

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: _____

PIN/Lot Identifier: _____

Issued To: _____

Property Location: _____

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

LSS Report Provided: Yes [] No []

If yes, name and license number of LSS: _____

New [] Expansion [] System Relocation [] Change of Use []

Proposed Structure: _____

Number of bedrooms: _____ Number of Occupants: _____ Other: _____

Design Wastewater Strength: [] domestic [] high strength [] industrial process

Proposed Design Daily Flow: _____ GPD Proposed LTAR (Initial): _____ Proposed LTAR (Repair): _____

Proposed Wastewater System Type*: _____ (Initial) Pump Required: [] Yes [] No [] May be required

Proposed Wastewater System Type*: _____ (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): _____ Usable Soil Depth (Repair): _____

Max. Trench Depth (Initial)*: _____ Max. Trench Depth (Repair)*: _____ * 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: _____

Licensed Soil Scientist Signature: Alex Adams Date: _____

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

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

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

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: _____

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

County: _____

PIN/Lot Identifier: _____

Issued To: _____

Property Location: _____

AOWE/PE Plans/Evaluations Provided: Yes No If yes, name and license number of AOWE/PE: _____

Facility Type: _____

New Expansion Repair System Relocation Change of Use

Basement? Yes No Basement Fixtures? Yes No

Type of Wastewater System* _____ (Initial) _____ (Repair)

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

Design Daily Flow: _____ 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: _____ gallons Total Trench/Bed Length: _____ feet Trench/Bed Spacing: _____ feet on center

Trench/Bed Width: _____ inches LTAR: _____ gpd/ft²

Soil Cover: _____ inches Slope Corrected Maximum Trench/Bed Depth[†]: _____ inches ** Measured on the downhill side of the trench*

Aggregate Depth: _____ inches above pipe _____ inches below pipe _____ inches total

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

Pump Requirements: _____ ft. TDH vs. _____ GPM Grease Trap Size (if applicable): _____ 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: _____ Expiration Date: _____

AOWE/PE Signature: Alex Adams Date: _____

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

See attached site sketch

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: _____

This Section for Local Health Department Use OnlyInitial 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

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

November 8, 2023
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: 61 Whistling Way – Lillington, NC (Harnett County) -Lot #16 – Heritage at Neill’s Creek Subdivision for New Home Inc., LLC (PIN# 0661-72-2315)

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 480-bedroom septic design.

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.

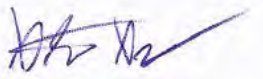
Please find the attached wastewater soil/site evaluation forms for specific soil properties found in the initial and repair areas as well as assigned soil long term acceptance rate (LTAR). Numerous soil borings were made throughout the property and representative soil profile descriptions for the primary 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 480 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,



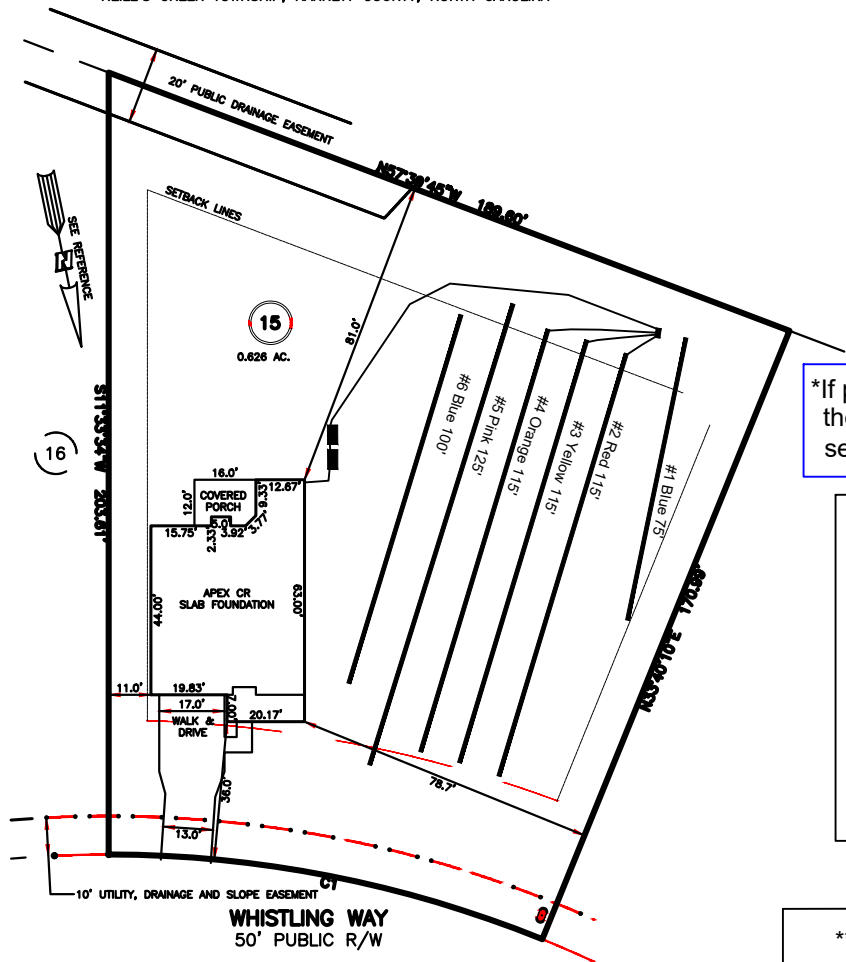
Alex Adams
NC Licensed Soil Scientist #1247
AOWE Certification: 10021E



Heritage at Neil's Creek
 4-Bedroom - Septic Design
 Lot #15 - 61 Whistling Way
 New Home, Inc
 Harnett County PIN: 0661-72-2315

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

PLOT PLAN FOR
NEW HOME, INC.
 61 WHISTLING WAY
 LOT 15, HERITAGE AT NEILL'S CREEK SUBDIVISION
 NEILL'S CREEK TOWNSHIP, HARNETT COUNTY, NORTH CAROLINA



*If plumbing is sufficient at time of septic installation then the pump tank may be removed and the septic field may be dosed by gravity dispersal.

System: Pressure Manifold
 Lines: 2-4 (345')
 0.4 LTAR
 24" Max Trench Bottom
 Accepted Status System
 Repair: Pressure Manifold
 Lines: 1, 5-6 (300')
 0.4 LTAR
 24" Max Trench Bottom
 Accepted Status

**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.

Adams
 Soil Consulting
 919-414-6761
 Job #1803
 11-6-23

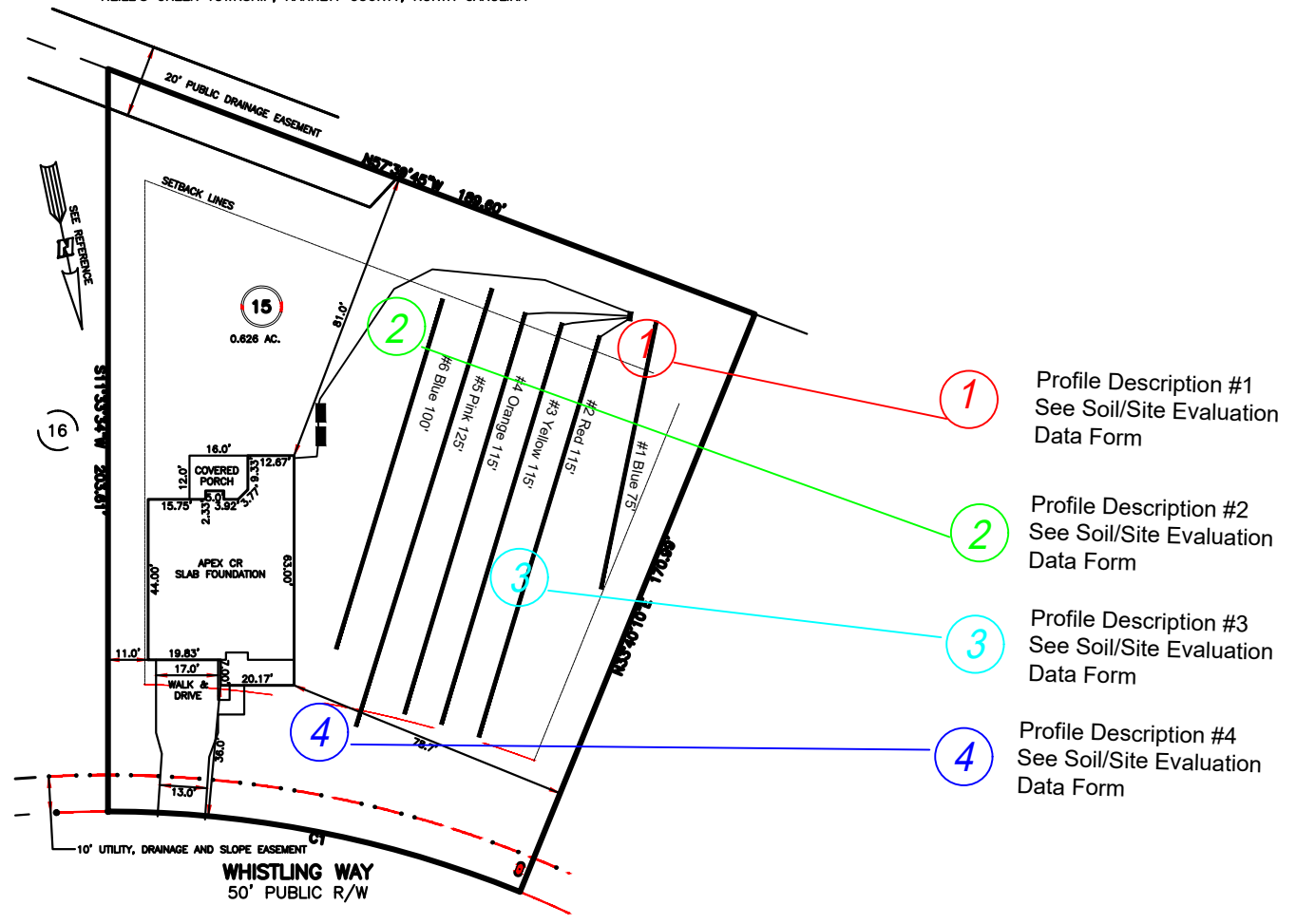
GRAPHIC SCALE
 1" = 50'



Heritage at Neil's Creek
 Soil Boring Location Map
 Lot #15 - 61 Whistling Way
 New Home, Inc
 Harnett County PIN: 0661-72-2315

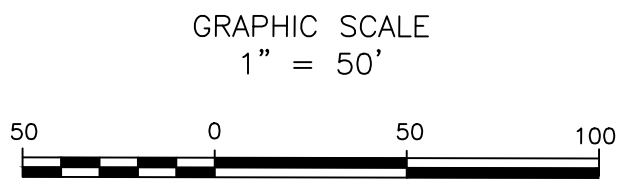
*Not a Survey
 Sketched from a plot plan supplied by owner

PLOT PLAN FOR
NEW HOME, INC.
 61 WHISTLING WAY
 LOT 15, HERITAGE AT NEILL'S CREEK SUBDIVISION
 NEILL'S CREEK TOWNSHIP, HARNETT COUNTY, NORTH CAROLINA



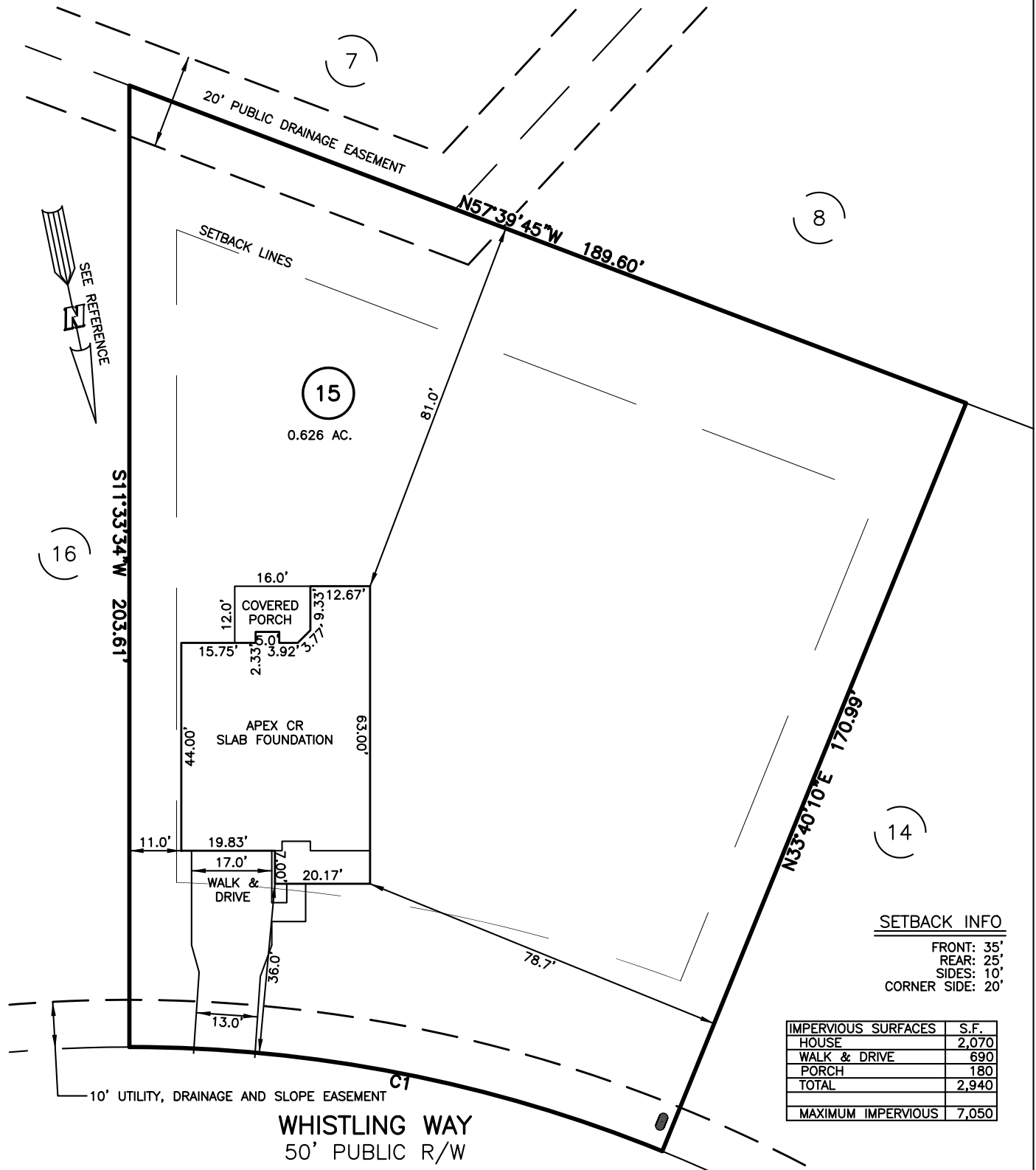
- 1** Profile Description #1
See Soil/Site Evaluation Data Form
- 2** Profile Description #2
See Soil/Site Evaluation Data Form
- 3** Profile Description #3
See Soil/Site Evaluation Data Form
- 4** Profile Description #4
See Soil/Site Evaluation Data Form

Adams
 Soil Consulting
 919-414-6761
 Job #1803
 11-6-23



LOT 15, HERITAGE AT NEILL'S CREEK SUBDIVISION
**PLOT PLAN FOR
 NEW HOME, INC.**

61 WHISTLING WAY
 LOT 15, HERITAGE AT NEILL'S CREEK SUBDIVISION
 NEILL'S CREEK TOWNSHIP, HARNETT COUNTY, NORTH CAROLINA



15
 0.626 AC.

SETBACK INFO

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

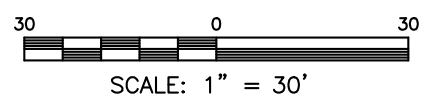
IMPERVIOUS SURFACES	S.F.
HOUSE	2,070
WALK & DRIVE	690
PORCH	180
TOTAL	2,940
MAXIMUM IMPERVIOUS	7,050

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	300.00'	115.77'	115.05'	N67°23'08"W	22°06'36"

LEGEND

- | | |
|--|---|
| <ul style="list-style-type: none"> △ AIR CONDITIONER BC BACK of CURB BFP BACK FLOW PREVENTER ○ CLEANOUT □ 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 FLA FLARED END SECTION FH FIRE HYDRANT FOP FIBER OPTIC PEDESTAL GM GAS METER → GUY | <ul style="list-style-type: none"> INV. INVERT IPS IRON PIPE SET IRS IRON ROD SET ○ LIGHT POLE MNS MAGNETIC NAIL SET ○ MANHOLE SANITARY SEWER ○ MANHOLE STORM SEWER OHW OVERHEAD WIRES PKS PK NAIL SET PNS POINT NOT SET RRS RAIL ROAD SPIKE TELEPHONE PEDESTAL TRANSFORMER CABLE TV PEDESTAL UTILITY POLE WATER METER WATER VALVE YARD INLET ○ FIELD MEASUREMENT ○ NEW WATER METER |
|--|---|

REFERENCES:
 B.M. 2023, PG. 520-521



- NOTES**
- THIS SURVEY SUBJECT TO ANY FACTS THAT MAY BE DISCLOSED BY A FULL AND ACCURATE TITLE SEARCH.
 - 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.

PLOT PLAN
 PRELIMINARY PLAT- NOT FOR RECORDATION,
 CONVEYANCE OR SALES

DATE: OCT. 30, 2023

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

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

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

OWNER: New Home Inc. LLC
 ADDRESS: Lot 15 -61 Whistling Way – Heritage at Neill’s Creek
 PROPOSED FACILITY: Single Family, 4-bedroom PROPOSED DESIGN FLOW (.1949): 480gpd
 LOCATION OF SITE: 61 Whistling Way – Heritage at Neill’s Creek
 WATER SUPPLY: Public Water
 EVALUATION METHOD: Auger Boring

APPLICATION DATE:
 DATE EVALUATED: 11-6-23
 PROPERTY SIZE: 0.63 Acres

TYPE OF WASTEWATER: Sewage

P R O F I L E #	.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/5%	0-26	GR/SL	FR/SEXP/NS	N/A	N/A	N/A	N/A	PS/.4
		26-40	SBK/SCL	FI/SEXP/SS					
2	Linear Slope/5%	0-32	GR/SL	FR/SEXP/NS	N/A	N/A	N/A	N/A	PS/.4
		32-40	SBK/SCL	FI/SEXP/SS					
3	Linear Slope/5%	0-34	GR/SL	FR/SEXP/NS	N/A	N/A	N/A	N/A	PS/.4
		34-40	SBK/SCL	FI/SEXP/SS					
4	Linear Slope/5%	0-21	GR/SL	FR/SEXP/NS	N/A	N/A	N/A	N/A	PS/.4
		21-40	SBK/SCL	FI/SEXP/SS					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	OTHER FACTORS (.1946): _____ SITE CLASSIFICATION (.1948): U/PS EVALUATED BY: A. Adams OTHER(S) PRESENT:
Available Space (.1945)	S	S	
System Type(s)	Type III (b)	Type III (b)	
Site LTAR	0.4	0.4	

COMMENTS: _____
 Updated February 2014

RESIDENTIAL PRESSURE MANIFOLD DESIGN

61 Whistling Way - Lillington, NC

of BDR: 4 Daily Flow: 480 gal/day L.T.A.R.: 0.4000 gal/day/sq.ft

Septic Tank: 1000 gals Pump Tank: 1000 gals Sq. Foot: 1035 System Type: Accepted

Number of Taps: 3 Length of Trenches: 345 ft(See Tap Chart for Details)

Depth of Trenches: 24 in Manifold Length: 36 in

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

Supply Line: length: 50 ft Diameter: 2 in sch 40pvc

Friction Loss + Fitting Loss: 1.33 ft(supply line length + 70' for fittings in pump tank)

Design Head: 2 ft Elevation Head: 6 ft

Total Head: 9.33 ft Pump to Deliver: 21.33 gals/min at 9.33 ft head

Dosing Volume: 157 gals,

Drawdown: 157 gals divided by 21.4 gals/in = 7.3 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)		
3		8.00	92.00	115	3/4in SCH 40	7.11	160.00	345	0.4638				
4		8.50	91.50	115	3/4in SCH 40	7.11	160.00	345	0.4638				
5		9.00	91.00	115	1/2in SCH 40	7.11	160.00	345	0.4638				
Total Feet =				345	gal/min =	21.33	LTAR =		0.4000				
Feet Required =				300	Velocity =	2.04	(ltar + 5%)		0.4200				
Total # of Panels (PPBPS)				Des. Flow		480	(ltar w/25% red)		0.5333				
% of Dose Vol.				Pump Run=		22.50	(ltar + 5%)		0.5600				
Dose Volume				Tank Gal/IN		21.4							
Dose Pump Time				Elev. Head		6							
Drawdown in Inches													
Comments:													