

NC DEPARTMENT OF  
**HEALTH AND  
HUMAN SERVICES**

**ROY COOPER** • Governor

**KODY H. KINSLEY** • Secretary

**MARK BENTON** • Chief Deputy Secretary for Health

**SUSAN KANSAGRA** • Assistant Secretary for Public Health

Division of Public Health

Submittal Includes: ☐ (a2) Improvement Permit ☐ (a2) Construction Authorization ☐ Fee \$ \_\_\_\_\_

**IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)**

County: \_\_\_\_\_

PIN/Lot Identifier: \_\_\_\_\_

Issued To: \_\_\_\_\_

Property Location: \_\_\_\_\_

Subdivision (if applicable) \_\_\_\_\_ Lot #: \_\_\_\_\_ Block: \_\_\_\_\_ Section: \_\_\_\_\_

LSS Report Provided: Yes ☐ No ☐

If yes, name and license number of LSS: \_\_\_\_\_

New ☐

Expansion ☐

System Relocation ☐

Change of Use ☐

Facility Type: \_\_\_\_\_

Number of bedrooms: \_\_\_\_\_ Number of Occupants: \_\_\_\_\_ Other: \_\_\_\_\_

Design Wastewater Strength: ☐ Domestic ☐ High Strength ☐ Industrial Process Wastewater

Proposed Design Daily Flow: \_\_\_\_\_ GPD Proposed LTAR (Initial): \_\_\_\_\_ Proposed LTAR (Repair): \_\_\_\_\_

Proposed Wastewater System Type\*: \_\_\_\_\_ (Initial) Pump Required: ☐ Yes ☐ No ☐ May be required

Proposed Wastewater System Type\*: \_\_\_\_\_ (Repair) Pump Required: ☐ Yes ☐ No ☐ May be required

*\*Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Effluent Standard: ☐ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

Saprolite System (Initial): ☐ Yes ☐ No Saprolite System (Repair): ☐ Yes ☐ No

Fill System (Initial): ☐ Yes ☐ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Fill System (Repair): ☐ Yes ☐ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Usable Depth to LC (Initial)\*: \_\_\_\_\_ Usable Depth to LC (Repair)\*: \_\_\_\_\_ **\* Limiting Condition**

Max. Trench Depth (Initial)\*: \_\_\_\_\_ Max. Trench Depth (Repair)\*: \_\_\_\_\_ **\* Measured on the downhill side of the trench**

Artificial Drainage Required: ☐ Yes ☐ No If yes, please specify details: \_\_\_\_\_

Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ☐ Municipal Supply ☐ Spring ☐ Other: \_\_\_\_\_

Drainfield location meets requirements of Rule .0508: Yes ☐ No ☐ Drainfield location meets requirements of Rule .0601: Yes ☐ No ☐

Permit valid for: ☐ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

Licensed Soil Scientist Print Name: \_\_\_\_\_

Licensed Soil Scientist Signature: Heath Clapp Date: \_\_\_\_\_

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

**\*See attached site sketch\***

## ***This Section for Local Health Department Use Only***

Initial submittal received: \_\_\_\_\_ by \_\_\_\_\_  
Date Initials

G.S. 130A-335(a3) states the following:

*When an applicant for an Improvement Permit submits to a local health department an Improvement Permit application, the permit fee charged by the local health department, the common form developed by the Department, and a soil evaluation pursuant to subsection (a2) of this section, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Improvement Permit includes all of the required components. If the local health department determines that the Improvement Permit is incomplete, the local health department shall notify the applicant of the components needed to complete the Improvement Permit. The applicant may submit additional information to the local health department to cure the deficiencies in the Improvement Permit. The local health department shall make a final determination as to whether the Improvement Permit is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The Department shall develop a common form for use as the Improvement Permit.*

The review for completeness of this Improvement Permit was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

\_\_\_\_\_  
\_\_\_\_\_

Copies of this were sent to the LSS and the Applicant on \_\_\_\_\_  
Date

State Authorized Agent: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Complete

State Authorized Agent: \_\_\_\_\_ Date: \_\_\_\_\_

**This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. ***This permit is subject to revocation if the site plan, plat, or the intended use changes.*** The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of 15A NCAC 18E and to the conditions of this permit.**

**The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).**

**Improvement Permit Expiration Date:** \_\_\_\_\_

**\*See attached site sketch\***

## Re-submittal of Improvement Permit

LHD USE ONLY: This IP resubmittal received: \_\_\_\_\_ by \_\_\_\_\_  
*Date* *Initials*

The following items are being resubmitted pursuant to G.S. 130A-335(a3) for issuance of the Improvement Permit:

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I, \_\_\_\_\_ hereby attest that the information required to be included with this re-submittal  
*Licensed Soil Scientist (Print Name)*  
is accurate and complete to the best of my knowledge and that the proposed Improvement Permit meets all applicable federal,  
State, and local laws, regulations, rules, and ordinances.

\_\_\_\_\_  
*Signature of Licensed Soil Scientist*

\_\_\_\_\_  
*Date*

*The section below is for Local Health Department use after submittal of items noted as missing above.*

### LHD Follow-up Completeness Review of Improvement Permit

The review for completeness of this Improvement Permit re-submittal was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

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Copies of this were sent to the LSS and the Applicant on \_\_\_\_\_  
*Date*

State Authorized Agent: \_\_\_\_\_

Date: \_\_\_\_\_

☐ Complete

State Authorized Agent: \_\_\_\_\_

Date: \_\_\_\_\_

**CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)**

County: \_\_\_\_\_

Pre-Construction Conference Required: Yes ☐ No ☐

PIN/Lot Identifier: \_\_\_\_\_

Issued To: \_\_\_\_\_

Property Location: \_\_\_\_\_

AOWE/PE Plans/Evaluations Provided: Yes ☐ No ☐ If yes, name and license number of AOWE/PE: \_\_\_\_\_

Facility Type: \_\_\_\_\_

Number of bedrooms: \_\_\_\_\_ Number of Occupants: \_\_\_\_\_ Other: \_\_\_\_\_

☐ New ☐ Expansion ☐ Repair ☐ System Relocation ☐ Change of Use

Basement? ☐ Yes ☐ No Basement Fixtures? ☐ Yes ☐ No

Crawl Space? ☐ Yes ☐ No Slab Foundation? ☐ Yes ☐ No

Type of Wastewater System\* \_\_\_\_\_ (Initial) \_\_\_\_\_ (Repair)

*\*Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Design Daily Flow: \_\_\_\_\_ GPD Wastewater Strength: ☐ Domestic ☐ High Strength ☐ Industrial Process WW

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☐ No  
(if yes, please provide engineering documentation)

Effluent Standard: ☐ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ☐ Municipal Supply ☐ Spring ☐ Other: \_\_\_\_\_

**Installation Requirements/Conditions**

Septic Tank Size: \_\_\_\_\_ gallons Total Trench/Bed Length: \_\_\_\_\_ feet Trench/Bed Spacing: \_\_\_\_\_ feet on center

Trench/Bed Width: \_\_\_\_\_ inches LTAR: \_\_\_\_\_ gpd/ft<sup>2</sup> Usable Depth to LC (Initial)\*: \_\_\_\_\_ **<sup>x</sup>Limiting condition**

Soil Cover: \_\_\_\_\_ inches Slope Corrected Maximum Trench/Bed Depth\*: \_\_\_\_\_ inches **<sup>\*</sup>Measured on the downhill side of the trench**

Pump Tank Size (if applicable): \_\_\_\_\_ gallons Requires more than 1 pump? ☐ Yes ☐ No

Pump Requirements: \_\_\_\_\_ ft. TDH vs. \_\_\_\_\_ GPM Grease Trap Size (if applicable): \_\_\_\_\_ gallons

Distribution Method: ☐ Serial ☐ D-Box or Parallel ☐ Pressure Manifold(s) ☐ LPP ☐ Other: \_\_\_\_\_

Artificial Drainage Required: Yes ☐ No ☐ If yes, please specify details: \_\_\_\_\_

**Legal Agreements** (If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)

Multi-party Agreement Required [.0204(g)]: ☐ Yes ☐ No Declaration of Restrictive Covenants: ☐ Yes ☐ No

Easement, Right-of-Way, or Encroachment Agreement Required [.0301(b)]: ☐ Yes ☐ No

Management Entity Required: ☐ Yes ☐ No Minimum O&M Requirements: \_\_\_\_\_

Permit conditions:

The requirements of 15A NCAC 18E are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached site sketch. ***This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes.*** The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of 15A NCAC 18E, or 15A NCAC 18A .1900, as applicable, and to the conditions of this permit.

AOWE/PE Print Name: \_\_\_\_\_

AOWE/PE Signature: Heath Clapp Date: \_\_\_\_\_

**This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).**

***\*See attached site sketch\****

***This Section for Local Health Department Use Only***Initial submittal received: \_\_\_\_\_ by \_\_\_\_\_  
Date Initials

G.S. 130A-335(a5) states the following:

*When an applicant for a Construction Authorization, or an Improvement Permit and Construction Authorization together, submits a Construction Authorization, or an Improvement Permit and Construction Authorization application together, the permit fee charged by the local health department, the common form developed by the Department, and any necessary signed and sealed plans or evaluations conducted by a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Construction Authorization or Improvement Permit and Construction Authorization includes all of the required components. If the local health department determines that the Construction Authorization or Improvement Permit and Construction Authorization is incomplete, the local health department shall notify the applicant of the components needed to complete the Construction Authorization or Improvement Permit and Construction Authorization. The applicant may submit additional information to the local health department to cure the deficiencies in the Construction Authorization or Improvement Permit and Construction Authorization. The local health department shall make a final determination as to whether the Construction Authorization or Improvement Permit and Construction Authorization is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The applicant may apply for the building permit for the project upon the decision of completeness of the Construction Authorization or Improvement Permit and Construction Authorization by the local health department or if the local health department fails to act within five business days. The Authorized On-Site Wastewater Evaluator or licensed engineer submitting the evaluation pursuant to this subsection may request that the local health department revoke or suspend the Construction Authorization or Improvement Permit and Construction Authorization for cause. Upon written request of the Authorized On-Site Wastewater Evaluator or licensed engineer, the local health department shall suspend or revoke the Construction Authorization or Improvement Permit and Construction Authorization pursuant to G.S. 130A-23. The Department shall develop a common form for use as the Construction Authorization.*

The review for completeness of this Construction Authorization was conducted in accordance with G.S. 130A-335(a5). This

Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)The following items are missing: \_\_\_\_\_  
\_\_\_\_\_Copies of this were sent to the AOWE/PE and the Applicant on \_\_\_\_\_  
Date

State Authorized Agent: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Complete

State Authorized Agent: \_\_\_\_\_ Date of Issuance: \_\_\_\_\_

**This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.**

**The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.**

**Construction Authorization Expiration Date:** \_\_\_\_\_**\*See attached site sketch\***

## Re-submittal of Construction Authorization

LHD USE ONLY: This CA resubmittal received: \_\_\_\_\_ by \_\_\_\_\_  
Date Initials

The following items are being resubmitted pursuant to G.S. 130A-335(a5) for issuance of the Construction Authorization:

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I, \_\_\_\_\_ hereby attest that the information required to be included with this re-submittal  
Authorized Onsite Wastewater Evaluator (Print Name)  
is accurate and complete to the best of my knowledge and that the proposed Construction Authorization meets all applicable  
federal, State, and local laws, regulations, rules, and ordinances.

\_\_\_\_\_  
Signature of Authorized On-Site Wastewater Evaluator

\_\_\_\_\_  
Date

*The section below is for Local Health Department use after submittal of items noted as missing above.*

### LHD Follow-up Completeness Review of Construction Authorization

The review for completeness of this Construction Authorization re-submittal was conducted in accordance with G.S. 130A-335(a5).  
This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

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Copies of this were sent to the AOWE/PE and the Applicant on \_\_\_\_\_  
Date

State Authorized Agent: \_\_\_\_\_

Date: \_\_\_\_\_

☐ Complete

State Authorized Agent: \_\_\_\_\_

Date: \_\_\_\_\_





Agri-Waste Technology, Inc.  
1225 Crescent Green, Suite 250, Cary NC 27518  
agriwaste.com | 919.859.0669



**Soil Suitability for Domestic Sewage Treatment and Disposal Systems**  
**Birchwood Trails – Lot 68**  
**317 Rockhaven Drive, Fuquay Varina, NC 27526**  
**(Harnett County)**  
October 7, 2025

Soil suitability for domestic sewage treatment and disposal systems was evaluated on October 1, 2025, for the property located at 317 Rockhaven Drive in Fuquay Varina, NC (Harnett County). Heath Clapp of Agri-Waste Technology, Inc. (AWT) conducted the soil evaluation. This evaluation was done to facilitate permitting for a septic system for a 4-bedroom home. This report and attached documents were prepared *to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3). The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).*

A drawing of the site plan, septic layout, septic system design, and soil pit locations is included in Attachment 1. Profile descriptions for each soil boring are included in Attachment 2.

The total property area is approximately 0.62 acres. The house and septic area are an open field. The proposed septic system for the property is a gravity fed, accepted status system for the initial and repair.

**Soil Suitability for Domestic Sewage Treatment and Disposal Systems**

The drawing in Attachment 1 details the property boundaries, soil pit/boring locations, and layout of drain field trenches. Multiple soil pits and borings were advanced within the proposed septic system area on the property. Soil pits/borings were examined to determine soil suitability for on-site sewage disposal systems in accordance with 15A 18A .1900 Rules for Sewage Treatment and Disposal Systems. All soil pits/borings are suitable for a conventional style trench. Soil pits/borings are within the proposed drainfield area.

The layout shown in Attachment 1 indicates there is available space for a four-bedroom accepted system. The initial system can be installed with the use of an accepted status drainfield based on the layout in the field.

The proposed LTAR (Long Term Acceptance Rate) by AWT is 0.4GPD/ft<sup>2</sup>. The soils on this property are group III soils within the distribution and treatment zone as used to define the LTAR. With an LTAR of 0.4GPD/ft<sup>2</sup>, 600 linear feet of trench is necessary to support a 4-bedroom home for the initial and repair utilizing an accepted status system. The maximum slope corrected trench depth is 24 inches. The attached drawings substantiate that the necessary linear footage of trench can be installed on the property for the initial and repair system.

Any logging, disturbances, or grading done in the usable area or within the proposed setbacks will change the potential of using the area designated for a drainfield. Prior to moving forward with the development on the property, the Harnett County Health Department should be contacted to complete the necessary Construction Oversight and to issue an OP (Operations Permit) for the property once the septic system has been installed.

#### Conclusions

An IP (Improvement Permit) and CA (Construction Authorization) for this property can be issued with the site plan that is in Attachment 1. A CA permit will be required to secure a building permit for the property. The county issues an Operation Permit after the system has been installed to meet the specifications of the Authorization to Construct. Additional septic layouts have been or will be performed as needed. It will be critical to not disturb any of the proposed septic area or there is a risk that the IP and CA will be revoked. The LSS/AOWE Evaluation and attached documents were prepared *to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3). The LSS/AOWE evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).*

We appreciate the opportunity to assist you in this matter. Please contact us with any questions, concerns, or comments.

Sincerely,

Heath Clapp, NC LSS



Agri-Waste Technology, Inc.  
1225 Crescent Green, Suite 250, Cary NC 27518  
agriwaste.com | 919.859.0669

SOIL & SITE EVALUATION for ON-SITE WASTEWATER SYSTEMS

|                   |              |                     |                                              |                     |          |
|-------------------|--------------|---------------------|----------------------------------------------|---------------------|----------|
| Evaluation Date   | 10/1/2025    | Site Location       | 317 Rockhaven Drive, Fuquay Varina, NC 27526 | County              | Harnett  |
| PIN/Parcel        | 0642-84-4097 | Property Size       | 0.62 acres                                   | Property Recorded   | Yes      |
| Proposed Facility | SFR          | Bedrooms            | 4                                            | Wastewater Strength | Domestic |
| Water Supply      | Municipal    | Design Flow (.0400) | 480                                          | Evaluation Method   | Auger    |

| Profile # | .0502<br>Landscape<br>Position<br>Slope % | Horizon<br>Depth (in) | Soil Morphology               |                                    | Other Factors                     |                             |                    |                                 |                                   |                                 |
|-----------|-------------------------------------------|-----------------------|-------------------------------|------------------------------------|-----------------------------------|-----------------------------|--------------------|---------------------------------|-----------------------------------|---------------------------------|
|           |                                           |                       | .0503<br>Structure<br>Texture | .0503<br>Consistence<br>Mineralogy | .0504<br>Soil<br>Wetness<br>Color | .0505<br>Soil<br>Depth (in) | .0506<br>Saprolite | .0507<br>Restrictive<br>Horizon | .0509<br>Profile<br>Class<br>LTAR | .0502(d)<br>Slope<br>Correction |
| 1         | 4%                                        | Ap 0-10"              | LS                            | NS, NP, VFr                        | 10YR 3/3                          | 38                          | S                  | S                               | 0.4                               | 1.6                             |
|           |                                           | E 10-18"              | LS                            | NS; NP; VFr                        | 10YR 7/6                          |                             |                    |                                 |                                   |                                 |
|           |                                           | Bt1 18-38"+           | SCL                           | S; SP; Fi-Fr                       | 2.5YR 5/8                         |                             |                    |                                 |                                   |                                 |
|           |                                           |                       |                               |                                    |                                   |                             | System Type        |                                 | Conventional                      |                                 |
|           |                                           |                       |                               |                                    |                                   |                             |                    |                                 |                                   |                                 |
| 2         | 4%                                        | Ap 0-10"              | LS                            | NS, NP, VFr                        | 10YR 3/3                          | 38                          | S                  | S                               | 0.4                               | 1.6                             |
|           |                                           | E 10-18"              | LS                            | NS; NP; VFr                        | 10YR 7/6                          |                             |                    |                                 |                                   |                                 |
|           |                                           | Bt1 18-38"+           | SCL                           | S; SP; Fi-Fr                       | 2.5YR 5/8                         |                             |                    |                                 |                                   |                                 |
|           |                                           |                       |                               |                                    |                                   |                             | System Type        |                                 | Conventional                      |                                 |
|           |                                           |                       |                               |                                    |                                   |                             |                    |                                 |                                   |                                 |
| 3         | 4%                                        | Ap 0-10"              | LS                            | NS, NP, VFr                        | 10YR 3/3                          | 38                          | S                  | S                               | 0.4                               | 1.6                             |
|           |                                           | E 10-18"              | LS                            | NS; NP; VFr                        | 10YR 7/6                          |                             |                    |                                 |                                   |                                 |
|           |                                           | Bt1 18-38"+           | SCL                           | S; SP; Fi-Fr                       | 2.5YR 5/8                         |                             |                    |                                 |                                   |                                 |
|           |                                           |                       |                               |                                    |                                   |                             | System Type        |                                 | Conventional                      |                                 |
|           |                                           |                       |                               |                                    |                                   |                             |                    |                                 |                                   |                                 |
| 4         | 4%                                        | Ap 0-10"              | LS                            | NS, NP, VFr                        | 10YR 3/3                          | 38                          | S                  | S                               | 0.4                               | 1.6                             |
|           |                                           | E 10-18"              | LS                            | NS; NP; VFr                        | 10YR 7/6                          |                             |                    |                                 |                                   |                                 |
|           |                                           | Bt1 18-38"+           | SCL                           | S; SP; Fi-Fr                       | 2.5YR 5/8                         |                             |                    |                                 |                                   |                                 |
|           |                                           |                       |                               |                                    |                                   |                             | System Type        |                                 | Conventional                      |                                 |
|           |                                           |                       |                               |                                    |                                   |                             |                    |                                 |                                   |                                 |

|                  |
|------------------|
| Evaluated By:    |
| Heath Clapp, LSS |

|                      |          |                     |          |
|----------------------|----------|---------------------|----------|
| Site Classification  | Suitable | Site Classification | Suitable |
| Primary LTAR         | 0.4      | Repair LTAR         | 0.4      |
| Primary Trench Depth | 24"      | Repair Trench Depth | 24"      |



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SOIL & SITE EVALUATION for ON-SITE WASTEWATER SYSTEMS

LEGEND

| Soil Group | Soil Texture              | Conventional LTAR | Anaerobic Dip LTAR | Aerobic Drip LTAR (TS-II) | Mineralogy &             |                          | Structure                  |
|------------|---------------------------|-------------------|--------------------|---------------------------|--------------------------|--------------------------|----------------------------|
|            |                           |                   |                    |                           | Moist                    | Wet                      |                            |
| I          | S (Sand)                  | 0.8-1.2           | 0.4-0.6            | 0.8-1.5                   | Lo                       | NS                       | SG (Single grain)          |
|            | LS<br>(Loamy Sand)        |                   |                    |                           | (Loose)                  | (Non Sticky)             | M<br>(Massive)             |
| II         | SL<br>(Sandy Loam)        | 0.6-0.8           | 0.3-0.4            | 0.6-0.8                   | VFR<br>(Very Friable)    | SS<br>(Slightly Sticky)  | GR<br>(Granular)           |
|            | L (Loam)                  |                   |                    |                           | FR<br>(Friable)          | S<br>(Sticky)            | SBK<br>(Subangular Blocky) |
|            | SiL<br>(Silt Loam)        |                   |                    |                           | FI<br>(Firm)             | VS<br>(Very Sticky)      | ABK<br>(Angular Blocky)    |
|            | SCL<br>(Sandy Clay Loam)  |                   |                    |                           | VFI<br>(Very Firm)       | NP<br>(Non Plastic)      | PR<br>(Prismatic)          |
| III        | CL<br>(Clay Loam)         | 0.3-0.6           | 0.15-0.3           | 0.2-0.6                   | EFI<br>(Extremely Firm)  | SP<br>(Slightly Plastic) |                            |
| IV         | SiCL<br>(Silty Clay Loam) | 0.1-0.4           | 0.05-1.5           | 0.05-0.2                  |                          | P<br>(Plastic)           | PL<br>(Platy)              |
|            | SC<br>(Sandy Clay)        |                   |                    |                           |                          | VP<br>(Very Plastic)     |                            |
|            | SiC<br>(Silty Clay)       |                   |                    |                           | SEXP (Slighty Expansive) |                          |                            |
|            | C (Clay)                  |                   |                    |                           | EXP (Expansive)          |                          |                            |



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

1/20/2025

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

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

| <b>PRODUCER</b><br>Hartsfield & Nash Agency, Inc.<br>10405 Ligon Mill Rd., Ste H<br>Wake Forest NC 27587 | <b>CONTACT</b><br>NAME: Connie Garkalns<br>PHONE (A/C, No, Ext): 984-235-4273<br>E-MAIL ADDRESS: connie@hartsfield-nash.com<br>FAX (A/C, No): 919-556-8758                                                                                                                                                                                                                                               |                               |        |                                            |       |                           |       |                                        |       |             |  |             |  |             |  |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------|--------------------------------------------|-------|---------------------------|-------|----------------------------------------|-------|-------------|--|-------------|--|-------------|--|
| License#: 100009111<br>AGRITEC-01                                                                        | <table><tr><th>INSURER(S) AFFORDING COVERAGE</th><th>NAIC #</th></tr><tr><td>INSURER A : Selective Insurance Company of</td><td>39926</td></tr><tr><td>INSURER B : Accident Fund</td><td>10166</td></tr><tr><td>INSURER C : Evanston Insurance Company</td><td>35378</td></tr><tr><td>INSURER D :</td><td></td></tr><tr><td>INSURER E :</td><td></td></tr><tr><td>INSURER F :</td><td></td></tr></table> | INSURER(S) AFFORDING COVERAGE | NAIC # | INSURER A : Selective Insurance Company of | 39926 | INSURER B : Accident Fund | 10166 | INSURER C : Evanston Insurance Company | 35378 | INSURER D : |  | INSURER E : |  | INSURER F : |  |
| INSURER(S) AFFORDING COVERAGE                                                                            | NAIC #                                                                                                                                                                                                                                                                                                                                                                                                   |                               |        |                                            |       |                           |       |                                        |       |             |  |             |  |             |  |
| INSURER A : Selective Insurance Company of                                                               | 39926                                                                                                                                                                                                                                                                                                                                                                                                    |                               |        |                                            |       |                           |       |                                        |       |             |  |             |  |             |  |
| INSURER B : Accident Fund                                                                                | 10166                                                                                                                                                                                                                                                                                                                                                                                                    |                               |        |                                            |       |                           |       |                                        |       |             |  |             |  |             |  |
| INSURER C : Evanston Insurance Company                                                                   | 35378                                                                                                                                                                                                                                                                                                                                                                                                    |                               |        |                                            |       |                           |       |                                        |       |             |  |             |  |             |  |
| INSURER D :                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                          |                               |        |                                            |       |                           |       |                                        |       |             |  |             |  |             |  |
| INSURER E :                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                          |                               |        |                                            |       |                           |       |                                        |       |             |  |             |  |             |  |
| INSURER F :                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                          |                               |        |                                            |       |                           |       |                                        |       |             |  |             |  |             |  |
| <b>INSURED</b><br>Agri-Waste Technology Inc<br>501 N. Salem St Ste 203<br>Apex NC 27502                  |                                                                                                                                                                                                                                                                                                                                                                                                          |                               |        |                                            |       |                           |       |                                        |       |             |  |             |  |             |  |

**COVERAGES****CERTIFICATE NUMBER:** 1304989694**REVISION NUMBER:**

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

| INSR LTR | TYPE OF INSURANCE                                                                                                                                                                                                                                                                                                      | ADDL INSD                                    | SUBR WVD | POLICY NUMBER               | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS                                                                                                                                                                                                                                    |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------|-----------------------------|-------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A        | <input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b><br><input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br><input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC<br>OTHER: |                                              |          | S 2253659                   | 1/18/2025               | 1/18/2026               | EACH OCCURRENCE \$2,000,000<br>DAMAGE TO RENTED PREMISES (Ea occurrence) \$300,000<br>MED EXP (Any one person) \$10,000<br>PERSONAL & ADV INJURY \$2,000,000<br>GENERAL AGGREGATE \$4,000,000<br>PRODUCTS - COMP/OP AGG \$4,000,000<br>\$ |
| A        | <input checked="" type="checkbox"/> <b>AUTOMOBILE LIABILITY</b><br><input checked="" type="checkbox"/> ANY AUTO<br><input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS<br><input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY |                                              |          | S 2253659                   | 1/18/2025               | 1/18/2026               | COMBINED SINGLE LIMIT (Ea accident) \$1,000,000<br>BODILY INJURY (Per person) \$<br>BODILY INJURY (Per accident) \$<br>PROPERTY DAMAGE (Per accident) \$<br>\$                                                                            |
| A        | <input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR<br><input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE<br>DED RETENTION \$                                                                                                                    |                                              |          | S 2253659                   | 1/18/2025               | 1/18/2026               | EACH OCCURRENCE \$2,000,000<br>AGGREGATE \$2,000,000<br>\$                                                                                                                                                                                |
| B        | <b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b><br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)<br>If yes, describe under DESCRIPTION OF OPERATIONS below                                                                                                                          | Y/N<br><input checked="" type="checkbox"/> N | N/A      | 100003072                   | 1/18/2025               | 1/18/2026               | <input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER<br>E.L. EACH ACCIDENT \$1,000,000<br>E.L. DISEASE - EA EMPLOYEE \$1,000,000<br>E.L. DISEASE - POLICY LIMIT \$1,000,000                                    |
| C<br>A   | Prof & Pollution Liability<br>Leased & Rented                                                                                                                                                                                                                                                                          |                                              |          | MKLV3ENV104794<br>S 2253659 | 8/22/2024<br>1/18/2025  | 8/22/2025<br>1/18/2026  | Each Claim 5,000,000<br>Equipment 25,000                                                                                                                                                                                                  |

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

**CERTIFICATE HOLDER****CANCELLATION**

Artisan Custom Homes  
21016 Catawba Avenue  
Cornelius NC 28031  
USA

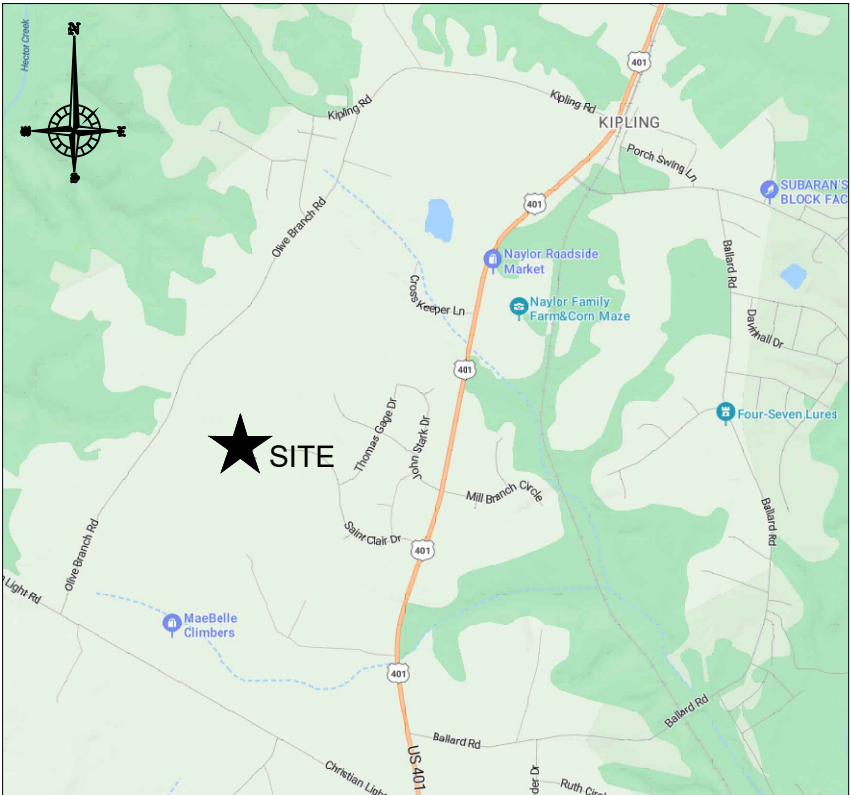
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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BIRCHWOOD TRAILS - LOT 68

|                    |                                                                                                                                                                                                                  |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Location   | 317 Rockhaven Drive,<br>Fuquay Varina, NC 27526<br>Harnett County<br>PIN: 0642-84-4097                                                                                                                           |
| Project Owner      | KB Home<br>1800 Perimeter Park Drive, STE 140,<br>Morrisville, NC 27560<br>919-768-7960<br>enpollock@kbhome.com                                                                                                  |
| Project Consultant | Heath Clapp, LSS, AOWE<br>(919) 629-6404<br>Jeff Vaughan, LSS, AOWE<br>(919) 367-6313<br>Agri-Waste Technology, Inc.<br>1225 Crescent Green, Suite 250<br>Cary, NC 27518<br>(919) 859-0669<br>(919) 233-1970 Fax |
| System Overview    | Single Family Residence<br>Four (4) Bedroom, 480 gpd<br>Conventional Gravity<br>Accepted/Innovative Trench Product                                                                                               |



VICINITY MAP

Sheet Index

|          |                    |
|----------|--------------------|
| Sheet 1  | Cover Sheet        |
| Sheet 2  | Property Layout    |
| Sheet 3g | Primary Drainfield |
| Sheet 4g | Detail Sheet       |



**AWT**  
Engineers and Soil Scientists  
Agri-Waste Technology, Inc.  
1225 Crescent Green, Suite 250  
Cary, North Carolina 27518  
919-859-0669  
www.agriwaste.com

KB Home  
Birchwood Trails - Lot 68

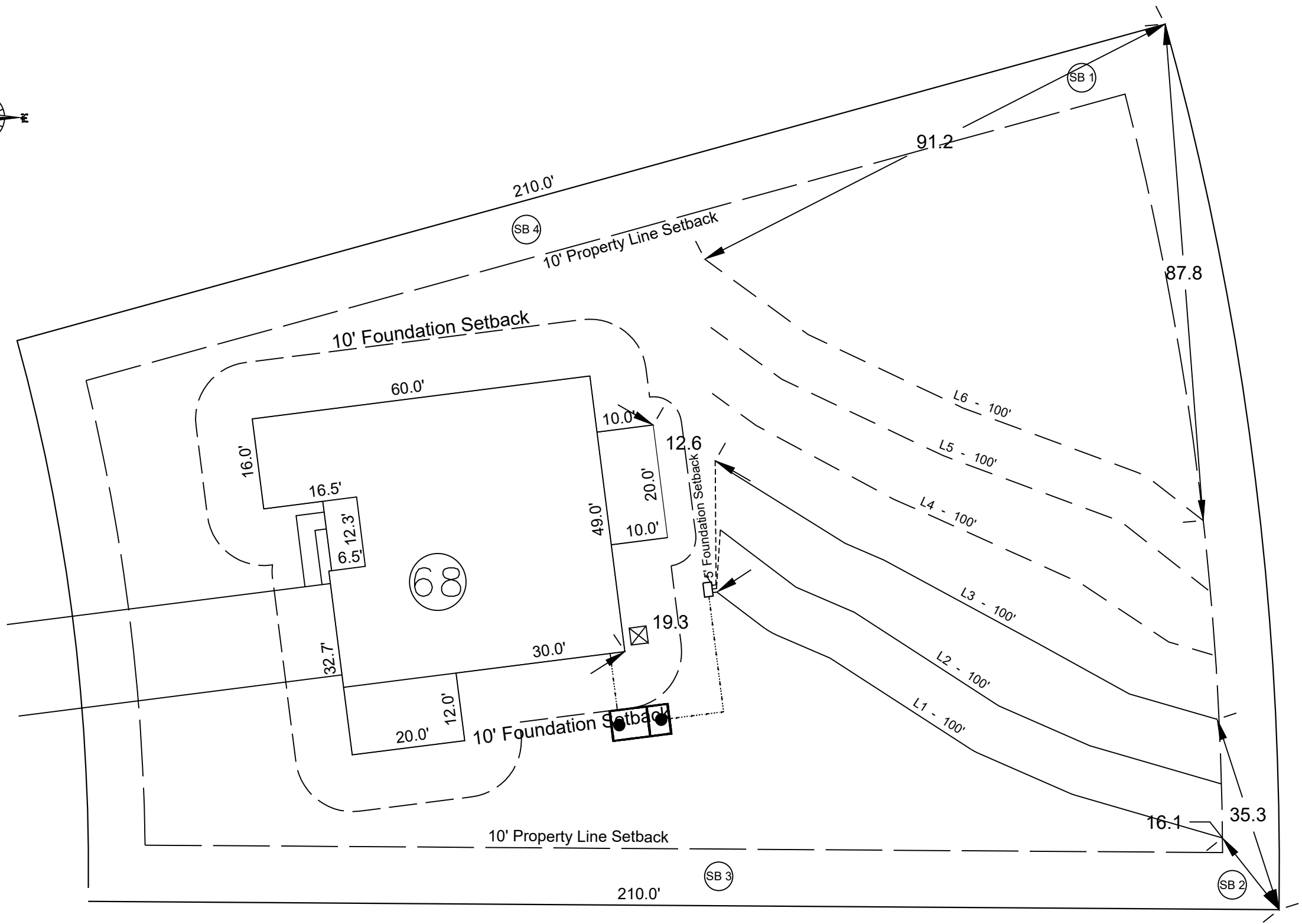
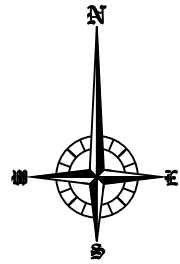
Project Location:  
317 Rockhaven Drive,  
Fuquay Varina, NC 27526  
Harnett County  
PIN: 0642-84-4097

Project Owner:  
KB Home  
1800 Perimeter Park Drive, STE 140  
Morrisville, NC 27560  
919-768-7960  
enpollock@kbhome.com

NC ONSITE WASTEWATER  
EVALUATOR SEAL



| REV.                       | ISSUED DATE              | DESCRIPTION |
|----------------------------|--------------------------|-------------|
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|                            |                          |             |
| SHEET TITLE<br>Cover Sheet |                          |             |
| DRAWN BY:<br>H. Clapp      | CREATED ON:<br>10/7/2025 |             |
| REVISED BY:<br>####        | REVISED ON:<br>####      |             |
| RELEASED BY:<br>####       | RELEASED ON:<br>####     |             |
| DRAWING NUMBER<br>WW-1     |                          |             |



**KB Home**  
Birchwood Trails - Lot 68  
Project Location:  
317 Rockhaven Drive,  
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Harnett County  
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Project Owner:  
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enpollock@kbhome.com

NC ONSITE WASTEWATER  
EVALUATOR SEAL



| REV. | ISSUED DATE | DESCRIPTION |
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SHEET TITLE  
  
Property Layout

|                       |                          |
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| DRAWN BY:<br>H. Clapp | CREATED ON:<br>10/7/2025 |
| REVISED BY:<br>####   | REVISED ON:<br>####      |
| RELEASED BY:<br>####  | RELEASED ON:<br>####     |

DRAWING NUMBER  
**WW-2**

General Drainfield Notes:

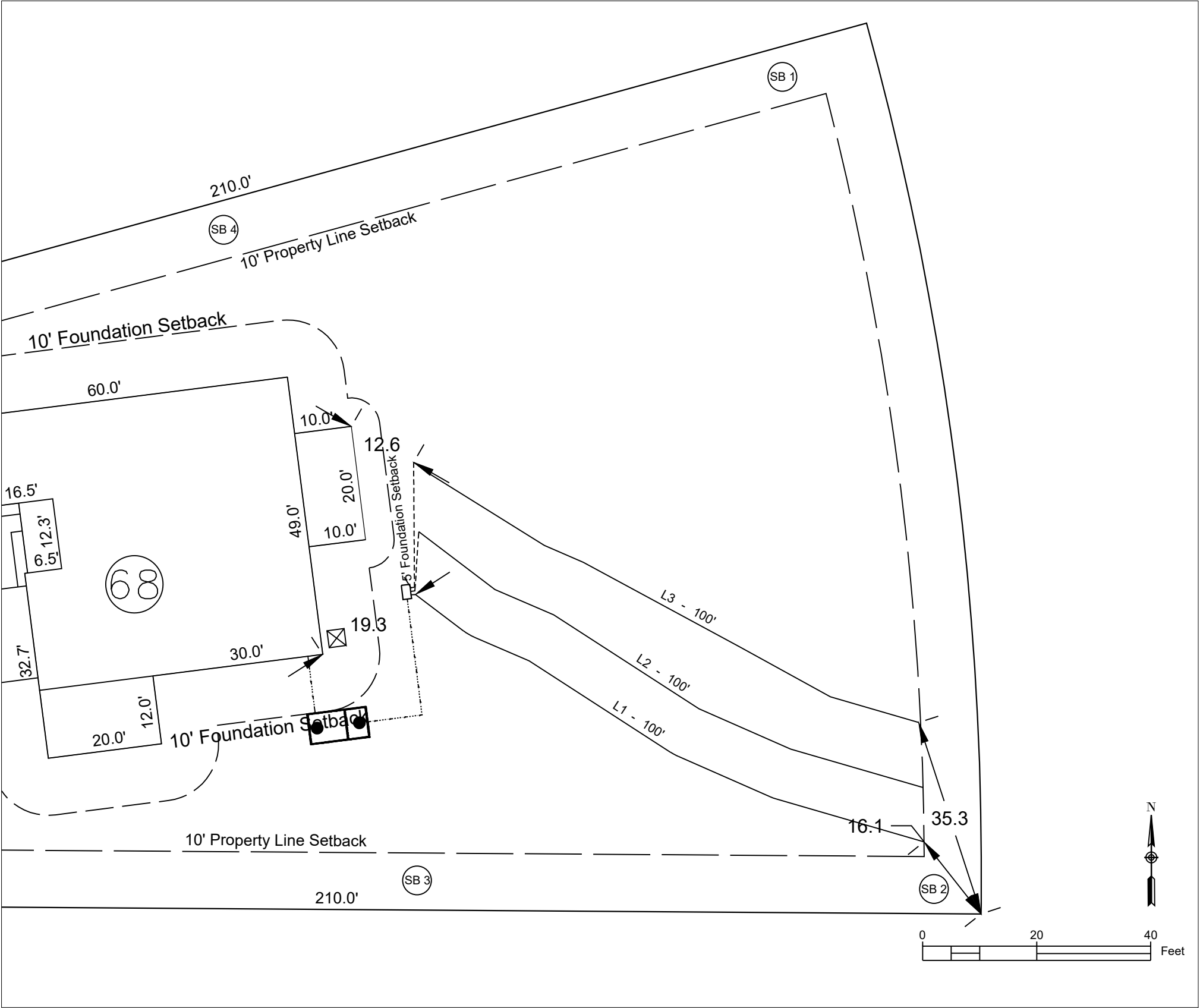
1. Clear all trees less than 8" in diameter (measured at a height 3' from soil surface) from the drainfield.
2. Vegetation that will re-grow from a cut stump shall be stumped or pulled from the ground. Stumps shall not be pushed over.
3. Drainfield area shall be cleared of all leaves, pine straw, debris, etc. The accumulated material shall be removed from the drainfield.
4. In clayey soils, sides of trenches shall be raked and limed per manufacturer's instructions.
5. Supply lines shall be installed with a minimum of 18" cover.
6. The trenches shall be backfilled appropriately so that no low areas are present.
7. Apply lime over the drainfield area as needed. Seed fine fescue over the drainfield at the rate
8. recommended by the seed manufacturer. Hand rake the seed into the soil surface. Straw the seeded area at the rate of 1.5-2 bales per 1000 sq. ft.

Installation Notes:

Contractor to adjust tank placements as necessary to maintain:

1. 10' downslope NO foundation drain
2. Min. 12" cover over Septic Tank (Not to exceed 36")
3. Min. 18" cover over pipes
4. Min. 2% grade on gravity pipe from house to Septic Tank

Note:  
Primary distribution is parallel w/ D-box. Primary is Infiltrator EZ Flow.



System Layout

SOURCE: Agri-Waste Technology, Inc.

KB Home  
Birchwood Trails - Lot 68

Project Location:  
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NC ONSITE WASTEWATER  
EVALUATOR SEAL



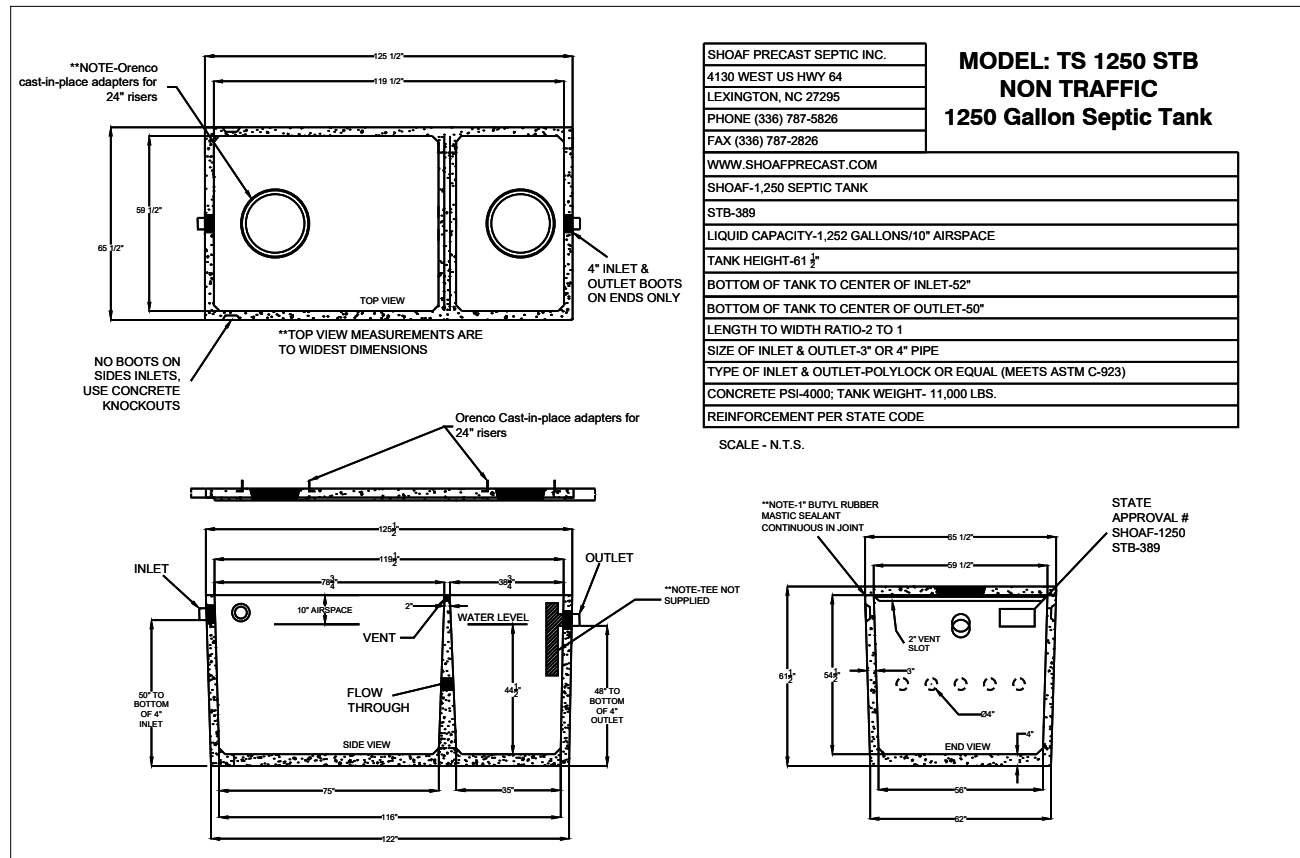
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SHEET TITLE  
Primary Layout

|                       |                          |
|-----------------------|--------------------------|
| DRAWN BY:<br>H. Clapp | CREATED ON:<br>10/7/2025 |
| REVISED BY:<br>####   | REVISED ON:<br>####      |
| RELEASED BY:<br>####  | RELEASED ON:<br>####     |

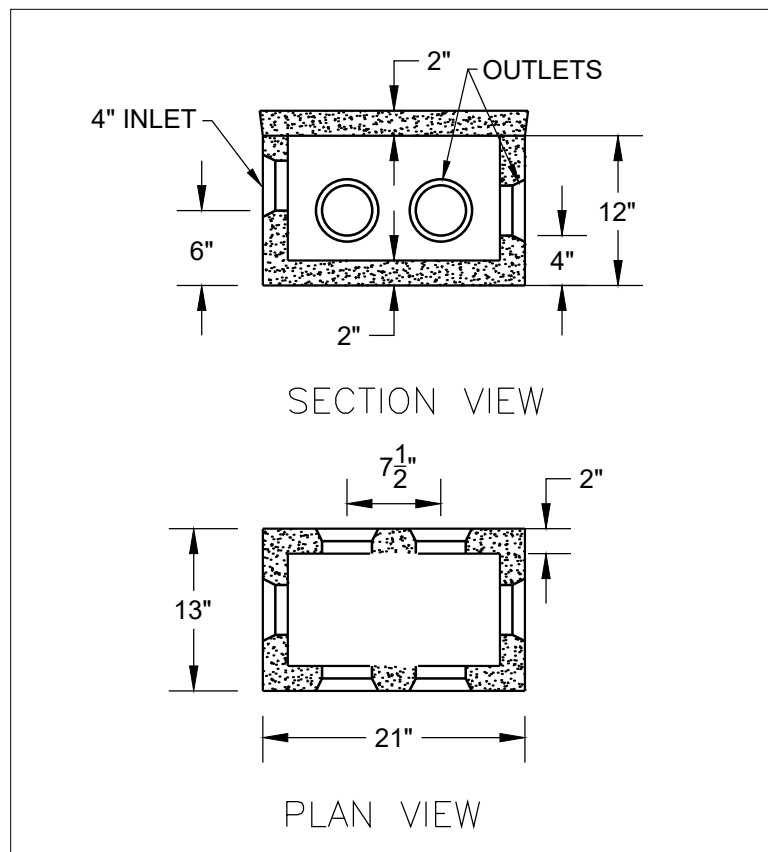
DRAWING NUMBER

**WW-3G**

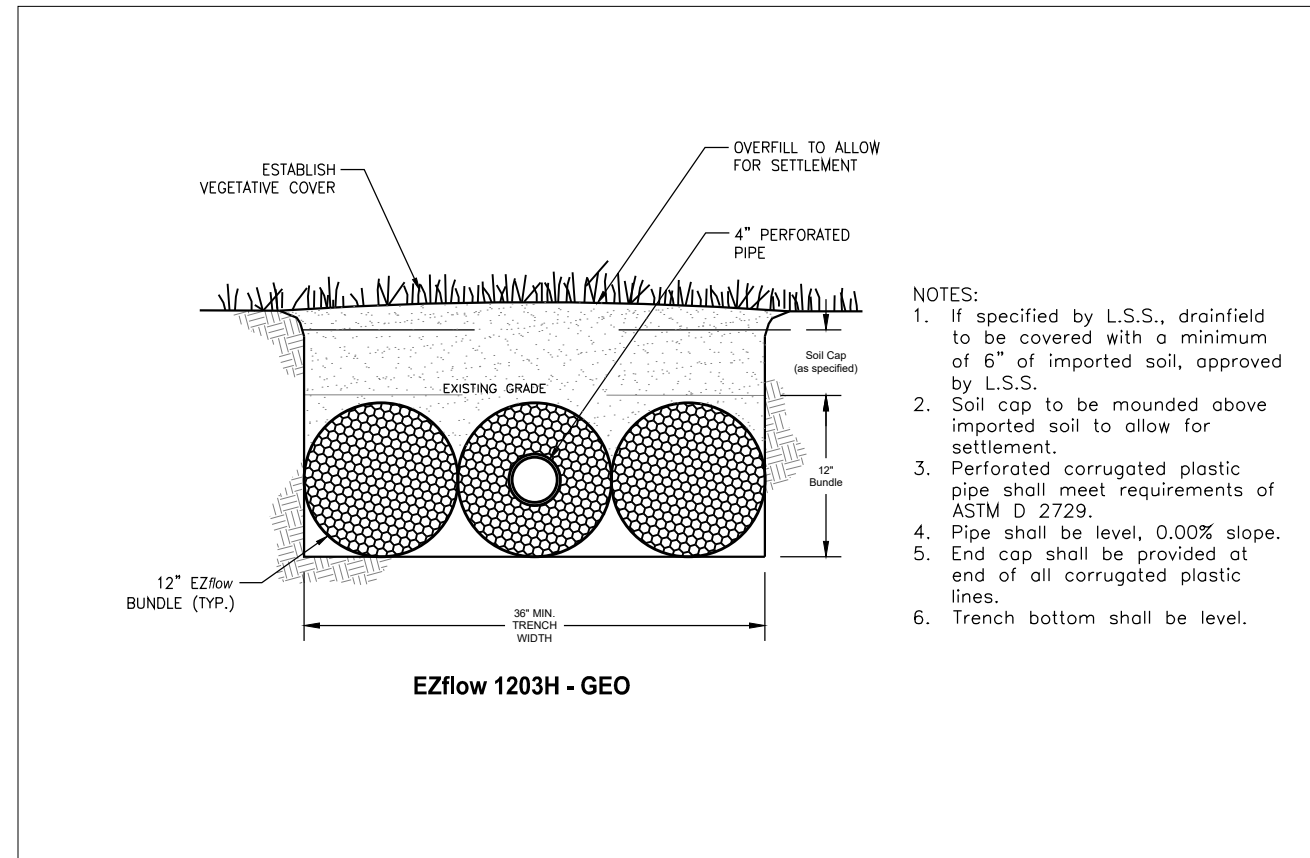


Septic Tank

SOURCE: Shoaf Precast Septic, Inc.



### Distribution Box



### 2 Chambers - Trench Cross-Section (Typical)

INFILTRATOR Water Technologies, LLC

NOTES

1. Installation to follow all NC DHHS and Harnett County applicable rules and regulations.
2. Harnett County Health Department to perform construction inspections and final system certification.
3. Septic Tank to have approved effluent filter.
4. Contractor to abide by all safety regulations during system installation.
5. Contractor shall backfill around all access areas such that storm water is shed away from potential entry points.
6. Invert elevations of all components to be verified in field by contractor to insure proper operation.
7. All system piping to be SCH40 PVC (except where noted).
8. All gravity elbows to be long radius or long sweeping type elbows.
9. Actual installation and placement of treatment system to be overseen by Contractor.
10. Tanks to be set on 6" minimum gravel base. Use #5 or #57 stone for base.

11. Contractor to seed and/or mulch disturbed areas to coincide with existing landscape. Area shall not be left with uncovered soil.
12. All risers to have cast-in-place tank adapters and be single-piece riser. Risers to extend 6" above soil surface and be designed to prevent surface water inflow.
13. Backfill around tank(s) shall be gravel or tank hole shall be over-excavated a minimum of 2' in all directions to allow for mechanical tamping of backfill.
14. All penetrations to be sealed.
15. Contractor to adjust tank placement to meet site constraints.

KB Home  
Birchwood Trails - Lot 68

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NC ONSITE WASTEWATER  
EVALUATOR SEAL



| REV. | ISSUED | DATE | DESCRIPTION |
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| SHEET TITLE |
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## Detail Sheet

DRAWN BY:  
H. Clapp

CREATED ON:  
10/7/2025

REVISED BY:  
#####

REVISED ON:  
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RELEASED BY:  
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RELEASED ON:  
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# WW-4G