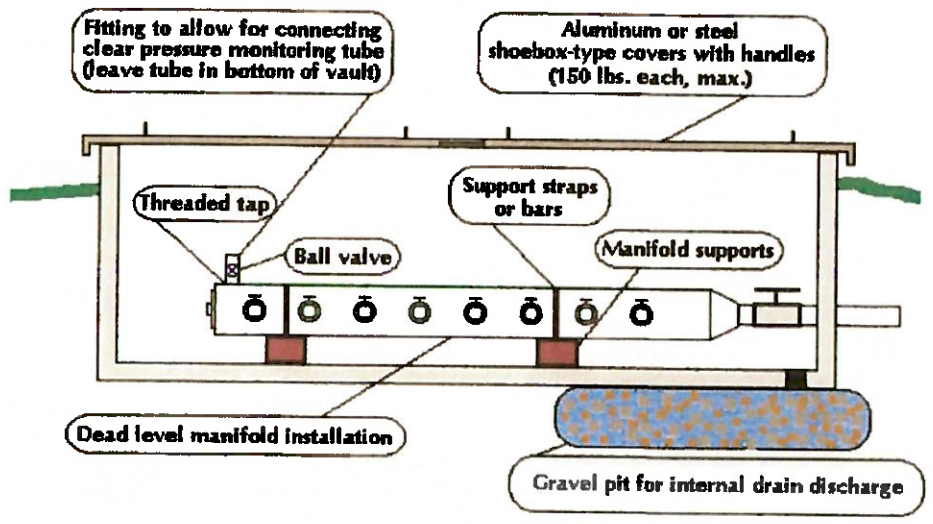
   a. Fill tank with water to the underside of the top of the tank or, for corrugated tanks, to the bottom of the upper most corrugation that forms the topo of the tank;
   b. Allow the tank to sit for one hour;
   c. Tank shall be approved if the water level drops less than or equal to one-eighth inch in one hour;
   d. If a leak is detected, the tank may be repaired in accordance with the tank manufacturer's written instructions, refilled and retested;
   e. Surface wetness or condensation shall not be considered an active water leak, and;
   f. The tank manufacturer or installer is allowed one attempt to retest the tank before the authorized agent can deny the tank for use in the installation based on failure to pass the leak test.

2. **Vacuum Testing Procedure:**

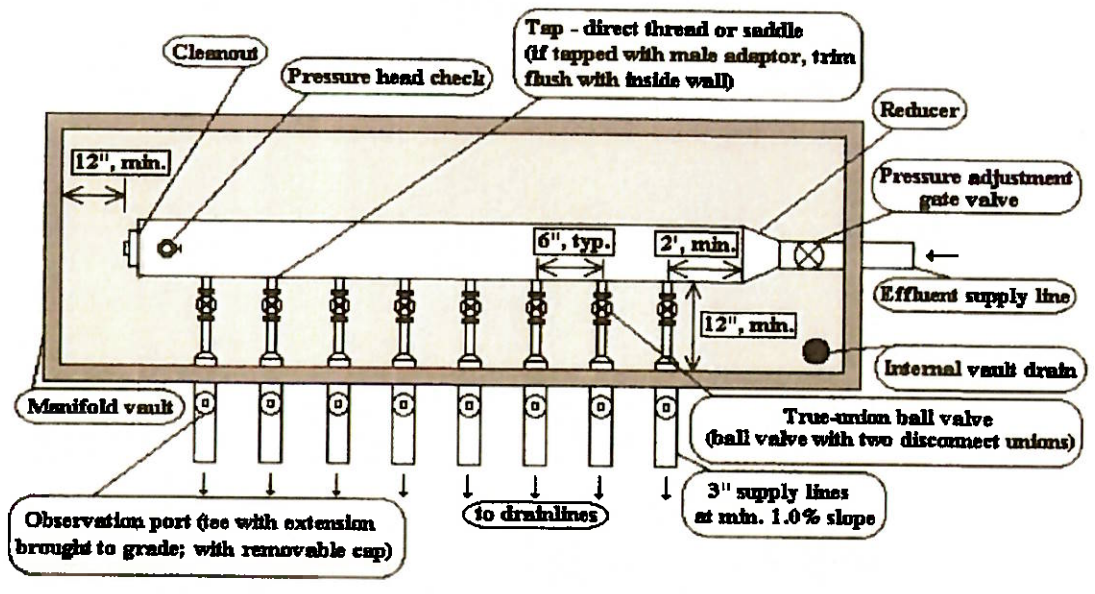
   a. Temporarily seal inlet and outlet pipes and access openings;
   b. Using calibrated equipment, draw a vacuum on the empty tank to a negative pressure of two and one half inches of mercury;
   c. Hold the vacuum for five minutes and re-measure and record the ending negative pressure inside the tank;
   d. No bracing or internal support that is not part of the approved tank shall be allowed;
   e. Tank shall be approved if the difference between the starting negative pressure and the ending negative pressure is less than or equal to one-fifth inch;
   f. If a leak is detected, the tank may be repaired in accordance with the tank manufacture's written instruction and retested;
   g. The tank manufacturer or installer is allowed one attempt to retest the tank before the authorized agent can deny the tank for use in the installation based on the failure to pass the leak test, and;
   h. All tank openings shall be un-sealed after the vacuum test is completed.

Instead of the operation procedures set out in Paragraph (b)(2)(B) and (b)(2)€ of this Rule, a tank manufacturer may choose to use a negative pressure of five inches of mercury held for two minutes with the tank approved if the difference between the starting negative pressure and the ending negative pressure is less than or equal to two-fifths of mercury.

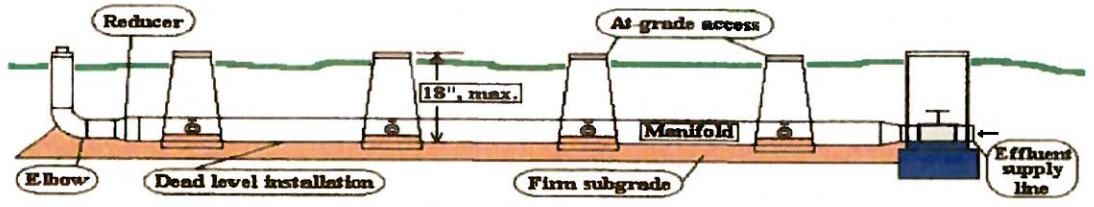
*Note: Testing procedures adapted from 15A NCAC 18E .0805(b) – Version 1 – November 9, 2023.



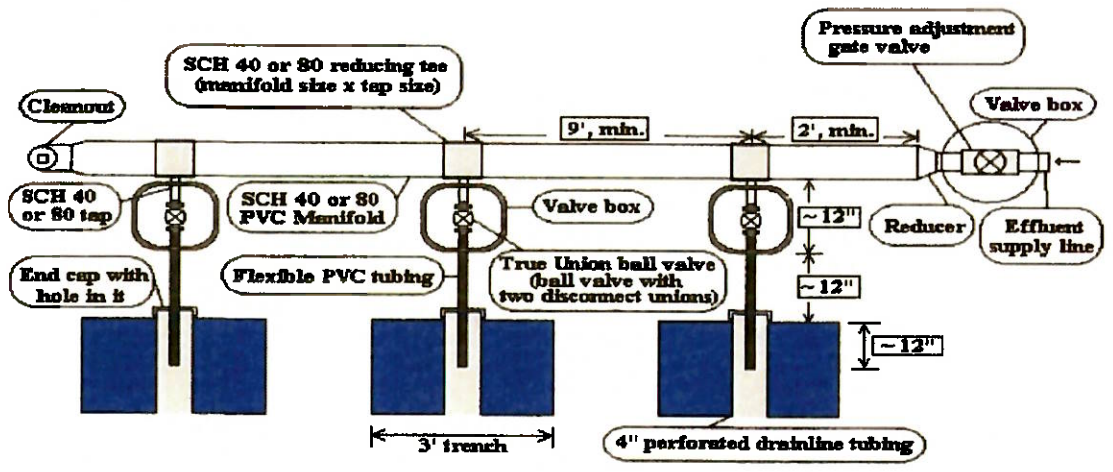
Profile View of Pressure Manifold for Sloping Site Installation (not to scale)



Plan View of Pressure Manifold for Sloping Site Installation (not to scale)



Profile View of Pressure Manifold for Level Site Installation
(not to scale)



Plan View of Pressure Manifold for Level Site Installation
(not to scale)

Additional Specifications

1. There shall be no splices in any electrical cable within the pump chamber.
2. Pump and alarm must be on two separate live electrical circuits which operate independently of each other.
3. If the pump manufacturer specifies that the "pump off" level be below the top of the pump, the following manufacturer's specifications and adjust the floats accordingly.
4. Check valves shall be mounted horizontally and such that a siphon breaker hole can be drilled on the pump side of the valve.
5. Only those tanks specifically approved by the State of North Carolina and appropriately stamped shall be used for pump tanks. Modified septic tanks shall not be approved.
6. A complete and approved installation is required for this permit to continue to be valid beyond five years elapsed time from the date of issuance.
7. The permit is valid subject to all conditions so noted on this permit, the operations permit, the approved plans and specifications, and any written correspondence that may specify a condition or requirement.
8. This permit is valid only for as long as it meets all requirements of the G.S. Chapter 130A Article 11 and related portions of NC Administrative Code.
9. No driving or parking shall be allowed over any portions of the system or repair area unless specifically approved elsewhere in this permit.
10. System operation, maintenance, and repairs shall be the responsibility of the land owner as named on this permit.
11. The pump curve for the effluent pump installed shall be available during system inspection, and a copy provided.
12. Paperwork confirming that the electrical enclosure used is NEMA 4X rated shall be available during system inspection. (Paperwork used in NEMA 4X rated is clearly marked on the enclosure.)

Maintenance Guidelines for Septic Systems

15A NCAC 18E .1303 is attached.

- Practice water conservation. All water that a house sends down a drain enters the septic system. If less water is used, the less water ends up in the septic system.
- Water usage that is at 75% or greater of the daily design flow for the system shall be considered excessive.
- Drainfield area shall be landscaped to shed surface water and have ample vegetative cover to prevent erosion.
- Do not allow vehicular traffic to drive over or park on top of drainfield or any other component of the septic system.

Gravity system: Have the system inspected at least every three to five years by a septic service professional. The septic tank shall be pumped out by a certified septage hauler as needed or when the solids level is found to be more than 1/3 of the total liquid depth in any compartment (15A NCAC 18E .1303 (a)(3). The effluent filter shall be cleaned or replaced as needed when the septic tank is pumped out.

Pump system: Have electrical components (panel, floats, pump) inspected once a year by a septic service professional. At inspection, pressure head shall be adjusted to height specified on original specifications. A septic system with a single effluent pump or siphon (Type IIIb) shall be inspected by the Local Health Department every five years (15A NCAC 18E .1303 (Table XXXII).

Drip System: See attached Owner's Manual: American "Perc-Rite" for maintenance of the wastewater drip system. An Operations and Maintenance contract with a certified Subsurface Wastewater Operator is required. The Drip system shall be inspected by the Local Health Department once a year (15A NCAC 18E .1303 (Table XXXII).

sets, in mg/L

TS = the effluent limit based on the constituent and effluent standard in mg/L, from Table XXV in Rule .1201(a) of this Subchapter

(h) The Management Entity may record daily wastewater flow and may sample influent to the advanced pretreatment system as needed to determine compliance with this Rule and OP conditions.

History Note: *Authority G.S. 130A-335(e) and (f).*

15A NCAC 18E .1303 OWNER RESPONSIBILITIES FOR WASTEWATER SYSTEM OPERATION AND MAINTENANCE

(a) Any person owning or controlling the property upon which a wastewater system is installed shall be responsible for the following items regarding the operation and maintenance of the system:

(1) the wastewater system shall be operated and maintained to protect North Carolina ground and surface water quality standards and to prevent the following conditions:
  (A) discharge of sewage or effluent to the surface of the ground, surface waters, or into groundwater at any time;
  (B) back-up of sewage or effluent into the facility, building drains, collection system, freeboard volume of the tanks, or distribution system; or
  (C) effluent within three inches of finished grade over one or more trenches based on two or more observations made not less than 24 hours apart, and greater than 24 hours after a rainfall event;

(2) the system shall be considered to be malfunctioning when one or more of the conditions of Subparagraph (a)(1) of this Rule occur or if it is necessary to remove the contents of the tank(s) at a frequency greater than once per month in order to prevent one or more of the conditions of Subparagraph (a)(1) of the Rule. The owner shall contact the LHD when the wastewater system is malfunctioning and implement remedies as directed by the LHD in accordance with Rule .1306 of this Section. If the system was permitted under an EOP or AOWE permit, the owner shall contact the PE or AOWE when the wastewater system is malfunctioning;

(3) wastewater systems shall be inspected, and the entire contents of all septic tank compartments shall be removed whenever the depth of both the scum and sludge is found to be more than one-third of the liquid depth in any compartment. The effluent filter shall be rinsed to remove accumulated solids that can cause the wastewater to back up into the facility or clog the system, or replaced as needed;

(4) residuals from the wastewater system shall be transported and disposed of in accordance with G.S. 130A, Article 9, and 15A NCAC 13B;

(5) grease traps and grease tanks shall be pumped as needed to prevent discharge of FOG from the trap or tank to the next treatment component, but no less than yearly. Grease traps and grease tanks shall be maintained in accordance with Rule .0803(h) of this Subchapter and the owner shall maintain a contract with a septage management firm. All pumping records shall be maintained on-site;

(6) site-specific vegetation shall be established and maintained over the wastewater system and repair area to stabilize slope and control erosion;

(7) activities that result in soil disturbance or soil compaction shall not occur over the initial and repair dispersal field area;

(8) maintaining the wastewater system in accordance with Rule .1301(a) of this Section; and

(9) turning the effluent flow diversion valve for alternating dual dispersal fields once a year or as specified by the PE, AOWE, or authorized designer.

(b) A contract for operation and maintenance of a wastewater system required to be maintained by a Management Entity, as specified in Table XXXII of Rule .1301(b) of this Section, shall be in effect for as long as the system is in use. A contract shall be executed between the system owner and a Management Entity prior to the issuance of an OP, unless the system owner and Management Entity are the same. The contract shall include:

(1) specific requirements for operation, maintenance, and associated reporting;

(2) responsibilities of the owner;

(3) responsibilities of the Management Entity;

(4) provisions for notification to the LHD by the owner and Management Entity upon termination of the contract; and

(5) other requirements for the continued performance of the system, as determined by the Management Entity, LHD, and Department, as applicable.

History Note: *Authority G.S. 130A-335(e) and (f).*

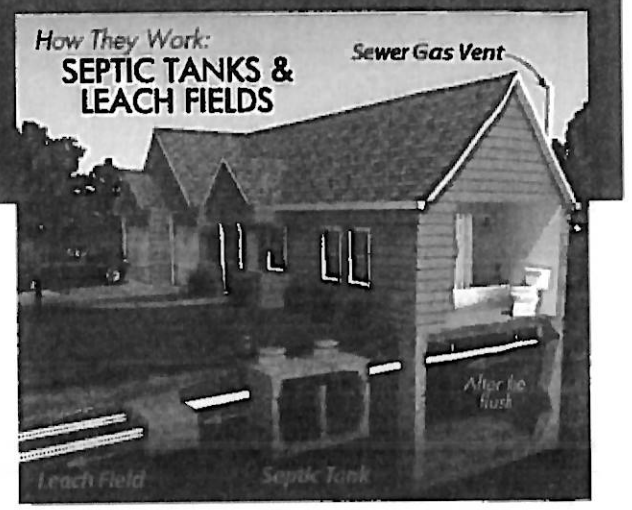
15A NCAC 18E .1304 MANAGEMENT ENTITY RESPONSIBILITIES FOR WASTEWATER SYSTEM OPERATION AND MAINTENANCE

(a) When a Management Entity is required to be or to employ a certified operator as specified in Table XXXII in Rule .1301(b) of this Section, the operator shall, at a minimum, be certified as a subsurface operator in accordance with G.S. 90A, Article 3, and 15A NCAC 08G. Operators of systems classified as Type V or VI in Table XXXII in Rule .1301(b) of this Section may be required to have additional certifications by the Department in accordance with Rule .1301(d) of this Section and upon consultation with the Water Pollution Control Systems Operator Certification Commission, if required by G.S. 90A, Article 3.

(b) The Management Entity shall inspect the wastewater system at the frequency specified in Table XXXII in Rule .1301(b) of this Section or in accordance with the RWTS or PIA Approval.

Understanding and Protecting Your Septic System

If you currently discharge wastewater to a septic system, if you are looking to purchase a place of residence, public assembly, or business, or to move to a place that is served by a septic system, this guidance document should be helpful. Contact your local health department for additional assistance and information.



Know Your Septic System

Not all septic systems are the same. It is important to know about your septic system, such as the components that make up the system and their location on the property, the system functioning and maintenance history, as well as what to do and what not to do. Traditional conventional septic systems have a septic tank and a drainfield with gravel-filled trenches or a gravel bed. Newer septic systems may have polypropylene or polyethylene "chambers" or polystyrene aggregate in place of the gravel.

Some systems use advanced technologies that require a higher level of maintenance than traditional conventional septic systems, and state rules have specific maintenance requirements for these systems. Sometimes owners will be required by state rules to hire a state-certified operator to regularly inspect and maintain the system. In addition, state rules require the local health department to inspect these systems on a periodic basis.

Some properties are legally required to have a "repair area or replacement area" in which a second drainfield could be installed if needed. This repair area should have been identified typically by the health department when the site was permitted and should be shown on your septic system permit ("Improvement Permit"). State rules also require you to protect this area from any soil disturbance activities such as excavation; building a house addition, garage, or other structure; swimming pool construction and installation; and grading.

If you are not sure what type of wastewater system you have, contact the local health department to request a copy of the septic system permit and soil evaluation sheet for your property. These forms should indicate the approved design daily flow, type of system, size of each of the system components (septic tank, any other tanks or pretreatment units, the drainfield, and the repair area), and approximate locations of those components. Also, ask the previous owner or the seller for information about the system (e.g., installations, repairs, maintenance).

Ask Questions

Ensure you have answers to the following questions:

- What type of septic system do you have?
- How old is the system (i.e., when were the system components installed)?
- Where are all the system components located, including the drainfield and repair area? (Note: They may not be at the same location or even on the same lot.)
- How many gallons a day (e.g., number of bedrooms, occupants, seats in the restaurant) is the septic system designed to treat and dispose of?
- What is the volumetric (liquid) capacity of each tank in the septic system?
- Which drainfield option or product was used for your system?
- Is the septic system working properly?
- Does the system require a certified operator?
- What are the legal requirements for long-term maintenance?
- Has the septic system been maintained in the past?

"Keep this information for future reference to help you properly maintain your septic system"

"Let your Health Department know the problem"

Signs of Possible Septic System Failure

- Sewage backing up into your toilets, tubs, or sinks.
- Sewage backing up in the septic and/or pump tank
- Slowly draining plumbing fixtures, particularly during and 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.
- Sewage comes to the ground surface when the pump turns on and then disappears after the pump turns off.
- An alarm flashing (red light) and/or blaring horn coming from the pump control panel.

Understanding and Protecting Your Septic System

DOs and DON'Ts

DO

- Do learn the location of the septic tank, drainfield and repair area. Keep a sketch of the system location and layout with your maintenance record for service visits.
- Do keep your septic tank cover accessible for inspections and pumping.
- Do keep suitable vegetation growing over the drainfield and repair area to stabilize the soil and prevent erosion.
- Do have a maintenance plan for your system.
- Do have your septic system inspected in accordance with state regulations.
- Do make sure you have an effluent filter installed on your septic tank to prevent solids from reaching the drainfield and to increase the life of your system.
- Do have solids pumped out of the septic tank by a State-permitted pumper every 3 to 5 years (typical primary residence) or as required per the permit. Do make sure both compartments of the septic tank are pumped out. If the septic system includes a pump tank have it pumped out too.
- Do periodically check to ensure the septic system, pumps and electrical components, continue working properly between scheduled maintenance visits.
- Do call the local health department or an onsite wastewater contractor certified by the North Carolina Onsite Wastewater Contractor Inspector Certification Board (NCOWCICB) whenever you experience problems with your system, or if there are any signs of system failure.
- Do keep a detailed record of installations, repairs, and tank pump outs.
- Do hire a state-certified subsurface system operator when required by the septic system permit.

DON'T

- Don't ignore problems with your septic system hoping they will just go away.
- Don't enter the septic tank.
- Don't wait until the tank overflows, the drainfield fails, or the system backs up to have the tank pumped.
- Don't expand the size of the place of residence, business, or public assembly without obtaining prior written approval to adjust the size of the septic system accordingly.
- Don't make or allow repairs to your septic system without obtaining required permits from the local health department.
- Don't direct downspouts, water softeners, sump pumps, water features, swimming pool, hot tubs, HVAC condensate drains or similar discharges into the septic system or toward the drainfield.
- Don't install sprinkler systems or wells in the septic system and repair areas.
- Don't perform construction of any type over the septic system and repair areas (e.g., decks, patios, sheds).
- Don't cover the septic tank, d-box, or drainfield with structures (e.g., planters, firepits, grills) or hardened surfaces (e.g., asphalt, concrete, stone, brick).
- Don't drive or park vehicles over the septic system.
- Don't put cigarette butts, paper towels, disposable wipes, sanitary napkins/tampons, condoms, cotton swabs, kitty litter, coffee grounds, disposable diapers, plastics or other non-biodegradables into the septic system.
- Don't pour grease or cooking oil down the drain or foul up the septic system with harmful chemicals (e.g., solvents, paint, medications, disinfectants, pesticides) and other hazardous substances.
- Don't install garbage grinders at sinks.

State-Certified Septic System Installers and Inspectors
Contact the North Carolina Onsite Wastewater Contractor Inspector Certification Board (NCOWCICB)
Phone: (336) 202-3126 • Website: https://ncowcicb.info

State-Certified Subsurface System Operators
Contact the North Carolina Water Pollution Control System Certification Commission (WPCSOCC)
Phone: (919) 707-9089 • Website: https://deq.nc.gov/about/divisions/water-resources/operator-certification

NC Department of Health and Human Services • Division of Public Health • On-Site Water Protection •
https://ehs.ncpublichealth.com/oswp • NCDHHS is an equal opportunity employer and provider •
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NCLSS: #1274
AWOE: #10000E
Walter Giese, LSS, REHS, AOWE
Applied Resource Management, P.C

ARM
Geothermal, Environmental, & Well Drilling

910-270-2919
www.amnc.com
PO Box 882, Hampstead NC 28443

List of Approved Installers

Company	Installer	Level	Cert #	Office Phone
Morgan Trucking & General Const.	Tarkessio Landis Morgan	II	5305	910-386-9407
Coastal Ground Worx	Ryan Campbell	IV	5102	910-547-6052
W A Page & Sons Inc.	William Page	IV	1280	252-393-8116
Bogue Sound Septic	Richard Taylor	IV	1288	252-393-6426
LB Page Landscaping	Robert Ochat	IV	1278	252-393-7766
JAD Construction	John Dietrich	IV	3403	910-988-9292
Whaley Enterprises	Adam Whaley	IV	2010	910-285-2012
Whaley Enterprises	Carson Whaley	IV	6649	910-271-0336
Applied Resource Management	Bailey Rauseo	IV	8066	910-270-2919
Inman Septic	David Inman	IV	2031	910-443-4149
Parker Septic Serv.	Todd Parker	IV	2993	910-799-5877
Extreme Onsite Construction	Kevin Padgett	IV	2000	910-548-2291
HBA Contracting	Andy Baker	IV	8010	910-548-5524
Flat Rate Septic	Zach Parker	IV	2016	910-376-0939
Quality Septic Services Inc	Ed Faison	IV	4530	919-422-7126
Faires Construction	Duncan Faires	IV	4375	910-358-9600
Arnolds Landscaping	Thomas Arnold	IV	5049	910-389-4170
Al Sidbury Construction	Alfred Sidbury	IV	2007	910-270-3221
Creech's Plumping INC	Hunter Creech	IV	7303	252-237-7733
Creech's Plumping INC	James Creech	IV	5187	252-237-7733
53 Septic Services	Adam Lanier	IV	9170	910-604-1087
Clark's Septic and Land Services Inc	Blake Clark	IV	6210	910-549-8124
Turnage Construction & Trucking	Dwight Turnage	IV	2043	252-745-4976
Leggett's Backhoe Service	Chay Leggett	IV	11615	910-738-8301
Farrugia Grading & Construction	Nick Farrugia	IV	6641	252-723-4017
Sibbetts Hauling Inc	Jeffrey Sibbett	IV	1285	910-754-4440
Cape Fear Land & Septic	Bryan Leonard	IV	6925	910-520-5205
Prince Septic & More	Justin Prince	IV	5388	910-787-3317
Plowboy Services	Kevin Fisher	IV	1982	910-346-1969
C&M Plumbing & Septic Inc	Michael Spurgeon	IV	3262	919-658-6109
Bear Creek Construction LLC	Jamie Rivenbark	II	6615	910-540-3337

Certified Installer is responsible for having appropriate certification level as well as applicable Manufacturers' Certification.

Additional installers may be approved on an individual and/or site-specific basis. However additional Site Visits and System Inspections may be required at an additional cost.
The list of Approved Installers is supplied to the owner/client in accordance with G.S. 130A-336.2(d)(3).

Updated July 2025

NCLSS: #1274
AWOE: #10000E
Walter Giese, LSS, REHS, AOWE
Applied Resource Management, P.C

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www.armnc.com
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The system shall be installed/repaired by a septic system contractor approved by the AWOE. A list of Approved Installers will be included as part of the permit package. The list of Approved Installers may contain one or more certified installers that are employees of Applied Resource Management, P.C. (ARM). Please note that if the system installation is performed by ARM, the AOWE and certified installer will be separate individuals with separate certifications, both employed by ARM. It is required that no evaluator shall allow his or her interest in any business to affect the quality or results of the evaluation work that the evaluator may be called upon to perform, to include all required inspections of onsite wastewater system installations.

LEVEL	Description of Activities
II	Single septic tank, conventional (gravel) gravity system and any approved gravity or single pump dispersal system not specified in Grade Level IV. This includes multiple tanks, grease traps, single pump or single siphon, fill systems, and sand-lined trench.
IV	Dual pumps or dual siphons, systems up to 3000 gpd, low-pressure dispersal, flow equalization, and any system that requires ground water lowering with a pump. Systems >3000 gpd, multiple off-site systems, industrial process wastewater, residential wastewater treatment systems (RWTS), drip dispersal systems, wastewater reuse systems, and advanced treatment systems.

Certified Installer is responsible for having the appropriate certification level as well as applicable Manufacturers' Certification.

§ 130A-336.2. Alternative wastewater system approvals for nonengineered systems.

(e) Responsibilities of the On-Site Wastewater System Contractor. – The on-site wastewater system contractor retained by the site owner shall do all of the following:

(1) Be certified persurant to Article 5 of Chapter 90A of the General Statutes.

(2) Be responsible for all aspects of the construction and installation of the wastewater system and its components, including adherence to specifications and any special inspections that are prepared, signed, and sealed by the Authorized On-Site Wastewater.

(3) Submit a signed and dated statement of responsibility to the owner of the wastewater system, prior to commencement of work, that contains acknowledgment of the requirements of the on-site wastewater system specified by the Authorized On-Site Wastewater Evaluator

Applied Resource Management System Installation Schedule

Name: James Clock
Address: _____

Project #: 250111
Location: 2 Doral Drive, Hampstead, NC

System Type: pump to prefabricated permeable block panel

Initial System Off-Site Yes / No
Repair Area Off-Site Yes / No

Inspection Schedule	Inspector	Date
Pre-Construction Conference:		
Site Modification (as needed):		
Vacuum Test/ Leak Test (as needed):		
System Installation:		
System Start-Up (as needed):		
Post Construction Conference:		
Other inspections as needed:		

NOTES:

1. Please call to schedule inspections 48 hours prior to preferred inspection date/time. See below contact information.
2. All system components noted on Inspection Checklist shall be inspected and approved prior to covering.
3. All site planning considerations/conditions determined at pre-construction conference shall be inspected and approved.

Contacts: Walter D. Giese, NCLSS: (910) 389-4410; wdgiese@gmail.com
Davis McIver, REHS: (910) 616-1826; davis@armnc.com
Gene Young, REHS: (910)617-4914; gene@armnc.com

Comments:

Walter D. Giese, LSS, AOWE, REHS

Walter D. Giese, NCLSS, AOWE
Licensed Soil Scientist

NC ONSITE WASTEWATER EVALUATOR Certification Number 10000E

Applied Resource Management System Installation Schedule

Address: 2 Doral Drive, Hampstead, NC ARM Project #: 250111

Installer: _____ [X] 18E Permit [ ] .1900 Permit

Phone: _____ Email: _____ Certification #: _____ Grade/Level: _____

Septic Tank	Initial Date	Nitrification Lines/Laterals	Initial Date
Manufacture Date:		Trench/Lateral Type/Aggregate:	
State ID Number:		Trench Width:	
Capacity:		Trench Length:	
Tee/Approved Filter:		% Reduction Taken:	
Baffle:		Trench Bottom/Lateral Depth:	
Sealant:		Number of Lines/Laterals	
Tank Penetration Seal:		Trench Grade:	
Riser if Applicable:		Rock Depth & Quality (3 , 4, 5, 57, 6)	
Water Tightness Test		Aggregate Cover	
Certificate by tank manufacturer (18E)			
		Dams/Step downs/Dropbox, etc.	
PUMP TANK		Pressure Lateral	
Manufacture Date		Hole Spacing/Hole Sizing	
State ID Number		Turn-ups/Protectors	
Capacity		Observation Ports	
Waterproof/Sealant		**DISTRIBUTION SYSTEM**	
Riser		Distribution Method	
Water Tightness Test		Serial Dist.	
Certificate by tank manufacturer (18E)		Pressure Manifold	
		Tap Size & Material	
PUMP		Pipe (Size, Material & Grade)	
Check Valve/Gate valve		Observation ports after manifold	
Anti-siphon Hole (Size)		Valves	
Pressure Head		**SUPPLY LINE**	
Floats/ Pressure Bell / Transducer		Location	
Drawdown (inches)		Pipe (Material)	
Electrical Components		Depth (If specified)	
NEMA 4x Box		Pipe Size	
Rate (gpm)		Hydrostatic Leak Test (if applicable)	
Pump Manufacturer:		**LANDSCAPING**	
Pump Model Number:		Surface Drain	
Pump Removal Method:		Subsurface Drain	
Permanent Power		Depth of Cover: Tank: Drainfield:	
		Will Shed Surface Water (Turtleback)	
		Finish Grade/Stabilize (if applicable)	
GREASE TRAP		Permanent Markers (tank)	
Manufacture Date		**OTHER**	
State ID Number		System Setbacks	
Capacity		Legal Documents/Easements	
Tee/Approved Filter (Extends		Mound Approved (Texture, Interface,	
50% of liquid depth)		Location, Length, Depth, Width)	
24" Access Opening		ORC Contract/ Company	
Water Tightness Test		Tri-Party Draft	
Certificate by tank manufacturer (18E)		Tri-Party Draft Finalized/Recorded	

Applied Resource Management System Installation Schedule

ARM Project: 250111

Installer: _____ Phone: _____ Email: _____

Certification #: _____ Grade/Level: _____

OFF-SITE SYSTEMS	INITIAL DATE	DRIP SYSTEM/ADVANCED PRE-TREATMENT	INITIAL DATE
Conditional CA for Supply Lines:		Preconstruction Meeting	
Date Issued:		Drip Manufacturer	
Date Installed:		Drip Tags Collected	
Hydrostatic Leak Test:		Headworks (above SWC)	
Permanent Markers with Lot #		Start-up/Final	
(At Corners of Drainfield)		Manufacturers Approval for Design	
All Weather Access Road		Field Representative Letter of Acceptance	
Easments Recorded		Installer Authorized/Approval from Manufacturer	
		Cover Turtlebacked	
Designs/ Plans Submitted		Pretreatment Product Device	
Plans Approved			
Telemetry		Designs/Plans Submitted	
As Built Provided		Plans Approved	
Designer/Engineer Letter of Acceptance		Telemetry	
		As Built Provided	
DRAINAGE		Deisgner/Engineer Letter of Acceptance	
Design Approved		Approval #'s	
Type: ☐ GWL			
☐ Interceptor			
☐ Ditch			
☐ Swale			
Tile Size:			
Depth:			
Pump Drainage Required			
Pump Size			
Pump Manufacturer			
Power Connected/Operational:			
(Generator Not Approved)			

COMMENTS: _____

_____

_____

_____

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 9/2/2025

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).

PRODUCER Bearing Insurance Group, LLC P. O. Box 9953 Glen Allen VA 23058 License#: 6387078	**CONTACT NAME:** Beverly Almond **PHONE (A/C, No, Ext):** 704-550-4629 **FAX (A/C, No):** **E-MAIL ADDRESS:** balmond@bearinginsurance.com
INSURED Applied Resource Management, PC PO Box 882 Hampstead NC 28443 APPLRES-01	**INSURER(S) AFFORDING COVERAGE** — **NAIC #** **INSURER A :** StarStone Specialty Insurance Company — 44776 **INSURER B :** Frankenmuth Insurance Company — 13986 **INSURER C :** **INSURER D :** **INSURER E :** **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** 536856045 **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** [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC OTHER:			P81639242AEM	10/15/2024	10/15/2025	EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 300,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 2,000,000
							PRODUCTS - COMP/OP AGG	$ 2,000,000
								$
	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS [ ] HIRED AUTOS ONLY [ ] NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident)	$
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
A	[ ] **UMBRELLA LIAB** [X] OCCUR			P81640242AEM	10/15/2024	10/15/2025	EACH OCCURRENCE	$ 2,000,000
	X **EXCESS LIAB** [ ] CLAIMS-MADE						AGGREGATE	$ 2,000,000
	[ ] DED [X] RETENTION $ 0							$
B	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBEREXCLUDED? Y/N [N] N/A **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below			6720127	10/15/2024	10/15/2025	X PER STATUTE [ ] OTH-ER	
							E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	Professional Liability Pollution Liability			P81639242AEM	10/15/2024	10/15/2025	Per Occurrence /Agg Per Occ/Claim /Agg Deductible	1 mil / 2 mil 1 mil / 2 mil 10,000

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

CERTIFICATE HOLDER

James Clock
7 Bohack Court
Sayville NY 11782

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

Soil Boring 1

0-2" Very dark gray (2.5Y 3/1) loamy sand, granular, very friable, non-expansive.
2-10" Dark grayish brown (2.5Y 4/2) loamy sand, granular, very friable, non-expansive.
10-14" Light olive brown (2.5Y 5/4) loamy sand, granular, very friable, non-expansive.
14-42" Light yellowish brown (2.5Y 6/3) loamy sand, granular, very friable, non-expansive.
42-50" Light olive brown (2.5Y 5/4) loamy sand, granular, very friable, non-expansive.
50-60" Light olive brown (2.5Y 5/6) sandy loam, sub-angular blocky, friable, slightly expansive with brownish yellow (10YR 6/8) and grayish brown (10YR 5/2) mottles.

Soil Wetness Condition: 42"
LTAR 0.8-1.0

Soil Boring 2

0-2" Very dark gray (2.5Y 3/1) loamy sand, granular, very friable, non-expansive.
2-14" Dark grayish brown (2.5Y 4/2) loamy sand, granular, very friable, non-expansive.
14-48" Light yellowish brown (2.5Y 6/4) loamy sand, granular, very friable, non-expansive with brownish yellow (10YR 6/6) mottles at 40".

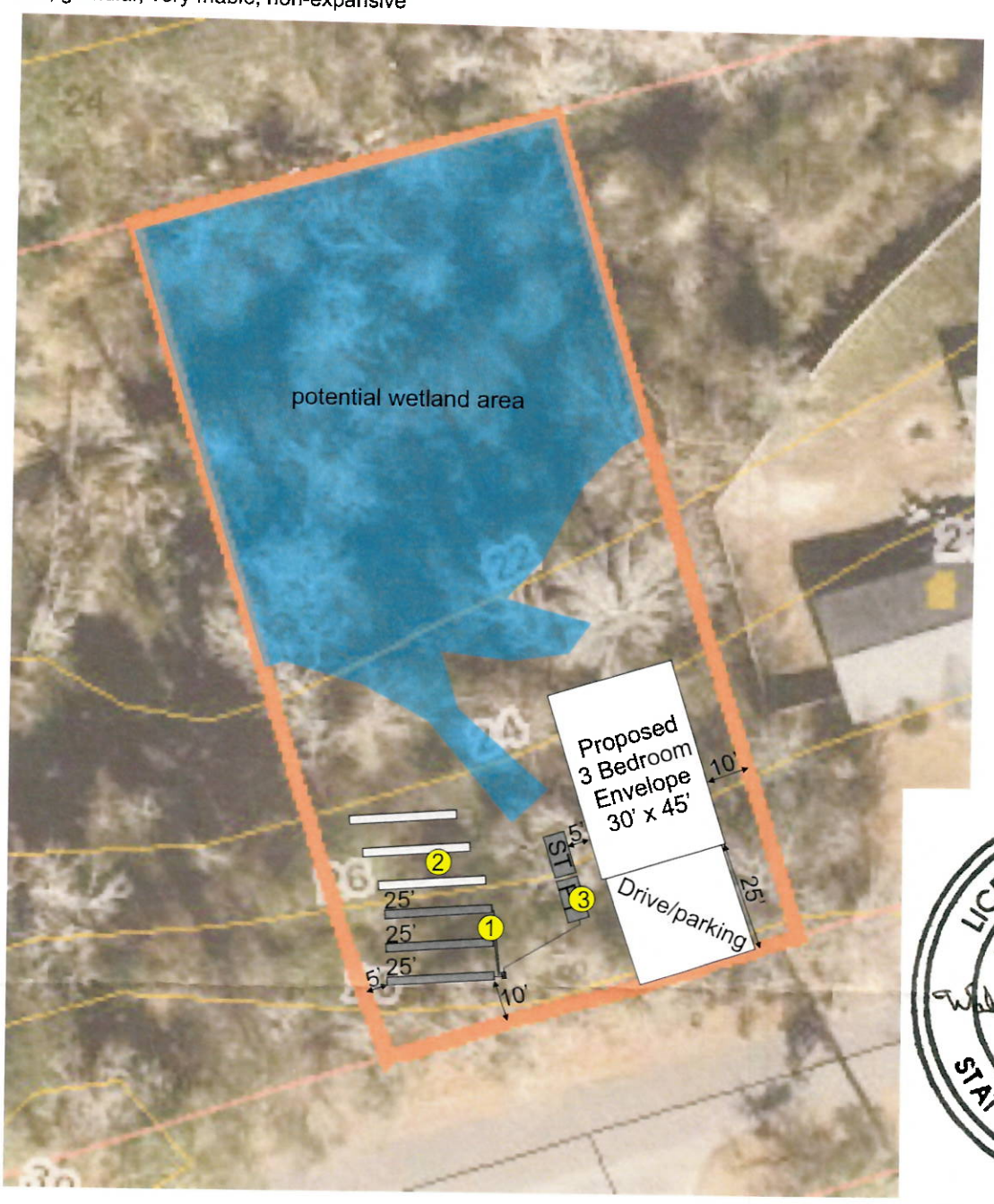
Soil Wetness Condition: 40"
LTAR 0.8-1.0

Soil Boring 3

0-2" Very dark gray (2.5Y 3/1) loamy sand, granular, very friable, non-expansive.
2-14" Dark grayish brown (2.5Y 4/2) loamy sand, granular, very friable, non-expansive.
14-48" Light yellowish brown (2.5Y 6/4) loamy sand, granular, very friable, non-expansive with brownish yellow (10YR 6/6) mottles at 42".

Soil Wetness Condition: 42"
LTAR 0.8-1.0

Soil Boring Location (approximate)



LICENSED SOIL SCIENTIST
WALTER D. GIESE
1274
STATE OF NORTH CAROLINA

7 September 2025

System Specifications

3 Bedroom Residence
360 gal/day
LTAR 0.8

Initial: Install 1,000 gallon septic tank (ST)
150 Sq. Ft. Prefabricated Permeable Block Panel - horizontal
75 Ln. Ft. Prefabricated Permeable Block Panel - horizontal
(3) 3' x 25' PPBPS trenches - 8' on center
Trench bottom depth 16" (bottom of panel) at shallow side of trench
Requires additional soil cover

Repair: Lot Platted Dec. 1973
150 Sq. Ft. PPBPS - horizontal
75 Ln. Ft. PPBPS - horizontal
(3) 3' x 25' PPBPS trenches - 8' on center
Trench bottom depth 16" (bottom of panel)
Requires additional soil cover

Notes:

1. Site was Evaluated using hand augers in accordance with 15A NCAC 18E regulations and is submitted in accordance with GS 130A 336-2.
2. The system shall be installed by a septic contractor listed on the ARM List of Approved Installers. Please note that one or more certified installers listed are employees of ARM. If ARM installs this system, the installer is a separate certification holder from the AOWE. No evaluator shall allow his/her interest to affect the quality or results of the evaluation work that the evaluator may be called upon to perform, to include all required inspection of onsite wastewater system installations.
3. Pre-construction conference is required to ensure proper location and installation depth. Additional permit requirements may be specified at time of meeting as needed.
4. Domestic strength wastewater only; **water usage greater than 75% of the design daily flow is considered excessive.**
5. **Wastewater system and repair areas shall be protected from traffic and/or any other disturbance by physical barrier during all phases of construction. No removal of mineral soil**
6. Surface water shall be directed away from system area through landscaping and use of gutters on home as needed.
7. Site may qualify for other system types.
8. **Issuance of this permit does not supercede authorizations or permits from other permitting agencies. It is the responsibility of the owner to conform to all other applicable permitting authority.**
9. **Permit does not constitute a guarantee of performance or warranty of any kind.**
10. **Additional costs will be incurred for pre-construction meeting and system inspections, which are based on a time and materials basis.**
11. **System to be installed according to manufacturer's specifications.**
12. **No flow reduction shall be allowed without the written consent of the AOWE**
13. **No pumps of any kind prior to the septic tank without prior approval from the AOWE**
14. **Site plan not intended to support any Engineer Option Permit (EOP)**
15. **Horizontal setback distances as shown in 15A NCAC 18E .0601 shall be met.**
16. **Permit shown based on information described in AOWE application. Not responsible for missing/falsified information.**

Map adapted from Pender County GIS Tax Map

Applied Resource Management, P. C.
Hampstead, NC 28443

TITLE: Lot 2 Greenway Plantation Pender County, NC				FIGURE:
JOB: 250111	SCALE: 1"=40'	DATE: 9/7/2025	DRAWN BY: GY	1