Permit #: _____

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

Submittal Includes: ☑ **(a2) Improvement Permit** ☑ **(a2) Construction Authorization** ☐ **Fee $**_____

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

County: Harnett

PIN/Lot Identifier: 0661-72-4104

Issued To: New Home, Inc

Property Location: 1701 Neill's Creek Road

Subdivision (if applicable)_____ Lot #: _____ Block: _____ Section: _____

LSS Report Provided: Yes ☑ No ☐

If yes, name and license number of LSS: Alex Adams - LSS#1247

New ☑ Expansion ☐ System Relocation ☐ Change of Use ☐

Proposed Structure: SFH

Number of bedrooms: 4 Number of Occupants: 8 Other: _____

Design Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

Proposed Design Daily Flow: 360 GPD Proposed LTAR (Initial): 0.35 Proposed LTAR (Repair): 0.35

Proposed Wastewater System Type*: Type III (b) (Initial) Pump Required: ☑ Yes ☐ No ☐ May be required

Proposed Wastewater System Type*: Type III (b) (Repair) Pump Required: ☑ Yes ☐ No ☐ May be required

**Please include system classification for proposed wastewater system types in accordance with 15A NCAC 18A .1961 Table V(a)*

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 Soil Depth (Initial): 35 Usable Soil Depth (Repair): 35

Max. Trench Depth (Initial)‡: 22 Max. Trench Depth (Repair)‡: 22 ***‡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 .1945: Yes ☑ No ☐ Drainfield location meets requirements of Rule .1950: 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 Print Name: Alex Adams

Licensed Soil Scientist Signature: Alex Adams Date: 11-8-23

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

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

Permit #: _____

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 by the Health Department 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 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 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

Permit #: _____

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: _____

NCDHHS

Permit #: _____

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)

County: Harnett

PIN/Lot Identifier: 0661-72-4104

Issued To: New Home, Inc.

Property Location: 1701 Neill's Creek Road - Lillington, NC 27546

AOWE/PE Plans/Evaluations Provided: Yes ☑ No ☐ If yes, name and license number of AOWE/PE: Alex Adams - AOWE#10021E

Facility Type: SFH

☑ New ☐ Expansion ☐ Repair ☐ System Relocation ☐ Change of Use

Basement? ☐ Yes ☑ No Basement Fixtures? ☐ Yes ☐ No

Type of Wastewater System* Type III (b) (Initial) Type III (b) (Repair)

**Please include system classification for proposed wastewater system types in accordance with 15A NCAC 18A .1961 Table V(a)*

Design Daily Flow: 360 GPD Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☑ Yes ☐ No
(if yes, please provide engineering documentation)

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 280 feet Trench/Bed Spacing: 9 feet on center

Trench/Bed Width: 36 inches LTAR: 0.35 gpd/ft²

Soil Cover: 6 inches Slope Corrected Maximum Trench/Bed Depth‡: 22 inches ***‡ Measured on the downhill side of the trench***

Aggregate Depth: 6 inches above pipe 6 inches below pipe 12 inches total

Pump Tank Size (if applicable): 1000 gallons Requires more than 1 pump? ☐ Yes ☑ No

Pump Requirements: 11.22 ft. TDH vs. 28.44 GPM Grease Trap Size (if applicable): n/a 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 [.1937(h)]: ☐ Yes ☑ No

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: ☐ Yes ☑ No

Declaration of Restrictive Covenants: ☐ Yes ☑ No

Pre-Construction Conference Required: Yes ☐ No ☑

Conditions: _____

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

AOWE/PE Print Name: Alex Adams Expiration Date: 12-31-23

AOWE/PE Signature: Alex Adams Date: 11-10-23

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch

Permit #: _____

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

Permit #: _____

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:

_____

_____

_____

_____

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:

_____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

Adams Soil Consulting, PLLC
1676 Mitchell Road
Angier, NC 27501
919-414-6761
alexadams@bcsoil.com

November 8, 2023 - Revised: 12-19-23
Project #1803

"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)."

"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)"

"This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5)."

RE: 1701 Neill's Creek Road – Lillington, NC (Harnett County) for New Home Inc., LLC (PIN# 0661-72-4104)

To whom it may concern:

Adams Soil Consulting (ASC) conducted a preliminary soil evaluation on the above referenced parcel to determine the areas of soils which are suitable for subsurface wastewater disposal systems (conventional & LPP). The soil/site evaluation was performed using hand auger borings during moist soil conditions based on the criteria found in the State Subsurface Rules, 15ANCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems". From this evaluation, ASC is providing the attached 360/day septic design. This permit will utilized a separately submitted "Engineered Flow Reduction".

The suitable soils found on the subject property were relatively consistent in the initial and repair areas. The area designated for the initial/primary septic system (see attached septic plan) was found to contain soils with greater than 24 inches in depth before a restrictive horizon was encountered.

Please find the attached wastewater soil/site evaluation forms for specific soil properties found in the initial and repair areas as well as assigned soil long term acceptance rate (LTAR). Numerous soil borings were made throughout the property and representative soil profile descriptions for the primary septic field and repair area are provided. A location sketch for profile descriptions is also attached. The initial and primary septic fields were sized based on a flow rate of 360 gallons/day and utilizing Accepted Status. Any unauthorized site disturbance, filling, soil removal, or layout changes may result in the permit being revoked.

The septic installer contractor shall install the primary and repair (if needed) system on contour, see attached site plan for the primary system and repair locations. No underground utilities, water lines, or sprinkler systems shall be placed into the initial or repair septic areas. Installation must meet all state and local county regulations for septic system installation. The trenches must be installed in the same location as the site plan. If the installation is in question at the time of installation call me (Alex Adams) at 919-414-6761.

This report discusses the location of provisionally suitable soils identified on the property and does not guarantee the future function of any waste water disposal system installed.

If you have any questions regarding the findings on the attached map or in this report, please feel free to contact me anytime.

Sincerely,

Alex Adams
NC Licensed Soil Scientist #1247
AOWE Certification: 10021E

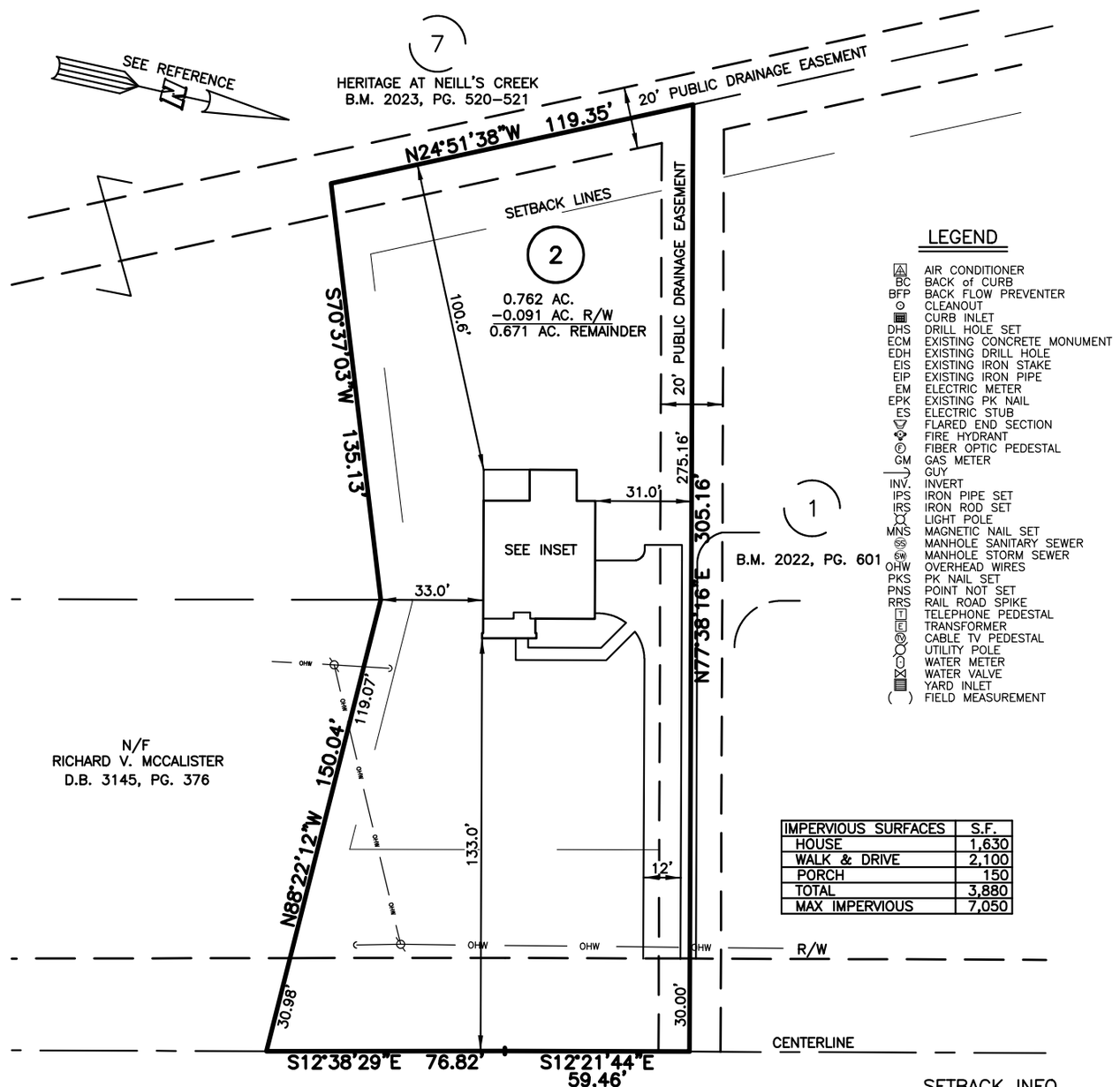
PLOT PLAN FOR

NEW HOME, INC.

1701 NEILL'S CREEK ROAD

LOT 2B, HERITAGE AT NEILL'S CREEK SUBDIVISION (NOTE 3)

NEILL'S CREEK TOWNSHIP, HARNETT COUNTY, NORTH CAROLINA



NEILL'S CREEK ROAD (S.R. 1513)

60' PUBLIC R/W

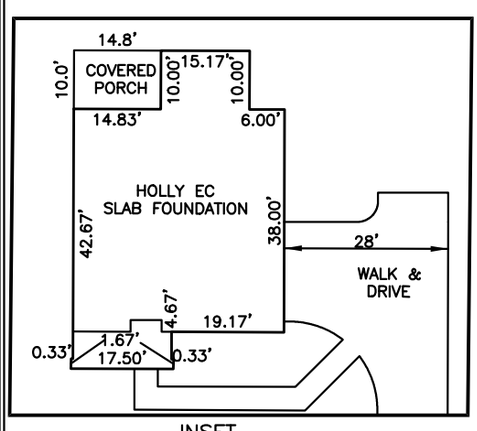
LEGEND

AC	AIR CONDITIONER
BC	BACK of CURB
BFP	BACK FLOW PREVENTER
CO	CLEANOUT
CI	CURB INLET
DHS	DRILL HOLE SET
ECM	EXISTING CONCRETE MONUMENT
EDH	EXISTING DRILL HOLE
EIS	EXISTING IRON STAKE
EIP	EXISTING IRON PIPE
EM	ELECTRIC METER
EPK	EXISTING PK NAIL
ES	ELECTRIC STUB
FES	FLARED END SECTION
FH	FIRE HYDRANT
FO	FIBER OPTIC PEDESTAL
GM	GAS METER
GUY	GUY
INV.	INVERT
IPS	IRON PIPE SET
IRS	IRON ROD SET
LP	LIGHT POLE
MNS	MAGNETIC NAIL SET
SS	MANHOLE SANITARY SEWER
SW	MANHOLE STORM SEWER
OHW	OVERHEAD WIRES
PKS	PK NAIL SET
PNS	POINT NOT SET
RRS	RAIL ROAD SPIKE
T	TELEPHONE PEDESTAL
E	TRANSFORMER
TV	CABLE TV PEDESTAL
UP	UTILITY POLE
WM	WATER METER
WV	WATER VALVE
YI	YARD INLET
( )	FIELD MEASUREMENT

IMPERVIOUS SURFACES	S.F.
HOUSE	1,630
WALK & DRIVE	2,100
PORCH	150
TOTAL	3,880
MAX IMPERVIOUS	7,050

SETBACK INFO

FRONT: 35'
REAR: 25'
SIDES: 10'
CORNER SIDE: 20'



INSET

SCALE: 1" = 30'

REFERENCES:

B.M. 2022, PG. 601

50 0 50

SCALE: 1" = 50'

NOTES

1. THIS SURVEY SUBJECT TO ANY FACTS THAT MAY BE DISCLOSED BY A FULL AND ACCURATE TITLE SEARCH.
2. THIS MAP MAY NOT BE A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS AND HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH RECORDING REQUIREMENTS FOR PLATS.
3. RECORDED AS LOT 1 OF "LOT RECOMBINATION FOR HLM, LEGACY PARTNERSHIP, LLC." B.M. 2022, PG. 601.

PLOT PLAN

PRELIMINARY PLAT– NOT FOR RECORDATION, CONVEYANCE OR SALES

REV CODE: 1.FLIP, 2.PLAN, 3.ROTATE, 4.MOVE, 5.SS 6.SEVERAL OF ABOVE, 7.LAND FEATURE, 8. OTHER

DATE: DEC. 04, 2023(1)
DATE: NOV. 2, 2023

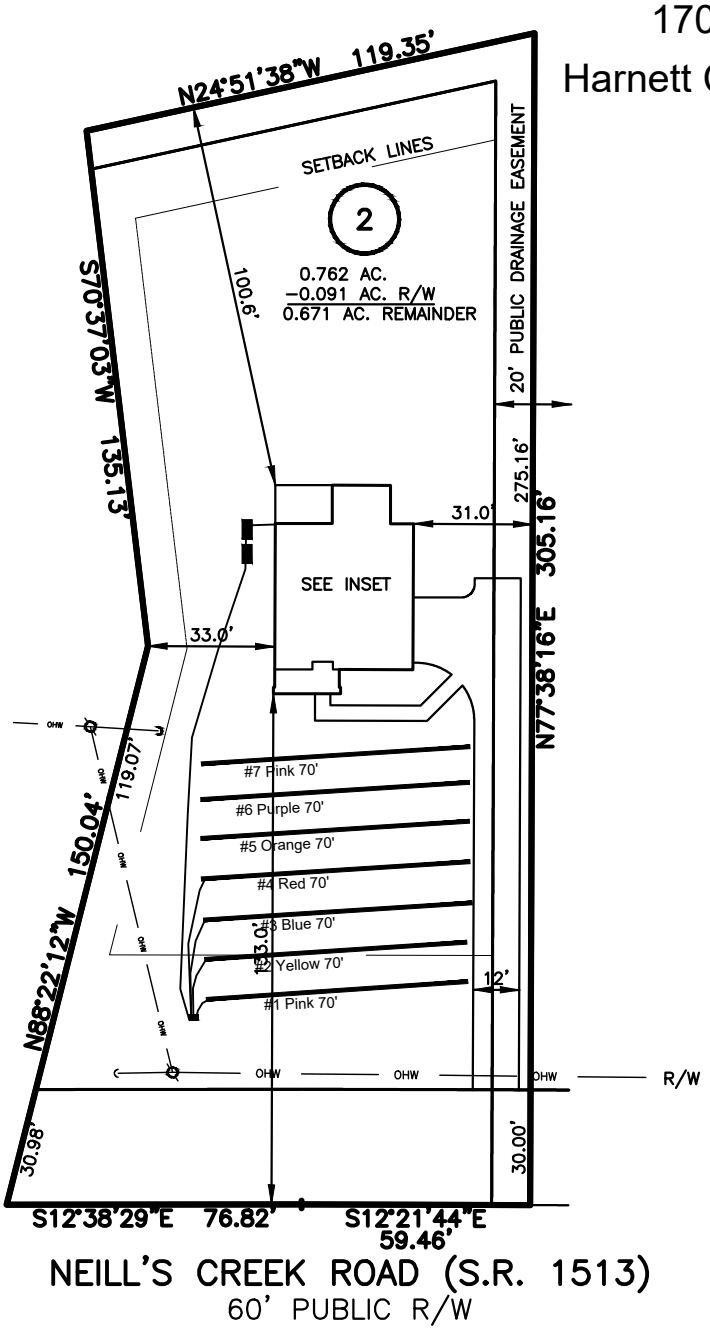
F.B. _____

RWK, PA
ENGINEERING ~ SURVEYING
CORPORATE LICENSE: C-1771
101 W. MAIN ST., SUITE 202
GARNER, NC 27529
PHONE (919) 779-4854
FAX (919) 779-4056

O:\HERITAGE AT NEILL'S CREEK\HERITAGE NEILL'S CREEK 2B\HNC02B.DWG

New Home, Inc
360 Gallon/day - Septic Design
1701 Neill's Creek Road
Harnett County PIN: 0661-72-4104

*Not a Survey
Sketched from a plot plan supplied by owner



NEILL'S CREEK ROAD (S.R. 1513)
60' PUBLIC R/W

System: Pressure Manifold
Lines: 1-4 (280')
0.35 LTAR
21" Max Trench Bottom
Accepted Status System
Repair: Pressure Manifold
Lines: 5-7 (210')
0.35 LTAR
20" Max Trench Bottom
PPBS - T&J Panel Block - 50% reductoin

**1000 Gallon Septic and Pump Tank
Tank and trenches to be located minimum of 10' from any property line and minimum of 5' from any building foundation.
*Do Not Cut, Fill, or Alter Drainfield or Repair Area
*Comply with all setbacks
*Contact local health dept. and/or Alex Adams prior to or during installation with any questions or concerns.

Revised: 12-19-23

Adams
Soil Consulting
919-414-6761

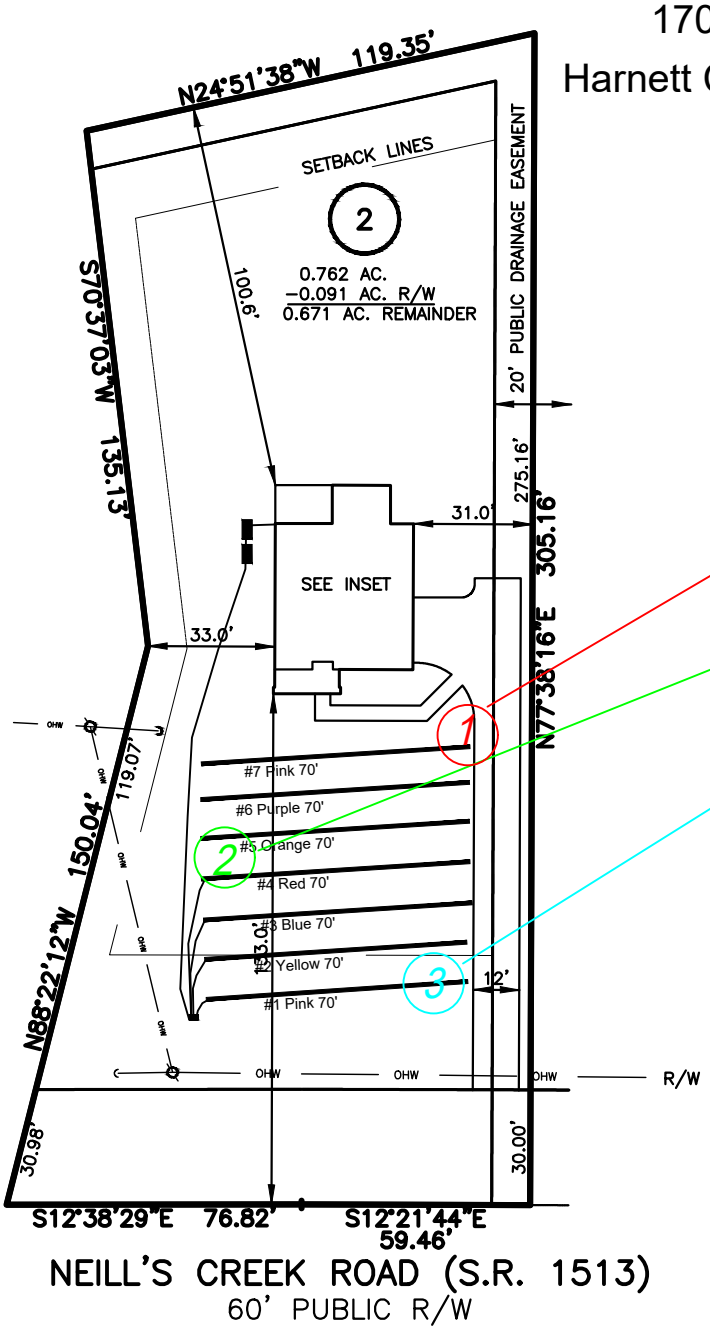
Job #1803
11-6-23

GRAPHIC SCALE
1" = 50'

50 0 50 100

New Home, Inc
Soil Boring Location Map
1701 Neill's Creek Road
Harnett County PIN: 0661-72-4104

*Not a Survey
Sketched from a plot plan supplied by owner



1 Profile Description #1
See Soil/Site Evaluation
Data Form

2 Profile Description #2
See Soil/Site Evaluation
Data Form

3 Profile Description #3
See Soil/Site Evaluation
Data Form

System: Pressure Manifold
Lines: 1-4 (280')
0.35 LTAR
21" Max Trench Bottom
Accepted Status System
Repair: Pressure Manifold
Lines: 5-7 (210')
0.35 LTAR
20" Max Trench Bottom
PPBS - T&J Panel Block - 50% reductoin

**1000 Gallon Septic and Pump Tank
Tank and trenches to be located minimum of 10' from any property line and minimum of 5' from any building foundation.
*Do Not Cut, Fill, or Alter Drainfield or Repair Area
*Comply with all setbacks
*Contact local health dept. and/or Alex Adams prior to or during installation with any questions or concerns.

Revised: 12-19-23

Adams
Soil Consulting
919-414-6761

Job #1803
11-6-23

GRAPHIC SCALE
1" = 50'

PROPERTY ID # 0661-72-4104
COUNTY: Harnett

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

OWNER: New Home Inc. LLC
ADDRESS: 1701 Neills Creek Road – Lillington
PROPOSED FACILITY: Single Family, 4-bedroom PROPOSED DESIGN FLOW (.1949): 360gpd
LOCATION OF SITE: 1701 Neills Creek Road – Lillington
WATER SUPPLY: Public Water
EVALUATION METHOD: Auger Boring

APPLICATION DATE:
DATE EVALUATED: 11-6-23
PROPERTY SIZE: 0.67 Acres
TYPE OF WASTEWATER: Sewage

PROFILE #	.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 SAPRO CLASS	.1944 RESTR HORIZ	
1	Linear Slope/2%	0-12	GR/SL	FR/SEXP/NS	35	N/A	N/A	N/A	PS/.35
		12-36	SBK/CL	FI/SEXP/SS					
2	Linear Slope/2%	0-12	GR/SL	FR/SEXP/NS	N/A	N/A	N/A	N/A	PS/.35
		12-36	SBK/CL	FI/SEXP/SS					
3	Linear Slope/2%	0-16	GR/SL	FR/SEXP/NS	N/A	N/A	N/A	N/A	PS/.35
		16-36	SBK/CL	FI/SEXP/SS					
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	S	S
System Type(s)	Type III (b)	Type III (b)
Site LTAR	0.35	0.35

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): U/PS

EVALUATED BY: A. Adams
OTHER(S) PRESENT:

COMMENTS: _____

RESIDENTIAL PRESSURE MANIFOLD DESIGN

1701 Neills Creek Road - Lillington, NC

# of BDR: 4 **Daily Flow:** 360 **gal/day** **L.T.A.R.:** 0.4000 **gal/day/sq.ft**

Septic Tank: 1000 **gals** **Pump Tank:** 1000 **gals** **Sq. Foot:** 840 **System Type:** Accepted

Number of Taps: 4 **Length of Trenches:** 280 **ft(See Tap Chart for Details)**

Depth of Trenches: 24 **in** **Manifold Length:** 42 **in**

Manifold Diameter: 4in sch 80pvc **Tap Configuration: 6 in spacing** 1 **side(s) of manifold**

Supply Line: length: 100 **ft** **Diameter:** 2 **in sch 40pvc**

Friction Loss + Fitting Loss: 3.22 **ft(supply line length + 70' for fittings in pump tank)**

Design Head: 2 **ft** **Elevation Head:** 6 **ft**

Total Head: 11.22 **ft** **Pump to Deliver:** 28.44 **gals/min at** 11.22 **ft head**

Dosing Volume: 127 **gals,**

Drawdown: 127 **gals divided by** 21.4 **gals/in =** 6.0 **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

Benchmark	0	is = 100.00	set at				**Design Head:**	2			
Pump tank elev.		2	98.00	**Pump elev.**	93.00		**Manifold elev.**	93.00			
line	**color**	**rod read**	**Elevation**	**length**	**hole size**	**flow/tap**	**gal/day**	**trench area**	**LINE LTAR**	**# of Panels (PPBPS)**	**Spacing of Panels (in)**
1		8.00	92.00	70	3/4in SCH 40	7.11	90.00	210	0.4286		
2		8.50	91.50	70	3/4in SCH 40	7.11	90.00	210	0.4286		
3		9.00	91.00	70	1/2in SCH 40	7.11	90.00	210	0.4286		
4		9.50	90.50	70	1/2in SCH 40	7.11	90.00	210	0.4286		
			Total Feet =	**280**	**gal/min =**	**28.44**		**LTAR =**	**0.3500**		
			Feet Required =	**257**	**Velocity =**	**2.72**		**(ltar + 5%)**	0.3675		
Total # of Panels (PPBPS)				**Des. Flow**	360			**(ltar w/25% red)**	0.4667		
% of Dose Vol.		70		**Pump Run=**	12.66			**(ltar + 5%)**	0.4900		
Dose Volume		127		**Tank Gal/IN**	21.4						
Dose Pump Time		4.48		**Elev. Head**	6						
Drawdown in Inches		6.0									

Comments: