



NC DEPARTMENT OF  
**HEALTH AND  
HUMAN SERVICES**

ROY COOPER • Governor

KODY H. KINSLEY • Secretary

MARK BENTON • Deputy Secretary for Health

SUSAN KANSAGRA • Assistant Secretary for Public Health

Division of Public Health

## Application for Services

This application, in conjunction with the common form established in G.S. 130A-335(a3) and (a5), is optional for local health departments to be used for applications submitted in accordance with G.S. 130A-335(a2), (a3), and (a5).

[hereinafter, G.S. 130A-335(a3) and (a5) permits referred to as (a2) Improvement Permit and (a2) Construction Authorization]

Applying for:

☒ (a2) Improvement Permit      ☒ (a2) Construction Authorization      ☐ (a2) Repair/Construction Authorization

Please check one of the following:

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

☒ 5 Year Expiration Requested (site plan provided)

☐ Non-Expiring Permit Requested (plat provided, as defined in G.S. 130A-334(7a))

Property Owner Name: KB Home Raleigh-Durham, Inc.

Property Owner Mailing Address: 1800 Perimeter Park Dr., Ste. 140, Morrisville, NC 27560

Property Owner Phone Number: 919-768-7995

Property Owner Email Address: raleighpermits@kbhome.com

Applicant Name: Same

Applicant Mailing Address: \_\_\_\_\_

Applicant Phone Number: \_\_\_\_\_

Applicant Email Address: \_\_\_\_\_

Does the property include, or is subject to, any of the following:

- ☐ Yes ☒ No      Previously identified jurisdictional wetlands  
☐ Yes ☒ No      Existing or proposed easements, rights-of-way, encroachments, or other areas subject to legal restrictions  
☐ Yes ☒ No      Approval by other public agencies

A site plan or plat is required, **OR** the site sketch submitted from the LSS/AOWE, must include the following:

- (A) existing and proposed facilities, structures, appurtenances, and wastewater systems
- (B) proposed wastewater system showing setbacks to property line(s) or other fixed reference point(s)
- (C) existing and proposed vehicular traffic areas
- (D) existing and proposed water supplies, wells, springs, and water lines; and
- (E) surface water, drainage features, and all existing and proposed artificial drainage, as applicable.

Requesting DHHS review: ☐ Yes ☒ No

I understand that the documentation and fees, as required in G.S. 130A-335(a2), (a3), (a5), and (a6), attached to this application are to be used to issue an Improvement Permit and/or Construction Authorization pursuant to G.S. 130A-335(a2), (a3), and (a5). I understand that authorized county and state officials are granted right of entry to the property indicated on this application to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that if the information in the application for an Improvements Permit and/or Construction Authorization is falsified, changed, or the site is altered, then the Improvement Permit and Construction Authorization shall become invalid.

Applicant Signature: Rachel Cavalear

Date: 3/13/2025

Owner's Signature: Rachel Cavalear

Date: 3/13/2025

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES • DIVISION OF PUBLIC HEALTH

LOCATION: 5605 Six Forks Road, Building 3, Raleigh, NC 27609

MAILING ADDRESS: 1632 Mail Service Center, Raleigh, NC 27699-1632

www.ncdhhs.gov • TEL: 919-707-5854 • FAX: 919-845-3972

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

Permit/File #: \_\_\_\_\_



# 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: HarnettPIN/Lot Identifier: 0549-07-7516.000Issued To: KB Home Raleigh-Durham, Inc., 1800 Perimeter Park Dr., Ste. 140, Morrisville, NC 27560Property Location: 42 Caspian Ct., Lillington, NC 27546Subdivision (if applicable) Elyse Meadows Lot #: 9 Block: \_\_\_\_\_ Section: \_\_\_\_\_LSS Report Provided: Yes ☒ No ☐If yes, name and license number of LSS: Michael D. Eaker, 1030
 New ☒ Expansion ☐ System Relocation ☐ Change of Use ☐
Facility Type: Single Family DwellingNumber of bedrooms: 3 Number of Occupants: 6 or less Other: \_\_\_\_\_Design Wastewater Strength: ☒ Domestic ☐ High Strength ☐ Industrial Process WastewaterProposed Design Daily Flow: 360 GPD Proposed LTAR (Initial): 0.3 gpd/ft2 Proposed LTAR (Repair): 0.3 gpd/ft2Proposed Wastewater System Type\*: Pump to Accepted (25% reduction) (Initial) Pump Required: ☒ Yes ☐ No ☐ May be requiredProposed Wastewater System Type\*: Pump to Accepted (25% reduction) (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 ☐ RCWSaprolite System (Initial): ☐ Yes ☒ No Saprolite System (Repair): ☐ Yes ☒ NoFill 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)\*: 40" Usable Depth to LC (Repair)\*: 32" \* Limiting ConditionMax. Trench Depth (Initial)\*: 18-24" Max. Trench Depth (Repair)\*: 16" \* Measured on the downhill side of the trenchArtificial 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:

Install as per detail sheet and map. Do not disturb, compact, rut or cut any soil within the septic drainfield area.

Ensure 6 inches approved fill cover is maintained over system after installation.

Start line 1 near rear property line at 18" trench bottom depth. Trench will be 24" deep near road.

Licensed Soil Scientist Print Name: Michael D. EakerLicensed Soil Scientist Signature: [Signature]Date: 03/13/2025

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 _____ <div style="display: flex; justify-content: space-between; width: 100%;"><div>Date</div><div>Initials</div></div>
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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.

_____ <i>Signature of Licensed Soil Scientist</i>	_____ <i>Date</i>
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*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: _____
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☐ Complete

State Authorized Agent: _____	Date: _____
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## CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)

County: Harnett

Pre-Construction Conference Required: Yes ☐ No ☒

PIN/Lot Identifier: 0549-07-7516.000 - Elyse Meadows, Lot 9

Issued To: KB Home Raleigh-Durham, Inc., 1800 Perimeter Park Dr., Ste. 140, Morrisville, NC 27560

Property Location: 42 Caspian Ct., Lillington, NC 27546

AOWE/PE Plans/Evaluations Provided: Yes ☒ No ☐ If yes, name and license number of AOWE/PE: Michael D. Eaker 10013E

Facility Type: Single Family Dwelling

Number of bedrooms: 3 Number of Occupants: 6 or less 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\* Pump to Accepted (25% reduction) (Initial) Pump to Accepted (25% reduction) (Repair)

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

Design Daily Flow: 360 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: 1000 gallons Total Trench/Bed Length: 305 feet Trench/Bed Spacing: 9 feet on center

Trench/Bed Width: 36 inches LTAR: 0.3 gpd/ft<sup>2</sup> Usable Depth to LC (Initial)\*: 40" \*Limiting condition

Soil Cover: 6+ inches Slope Corrected Maximum Trench/Bed Depth\*: 18-24" (see note) 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: 12.62 ft. TDH vs. 18.07 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:

Install as per detail sheet and map. Do not disturb, compact, rut or cut any soil within the septic drainfield area.

Ensure 6 inches approved fill cover is maintained over system after installation.

Start line 1 near rear property line at 18" trench bottom depth. Trench will be 24" deep near road.



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: Michael D. Eaker

AOWE/PE Signature: \_\_\_\_\_ Date: 03/13/2025

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: \_\_\_\_\_



Permit/File #: \_\_\_\_\_

ADDENDUM TO G.S. 130A-335(a2) SUBMITTAL

County: Harnett

PIN/Lot Identifier: 0549-07-7516.000, Elyse Meadows, Lot 9

Issued To: KB Home Raleigh-Durham, Inc., 1800 Perimeter Park Dr., Ste. 140, Morrisville, NC 27560

**Additional Improvement Permit Conditions:**

See attached detail sheet

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be a standard notebook page.

**Additional Construction Authorization Conditions:**

See attached detail sheet

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.



# Southeastern Soil & Environmental Associates, Inc.

P.O. Box 9321  
Fayetteville, NC 28311  
Phone/Fax (910) 822-4540  
Email [mike@southeasternsoil.com](mailto:mike@southeasternsoil.com)

March 13, 2025

KB Home Raleigh-Durham, Inc.  
1800 Perimeter Park, Suite 140  
Morrisville, NC 27560

Re: Soil/site evaluation for subsurface waste disposal (GS 130A-335(a2)/SL 2022-11),  
PIN 0549-07-7516.000, 42 Caspian Ct., Elyse Meadows Subdivision, Lot 9, Lillington,  
Harnett County, North Carolina

A soil/site evaluation has been conducted on the aforementioned property at your request. The purpose of the investigation was to determine if soils were suitable for a subsurface waste disposal system (conventional, accepted and innovative) to serve a proposed single-family residence (4-bedroom home). All ratings and determinations were made in accordance with "On Site Wastewater Rules, 15A NCAC 18E". **This LSS evaluation is being submitted to meet the requirements of GS 130A-335(a2)/SL 2022-11.**

The soil evaluation was completed on March 12, 2025. Hand auger borings were advanced under moist soil conditions. The site essentially lies on a linear slope landscape (3-5% slope). Soil borings conducted in most of this area consisted of 8 or more inches of loamy sand underlain by sandy loam, sandy clay loam, clay and/or sandy clay to 48 or more inches below the soil surface. Soil wetness and/or parent material (greater than 50%) was not observed shallower than 40 inches below the soil surface (initial system) and 32 inches (repair system). All other soil characteristics were suitable to at least 48 inches.

Based on soil borings and site conditions, the site would be designated suitable for a pump to a shallow pump to accepted subsurface waste disposal drainfield (0.30 gal/day/ft<sup>2</sup> LTAR; initial system). There is enough suitable soil area to allow for a pump to an accepted subsurface waste disposal system repair (0.30 gal/day/ft<sup>2</sup>). A map showing the approximate location of the site and proposed septic layout accompanies this report. **[Note: No grading, rutting or other soil disturbance can occur in or near the proposed septic area. Any grading can alter the findings of this report and render the site unusable. As such, we recommend the builder protect the proposed septic areas with rope, flagging, fencing, etc.]**

### Design Summary

- Pump to Accepted product with **pressure manifold** (305', see septic layout)
- 360 gal/day flow rate (3BR)
- 18-24" maximum trench depth (initial)
- 1000-gallon septic and pump tank (certified watertight)
- Pump to produce 18.07 gal/min @ 12.62 feet TDH
- Pump dose 139 gallons (6.9-inch drawdown)
- 0.30 gpd/ft<sup>2</sup> LTAR (initial and repair)
- No grading, rutting or filling in septic areas
- No vertical cuts (greater than 2') within 15' of septic lines/areas
- Keep tanks and drainlines 10' from property lines
- Keep supply line 5 or more feet from property lines
- **Install in dry soil conditions**
- Maintain natural contours when clearing the lots
- Direct gutter water away from septic system

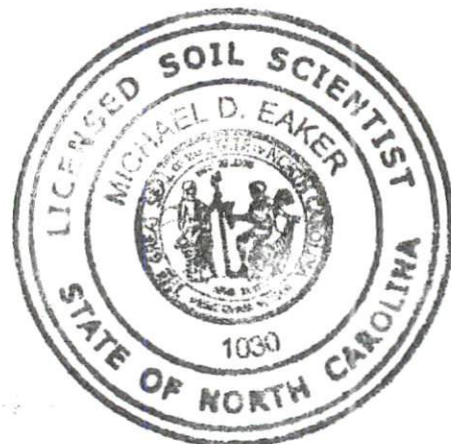
During site construction, it is important not to impact and suitable or provisionally suitable soil areas with activities such as excavation or filling. Only the vegetation should be removed in the areas of the proposed septic drainfields to prevent any disturbance of naturally occurring soil. We recommend all lot clearing activity be delayed until the local health department issues a permit.

To the extent possible, we have identified the soil types that will impact the flow of wastewater on this site and have provided a professional opinion as to the best septic system layout. This report does not guarantee that the proposed septic system will properly function for any specific length of time.

Sincerely,



Mike Eaker  
NC Licensed Soil Scientist # 1030  
NC Authorized Wastewater Evaluator 10013E





**SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOC., INC.**

**PROPOSED SUBSURFACE WASTE DISPOSAL SYSTEM DETAIL SHEET**

**SUBDIVISION:** Elyse Meadows

**INITIAL SYSTEM:** <sup>pump to</sup> Accepted 25% Reduction

**DISTRIBUTION:** Pressure Manifold

**BENCHMARK:** 100.0

**NO. BEDROOMS:** 3

**SEPTIC TANK SIZE** 1000 Gallons

**LOT** 9

**REPAIR:** <sup>pump to</sup> Accepted 25% Reduction

**DISTRIBUTION** Pressure Manifold

**LOCATION** RC 9/10

**LTAR** 0.30 gpd/ft2

**PUMP TANK SIZE** 1000 Gallons

	<u>LINE</u>	<u>FLAG COLOR</u>	<u>ELEVATION</u>	<u>LENGTH</u>
Initial	1	P/P	98.50	115
	2	W	98.10	100
	3	B	97.80	90
				305 TOTAL
Repair	4	R	97.10	100
	5	W	96.80	100
	6	R	96.70	100
	7	P	96.50	
	8	B	95.60	300 TOTAL

**BY** Mike Eaker

**DATE** 3/12/25

**TYPICAL PROFILE**

Initial  
0-23 LS/SL VFr/Fr/Gr  
23-48 SCL/SC Fi/SBk  
CR2/P 40"

Repair  
0-8 LS/SL VFr/Fr/Gr  
8-48 SCL/SC Fi/SBk  
CR2/P 32"

**THERE SHALL BE NO GRADING,  
CUTTING, LOGGING OR OTHER SOIL  
DISTURBANCE IN SEPTIC AREA**

HEALTH DEPARTMENT USE ONLY.

DESIGNS DO NOT GURANTEE FUNCTIONALITY





**Bateman & Co.**  
Engineers  
2524 Reliance Avenue, Ap  
www.batemanncivils

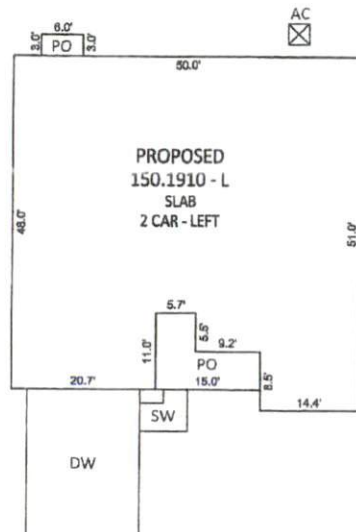


# **LOT INFORMATION:**

PIN: 0549-07-7516  
REFERENCE: BK 4232 PG 2770  
TOTAL LOT AREA = 0.57 AC = 25,000 SF  
HOUSE = 2,330 SF  
PORCH = 114 SF  
SIDEWALK = 34 SF  
DRIVEWAY = 634 SF  
PATIO = 18 SF  
AC PAD = 9 SF  
PROPOSED IMPERVIOUS = 3,169 SF  
PERCENT IMPERVIOUS = 12.68 %  
MAXIMUM IMPERVIOUS = 9,000 SF

## **BUILDING SETBACKS**

FRONT - 35'  
REAR - 25'  
SIDE - 10'  
CORNER SIDE - 20'

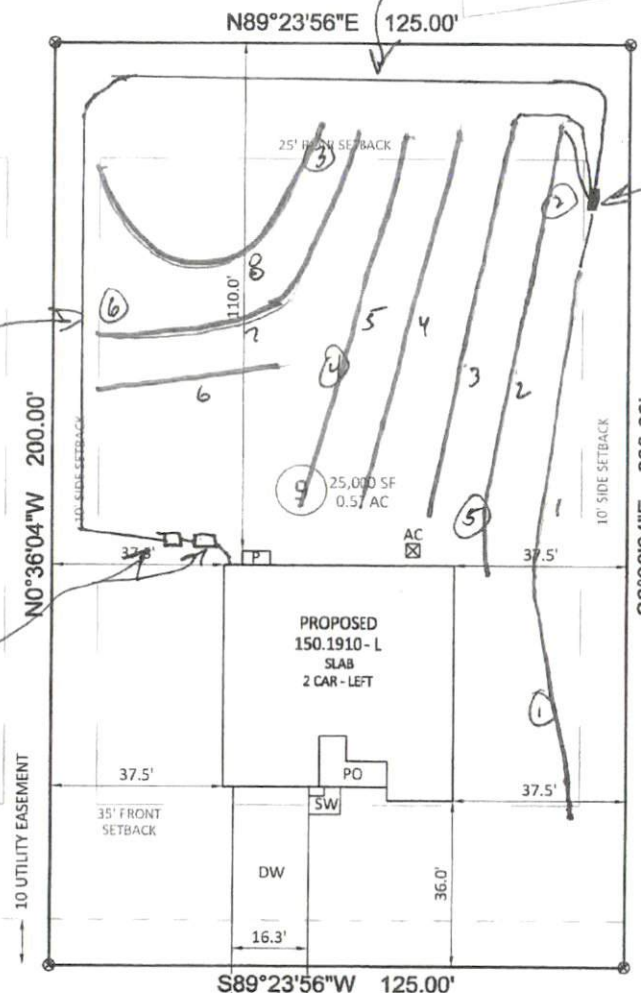


INSET SCALE: 1"=20'

## **NOTES:**

1. THIS SURVEY WAS PREPARED BY BATEMAN CIVIL SURVEY CO., UNDER THE SUPERVISION OF SONYA A. WARD, PLS.
2. THIS PLAN HAS BEEN PREPARED FOR LAYOUT AND PERMITTING PURPOSES ONLY.
3. PROPERTY LINES SHOWN WERE TAKEN FROM EXISTING FIELD EVIDENCE, EXISTING DEEDS AND PLATS OF PUBLIC RECORD, AND INFORMATION SUPPLIED TO THE SURVEYOR BY THE CLIENT.
4. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES AND ALL BEARINGS ARE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM UNLESS OTHERWISE SHOWN.
5. THIS MAP IS NOT FOR RECORDATION AND SHOULD BE REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS.
6. THE BASIS OF NORTH AND ALL EASEMENTS, RIGHTS-OF-WAYS, BUFFERS, SETBACKS AND ADJOINERS, ETC. REFERENCED IN TITLE BLOCK.
7. NO INVESTIGATION INTO THE EXISTENCE OF JURISDICTIONAL WETLANDS, FLOOD ZONES OR RIPARIAN BUFFERS PERFORMED BY THIS FIRM. ALL LINES SHOWN, IF ANY, ARE SCALED FROM THE RECORDED PLAT.
8. SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
9. THIS PROPERTY LIES WITHIN FLOOD ZONE "X" ACCORDING TO MAP #3720052800J & #3720054800J OF THE FLOOD INSURANCE RATE, BOTH DATED OCTOBER 3, 2006.
10. ZONING: RA-30

11. BUILDER/DEVELOPER: KB HOME RALEIGH DURHAM INC  
4506 S MIAMI BLVD  
STE 100  
DURHAM, NC 27703



**CASPIAN COURT**  
PUBLIC 50' PUBLIC & UTILITY ACCESS

0 15 30  
SCALE:  
1"=40'

## **LEGEND**

PO = COV. FRONT PORCH/PATIO  
CP = COV. REAR PORCH/PATIO  
WD = WOOD DECK  
SW = SIDEWALK  
DW = CONCRETE DRIVEWAY  
SP = SCREENED PORCH/PATIO  
P = CONCRETE PATIO  
● = COMPUTED POINT  
○ = IRON PIPE FOUND (IPF)  
○ = IRON PIPE SET (IPS)  
● = SCRIBE FOUND/SET (SS)  
○ = WATER METER  
CO = CLEAN OUT  
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○ = ELECTRIC BOX/TRANSFORMER  
○ = FIRE HYDRANT  
DI = DRAIN INLET/YARD INLET  
G = GAS METER  
E = ELECTRIC METER

1. SONYA A. WARD, PLS.  
2. DRAWN BY: SONYA A. WARD, PLS.  
3. REFERRED BY: SONYA A. WARD, PLS.  
4. BOUNDARY: SONYA A. WARD, PLS.  
5. INDICATED: SONYA A. WARD, PLS.  
6. UNDER: SONYA A. WARD, PLS.  
7. AS CALC: SONYA A. WARD, PLS.  
8. MEETS: SONYA A. WARD, PLS.  
9. PRACTIC: SONYA A. WARD, PLS.  
10. CAROLI: SONYA A. WARD, PLS.  
11. DATED: SONYA A. WARD, PLS.

BUILDER TO VERIFY I  
DIMENSIONS AND  
IMPERVIOUS NOTED C

**PRELIMINARY**  
FOR  
NAN

**ELYSE MEADOWS -**  
42 CASPIAN COURT  
UPPER LITTLE RIVER TOWN

DATE: 3/4/25 DRAWN BY: J

REFERENCE: BM 2025 PG.133 BC



## RESIDENTIAL PRESSURE MANIFOLD DESIGN

Permit #	<u>Elyse Meadows Lot 9</u>				
# of BDR:	<u>3</u>	Daily Flow:	<u>360</u>	gal/day	L.T.A.R.: <u>0.3000</u> gal/day/sq.ft
Septic Tank:	<u>1000</u>	gals	Pump Tank:	<u>1000</u>	gals
			Sq. Foot:	<u>915</u>	System Type: <u>Accepted</u>
Number of Taps:	<u>3</u>	Length of Trenches:	<u>305</u>	ft(See Tap Chart for Details)	
Depth of Trenches:	<u>18-24</u>	in	Manifold Length:	<u>36</u>	in
Manifold Diameter:	<u>4in sch 80pvc</u>	Tap Configuration:	6 in spacing	<u>1</u>	side(s) of manifold
Supply Line: length:	<u>250</u>	ft	Diameter:	<u>2</u>	in sch 40pvc
Friction Loss + Fitting Loss:	<u>2.62</u>	ft(supply line length + 70' for fittings in pump tank)			
Design Head:	<u>2</u>	ft	Elevation Head:	<u>8.00</u>	ft
Total Head:	<u>12.62</u>	ft	Pump to Deliver:	<u>18.07</u>	gals/min at <u>12.62</u> ft head
Dosing Volume:	<u>139</u>	gals,			
Drawdown:	<u>139</u>	gals divided by	<u>20</u>	gals/in =	<u>6.9</u> inches

Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.

## TAP CHART

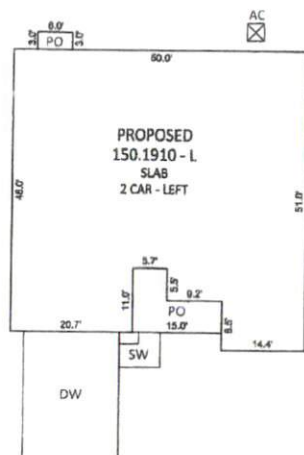
[illegible]



**BATEMAN CIVIL SURVEY COMPANY**  
Engineers • Surveyors • Planners  
2024 Raleigh Avenue, Apex, NC 27539 Ph: 919.577.1080 Fax: 919.577.1081  
www.batemancivilsurvey.com info@batemancivilsurvey.com  
NCBLS Firm No. C-2378

**LOT INFORMATION:**  
PIN: 0549-07-7516  
REFERENCE: BK 4232 PG 2770  
TOTAL LOT AREA = 0.57 AC = 25,000 SF  
HOUSE = 2,330 SF  
PORCH = 114 SF  
SIDEWALK = 34 SF  
DRIVEWAY = 634 SF  
PATIO = 18 SF  
AC PAD = 9 SF  
PROPOSED IMPERVIOUS = 3,169 SF  
PERCENT IMPERVIOUS = 12.68 %  
MAXIMUM IMPERVIOUS = 9,000 SF

**BUILDING SETBACKS**  
FRONT - 35'  
REAR - 25'  
SIDE - 10'  
CORNER SIDE - 20'

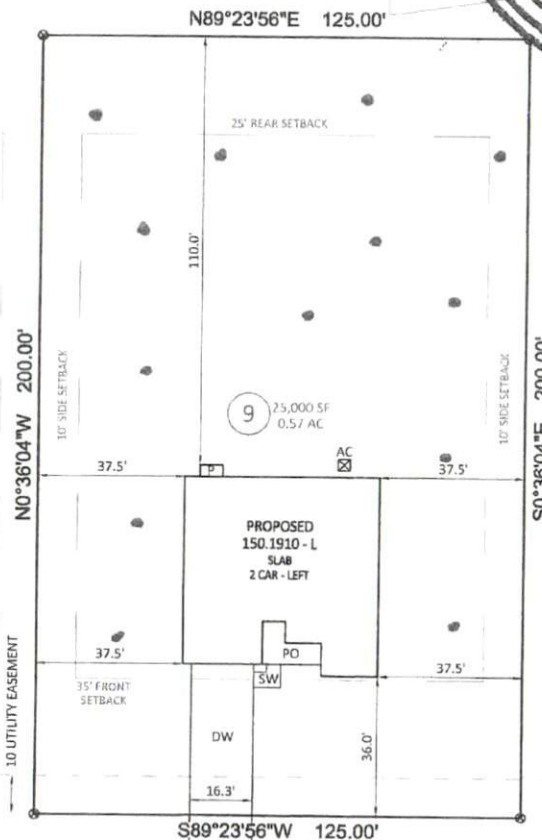


INSET SCALE: 1"=20'

#### NOTES:

- THIS SURVEY WAS PREPARED BY BATEMAN CIVIL SURVEY CO., UNDER THE SUPERVISION OF SONYA A. WARD, PLS.
- THIS PLAN HAS BEEN PREPARED FOR LAYOUT AND PERMITTING PURPOSES ONLY.
- PROPERTY LINES SHOWN WERE TAKEN FROM EXISTING FIELD EVIDENCE, EXISTING DEEDS AND PLATS OF PUBLIC RECORD, AND INFORMATION SUPPLIED TO THE SURVEYOR BY THE CLIENT.
- ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES AND ALL BEARINGS ARE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM UNLESS OTHERWISE SHOWN.
- THIS MAP IS NOT FOR RECORDATION AND SHOULD BE REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS.
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- ZONING: RA-30
- BUILDER/DEVELOPER: KB HOME RALEIGH DURHAM INC  
4506 S MIAMI BLVD  
STE 100  
DURHAM, NC 27703

= Suitabur Soil



**CASPIAN COURT**  
PUBLIC 50' PUBLIC & UTILITY ACCESS

0 15 30  
SCALE:  
1" = 30 ft.



#### LEGEND

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● = HAND HOLE/UTILITY VAULT  
● = ELECTRIC BOX/TRANSFORMER  
● = FIRE HYDRANT  
DI = DRAIN INLET/YARD INLET  
G = GAS METER  
E = ELECTRIC METER

I, SONYA A. WARD, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY DIRECT SUPERVISION FROM A SURVEY MADE UNDER MY SUPERVISION (PLAT BOOK REFERENCED IN TITLE BLOCK); THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION LISTED UNDER REFERENCES; THAT THE RATIO OF PRECISION AS CALCULATED IS 1:10,000; AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARD OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA, L-4017 DATED:

**PRELIMINARY**

This map is of an existing parcel of land and is only intended for the parties and purposes shown. This map not for recordation. No title report provided.

BUILDER TO VERIFY HOUSE LOCATION  
DIMENSIONS AND REVIEW TOTAL  
IMPERVIOUS NOTED ON THIS PLOT PLAN

**PRELIMINARY PLOT PLAN**  
FOR  
**NAME**

**ELYSE MEADOWS - PHASE 1 - LOT 9**  
42 CASPIAN COURT, LILLINGTON, NC  
UPPER LITTLE RIVER TOWNSHIP, HARNETT COUNTY  
DATE: 3/4/25 DRAWN BY: AHB CHECKED BY: SAW

REFERENCE: BM 2025 PG.133 BC58 250242 SCALE: 1" = 30'



**SOIL/SITE EVALUATION**  
**for ON-SITE WASTEWATER SYSTEM**  
(Complete all fields in full)

OWNER: KB Homes

ADDRESS: 1800 Perimeter Park Dr., Ste. 140, Morrisville, NC 27560

PROPOSED FACILITY: SFD

PROPOSED DESIGN FLOW (.1949): 360 GPD (3BR)

LOCATION OF SITE: 42 Caspian Ct., Lillington (Lot 9) Elyse

APPLICATION DATE

DATE EVALUATED: 03/12/25

PROPERTY SIZE: 0.57 Ac

PROPERTY RECORDED

WATER SUPPLY: ☐ Private ☒ Public Well ☐ Spring ☐ Other

EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

P R O F I L E #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPR O CLASS	.1944 RESTR HORIZ	
1	LS 2-4%	0-13	LS/Gr	VFr/Nexp	>48"	42"	NA	NA	Suitable 0.30
		13-31	LS/SL/Gr	VFr/Nexp	10YR 6/4				
		31-40	SCL/mm sbk	Fi/SExp	10YR 5/8				
		40-48	SCL/SC/wfsbk	Fi, SExp	7.5YR 5/8				
					2.5YR 5/8 mot				
2	LS 2-4%	0-8	LS/Gr	VFr/Nexp	>48"	NA	NA	NA	Suitable 0.30
		8-23	SL/SCL/wf sbk	Fr/Fi/SExp	10YR 6/4				
		23-42	SL/wf sbk	Fr/SExp	10YR 5/8				
		42-48	SC/wfsbk	Fi, SExp	10YR 6/6				
					7.5YR 5/8 mot				
3	LS 2-4%	0-8	LS/Gr	VFr/Nexp	32"	NA	NA	NA	Suitable 0.30
		8-17	SC/C/mm sbk	Fi/Sexp	7.5YR 5/8				
		17-32	SCL/mm sbk	Fi/SExp	10YR 5/8				
		32-48	SC/wf sbk/mass	Fi/SExp	10YR 5/8				
					2.5YR 5/8 mot				
4	LS 2-4%	0-14	LS/SL/Gr	Fr/Nexp	36"	NA	NA	NA	Suitable 0.30
		14-22	SL/Gr	VFr/Nexp	10YR 6/4				
		22-36	SC/mm sbk	Fi/SExp	10YR 5/8				
		36-48	SCL/wf sbk	Fi/SExp	7.5YR 5/8				
					10YR 7/1 mot				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	OTHER FACTORS (.1946): SITE CLASSIFICATION (.1948): Suitable  EVALUATED BY: M. Eaker OTHER(S) PRESENT:
Available Space (.1945)	Yes	Yes	
System Type(s)	Accepted	Accepted	
Site LTAR	0.30	0.30	

COMMENTS:

## (Continuation Sheet-Complete all field in full)

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
DIVISION OF PUBLIC HEALTH  
ENVIRONMENTAL HEALTH SECTION  
ON-SITE WATER PROTECTION BRANCH

PROPERTY ID #: Elyse Lot 9  
DATE OF EVALUATION: 03/12/25  
COUNTY: Harnett

P R O F I L E  #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZ ON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
5	LS 2-4%	0-12	LS/Gr	VFr/NExp	40"	NA	NA	NA	Suitable 0.30
		12-27	LS/Gr	VFr/NExp	10YR 6/4				
		27-37	SC/mm sbk	Fi/SExp	10YR 5/8				
		37-40	SCL/wf sbk	Fi/SExp	10YR 5/8				
		40-48	SCL/wf sbk	Fi/SExp	2.5YR 4/8 10YR 5/8 10YR 7/1 mot				
6	LS 2-4%	0-16	LS/Gr	VFr/NExp	41"	NA	NA	NA	Suitable 0.30
		16-36	SC/mm sbk	Fi/SExp	7.5YR 5/8				
		36-41	SL/wf sbk	Fi/SExp	2.5YR 4/8				
		41-48	SC/mm sbk	Fi/SExp	2.5YR 4/8				
					10YR 7/1 mot				

COMMENTS: