



NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

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Division of Public Health

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

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

County: GranvillePIN/Lot Identifier: 099400914268Issued To: Joseph T. GallagherProperty Location: Mary Lee Drive near End of Cul-de-SacSubdivision (if applicable) _____ Lot #: B Block: _____ Section: _____LSS Report Provided: Yes ☒ No ☐If yes, name and license number of LSS: Derrick A. Smith, LSS #: 1311New ☒Expansion ☐System Relocation ☐Change of Use ☐Facility Type: Single Family ResidenceNumber of bedrooms: 3 Number of Occupants: 6max Other: _____Design Wastewater Strength: ☒ Domestic ☐ High Strength ☐ Industrial Process WastewaterProposed Design Daily Flow: 360 GPD Proposed LTAR (Initial): 0.25 Proposed LTAR (Repair): 0.25Proposed Wastewater System Type*: Horizontal PPBPS IIIB (Initial) Pump Required: ☒ Yes ☐ No ☐ May be requiredProposed Wastewater System Type*: Horizontal PPBPS IIIB (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)*: 26 inches Usable Depth to LC (Repair)*: 26 inches * Limiting ConditionMax. Trench Depth (Initial)*: 14 inches Max. Trench Depth (Repair)*: 14 inches * 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:

*Maintain all applicable setbacks.

*Follow T&J panel block installation manual guidelines.

*Minimize site/soil disturbance when clearing drainfield area.

*8-10 inches of additional soil cover required over system & repair area.

Licensed Soil Scientist Print Name: Derrick A. SmithLicensed Soil Scientist Signature: D A SDate: 02/21/2026

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

See attached site sketch

February 21, 2026

Granville County Environmental Health

1028 COLLEGE STREET – BLDG. A
OXFORD, NC 27565

Re: Licensed Soil Scientist property evaluation and wastewater system layout/design for Parcel ID Number:
0994009914268 – Lot B, Mary Lee Drive, Oxford, NC.

To Whom It May Concern,

This Licensed Soil Scientist Evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

A soil/site evaluation and wastewater system layout/design was performed on the above referenced property to serve a three bedroom single family residence with a design daily flow of 360 gallons per day. Work was conducted in accordance with the NC 18E Rules for Wastewater Treatment and Dispersal Systems. Soil was evaluated on this property with a hand auger. Detailed soil horizon descriptions are included as an attachment with this report with corresponding boring locations shown on the attached site plan of the property. No existing wells were located within 50 feet of the approved septic system area. This report requests permitting installation of a pump to horizontal panel block (50% reduction) wastewater system with 240 linear feet of nitrification line with a soil LTAR of 0.25 gal/day/sq. ft. for the initial and repair septic system. Proposed max trench bottom depth is 14 inches for both the initial system and repair system.

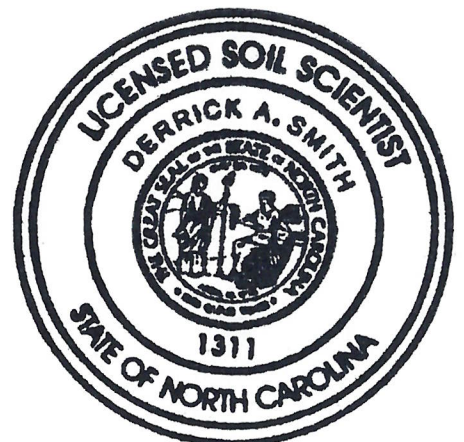
I am pleased to be of service in this matter and can be reached at your convenience if additional information is needed.

Sincerely,

Derrick A. Smith

2/21/26

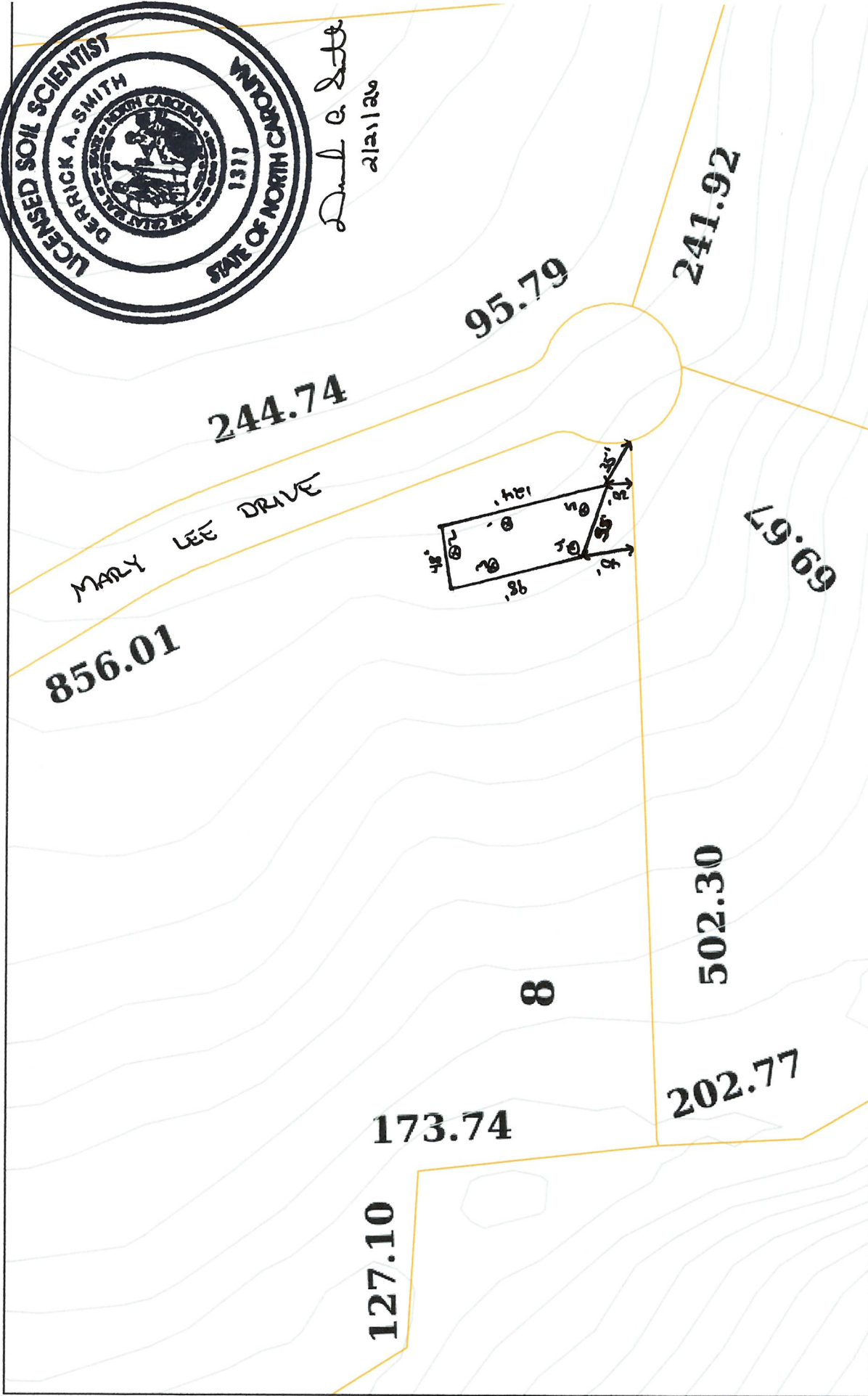
DERRICK A. SMITH, LSS, REHS
NC LICENSED SOIL SCIENTIST #1311
NC REGISTERED ENVIRONMENTAL HEALTH SPECIALIST #2402



Lot B - Mary Lee Drive



Derick A. Smith
2/21/26



2/21/2026, 2:46:18 PM

SYSTEM & REPAIR

- 3 BEDROOM (360 GPD)

- 0.25 LTR/L

- 14" MAX TRENCH DEPTH

- 240 LB FT PAPER BLOCK (HORIZONTAL)

② = APPROXIMATE SOIL BOUND VOLUMEN

* MINIMUM SITE / SOIL DISTANCE

* 8-10 INCHES ADDITIONAL SOIL COVER REQUIRED

* HOUSE & WELL VOLUMENS ARE FLEXIBLE

1:1,200
0 55 110 220 ft
0 15 30 60 m

SCALE: 1" = 100'

↑

NORTH

TAX PURPOSES ONLY

Job Name: Joseph T. Gallagher – Lot B, Mary Lee Drive
Granville County, NC

Owner Information:

Owner Name: Joseph T. Gallagher

Owner Address: 3590 Pitts Road, Oxford, NC 27565

Property Information:

Property Address: Mary Lee Drive, End of Cul-De-Sac

Parcel Number(s): **099400999914268**

Proposed Use: Single Family Residence

Bedroom Number: Three (3)

Design Flow: 360 GPD (120 gal/bedroom/day)

Max. Occupancy: 6 People

Site LTAR: Initial = 0.25 ___ Repair = 0.25

Tanks:

Septic Tank Size: **1000** gallon

Pump Tank Size: **1000** gallon

Pump/Supply Specifications:

Pump Requirements: **25 GPM @ 25' TDH; Liberty FL50 Series ½ hp effluent pump or equivalent**

Supply Line Type & Length: ~ **150 linear feet of 2" sch. 40**

TDH Calculation: 2' pressure head + 20' elevation head + 3' friction loss = **25' TDH**

Drainfield Specifications:

Trench Type: **Horizontal Panel Block with 50% Reduction**

Line Length: **240' – 3 x 80'**

Line Depth: **14" MAX. Trench Depth**

Line Spacing: **8' on center min.**

Special Notes / Conditions:

- Install system on contour using existing field layout.
- Minimize site/soil disturbance during all phases of construction.
- Install 240' of horizontal panel block product in approved initial system area per attached layout diagram.
- Construction materials and equipment (vehicles, etc.) must remain off of system and repair area during all phases of construction.
- Establish vegetative cover over entire system area immediately after installation approval.
- Avoid clearing approved septic area or installation of system while soil conditions are too wet.
- Unapproved grading and/or filling of approved soil area may result in permit revocation
- Divert all excess water away from septic system area.
- Maintain all applicable setbacks from house, wells and property lines.
- Pump line distance must remain less than 500 linear feet or an engineered pump line design will be required.
- 8-10 inches of additional soil cover required over entire system and repair area.

**Joseph T. Gallagher
Lot B - Mary Lee Drive**

LAYOUT FOR A 3-BEDROOM SINGLE FAMILY RESIDENCE

January 21, 2026

<u>LINE #</u> TBM	<u>FLAG</u> <u>COLOR</u>	<u>BS</u> 4.08	<u>HI</u> 104.08	<u>FS</u>	<u>ELEVATION</u> 100.00	<u>FLAGGED</u> <u>LINE LENGTH</u>	<u>DESIGN INITIAL</u>	
							<u>LINE LENGTH</u>	<u>LINE LENGTH</u>
INSTR. 1								
1	BLUE			3.75	100.33	106	80	20
2	RED			4.00	100.08	111	80	20
3	YELLOW			4.50	99.58	101	80	20
4	BLUE			5.00	99.08	100	-	100
5	RED			5.33	98.75	88	-	80
						506	240	240
						Total		

<u>System</u>	<u>LINE</u> <u>LENGTH</u>	<u>LTAR</u> <u>GPD/FT²</u>	<u>SYSTEM</u> <u>TYPE</u>	<u>SOIL</u> <u>LTAR</u> <u>GPD/FT²</u>	<u>PRODUCT</u>	<u>DISTRIBUTION</u>
	240	0.250	IIIb	0.250	Horizontal PPBPS w/ 50% Reduction 14" Trench Depth	PRESSURE MANIFOLD
Repair	240	0.250	IIIb	0.250	Horizontal PPBPS w/ 50% Reduction 14" Trench Depth	PRESSURE MANIFOLD

Notes: TBM: 4.08 feet @ Base of EIP Metal Pole at Cul-de-sac

All measures in feet

Nitrification lines are demonstrated on contour via colored pin flags

**BS, HI, and FS indicate rod readings.

Flow of 360 gal/day proposed

Minimize soil disturbance

Do not install when soil conditions are too wet

Rake trench sidewalls and bottom of trench

Follow T&J panel installation manual guidelines

Joseph T. Gallagher
SYSTEM

<u>Line #</u>	<u>Color</u>	<u>Elevation</u>	<u>Length</u>	<u>Hole Size</u>	<u>Flow/Tap</u>	<u>gpd</u>	<u>Trench Area</u>	<u>Line LTAR</u>
1	BLUE	100.33	80	SCH 40 1/2	7.11	120.00	240	0.500
2	RED	100.08	80	SCH 40 1/2	7.11	120.00	240	0.500
3	YELLOW	99.58	80	SCH 40 1/2	7.11	120.00	240	0.500

total	feet =	240	gal/min =	21.33
		Des. Flow		360
		Pump Run=		16.88
		soil LTAR		0.25

100% Dose Volume	156.18
Percent Dose Volume	70%
Total	109.33

Pump Run Time	5.13
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SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

(Complete all fields in full)

OWNER: Joseph T. Gallagher

DATE EVALUATED: 02/21/26

ADDRESS: 3590 Pitts Road, Oxford, NC 27565

PROPOSED FACILITY: 3- BR Single Family Residence PROPOSED DESIGN FLOW (.0400): 360 GPD PROPERTY SIZE: +/- 10 ac.

LOCATION OF SITE: End of Mary Lee Drive, Oxford, NC 27565

PROPERTY RECORDED: _____

WATER SUPPLY: ☐ Public ☒ Single Family Well ☐ Shared Well ☐ Spring ☐ Other _____ WATER SUPPLY SETBACK: 50'

EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☒ Domestic ☐ High Strength ☐ IPWW

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	
1	Linear <5%	0-10	SL, GR	FR, SS, SP, SEXP	10YR 7/2 @ 28"	28+"	N/A	N/A	Suitable 0.25
		10-28	C, SBK	FI, S, P, SEXP					
		28+	C, SBK	FI, S, P, SEXP					
2	Linear <5%	0-13	SL, GR	FR, SS, SP, SEXP	10YR 7/2 @ 26"	26+"	N/A	N/A	Suitable 0.25
		13-26	C, SBK	FI, S, P, SEXP					
		26+	C, SBK	FI, S, P, SEXP					
4 & 5	Linear <5%	0-9	SL, GR	FR, SS, SP, SEXP	10YR 7/2 @ 27"	27+"	N/A	N/A	Suitable 0.25
		9-27	C, SBK	FI, S, P, SEXP					
		27+	C, SBK	FI, S, P, SEXP					
3	Linear <5%	0-14	SL, GR	FR, SS, SP, SEXP	10YR 7/2 @ 30"	30+"	N/A	N/A	Suitable 0.25
		14-30	C, SBK	FI, S, P, SEXP					
		30+	C, SBK	FI, S, P, SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	SITE CLASSIFICATION (.0509): <u>Suitable</u> EVALUATED BY: <u>Derrick A. Smith, LSS, REHS</u> OTHER(S) PRESENT: _____
Available Space (.0508)	YES	YES	
System Type(s)	Pump PPBPS (50% Reduction)	Pump PPBPS (50% Reduction)	
Site LTAR	0.25	0.25	
Maximum Trench Depth	14"	14"	

Comments: _____

