Harold Kelly
NC Licensed Soil Scientist, CPSS
7309 Blalock Road
Bahama, NC 27503
(336) 322-4724 (office)
(336-598-2382 (cell)

August 28, 2025

Steve Wright
119 Royall Road
Oxford, NC 27565
Steve.eod.wright@gmail.com

RE: LSS Evaluation (G.S. 130A (a2)/ 2077 Satterwhite Road/Parcel #: 099500396913/ Granville County, NC

Dear Mr. Wright:

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

At your request, a soil/site evaluation was performed on the property referenced above. The purpose of this evaluation was to identify a suitable soil area that meets the requirements for the permitting and installation of a septic system for a three-bedroom home. The soil evaluation was done in accordance with NC Rules for Sewage Treatment and Disposal Systems (15A NCAC 18E). A site plan and soil profile descriptions accompany this report.

A suitable soil area (~6,300 ft2) was identified with useable soil depths of at least 36". Soil boring locations were marked with orange tape. The perimeter of the proposed system area was marked with orange pin flags and pink/black tape. Based on soil profiles, an LTAR of 0.30 gpd/ft2 is proposed. An *accepted* pump system (IIIbg) will require approximately 300 linear feet of drain line. A pressure manifold and 4 lines of 75' are recommended. Based on the depth of the soil (>36") and a 5% slope, the maximum trench depth would be 22" (measured on the downhill side of the trench).

In summary, based on the observed soil characteristics, there appears to be an adequate area of suitable soil on the property to accommodate a system and repair for a three-bedroom home. The proposed septic system area appeared to be the only area on the parcel that met the minimum soil/site requirements for the permitting and installation of a septic system. This report is being provided to meet the requirements of *G.S. 130A-335 (a2),* and after their review and approval, will allow the Granville County Health Department to issue an Improvement Permit.

Thank you for the opportunity to provide you with this information. Please feel free to contact me (336-598-2382) if you, or Granville County Environmental Health, have any questions about this report.

Sincerely,

H. Kelly

Harold Kelly
NC Licensed Soil Scientist

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Harold Kelly
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7309 Blalock Road.
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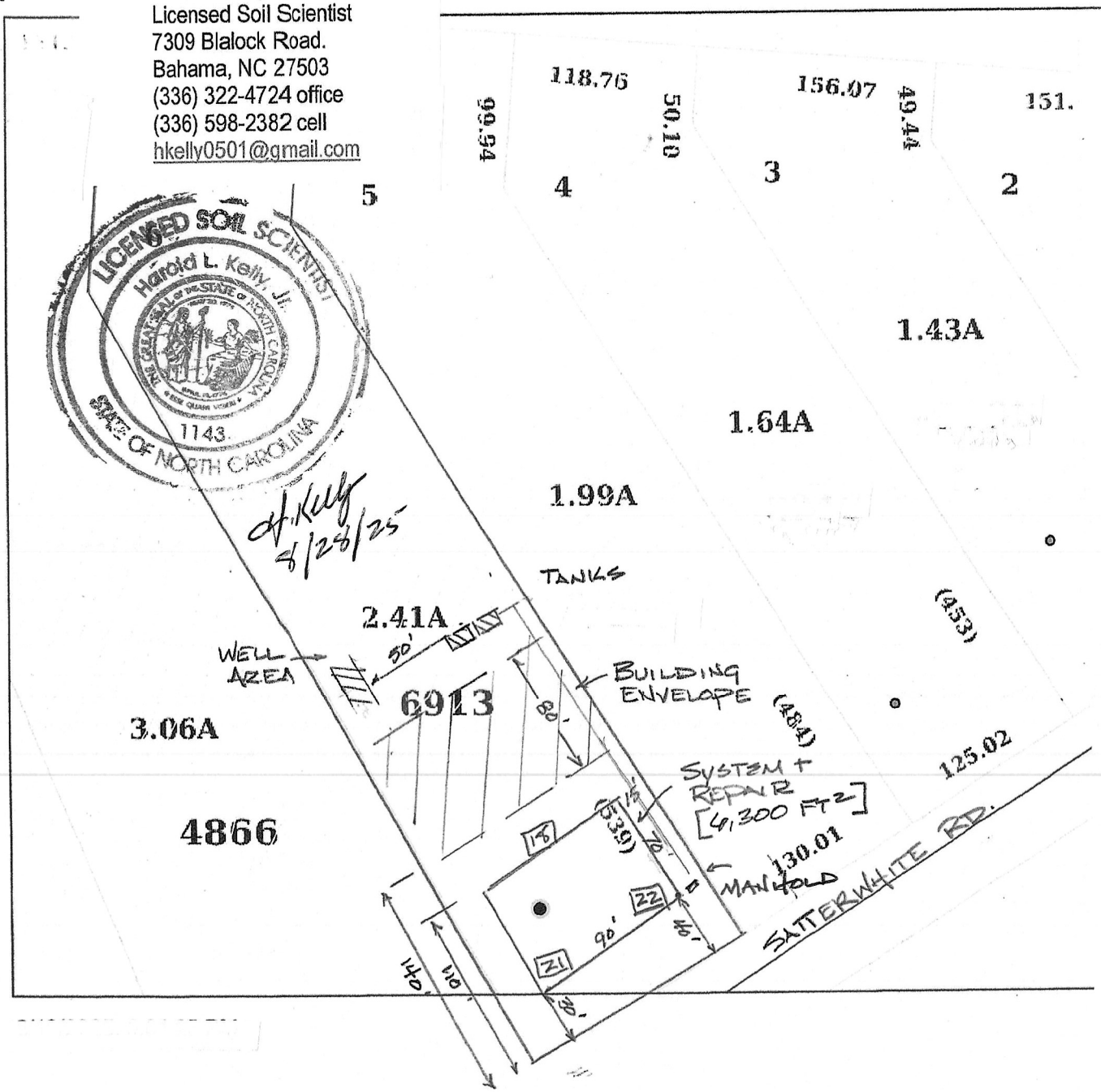
# Granville County, NC




**LSS Evaluation/Site Plan**
**G.S. 130A-335(a2) Submittal**

**For:**
Steve Wright
119 Royall Road
Oxford, NC 27565
Steve.eod.wright@gmail.com

**Site:**
2077 Satterwhite Road
Oxford, NC
Parcel: 099500396913 (2.41 acres)
Granville County, NC

**Notes:**
Soil borings numbered and marked with orange flagging.
Corners of proposed drain field marked with orange pin flags and pink/black flagging.
Locations and distances are approximate.
Proposed building envelope may be adjusted.
Well location may be adjusted.
*Proposed system location/size dictated by Topography and soil.*

**Suitable soil area:**
Soil depth to LC: 36" (initial and repair)
Maximum trench depth= 22" (5% slope)
System area ~6,300 ft2

**System:**
3 bedroom = 360 gpd
LTAR= 0.30 GPD/FT2
Accepted System (IIIbg) = 300 LN. FT
1000g septic and pump tank
Recommend 4 lines @ 75' w/pressure manifold

**Site Plan Scale: 1" = 100'**

# Soil Profile Descriptions

Date: 6/27/2025

Project Name: Steve Weight Address: 2077 Satterwhite Rd. Oxford, NC

County: Granville

Parcel ID: 099500396913

| Prof # Topo | Horizon | Depth | Texture | Structure | Cons | Min | Soil Depth | Class/ LTAR | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 18 | A | 0-10 | sl | gr | vfr | | | | |
| L | B | 10-32 | C | sbk | fr | NE | | | |
| <5% | BC | 32-36+ | scl | sbk | fr | NE | 36" | S/.3 | |
| 21 | A | | | | | | | | |
| L | A | 0-10 | sl | gr | vfr | | | | |
| <5% | B | 10-32 | C | sbk | fr | NE | | | |
| | BC | 32-36+ | scl | sbk | fr | NE | 36" | S/.3 | |
| 22 | A | 0-6 | sl | gr | vfr | | | | |
| L | B | 6-30 | C | sbk | fr | NE | | | |
| <5% | BC | 30-36+ | scl | sbk | fr | NE | 36" | S/.3 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | NOTE: Entire lot evaluated. Proposed system area was the only area of sufficient size to accommodate a system + Repair (360 gpd) | | | | | | | | |

LICENSED SOIL SCIENTIST
Harold L. Kelly, Jr.
1143
STATE OF NORTH CAROLINA

6/28/25

2077 SATTERWHITE RD.
#099500396913
LOT 6 - EVANS ESTATES

PROPOSED MANIFOLD DESIGN FOR III bg SYSTEM

Owner: WEIGHT
Date: 8/28/25

| Line # | Tap Diameter(in) | Tap (Sch) | Tap Flow (gpm) | Line Length (ft) | Flow / foot |
|---|---|---|---|---|---|
| 1 | 1/2" | 40 | 7.1 | 75 | .09 |
| 2 | 1/2" | 40 | 7.1 | 75 | |
| 3 | 1/2" | 40 | 7.1 | 75 | |
| 4 | 1/2" | 40 | 7.1 | 75 | |
| 5 | | | | | |
| 6 | | | | 300 LN. FT | |
| 7 | | | 28.4 | | |
| 8 | | | + 2 | ANTI-SIPHON | |
| 9 | | | | | |
| 10 | | | 30.4 GPM | | |

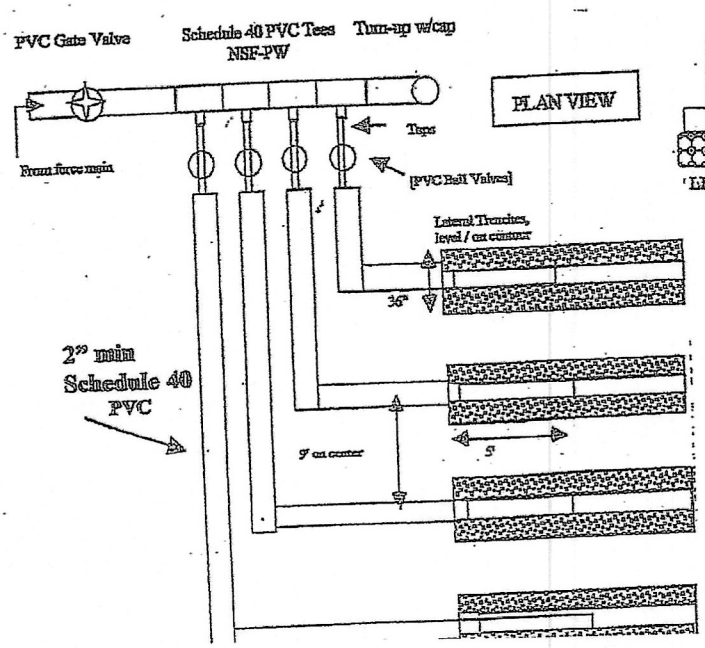
300 ft of line x 65 gal. per 100 ft = _____ ÷ 100 = 195 gal
75% x 195 gal = 146 gal per dose 30 gal per minute (gpm) = Flow Rate

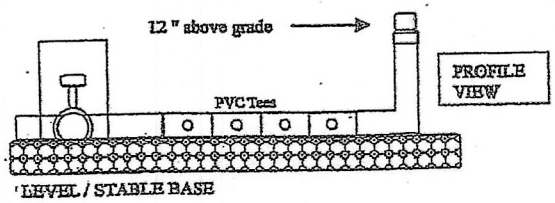
**Friction Head**
Loss: 1.34 ft per 100 ft of supply line x 200 ft of supply line ÷ 100 = 2.7 ft
2.7 ft x 1.2 = 3.2 ft of friction head

**Manifold Size:** 3 " **Force Main Size:** 2 " PVC
**Total Dynamic Head** = 15 ft of Elevation head + 2 ft of Pressure head + 3.2 ft of Friction Head = 20.2 TDH

**Pump Requirement:** 30 GPM @ 20.2 ft of Head
**Drawdown:** 146 gal per dose ÷ 21 gal per inch = 7" inch drawdown per dose

## General Design Information




Manifold Size / # Taps

| Manifold Size | Max No. Taps off one side (Reduce by ½ for tapping both sides) | | |
|---|---|---|---|
| | ½" taps | ¾" taps | 1" taps |
| 2" | 4 | 2 | |
| 3" | 9 | 5 | 3 |
| 4" | 16 | 9 | 5 |
| 6" | 40+ | 21 | 12 |

Flow per Tap

| Size | Material | Flow GPM |
|---|---|---|
| ½" | Sched 80 | 5.5 |
| ½" | Sched 40 | 7.1 |
| ¾" | Sched 80 | 10.1 |
| ¾" | Sched 40 | 12.5 |

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RE: LSS Evaluation (G.S. 130A (a2)/ 2077 Satterwhite Road/Parcel #: 099500396913/ Granville County, NC

***"The LSS/PG Evaluation (G.S. 130A (a2) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2 and a3).".***

_____ _____

Applicants Signature Date

This signed and dated form must be submitted to the local health department along with the required application and the LSS/LG evaluation.

Permit/File #: _____ 4/6

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: GRANVILLE
PIN/Lot Identifier: 0995003969 13
Issued To: Steve WRIGHT
Property Location: 2077 SATTERWHITE RD.
Subdivision (if applicable) EVANS ESTATES Lot #: 6 Block: _____ Section: _____
LSS Report Provided: Yes ☑ No ☐
If yes, name and license number of LSS: HAROLD KELLY #1143
New ☑ Expansion ☐ System Relocation ☐ Change of Use ☐
Facility Type: HOUSE
Number of bedrooms: 3 Number of Occupants: 6 Other: _____
Design Wastewater Strength: ☑ Domestic ☐ High Strength ☐ Industrial Process Wastewater
Proposed Design Daily Flow: 360 GPD Proposed LTAR (Initial): .3 Proposed LTAR (Repair): .3
Proposed Wastewater System Type*: III bg (Initial) Pump Required: ☑ Yes ☐ No ☐ May be required
Proposed Wastewater System Type*: III bg (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)ˣ: 36" Usable Depth to LC (Repair)ˣ: 36" ˣ *Limiting Condition*
Max. Trench Depth (Initial)ǂ: 22" Max. Trench Depth (Repair)ǂ: 22" ǂ *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:
FRONT CORNERS AND SIDE property LINES MUST BE CLEARLY MARKED

Licensed Soil Scientist Print Name: HAROLD KELLY
Licensed Soil Scientist Signature: H. Kelly Date: 8/26/25

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

*See attached site sketch*

Permit #: _____

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## Re-submittal of Improvement Permit

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

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

_____

_____

_____

_____

I, _____ *Licensed Soil Scientist (Print Name)* hereby attest that the information required to be included with this re-submittal 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:

_____

_____

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

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

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## *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*