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: 0640-11-7864.000

Issued To: Great Southern Homes Inc.

Property Location: 143 Grand Griffon Way, Lillington, NC 27546

Subdivision (if applicable) Griffon Pointe Lot #: 7 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: 8 or less Other: _____

Design Wastewater Strength: ☒ Domestic ☐ High Strength ☐ Industrial Process Wastewater

Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.45 Proposed LTAR (Repair): 0.45

Proposed Wastewater System Type*: IIb (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]: >42" Usable Depth to LC (Repair)[x]: >45" ***[x] Limiting Condition***

Max. Trench Depth (Initial)[‡]: 28 inches Max. Trench Depth (Repair)[‡]: 30 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 NORTH CAROLINA

Licensed Soil Scientist Print Name: Scott Mitchell

Licensed Soil Scientist Signature: _____ Date: June 6, 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.*): Griffon Pointe lot 7 - 143 Grand Griffon Way

Property Owner Name (*Print*): Great Southern Homes

Owner Representative (*Print*): Blake Whitaker

Owner Representative (*Sign*): Blake Whitaker

Date: 6/3/24

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

Mitchell Environmental, P.A.

June 6, 2024

Mr. Blake Whitaker
Great Southern Homes Inc.
917 Chapin Road
Chapin, South Carolina 29036

Re: On-Site Sewage Disposal Site and Soils Evaluation Report for:
Griffon Pointe Subdivision – Lot 7
143 Grand Griffon Way, Lillington, Harnett County

Mr. Whitaker:

At your request, we have completed a site evaluation for use of on-site sewage disposal systems at Lot 7 of Griffon Pointe Subdivision located at 143 Grand Griffon Way in Lillington, Harnett County. The site evaluation was completed using pits on February 21, 2024, under moist soil conditions, based on the criteria found in the Subchapter 18E – Wastewater Treatment and Dispersal Systems Rules, 15A NCAC 18E. 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 suitable depth for on-site waste disposal systems.

Sites classified as suitable may be utilized for ground absorption sewage treatment and disposal systems consistent with the rules listed above, but may have limitations that 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 suitable soil is required for a site to receive a classification of suitable; however, shallower soil depths can be classified as 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 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 suitable soil depth to accommodate subsurface wastewater systems with an LTAR of 0.45 to 0.50 gpd/ft². Observed suitable soil depths on this site range from 39 inches to greater than 49 inches, with an LTAR controlling soil texture of sandy clay loam.

Topography on this lot can be generally characterized as a gentle to moderate convex side slope that generally sheds to the southeast. 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 #: 0640-11-7864.000
COUNTY: Harnett

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

OWNER: Great Southern Homes Inc. DATE EVALUATED: 02/21/2024
ADDRESS: 917 Chapin Road, Chapin, SC 29036
PROPOSED FACILITY: Single-Family Dwelling PROPOSED DESIGN FLOW (.0400): 480 PROPERTY SIZE: 0.687 acres
LOCATION OF SITE: 143 Grand Griffon Way, Lillington PROPERTY RECORDED: 07/13/2022
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	LL, 10%	A, 0-6	SL, G	VFR, NS, NP, NEXP	39" (observed)	42+			S, 0.50	
		Bt, 6-42+	SCL, SBK	FR, SS, SP, SEXP						
2	LL, 10%	A, 0-6	SL, G	VFR, NS, NP, NEXP		42+			S, 0.45	
		Bt, 6-42+	SCL, SBK	FR, SS, SP, SEXP						
3	VV, 3%	A, 0-6	SL, G	VFR, NS, NP, NEXP		45+			S, 0.50	
		Bt, 6-45+	SCL, SBK	FR, SS, SP, SEXP						
4	VV, 1%	A, 0-6	SL, G	VFR, NS, NP, NEXP		43+			S, 0.50	
		Bt, 6-43+	SCL, SBK	FR, SS, SP, SEXP						

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.0508)	Yes	Yes
System Type(s)	IIb	IIIe
Site LTAR	0.45	0.45
Maximum Trench Depth	28" on Low Side	30" on Low Side

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

Comments: _____

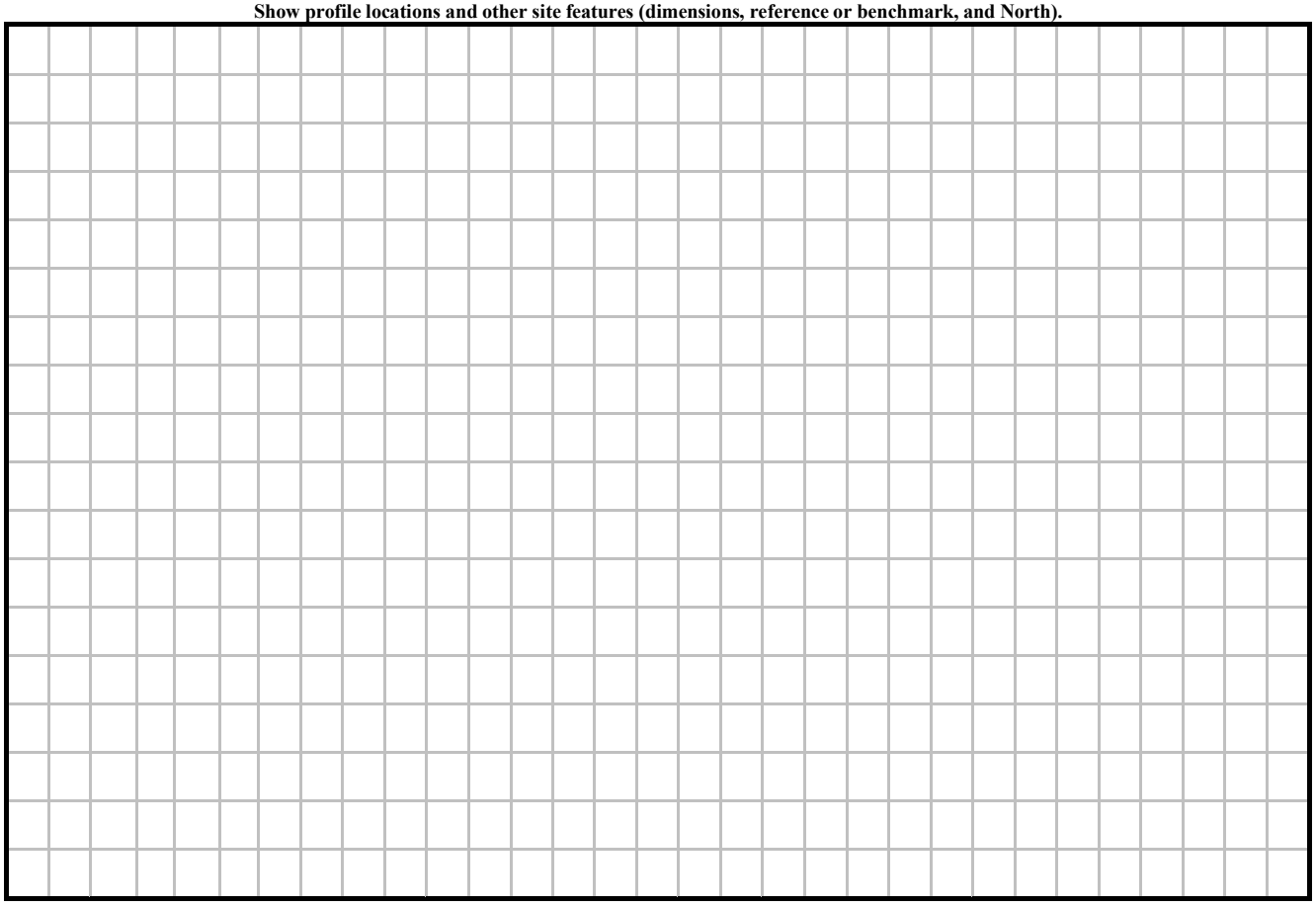
LEGEND

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).



SOIL/SITE EVALUATION

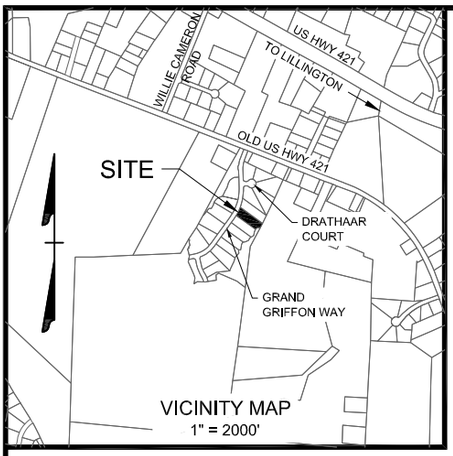
(Continuation Sheet-Complete all field in full)

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

PROPERTY ID #: ____________
DATE OF EVALUATION: ____________
COUNTY: ____________

PROFILE #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS				.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRECTION
			.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ		
5	VL, 6%	A, 0-6	SL, G	VFR, NS, NP, NEXP						
		Bt, 6-49+	SCL, SBK	FR, SS, SP, SEXP		49+			S, 0.60	

COMMENTS: ____________



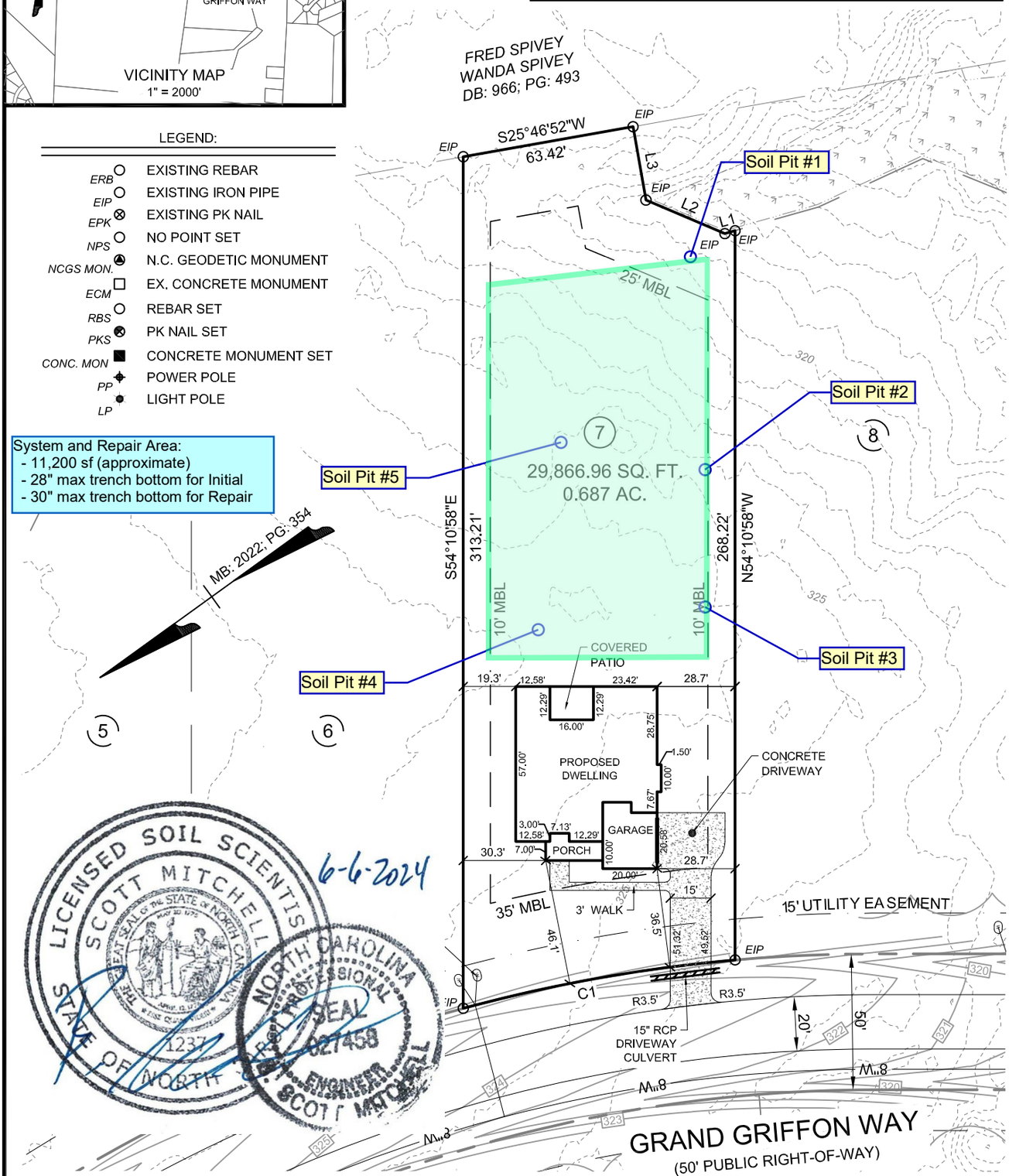
NOTES:

1. THIS PROPERTY IS NOT LOCATED WITHIN A FEMA SPECIAL FLOOD HAZARD AREA AS SHOWN ON DFIRM MAP 3720064000J AND 3720054800J, DATED OCTOBER 3, 2006.
2. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES.
3. NO TITLE SEARCH WAS PERFORMED FOR THIS PLOT PLAN.
4. AREAS CALCULATED BY COORDINATE GEOMETRY.

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	CHORD BEARING	CHORD
C1	575.00	101.70	10°08'03"	N25°43'39"E	101.57

LEGEND:

ERB	EXISTING REBAR
EIP	EXISTING IRON PIPE
EPK	EXISTING PK NAIL
NPS	NO POINT SET
NCGS MON.	N.C. GEODETIC MONUMENT
ECM	EX. CONCRETE MONUMENT
RBS	REBAR SET
PKS	PK NAIL SET
CONC. MON	CONCRETE MONUMENT SET
PP	POWER POLE
LP	LIGHT POLE



System and Repair Area:
- 11,200 sf (approximate)
- 28" max trench bottom for Initial
- 30" max trench bottom for Repair

SETBACKS:

FRONT YARD:	35 FT.
SIDE YARD:	10 FT.
CNR. SIDE YARD:	20 FT.
REAR YARD:	25 FT.

REFERENCES:

DB: 4204; PG: 1014
MB: 2022; PG: 354

IMPERVIOUS AREA:

HOUSE/PORCH:	3129.29 SQ. FT.
COVERED PATIO:	196.64 SQ. FT.
DRIVEWAY/WALK:	1450.71 SQ .FT.
TOTAL:	4776.64 SQ. FT.

SCALE 1"=50'

0 50' 100'

CAROLINA
Land Development Group
1304 N. Respess Street
Washington, NC 27889
Phone: (919) 608-9390
Email: spencer@CLDGCORP.com
C-2743

SEAL:

PROJECT:

PLOT PLAN FOR:
LOT 7 GRIFFON POINTE SUBDIVISION PHASE I
(MADELINE IIC - FLOOR PLAN)

LOCATION:
143 GRAND GRIFFON WAY, LILLINGTON, N.C. 27546
UPPER LITTLE RIVER TOWNSHIP, HARNETT COUNTY

DRAWN BY: RG	PIN NO: 0640-11-7864	DATE: 12-28-2023
CHECKED BY: SBT	PROJECT NO: 2022010	SCALE: 1" = 50'