



**NORTH LAKES**  
SOIL CONSULTING

North Lakes Soil Consulting, PLLC  
3325 Jones Lakes Road  
Fuquay-Varina, NC 27526  
[john@northlakesoil.com](mailto:john@northlakesoil.com)  
910-539-5439

Acknowledgement of A2 Soil & Site Evaluation by North Lakes Soil Consulting, PLLC for issuance of an Improvement Permit (IP).

**Address/Subdivision Lot#:** 0 JOHNSONVILLE SCHOOL RD, CAMERON, NC 28326

**PIN:** 9566-75-9854.000

For Improvement Permit (IP) issuance:

**“The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3).”**

For Construction Authorization (CA) issuance:

**“The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335(a2), (a5) and (a6).”**

Owner:

  
\_\_\_\_\_

Owner's representative: \_\_\_\_\_

Date:

12/9/24  
\_\_\_\_\_



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: [X] (a2) Improvement Permit [ ] (a2) Construction Authorization [ ] Fee \$ \_\_\_\_\_

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

County: Harnett
PIN/Lot Identifier: 9566-75-9854
Issued To: Brandon & Alicia Raines
Property Location: 0 Johnsonville School Road, Cameron, NC 28326
Subdivision (if applicable) \_\_\_\_\_ Lot #: \_\_\_\_\_ Block: \_\_\_\_\_ Section: \_\_\_\_\_

LSS Report Provided: Yes [X] No [ ]
If yes, name and license number of LSS: John Kase, NCLSS# 1323
New [X] Expansion [ ] System Relocation [ ] Change of Use [ ]

Facility Type: Single-Family Residence

Number of bedrooms: 2 Number of Occupants: 4 Other: \_\_\_\_\_

Design Wastewater Strength: [X] Domestic [ ] High Strength [ ] Industrial Process Wastewater

Proposed Design Daily Flow: 240 GPD Proposed LTAR (Initial): 0.400 Proposed LTAR (Repair): 0.400

Proposed Wastewater System Type\*: IIB - Accepted (25% Reduction) - Shallow Placement w/ cover Initial) Pump Required: [ ] Yes [X] No [ ] May be required

Proposed Wastewater System Type\*: IIB - Accepted (25% Reduction) - Shallow Placement w/ cover (Repair) Pump Required: [ ] Yes [ ] No [X] May be required

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

Effluent Standard: [X] DSE [ ] HSE [ ] NSF/ANSI 40 [ ] TS-I [ ] TS-II [ ] RCW

Saprolite System (Initial): [ ] Yes [X] No Saprolite System (Repair [X] Yes [ ] No

Fill System (Initial): [ ] Yes [X] 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 [X] 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)\*: 26 Usable Depth to LC (Repair)\*: 26 \* Limiting Condition

Max. Trench Depth (Initial)\*: 13 Max. Trench Depth (Repair)\*: 13 \* Measured on the downhill side of the trench

Artificial Drainage Required: [ ] Yes [X] No If yes, please specify details: \_\_\_\_\_

Type of Water Supply: [ ] Private well [ ] Public well [X] Shared well [ ] Municipal Supply [ ] Spring [ ] Other: \_\_\_\_\_

Drainfield location meets requirements of Rule .0508: Yes [X] No [ ] Drainfield location meets requirements of Rule .0601: Yes [X] No [ ]

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

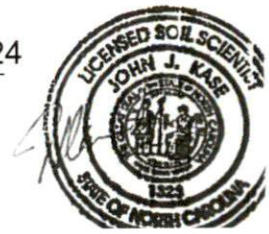
Permit conditions:
Permit is subject to suspension or revocation if the Site Plan changes or the intended use changes, which significantly impact permit.
Maintain all required setbacks pursuant to 15A NCAC 18E SECTION .0600 - LOCATION OF WASTEWATER SYSTEMS.
No grading should be completed within the areas reserved for the initial and repair septic areas.
When grading the lot, no cuts of 2' or greater should be within 15' of the areas reserved for septic. There should be no cutting or filling within the areas reserved for septic.
See additional permit conditions attached.

Licensed Soil Scientist Print Name: John Kase

Licensed Soil Scientist Signature: [Signature] Date: 12/2/2024

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 Init

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* *Initial*

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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 Perm

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:

\_\_\_\_\_

\_\_\_\_\_

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**

County: Harnett

Pre-Construction Conferenc Required: Yes  No

PIN/Lot Identifier: 9566-75-9854

Issued To: Brandon & Alicia Raines

Property Location: 0 Johnsonville School Road, Cameron, NC 28326

AOWE/PE Plans/Evaluations Provided: Yes  No  If yes, name and license number of AOWE/PE: Alan Clapp, 10017E

Facility Type: Single-Family Residence

Number of bedrooms: 2 Number of Occupants: 4 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\* IIB - Accepted (25% Reduction) - Shallow Placement w/ cover (Initial) IIB - Accepted (25% Reduction) - Shallow Placement w/ cover (Repair)

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

Design Daily Flow: 240 GPD Wastewater Strength:  Domestic  High Strength  Industrial Process WW

Session Law 2014-120 Sect \_\_\_\_\_ Engineering Design Utilizing Low- Fixtures and Low-flow Technologies?  Yes  No  
(if yes, please provide engineering documentati

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: 1000 gallons Total Trench/Bed Length: 300 feet Trench/Bed Spacing: 9 feet on center

Trench/Bed Width: 36 inches TAR: 0.40 gpd/ft<sup>2</sup> Usable Depth to LC Initial)\*: 26 *\*Limiting condition*

Soil Cover: 13 inches Slope Correcte Maximum Trench/Bed Depth\*: 13 inches *\* Measured on the downhill side of the trench*

Pump Tank Size (if applicable): 1000 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 Agreeeme** (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-o Way, or Encroachment Agreement Required [ 0301(b)]:  Yes  No

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

Permit conditions:  
Permit is subject to suspension or revocation if the Site Plan changes or the intended use changes, which significantly impact permit.  
Maintain all required setbacks pursuant to 15A NCAC 18E SECTION .0600 – LOCATION OF WASTEWATER SYSTEMS.  
State approved tanks with cast in place inlet and outlet boots required for all septic and/or pump tanks.  
Maintain the septic layout until the system is installed. There will be a fee to re-flag the septic system layout.  
See additional permit conditions attached.

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 Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authoriz: 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: Alan Clapp

AOWE/PE Signature: Alan Clapp

Date: 12/2/2024

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

**\*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:

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

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-Sit 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 Authorizatio

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:

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

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

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

Complete

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

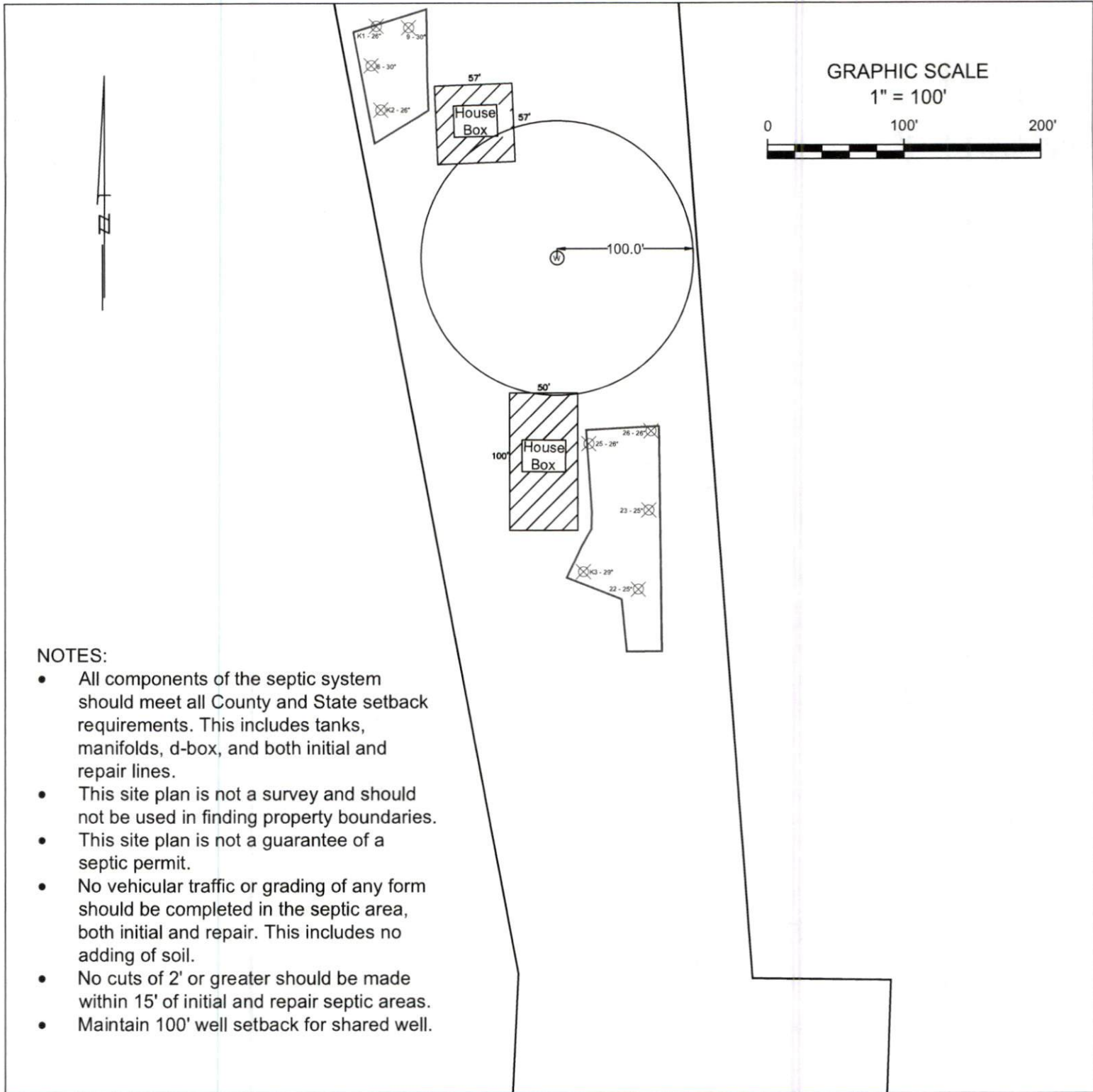




NORTH LAKES SOIL CONSULTING, PLLC			SOIL/SITE EVALUATION SHEET				Project #:	24-035	
							Sheet #:	1	
OWNER/APP. NAME:		Alicia Raines-Mary Hermis			SUBDIV./LOT#				
LOCATION OF SITE:		Johnsonville School Road, Cameron							
COUNTY:	Hamett	PROPERTY ID #:	9566-75-9854		DATE EVALUATED:	10/23/24&11/16/24			
PROPOSED FACILITY:	SFR	PROPOSED DESIGN FLOW (.0400):	240 gpd		PROPERTY SIZE:	12.36 acres			
WATER SUPPLY:	Shared Well		WATER SUPPLY SETBACK:			100'			
TYPE OF WASTEWATER:			Domestic		EVALUATION METHOD:			Auger	
P R O F I L E  #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS			.0509 PROFILE CLASS & LTAR	
			.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS		.0507 RESTR HORIZ
K-1	FS	0-18	SL - GR	VFR/NS/NP					
	3%	18-27	CL - SBKw	FR/SS/SP					
		27-30	CL - SBKw	FR/SS/P	2.5Y 7/2@27"		N.O	N.O	S-0.4
	.0502(d) SLOPE CORRECTION								
1.1"									
K-2	FS	0-15	SL - GR	VFR/NS/NP					
	3%	15-26	SCL - SBKw	FR/SS/SP					
		26-30	SCL - SBKw	FR/SS/SP	2.5Y 7/2@26"		N.O	N.O	S-0.4
	.0502(d) SLOPE CORRECTION								
1.1"									
8	FS	0-14	SL - GR	VFR/NS/NP					
	3%	14-30	SCL - SBKw	FR/SS/SP					
		30	SCL - SBKw	FR/SS/SP	2.5Y 7/2@30"		N.O	N.O	S-0.4
	.0502(d) SLOPE CORRECTION								
1.1"									
9	FS	0-14	SL - GR	VFR/NS/NP					
	3%	14-30	SCL - SBKw	FR/SS/SP					
		30	SCL - SBKw	FR/SS/SP	2.5Y 7/2@30"		N.O	N.O	S-0.4
	.0502(d) SLOPE CORRECTION								
1.1"									
DESCRIPTION:	INITIAL SYSTEM	REPAIR SYSTEM	SITE CLASSIFICATION (.0509):		Suitable				
Available Space (.0508):	Suitable	Suitable	EVALUATED BY:		John Kase				
System Type(s):	Accepted	Accepted	OTHER(S) PRESENT:		Mary Hermis				
Site LTAR:	0.400	0.400							
Maximum Trench Depth:	13"	13"							
Saprolite System:	No	No							
Comments:									

### Standard Abbreviations


LANDSCAPE POSITION	GROUP	SOIL TEXTURE	CONVENTIONAL LTAR	SAPROLITE	LPP LTAR	MINERALOGY/ CONSISTENCE	STRUCTURE	
CC (Concave Slope)	I	S (Sand)	0.8 - 1.2	0.6 - 0.8	0.4 - 0.6	SEXP (Slightly Expansive)	G (Single Grain)	
CV (Convex Slope)		LS (Loamy Sand)		0.5 - 0.7		EXP (Expansive)	M (Massive)	
D (Drainage Way)							GR (Granular)	
FP (Flood Plain)	II	SL (Sandy Loam)	0.6 - 0.8	0.4 - 0.6	0.3 - 0.4	<b>MOIST</b>	SBK (Subangular Blocky)	
FS (Foot Slope)		L (Loam)		0.2 - 0.4		VFR (Very Friable)	WSBK (Weak Subangular Blocky)	
H (Head Slope)						FR (Friable)	ABK (Angular Blocky)	
L (Linear Slope)	III	SiL (Silt Loam)	0.3 - 0.6	0.1 - 0.3	0.15 - 0.3	FI (Firm)	PL (Platy)	
N (Nose Slope)		SCL (Sandy Clay Loam)		0.05 - 0.15*		EFI (Extremely Firm)	PR (Prismatic)	
R (Ridge/Summit)		CL (Clay Loam)		N/A		0.15 - 0.3		MA-RCF (Massive Rock Controlled Fabric)
S (Shoulder Slope)		SiCL (Silty Clay Loam)					<b>WET</b>	AR (Auger Refusal)
T (Terrace)		Si (Silt)					NS (Non-Stick)	
TS (Toe Slope)					SS (Slightly Sticky)	<b>OTHER</b>		
	IV	SC (Sandy Clay)	0.1 - 0.4	N/A	0.05 - 0.2	S (Sticky)	NO (Not Observed)	
		SiC (Silty Clay)				VS (Very Sticky)		
		C (Clay)				NP (Non-plastic)		
						SP (Slightly Plastic)		
		O (Organic)	N/A	N/A	N/A	P (Plastic)		
						VP (Very Plastic)		
<b>NOTES:</b>								
SAPROLITE*	*Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200.							
HORIZON DEPTH	In inches below natural soil surface							
DEPTH OF FILL	In inches from land surface							
RESTRICTIVE HORIZON	Thickness and depth from land surface							
SAPROLITE	S (suitable) or U (unsuitable)							
SOIL WETNESS	Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation							
CLASSIFICATION	S (Suitable) or U (Unsuitable)							
Long-term Acceptance Rate (LTAR): gal/day/ft2								



**NOTES:**

- All components of the septic system should meet all County and State setback requirements. This includes tanks, manifolds, d-box, and both initial and repair lines.
- This site plan is not a survey and should not be used in finding property boundaries.
- This site plan is not a guarantee of a septic permit.
- No vehicular traffic or grading of any form should be completed in the septic area, both initial and repair. This includes no adding of soil.
- No cuts of 2' or greater should be made within 15' of initial and repair septic areas.
- Maintain 100' well setback for shared well.

Initial System		Repair System		LEGEND
System Type: IIB, Gravity (At-Grade w/ cover)		System Type: IIB, Gravity (Shallow Placement w/ cover)		Initial System —————
Line Numbers: 4-6	Total Footage: 150'	Line Numbers: 1-3	Total Footage: 150'	Repair System ⊗
Accepted Status System (25% Reduction)		Accepted Status System (25% Reduction)		
Soil LTAR: 0.40		Soil LTAR: 0.40		[ST] 1000 Gallon Min. Septic Tank
13" Maximum Trench Depth		13" Maximum Trench Depth		[PT] 1000 Gallon Min. Pump Tank

 <p><b>North Lakes Soil Consulting, PLLC</b> 3325 Jones Lake Road, Fuquay Varina, NC 27526</p> <p>Phone: (910) 539-5439 Email: john@northlakessoil.com</p>	Address:	Lot: NA	Draw Date	11/30/2024	
	Johnsonville School Road		Revision		
	Harnett County, NC		Revision		
	Septic System Layout: Initial & Repair		Drawn By	JMM	
	Bedroom Count: 2-Bedroom		Project #: 24-035		

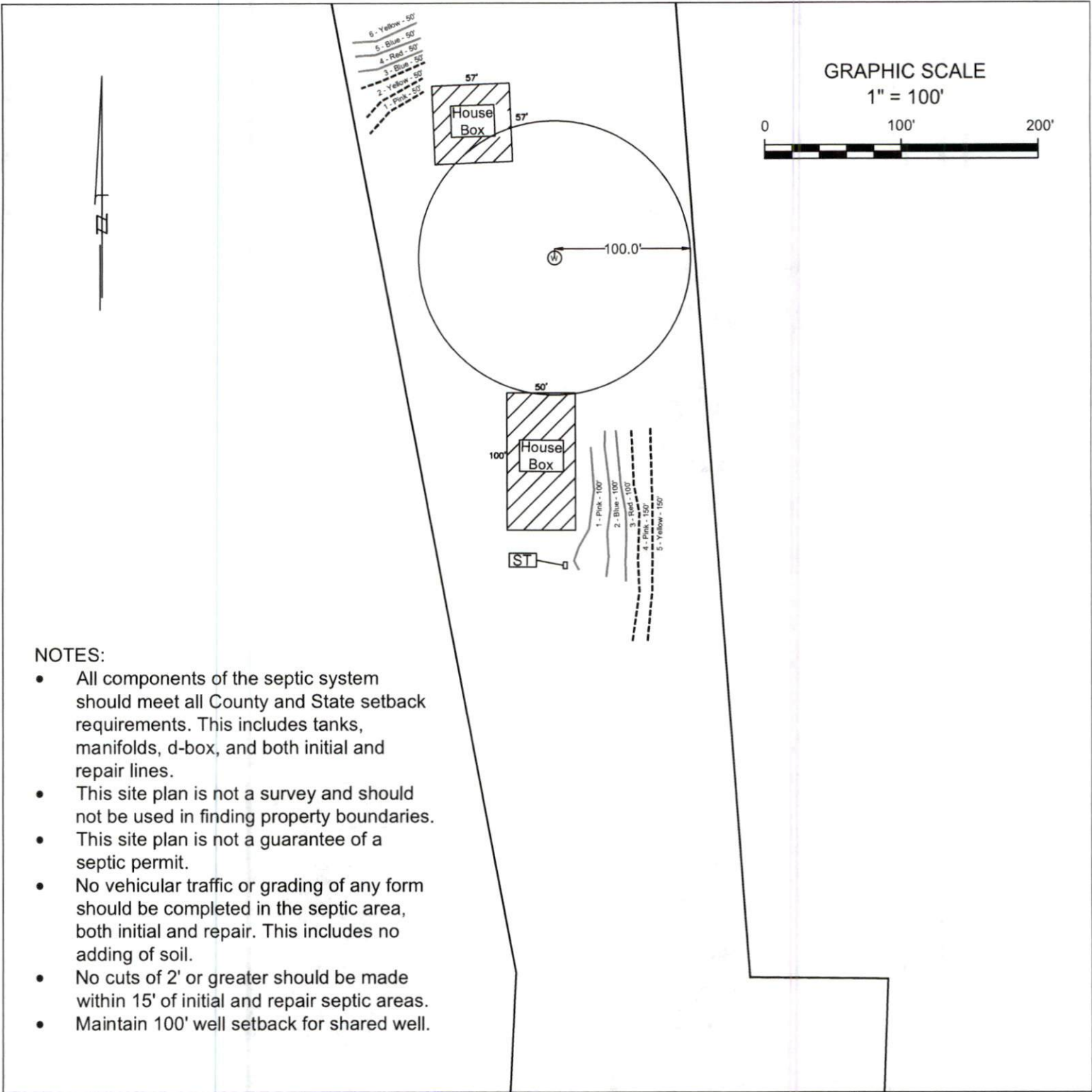
**NORTH LAKES SOIL CONSULTING, PLLC**  
**Layout Staking Sheet**  
**Johnsonville School Road - Harnett County**  
Proposed - New Single-Family Residence (2-Bedroom)

**Project #:** 24-035  
TBM 4.7

LINE #	FLAG COLOR	BS (ft)	FS (ft)	FLAGGED LINE LENGTH (ft)	DESIGN LINE LENGTH (ft)
1	Pink		4.2	50	50
2	Yellow		4.6	50	50
3	Blue		5.0	50	50
4	Red		5.3	50	50
5	Blue		5.6	50	50
6	Yellow		6.2	50	50
<b>Total:</b>				<b>300</b>	<b>300</b>

SYSTEM AREA	DESIGN LINE LENGTH (ft)	SOIL LTAR (GPD/FT2)	SYSTEM TYPE	DESIGN LTAR* (GPD/FT2)	DRAINFIELD PRODUCT TYPE	MAXIMUM TRENCH DEPTH (Inches)	DISTRIBUTION METHOD	DESIGN FLOW (GPD)
System	150	0.400	IIB	0.400	Accepted (25% Reduction) Shallow Placement w/ cover	13"	Gravity - Parallel	240
Repair	150	0.400	IIB	0.400	Accepted (25% Reduction) Shallow Placement w/ cover	13"	Gravity - Parallel	240


- NOTES:**
- 1) TBM - Back House Corner
  - 2) TBM is assumed to be 100.00
  - 3) All measures in feet.
  - 4) Nitrification lines are demonstrated on contour via colored pin flags.
  - 5) Initial System Lines (4-6), Repair System Lines (1-3)
  - 6) BS, FS indicate rod readings.
  - 7) Maximum trench depth is calculated on the downhill side of the trench and accounts for slope correction.
- \* Design LTAR = Design Flow / ((Design Line Length x Trench Width) / (1-%Reduction))



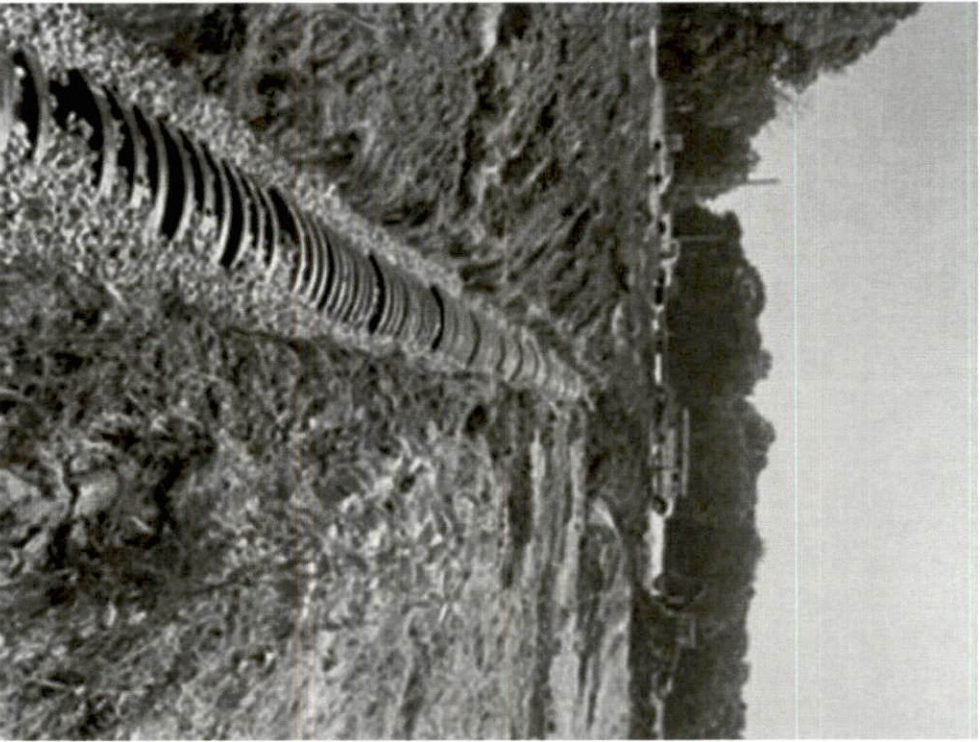
**NOTES:**

- All components of the septic system should meet all County and State setback requirements. This includes tanks, manifolds, d-box, and both initial and repair lines.
- This site plan is not a survey and should not be used in finding property boundaries.
- This site plan is not a guarantee of a septic permit.
- No vehicular traffic or grading of any form should be completed in the septic area, both initial and repair. This includes no adding of soil.
- No cuts of 2' or greater should be made within 15' of initial and repair septic areas.
- Maintain 100' well setback for shared well.

Initial System		Repair System		LEGEND	
System Type: IIB, Gravity (Shallow Placement w/ cover)		System Type: IIB, Gravity (Shallow Placement w/ cover)		Initial System —————	
Line Numbers: 4-6	Total Footage: 150'	Line Numbers: 1-3	Total Footage: 150'	Repair System - - - - -	
Accepted Status System (25% Reduction)		Accepted Status System (25% Reduction)		Not Used . . . . .	
Soil LTAR: 0.40		Soil LTAR: 0.40		[ST] 1000 Gallon Min. Septic Tank	
13" Maximum Trench Depth		13" Maximum Trench Depth		[PT] 1000 Gallon Min. Pump Tank	

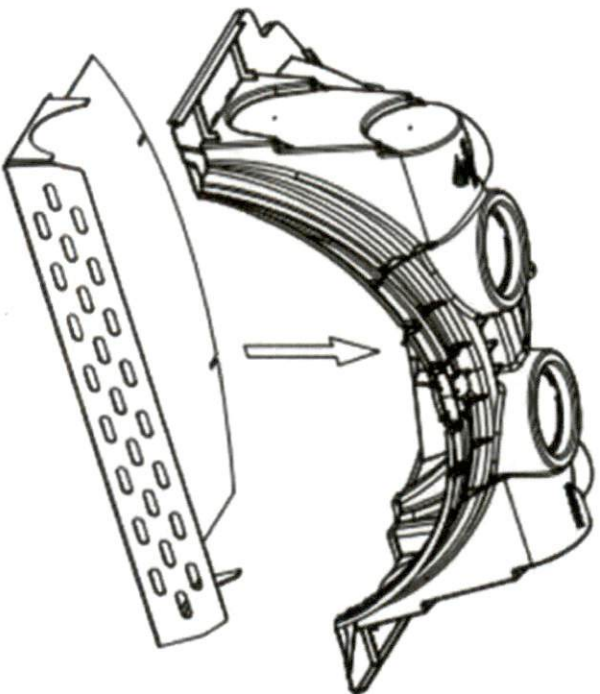
 <p><b>North Lakes Soil Consulting, PLLC</b> 3325 Jones Lake Road, Fuquay Varina, NC 27526</p> <p>Phone: (910) 539-5439 Email: john@northlakessoil.com</p>	Address:		Lot: NA	Draw Date	11/30/2024
	Johnsonville School Road		Revision		
	Harnett County, NC		Revision		
	Septic System Layout: Initial & Repair		Drawn By	JMM	
	Bedroom Count: 2-Bedroom		Project #: 24-035		

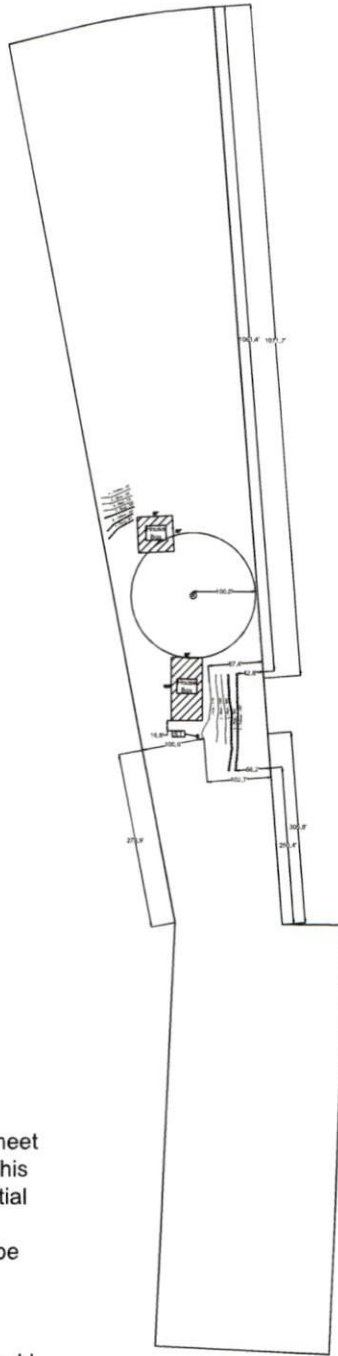
Gravel over Chamber Trench Louvers Detail:



High Flow Splash Plate and End Cap:

**2**

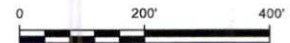




**NOTES:**

- All components of the septic system should meet all County and State setback requirements. This includes tanks, manifolds, d-box, and both initial and repair lines.
- This site plan is not a survey and should not be used in finding property boundaries.
- This site plan is not a guarantee of a septic permit.
- No vehicular traffic or grading of any form should be completed in the septic area, both initial and repair. This includes no adding of soil.
- No cuts of 2' or greater should be made within 15' of initial and repair septic areas.
- Maintain 100' well setback for a shared well.

GRAPHIC SCALE  
1" = 200'



Initial System		Repair System		LEGEND
System Type: IIB, Gravity (Shallow Placement w/ cover)		System Type: IIB, Gravity (Shallow Placement w/ cover)		Initial System —————
Line Numbers: 4-6	Total Footage: 150'	Line Numbers: 1-3	Total Footage: 150'	Repair System —————
Accepted Status System (25% Reduction)		Accepted Status System (25% Reduction)		Not Used —————
Soil LTAR: 0.40		Soil LTAR: 0.40		[ST] 1000 Gallon Min. Septic Tank
13" Maximum Trench Depth		13" Maximum Trench Depth		[PT] 1000 Gallon Min. Pump Tank



**North Lakes Soil Consulting, PLLC**  
3325 Jones Lake Road, Fuquay Varina, NC 27526

Phone: (910) 539-5439  
Email: john@northlakessoil.com

Address:	Lot: N/A	Draw Date	11/30/2024
Johnsonville School Road		Revision	
Harnett County, NC		Revision	
Septic System Layout: Initial & Repair		Drawn By	JMM
Bedroom Count: 2-Bedroom		Project #:	24-035

