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: Harnett
PIN/Lot Identifier: 9691-79-0896.000
Issued To: HHHunt Homes Raleigh-Durham LLC
Property Location: 942 Hollies Pines Road, Broadway, NC
Subdivision (if applicable) Pinedarosa 1 Lot #: 2 Block: _____ Section: _____
LSS Report Provided: Yes ■ No ☐
If yes, name and license number of LSS: Scott Mitchell - 1237

New ■ Expansion ☐ System Relocation ☐ Change of Use ☐
Facility Type: Single-Family Dwelling Unit
Number of bedrooms: 4 Number of Occupants: 6 or less Other: _____
Design Wastewater Strength: ■ Domestic ☐ High Strength ☐ Industrial Process Wastewater
Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.30 Proposed LTAR (Repair): 0.30
Proposed Wastewater System Type*: IIIf (Initial) Pump Required: ☐ Yes ■ No ☐ May be required
Proposed Wastewater System Type*: IIIe (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: >52" Usable Depth to LC (Repair)ˣ: >52" ˣ***Limiting Condition***
Max. Trench Depth (Initial)‡: 30 inches Max. Trench Depth (Repair)‡: 34 inches ‡***Measured on the downhill side of the trench***
Artificial Drainage Required: ☐ Yes ■ No If yes, please specify details: _____
Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ■ Municipal Supply ☐ Spring ☐ Other: _____
Drainfield location meets requirements of Rule .0508: Yes ■ No ☐ Drainfield location meets requirements of Rule .0601: Yes ■ No ☐
Permit valid for: ■ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

LICENSED SOIL SCIENTIST SCOTT MITCHELL 1237 STATE OF NORTH CAROLINA

Licensed Soil Scientist Print Name: Scott Mitchell
Licensed Soil Scientist Signature: _____ Date: March 14, 2024

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

See attached Site Sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

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

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

Re-submittal of Improvement Permit

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

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

_____

_____

_____

_____

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

_____ _____
Signature of Licensed Soil Scientist *Date*

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

LHD Follow-up Completeness Review of Improvement Permit

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

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

The following items are missing:

_____

_____

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

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

Mitchell Environmental, P.A.

I hereby authorize representatives of Mitchell Environmental, P.A., to provide subsurface wastewater evaluations and septic system designs on my behalf, for the issuance of an IP and CA, for the property identified below.

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)."

The LSS evaluation attached to this application was used to produce and design a subsurface wastewater septic system for permitting to obtain an IP and CA in accordance with G.S. 130A-335(a2), (a3), (a5), and (a6).

Subject Property (*Address, PIN, etc.*): 942 Hollies Pine Road

Property Owner Name (*Print*): HH Hunt Homes

Owner Representative (*Print*): Rene Goodspeed

Owner Representative (*Sign*): Rene Goodspeed

Date: 3/15/2024

1501 Lakestone Village Lane, Suite 205
Fuquay-Varina, North Carolina 27526
919-669-0329

Mitchell Environmental, P.A.

March 14, 2024

Mr. William Sutphin
HHHunt Homes Raleigh-Durham, LLC
1 Fenton Main Street, Suite 280
Cary, North Carolina 27511

Re: On-Site Sewage Disposal Site and Soils Evaluation Report for:
Pinedarosa 1 Subdivision – Lot 2
942 Hollies Pines Road, Broadway, Harnett County

Mr. William Sutphin:

At your request, we have completed a site evaluation for use of on-site sewage disposal systems at Lot 2 of Pinedarosa 1 Subdivision located at 942 Hollies Pines Road in Broadway, Harnett County. The site evaluation was completed using pits on October 21, 2022, under moist soil conditions, based on the criteria found in the State Subsurface Rules, 15A NCAC 18A .1900, "Sewage Treatment and Disposal Systems". This report was prepared pursuant to and meets the requirements of G.S. 130A-335(a2).

Site Evaluation for Use of On-Site Sewage Disposal Systems:

The evaluation included all usable areas of the property as limited by state and local laws, rules, and regulations. The purpose of the evaluation was to determine the suitability of the site for on-site waste disposal systems per applicable laws, rules, and regulations. **"The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2)."**

A soil/site evaluation for use of on-site waste disposal systems on any site in North Carolina must include an evaluation of each of the following criteria: 1) topography and landscape position, 2) soil morphology, 3) soil wetness, 4) soil depth, 5) restrictive horizons and 6) available space. Upon field evaluation of the site, the majority of the lot was confirmed to contain sufficient provisionally suitable depth for on-site waste disposal systems.

Sites classified as provisionally suitable may be utilized for ground absorption sewage treatment and disposal systems consistent with the rules listed above but have moderate limitations. Sites classified provisionally suitable require some modifications and careful planning, design, and installation in order for a ground absorption sewage treatment and disposal system to function satisfactorily. Typically, a minimum of 36 inches of provisionally suitable soil is required for a site to receive a classification of provisionally suitable; however, shallower soil depths can be classified as provisionally suitable where all other evaluation criteria are acceptable and alternative septic system designs (*shallow placement, fill systems, low-pressure pipe systems (LPP), large diameter pipe (LDP), sub-surface drip, etc.*) are proposed.

Most septic systems in North Carolina that include a sub-surface waste disposal element require nitrification trenches to distribute effluent for final treatment. Any nitrification trench that has an associated width (*conventional, LPP, LDP, etc.*) must be designed to accommodate slope corrections (*typically 1 to 4 inches*). Slope corrections are based on trench width and cross slope to ensure the minimum separation distance between the trench bottom and an unsuitable soil condition is maintained over the entire trench width. Sloping sites are required to have greater

provisionally suitable soil depth to accommodate slope correction as opposed to flat sites that require no slope correction. Please note that all proposed lots that utilize sub-surface nitrification fields must have sufficient area for the initial septic system as well as a full repair system. However, the initial and repair systems are not required to be the same type of system, nor are they required to be contiguous. For example, a lot may have a conventional, gravity system installed as the initial septic system and specify an LPP or subsurface drip system for its repair, several hundred feet away from the house or other structure being served.

The number of bedrooms or wastewater design flowrate that any lot will accommodate is entirely dependent upon the usable area of the lot and the long-term acceptance rate (*LTAR*; *LTAR is the effluent application rate for a septic system. For conventional systems, the LTAR indicates the number of gallons that can be applied to each square foot of the trench bottom per day. For an LPP or subsurface drip system, the LTAR indicates the number of gallons that can be applied to each square foot of the nitrification field per day. An LTAR of 0.2 gallons per day per ft² (gpd/ft²) will require a nitrification field that is twice as large as a field that has an LTAR of 0.4 gpd/ft².*). Assigned LTARs will affect the number of bedrooms or wastewater design flowrate lots will accommodate as illustrated above. LTARs can vary from one location to another on a property. Our observations indicate that the majority of the lot contains sufficient provisionally suitable soil depth to accommodate subsurface wastewater systems with an LTAR of 0.30 gpd/ft². Observed provisionally suitable soil depths on this site are greater than 52 inches, with LTAR controlling soil textures ranging from clay loam to clay.

Topography on this lot can be generally characterized as a gentle to moderate convex side slope that generally sheds to the northeast. Based on observed site and soil characteristics, in combination with the proposed plot plan, it is my professional opinion that adequate available space exists on this lot for properly designed septic system drainfields (*initial and repair*) sufficient for one, four-bedroom home.

This site evaluation is based upon the conditions of the site at the time of the evaluation. Any alteration of the site, including compaction, clearing, grading, timbering, etc., could negatively affect the suitability for on-site septic systems. Great care should be exercised during site preparation to protect areas that are to be utilized for septic system nitrification fields. No vehicular or construction traffic should be allowed on these areas. Additionally, no sedimentation and erosion control devices or stormwater collection, treatment, diversion, or dispersal devices should be allowed on or near these areas.

Thank you for the opportunity to provide you with this wastewater system soil suitability evaluation. Do not hesitate to call me if you have any questions or concerns about this evaluation or if you need any additional information.

Sincerely,

Scott Mitchell, PE, LSS
President

PROPERTY ID #: 9691-79-0896.000
COUNTY: Harnett

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

OWNER: HHHunt Homes Raleigh-Durham LLC DATE EVALUATED: 10/21/2022
ADDRESS: 1 Fenton Main Street, Suite 280, Cary, NC 27511
PROPOSED FACILITY: Single-Family Dwelling PROPOSED DESIGN FLOW (.0400): 480 PROPERTY SIZE: 0.57 acres
LOCATION OF SITE: 942 Hollies Pines Road, Broadway PROPERTY RECORDED: 3/31/2020
WATER SUPPLY: ☒ Public ☐ Single Family Well ☐ Shared Well ☐ Spring ☐ Other _____ WATER SUPPLY SETBACK: _____
EVALUATION METHOD: ☐ Auger Boring ☒ Pit ☐ Cut TYPE OF WASTEWATER: ☒ Domestic ☐ High Strength ☐ IPWW

PROFILE #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY .0503 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY .0503 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .0504 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .0505 SOIL DEPTH	OTHER PROFILE FACTORS .0506 SAPRO CLASS	OTHER PROFILE FACTORS .0507 RESTR HORIZ	.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRECTION
1	CV, 8%	A, 0-6	SL, G	VFR, NS, NP, NEXP		52			S, 0.30	1.5"
		Bt, 6-52	SCL, SBK	FR, SS, SP, SEXP						
2										
3										
4										

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.0508)	Yes	Yes
System Type(s)	IIIf	IIIe
Site LTAR	0.30	0.30
Maximum Trench Depth	30" on Low Side	34" on Low Side

SITE CLASSIFICATION (.0509): Suitable
EVALUATED BY: Scott Mitchell / Adam Aycock
OTHER(S) PRESENT: _____

Comments: _____

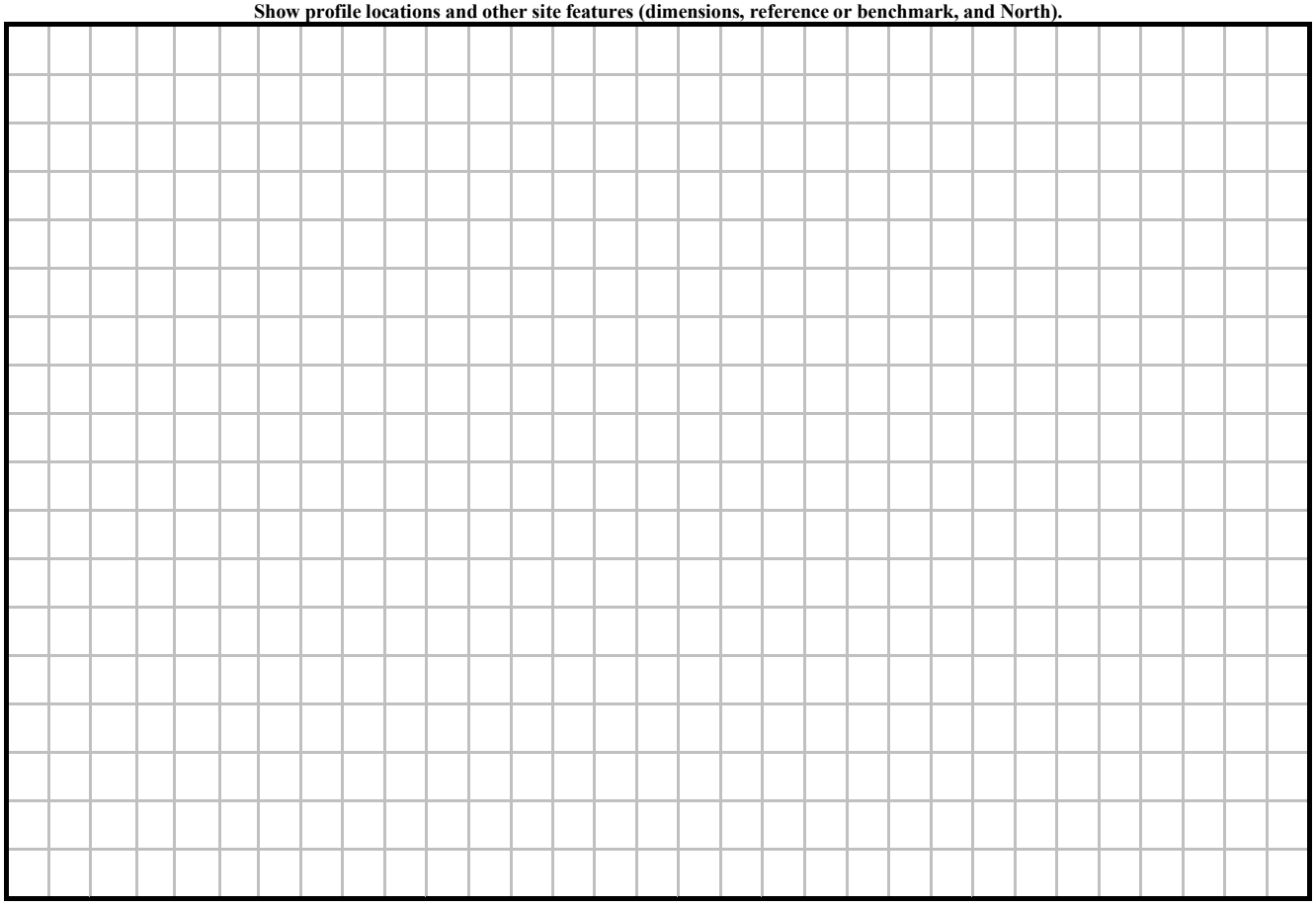
LEGEND

LANDSCAPE POSITION	SOIL GROUP	SOIL TEXTURE	CONVENTIONAL LTAR (gpd/ft²)	SAPROLITE LTAR (gpd/ft²)	LPP LTAR (gpd/ft²)	MINERALOGY/ CONSISTENCE		STRUCTURE
CC (Concave slope)	I	S (Sand)	0.8 - 1.2	0.6 - 0.8	0.4 -0.6	MOIST	WET	SG (Single grain)
CV (Convex Slope)		LS (Loamy sand)		0.5 -0.7		Lo (Loose)	NS (Non-sticky)	M (Massive)
D (Drainage way)	II	SL (Sandy loam)	0.6 - 0.8	0.4 -0.6	0.3 - 0.4	VFR (Very friable)	SS (Slightly sticky)	GR (Granular)
FP (Flood plain)		L (Loam)		0.2 - 0.4		FR (Friable)	S (Sticky)	SBK (Subangular blocky)
FS (Foot slope)	III	SiL (Silt loam)	0.3 - 0.6	0.1 - 0.3	0.15 - 0.3	FI (Firm)	VS (Very sticky)	ABK (Angular blocky)
H (Head slope)		SCL (Sandy clay loam)		0.05 - 0.15**		VFI (Very firm)	NP (Non-plastic)	PR (Prismatic)
L (Linear Slope)		CL (Clay loam)		None		EFI (Extremely firm)	SP (Slightly plastic)	PL (Platy)
N (Nose slope)		SiCL (Silty clay loam)					P (Plastic)	
R (Ridge/summit)		Si (Silt)					VP (Very plastic)	
S (Shoulder slope)	IV	SC (Sandy clay)	0.1 - 0.4		0.05 - 0.2	SEXP (Slightly expansive)		
T (Terrace)		SiC (Silty clay)				EXP (Expansive)		
TS (Toe Slope)		C (Clay)						
		O (Organic)	None					

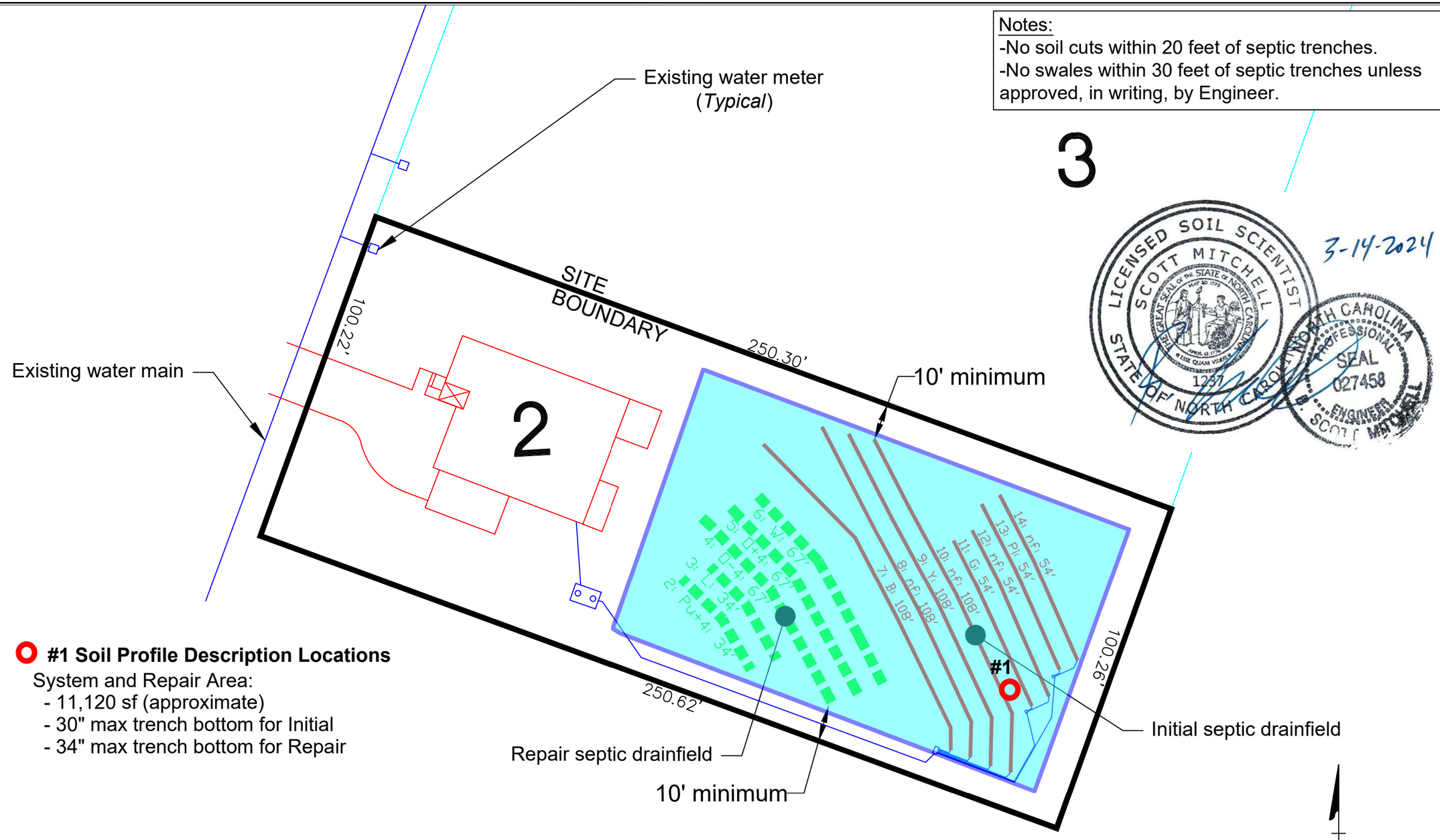
* Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.
**Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200.

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); Evaluation of saprolite shall be by pits.
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)

Show profile locations and other site features (dimensions, reference or benchmark, and North).



Notes:
-No soil cuts within 20 feet of septic trenches.
-No swales within 30 feet of septic trenches unless approved, in writing, by Engineer.



#1 Soil Profile Description Locations

System and Repair Area:
- 11,120 sf (approximate)
- 30" max trench bottom for Initial
- 34" max trench bottom for Repair

4-Bedroom
LTAR: 0.3 gpd/ft^2
Initial: Gravity-to-10" large diameter pipe utilizing lines 7-14 (648')
Repair: Gravity-to-Horizontal Panel Block utilizing lines 2-6 (269')

NAD 83

GRAPHIC SCALE
0 30 60
1 inch = 30 ft.

LICENSED SOIL SCIENTIST
SCOTT MITCHELL
STATE OF NORTH CAROLINA
1231

NORTH CAROLINA PROFESSIONAL SEAL 027458 ENGINEER SCOTT MITCHELL

3-14-2024

SHEET NUMBER	1 of 5	Hollies Pines Lot 2 Overall Septic

REVISION NO.	DATE
Original Submittal	May 12, 2023
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : HHHunt Homes of Raleigh
1401 Sunday Drive, Suite 109
Raleigh, NC 27607

DATE : May 12, 2023

DESIGNER CONTACT: ADAM AYCOCK, EI

DRAWN BY: ADAM AYCOCK, EI

MITCHELL ENVIRONMENTAL, PA
C-2911
1501 LAKESTONE VILLAGE LANE
SUITE 205
FUQUAY VARINA, NC 27526