Permit #:	



**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	n	
IMPROVEMENT	PERMIT FOR G.S. 130A-3	335(a2)	
County:			
PIN/Lot Identifier:			
Issued To:			
Property Location:			
Subdivision (if applicable)	Lot #:	Block:	Section:
LSS Report Provided: Yes No No			
If yes, name and license number of LSS:			
New Expansion	System Relocation	Change of Use	: <u> </u>
Proposed Structure:			
Number of bedrooms: Number of Occupants: O	ther:		
Design Wastewater Strength:  domestic  hi	igh strength  indu	strial process	
Proposed Design Daily Flow: GPD Propo	osed 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 sy	stem types in accordance with 1	5A NCAC 18A .1961 Table	V(a)
Saprolite System (initial): Yes No Saprolite System	m (repair): 🗌 Yes 📗 No		
Fill System (Initial): 🗌 Yes 🔲 No If yes, specify: 🗌 New 📗	Existing (when adding more that	nn 6 inches of fill to system	area provide a fill plan)
Fill System (repair): 🗌 Yes 🔲 No If yes, specify: 🗌 New 📗	Existing (when adding more the	an 6 inches of fill to systen	n area provide a fill plan)
Usable Soil Depth (Initial): Usable Soil Dep	oth (Repair):		
Max. Trench Depth (Initial)‡: Max. Trench De	epth (Repair)‡:	_ <sup>‡</sup> Measured on the dow	nhill side of the trench
Artificial Drainage Required: 🗌 Yes 🔲 No If yes, please speci	fy details:		
Type of Water Supply: 🔲 Private well 🔃 Public well 🔲 Sh	ared well    Municipal Suppl	y Spring Othe	er:
Drainfield location meets requirements of Rule .1945: Yes	No Drainfield location med	ets requirements of Rule .3	1950: Yes 🗌 No 🗌
Permit valid for: $igsqcup$ Five years [site plan submitted pursuant to ${f G}$	GS 130A-334(13a)] 🔲 No expira	ation [plat submitted purs	uant to GS 130A-334(7a)
Permit conditions:			
Licensed Soil Scientist Print Name:  Licensed Soil Scientist Signature: XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		Date:	
FILEDICED SOULSCIENTIST SIGNATURE! / N.A. X. X. / N./ N.W. I. W.F.		LISTA:	

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 #:
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## This Section for Local Health Department Use Only

	Initial submittal received:		by		
		Date	Initials	_	
G.S. 130A-335(a3) states the follo	wing:				
When an applicant for an Improvement Padepartment, the common form developed within five business days of receiving the comport includes all of the required componers hall notify the applicant of the componers department to cure the deficiencies in the is complete within five business days after act within any period set out in this subsect common form for use as the Improvement	by the Department, and a soil evaluat pplication, conduct a completeness re ents. If the local health department de ts needed to complete the Improveme Improvement Permit. The local health the local health department receives t tion, the applicant may treat the failu	ion pursuant to su view of the submit etermines that the nt Permit. The app department shall i the additional infor	bsection (a2) of this s tal. A determination Improvement Permit Ilicant may submit ac make a final determi rmation from the app	ection, the local healt of completeness mea is incomplete, the loc Iditional information t nation as to whether t blicant. If the local hec	th department shall, ns that the Improvement al health department to the local health the Improvement Permit alth department fails to
The review for completeness of the Permit is determined to be:	nis Improvement Permit was co	onducted in acc	cordance with G.	S. 130A-335(a3).	This Improvement
☐ Incomplete (If box is checked	, information in this section is	required.)			
The following items are missing:					
8/ 4	7/25 1			FC W	
Copies of this were sent to the LS	S and the Applicant on	Date			
State Authorized Agent:				Date:	
☐ Complete	1 95//			121	
State Authorized Agent:		-1/-3	· (1/1/)	Date:	
This Improvement Permit is issue attached here. The issuance of t permit holder is responsible for o to revocation if the site plan, pla ownership of the site. This perm Disposal and to the conditions of	nis permit by the Health Depa hecking with appropriate gove t, or the intended use changes it is subject to compliance wit this permit. t's authorized agents, and the	rtment in no we erning bodies in The Improve th the provision	yay guarantees to in meeting their ement Permit sha ns of the Laws ar epartments shal	he issuance of ot requirements. Th all not be affected nd Rules for Sewa I be discharged a	her permits. The his permit is subject d by a change in nge Treatment and nd released from
any liabilities, duties, and respon evaluations, submittals, or action	• •		-	_	
Improvement Permit Expiration	Date:				

\*See attached site sketch\*



Permit #:	
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## **Re-submittal of Improvement Permit**

_				
	LHD USE ONLY: This IP resubmittal received:		by	
L		Date	Initials	
Γhe following ite	ems are being resubmitted pursuant to G.S. 130A-33	5(a3) for issuance of	f the Improvement Permit:	
	SI/	ATT	<i>b</i>	
s accurate and c	hereby attest tha cientist (Print Name) complete to the best of my knowledge and that the paws, regulations, rules, and ordinances.		equired to be included with	
Signature	of Licensed Soil Scientist		Date	
	The section below is for Local Health Department use	e after submittal of it	ems noted as missing above.	
LHD Follow-u	p Completeness Review of Improvement P	Permit		
	ompleteness of this Improvement Permit re-submittermit is determined to be:	tal was conducted i	n accordance with G.S. 130A	\-335(a3). This
☐ Incomplete (	(If box is checked, information in this section is requ	uired.)		
Γhe following ite	ems are missing:			
Copies of this we	ere sent to the LSS and the Applicant on			
State Authorized	Agent:		Date:	
☐ Complete				
State Authorized	l Agent:		Date:	



Permit #:	
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### **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?
Type of Wastewater System*(Initial)(Rep
*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?
Installation Requirements/Conditions
Septic Tank Size: gallons Total Trench/Bed Length: feet Trench/Bed Spacing: feet on center
Trench/Bed Width: inches LTAR: gpd/ft <sup>2</sup>
Soil Cover: inches Slope Corrected Maximum Trench/Bed Depth <sup>‡</sup> : inches * Measured on the downhill side of the trench
Aggregate Depth:inches above pipeinches below pipeinches 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)]:
Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: 🔲 Yes 🔲 No
Declaration of Restrictive Covenants:
Pre-Construction Conference Required: Yes No 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: Date: Date:

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

\*See attached site sketch\*



Permit #:
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## This Section for Local Health Department Use Only

	Initial submittal received:	by	
		Date	Initials
G.S. 130A-335(a5) states the follo	_		
mprovement Permit and Construction All Department, and any necessary signed and any necessary signed and angineer or a person certified pursuant to department shall, within five business dath the Construction Authorization or Improvements needed to conditional information to the local health Authorization. The local health department fails to act within any period apply for the building permit for the project of the engineer submitting the evaluation or Improvement Permit and the local health department, and the local health department and the local health department, and the local health department shall health shal	uthorization application together, the pend sealed plans or evaluations conducted of Article 5 of Chapter 90A of the General ys of receiving the application, conduct a green Permit and Construction Authorizization or Improvement Permit and Construction or Improvement Permit and Construction or Improvement Permit and Construction Authorization of the Construction Authorization of the Sall make a final determination as to interest and sall make a final determination as to interest and the subsection, the applicant sect upon the decision of completeness of the point or if the local health department fair in pursuant to this subsection may requited Construction Authorization for cause. Let	rmit fee charged by the lood by a person licensed purson licensed purson licensed purson licensed purson licensed purson licensed purson licensed l	ntion together, submits a Construction Authorization, or an cal health department, the common form developed by the suant to Chapter 89C of the General Statutes as a licensed of On-Site Wastewater Evaluator, the local health the submittal. A determination of completeness means that required components. If the local health department the complete, the local health department shall notify the add Construction Authorization. The applicant may submit tion or Improvement Permit and Construction on Authorization or Improvement Permit and Construction and information from the applicant. If the local health that as a determination of completeness. The applicant may ration or Improvement Permit and Construction ass days. The Authorized On-Site Wastewater Evaluator or repartment revoke or suspend the Construction as Authorized On-Site Wastewater Evaluator or licensed and Construction Authorization pursuant to G.S.
The review for completeness of t	this Construction Authorization v	was conducted in acc	ordance with G.S. 130A-335(a5). This
Construction Authorization is de	termined to be:		
☐ Incomplete (If box is checked	d, information in this section is re	equired.)	
The following items are missing:			
Copies of this were sent to the A	OWE/PE and the Applicant on _	Date	W 76 //
State Authorized Agent:			Date:
Complete	1 Land		15/8
State Authorized Agent:	J. PRIL	12 1776	Date of Issuance:
attached here. This Construction Construction Authorization shall to compliance with the provision of the Department, the Department in liabilities, duties, and respondans, evaluations, preconstruct the General Statutes as a license Authorized On-Site Wastewater agents, and the local health dep	n Authorization is subject to rev I not be affected by a change in ns of the Laws and Rules for Sev nt's authorized agents, and the nsibilities imposed by statute or cion conference findings, submit ed engineer or a person certified Evaluator in GS 130A-335(a2), (	ocation if the site plan ownership of the site wage Treatment and local health department in common law from tals, or actions from a pursuant to Article (a5), and (a7). The Dend bear liability for the	ing the signed and sealed plans or evaluations an, plat, or the intended use changes. The ite. This Construction Authorization is subject Disposal and to the conditions of this permit.  In ents shall be discharged and released from many claim arising out of or attributed to a person licensed pursuant to Chapter 89C of 5 of Chapter 90A of the General Statutes as an epartment, the Department's authorized their actions and evaluations and other pursuant to GS 130A-337.
Construction Authorization Expi	ration Date:		
·		<u></u>	
	dia .		

\*See attached site sketch\*



Permit #:	
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## **Re-submittal of Construction Authorization**

	LUDUSE ONLY. This CA resubmitted received		h.,	
	LHD USE ONLY: This CA resubmittal received:	Date	by	
The following it	tems are being resubmitted pursuant to G.S. 130A-33	5(a5) for issuance of	of the Construction Authoriza	ation:
	ST	ATT	<i>Sh.</i>	
l,		nt the information r	equired to be included with	this re-submittal
	nsite Wastewater Evaluator (Print Name) complete to the best of my knowledge and that the	proposed Construc	tion Authorization mosts all	annlicable
	and local laws, regulations, rules, and ordinances.	proposed construc	tion Authorization meets air	аррисавіе
Signatur	re of Authorized On-Site Wastewater Evaluator	1	Date	
	The section below is for Local Health Department use	e after submittal of it	ems noted as missing above.	<del></del>
LHD Follow-ւ	up Completeness Review of Construction A	uthorization		
	completeness of this Construction Authorization re-s on Authorization is determined to be:	ubmittal was condu	ucted in accordance with G.S	. 130A-335(a5).
☐ Incomplete (	(If box is checked, information in this section is requi	red.)		
The following it	ems are missing:			
	OLIAN 35° OLIAN	M AIDE	19	
Copies of this w	vere sent to the AOWE/PE and the Applicant on	Date	_	
State Authorize	d Agent:		Date:	
☐ Complete				
State Authorize	d Agent:		Date:	

6

### Adams Soil Consulting, PLLC 1676 Mitchell Road Angier, NC 27501 919-414-6761

alexadams@bcsoil.com

October 24, 2024 Project #1769

"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)"

RE: 499 Duncan Creek Road – Lillington, NC (Harnett County) -Lot #143 – Duncan's Creek Subdivision for New Home Inc., LLC (PIN# 0630-14-5154)

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, State Subsurface Rules, 15ANCAC 18E. From this evaluation, ASC is providing the attached 4-bedroom (480 gallon/day) 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 an Accepted Status or PPBPS system. 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

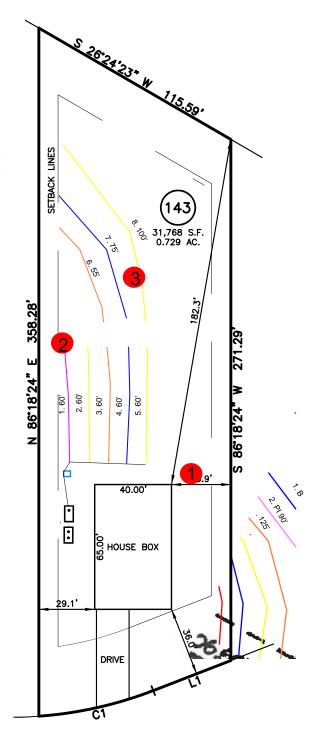




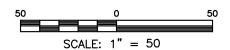
- \*House footprint to be field staked by surveyor and system verified prior to any construction
- \*\*Septic area must not be altered by construction activities.
- \*\*\*No cuts of 2' or greater within within 15' of septic area
- \*\*\*\* Recommend protective barrier around septic field during construction.
  - \*If plumbing is not sufficient a pump tank will be required to septic field



# Duncan Creeks Lot 143 4 Bedroom Harnett County



Adams Soil Consulting 919—414—6761 DUNCAN CREEK ROAD 50' PUBLIC R/W

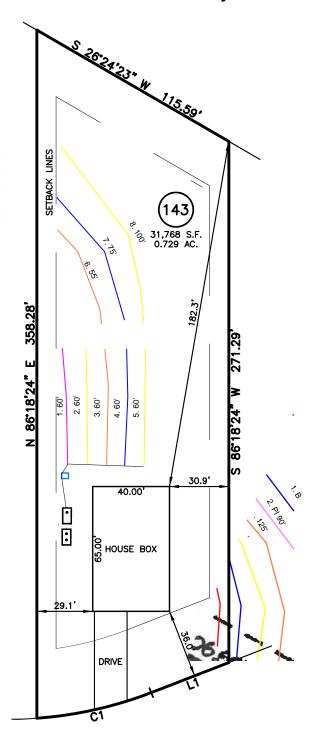


INITIAL: Lines 1-5 (300') Accepted Status Pressure Manifold REPAIR: Lines 6-8 (270') PPBPS Pressure Manifold

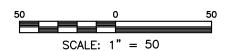
- \*House footprint to be field staked by surveyor and system verified prior to any construction
- \*\*Septic area must not be altered by construction activities.
- \*\*\*No cuts of 2' or greater within within 15' of septic area
- \*\*\*\* Recommend protective barrier around septic field during construction.
  - \*If plumbing is not sufficient a pump tank will be required to septic field



# Duncan Creeks Lot 143 4 Bedroom Harnett County



Adams Soil Consulting 919-414-6761 DUNCAN CREEK ROAD 50' PUBLIC R/W



INITIAL: Lines 1-5 (300') Accepted Status Pressure Manifold REPAIR: Lines 6-8 (270') PPBPS Pressure Manifold

#### SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

(Complete all fields in full)

OWNER: New Home Inc.

APPLICATION DATE:

ADDRESS:

DATE EVALUATED: 10/23/2024 PROPERTY SIZE: .73 Acres

PROPOSED FACILITY: Single Family, 4-bedroom PROPOSED DESIGN FLOW (.1949): 480 gpd

LOCATION OF SITE: 499 Duncan Creek Rd. Lillington NC 27546

WATER SUPPLY: Public Water

EVALUATION METHOD: Auger Boring

TYPE OF WASTEWATER: Sewage

P									
R O F I L E	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	(•.	RPHOLOGY 1941)	FA				
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
	Linear Slope/5%	0-32	GR/SL	VFR,NS,NP,SEXP	N.O	40"	N.O	N.O	P.S .5
		32-40	SBK/SCL	FR,SS,SP,SEXP					
	Clana/50/	0-32	GR/SL	VFR,NS,NP,SEXP	N.O	40"	N.O	N.O	P.S/.4
		32-40	SBK/SCL	FR,SS,SP,SEXP					
	Linear Slope/5%	0-42	GR/SL	VFR,NS,NP,SEXP	N.O	42"	N.O	N.O	P.S/.6
3									
4									

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

COMMENTS: Updated February 2014

# Duncans Creek PRESSURE MANIFOLD DESIGN -Initial

New Home Inc, Lot 143

# 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: 900 System Type: Accepted

Number of Taps:  $\underline{5}$  Length of Trenches:  $\underline{300}$  ft(See Tap Chart for Details)

Depth of Trenches: 24 in Manifold Length: 48 in

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

Supply Line: length: 60 ft Diameter: 2 in sch 40pvc

Friction Loss + Fitting Loss: 3.72 ft(supply line length + 70' for fittings in pump tank)

Design Head: 2 ft Elevation Head: 6 ft

Total Head: 11.72 ft Pump to Deliver: 35.55 gals/min at 11.72 ft head

Dosing Volume: <u>137</u> gals,

Drawdown:  $\underline{137}$  gals divided by  $\underline{21.4}$  gals/in =  $\underline{6.4}$  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	<u>0</u>	is = 100.00	set at				Design Head:	2			Change in
Pump tank elev.		<u>18</u>	95.00	Pump elev.	90.00		Manifold elev.	1.00		# of Panels	-
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	(PPBPS)	Panels (in)
1	Pink			60	1/2in SCH 40	7.11	96.00	180	0.5333		
2	Yellow			60	1/2in SCH 40	7.11	96.00	180	0.5333		
3	Orange			60	1/2in SCH 40	7.11	96.00	180	0.5333		
4	Blue			60	1/2in SCH 40	7.11	96.00	180	0.5333		
5	Yellow			60	1/2in SCH 40	7.11	96.00	180	0.5333		
			Total Feet =	300	gal/min =	35.55		LTAR =	0.4000		
			Feet Required =	300	Velocity =	3.40		(Itar + 5%)	0.4200		
Total # of Panels (PPBPS)			Des. Flow	<u>480</u>			(Itar w/25% red)	0.5333			
% of Dose Vol.		70		Pump Run=	13.50			(Itar + 5%)	0.5600		
Dose Volume		137		Tank Gal/IN	<u>21.4</u>						
Dose Pump Time	,	3.84		Elev. Head	6						
Drawdown in Inc	hes	6.4									
Comments:											