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 Fee \$
IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)
County:
PIN/Lot Identifier:
Issued To:
Property Location:
Subdivision (if applicable)
LSS Report Provided: Yes No No
If yes, name and license number of LSS:
New 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 Frint Name

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 #:

This Section for Local Health Department Use Only

	Initial submittal received:		by	
		Date	Initials	
G.S. 130A-335(a3) states the follow	ving:			
When an applicant for an Improvement Pedepartment, the common form developed within five business days of receiving the appearmit includes all of the required component department to cure the deficiencies in the list 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 evaluation plication, conduct a completeness revents. If the local health department de some seed to complete the Improvement may over the local health of the local health department receives the local health department the failur	on pursuant to su view of the submit termines that the nt Permit. The app department shall he additional info	bsection (a2) of this section, t tal. A determination of comp Improvement Permit is incon Ilicant may submit additional make a final determination a rmation from the applicant. Ij	the local health department shall, leteness means that the Improvement aplete, the local health department information to the local health is to whether the Improvement Permit the local health department fails to
The review for completeness of th Permit is determined to be:	is Improvement Permit was co	nducted in ac	cordance with G.S. 130	4-335(a3). This Improvement
☐ Incomplete (If box is checked,	information in this section is r	equired.)		
The following items are missing:	5/0 4			A
Copies of this were sent to the LSS	and the Applicant on			_\\\
		Date		
State Authorized Agent:			Date	<u>:</u>
☐ Complete	1 55//8			2 18
State Authorized Agent:			Date	j:
This Improvement Permit is issue attached here. The issuance of the permit holder is responsible for conto revocation if the site plan, plat ownership of the site. This permit Disposal and to the conditions of The Department, the Department any liabilities, duties, and responsevaluations, submittals, or action	his permit by the Health Depar hecking with appropriate gove , or the intended use changes t is subject to compliance with this permit. I's authorized agents, and the sibilities imposed by statute o	ertment in no werning bodies The Improventhe provision local health drin common I	yay guarantees the issuin meeting their requirement Permit shall not no of the Laws and Rule epartments shall be disaw from any claim aris	ance of other permits. The ements. This permit is subject be affected by a change in es for Sewage Treatment and scharged and released from ing out of or attributed to
Improvement Permit Expiration C	vate:			

See attached site sketch



Permit #:	
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Re-submittal of Improvement Permit

				
	LHD USE ONLY: This IP resubmittal received:	Date	by	
The following it	ems are being resubmitted pursuant to G.S. 130A-3350	(a3) for issuance	of the Improvement Permit:	
		200		
	STA	Trus	A.	
is accurate and o	hereby attest that cientist (Print Name) complete to the best of my knowledge and that the properties and complete to the best of my knowledge.		required to be included with ement Permit meets all appli	
Signature	e of Licensed Soil Scientist		Date	
I UD Follow u	The section below is for Local Health Department use on the Completeness Review of Improvement Pe		items noted as missing above.	
The review for c	ompleteness of this Improvement Permit re-submittaermit is determined to be:		in accordance with G.S. 130	A-335(a3). This
☐ Incomplete	(If box is checked, information in this section is requir	red.)		
The following ite	ems are missing:			
Copies of this we	ere sent to the LSS and the Applicant on			
State Authorized	d Agent:		Date:	
☐ Complete				
State Authorized	d 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 nu	ımber 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 acco	ordance with 15A NCAC 18A .1961 Table V(a)
Design Daily Flow: GPD Wastewater Strength: dom	estic high strength industrial process
Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures an (if yes, please provide engineering documentation)	nd 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 ²	
Soil Cover: inches Slope Corrected Maximum Trench/Bed Depth [‡] :	inches * Measured on the downhill side of the trench
Aggregate Depth:inches above pipeinches below pipe	inches total
Pump Tank Size (if applicable): gallons Requires more than 1 po	ump? 🗌 Yes 🔲 No
Pump Requirements: ft. TDH vs GPM Grease Trap Size (if appl	licable): 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 at	ttach 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:	
Pre-Construction Conference Required: Yes No No	
Conditions:	ADER S
All Lander	
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: XLLX Haamo	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 #:

This Section for Local Health Department Use Only

	Initial submittal received:	b	,
		Date	Initials
G.S. 130A-335(a5) states the follo	_		
mprovement Permit and Construction All Department, and any necessary signed and Ingineer or a person certified pursuant to department shall, within five business day the Construction Authorization or Improved the English of the Construction Authorization of the Construction Authority policant of the components needed to consider the Information to the local health Authorization. The local health department for the project of the building permit for the project of the English of the building permit for the project of the English of	athorization application together, the pend sealed plans or evaluations conducted of Article 5 of Chapter 90A of the General as of receiving the application, conduct of ement Permit and Construction Authorization or Improvement Permit and Consomplete the Construction Authorization adepartment to cure the deficiencies in the shall make a final determination as to interest and the subsection, the applicant set out in this subsection, the applicant act upon the decision of completeness of the permit of the local health department fair on pursuant to this subsection may required Construction Authorization for cause. It all suspend or revoke the Construction Authorization for cause.	rmit fee charged by the lo d by a person licensed pur. Statutes as an Authorized a completeness review of t ation includes all of the re truction Authorization is in or Improvement Permit and the Construction Authorization whether the Construction and treat the failure to act the Construction Authorization the Construction Authorization act within five busine est that the local health a Upon written request of the uthorization or Improvem	ation together, submits a Construction Authorization, or an an acal 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 and construction Authorization. The applicant may submit and construction Authorization. The applicant may submit and construction or Improvement Permit and Construction and information from the applicant. If the local health ect as a determination of completeness. The applicant may reaction or Improvement Permit and Construction as a determination of completeness. The applicant may reaction or Improvement Permit and Construction ress days. The Authorized On-Site Wastewater Evaluator or department revoke or suspend the Construction are Authorized On-Site Wastewater Evaluator or licensed and Construction Authorization pursuant to G.S.
The review for completeness of t	his Construction Authorization v	was conducted in acc	cordance with G.S. 130A-335(a5). This
Construction Authorization is def	termined to be:		
☐ Incomplete (If box is checked	d, information in this section is r	equired.)	
The following items are missing:			
Copies of this were sent to the A	OWE/PE and the Applicant on _	Date	4V 76 //
State Authorized Agent:			Date:
☐ Complete	Florence		
State Authorized Agent:	W ZPRIL	12 1776	Date of Issuance:
attached here. This Construction Construction Authorization shall to compliance with the provision of the Department, the Department in y liabilities, duties, and respondans, evaluations, preconstruct the General Statutes as a license Authorized On-Site Wastewater	n Authorization is subject to revious function and the affected by a change in most of the Laws and Rules for Sevent's authorized agents, and the insibilities imposed by statute or ion conference findings, submited engineer or a person certified Evaluator in GS 130A-335(a2), (artments shall be responsible a	ocation if the site pl ownership of the sit vage Treatment and local health departn r in common law fro tals, or actions from d pursuant to Article (a5), and (a7). The D nd bear liability for	ing the signed and sealed plans or evaluations an, plat, or the intended use changes. The te. This Construction Authorization is subject Disposal and to the conditions of this permit. The enerts shall be discharged and released from many claim arising out of or attributed to a 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:		

See attached site sketch



Permit #:	
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Re-submittal of Construction Authorization

	I HD LISE ONI V	This CA resubmittal received:		by		
	END OSE ONET.	This CA resubinitial received	Date	by	als	
The following i	tems are being resul	omitted pursuant to G.S. 130A-33	35(a5) for issuance of	of the Construction	n Authorization:	
l.		hereby attest tha	at the information r	required to be incl	uded with this re-s	submittal
is accurate and						
Signatur	re of Authorized On-Site \	Nastewater Evaluator		Date	Ť.	
LHD Follow-ւ		w is for Local Health Department us s Review of Construction A		tems noted as missii	ng above.	
	completeness of thi	s Construction Authorization re-s determined to be:	submittal was cond	ucted in accordand	ce with G.S. 130A-	335(a5).
☐ Incomplete	(If box is checked, ir	formation in this section is requi	ired.)			
The following it	ems are missing:					
		ALIO 300 MI	M VIDER	19		
Copies of this w	vere sent to the AOV	VE/PE and the Applicant on	Date	-		
State Authorize	ed Agent:			Date: _		
Complete						
State Authorize	ed Agent:			Date: _		

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

alexadams@bcsoil.com

October 31, 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: 452 Duncan Creek Road – Lillington, NC (Harnett County) -Lot #156 – Duncan's Creek Subdivision for New Home Inc., LLC (PIN# 0630-14-1395)

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 (360 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 360 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

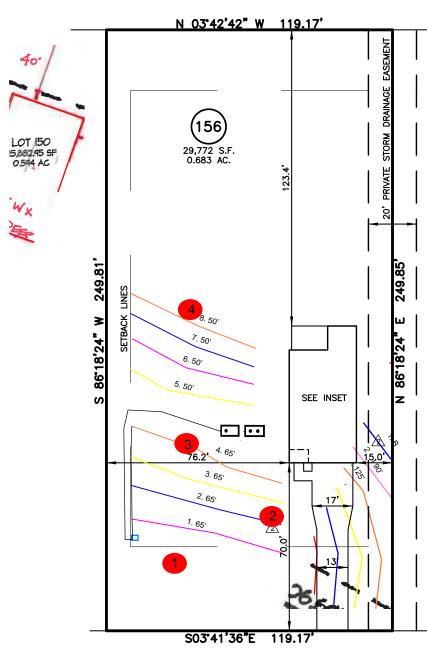
NC Licensed Soil Scientist #1247 AOWE Certification: 10021E



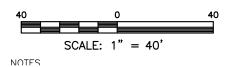


- *House footprint to be field staked by surveyor and system verified prior to any construction
- **Septic area must not be altered by construction activities.
- ***No cuts of 2' or greater within within 15' of septic area
- **** Recommend protective barrier around septic field during construction.
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

Duncan Creeks Lot 156 4 BR, w/ 360gpd Harnett County



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



INITIAL: Lines 1-4 (260') Accepted Status Pressure Manitee REPAIR: Lines 5-8 (200') PPBPS Pressure Manifold

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

(Complete all fields in full)

OWNER: New Home Inc.

APPLICATION DATE:

DATE EVALUATED: 10/9/24

ADDRESS:

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

PROPERTY SIZE: .68 Acres

LOCATION OF SITE: 452 Duncan Creek Rd. Lillington NC 27546 WATER SUPPLY: Public Water

EVALUATION METHOD: Auger Boring

TYPE OF WASTEWATER: Sewage

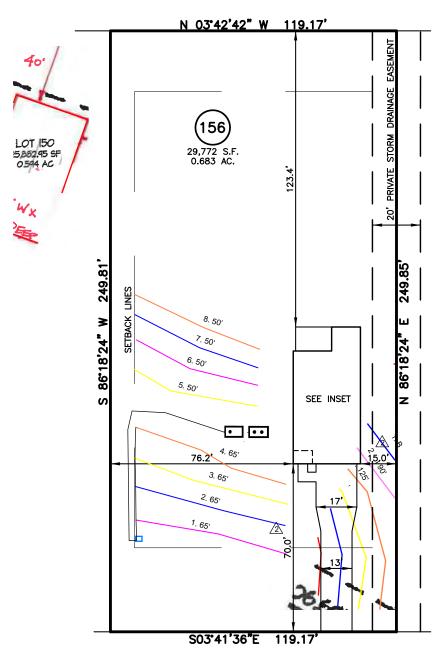
P R O F I L E	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)		RPHOLOGY 1941)	FA				
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
		0-36	GR/SL	VFR,NS,NP,SEXP	N.O	40"	N.O	N.O	P.S .4
1	Slope/6%	36-40"	BLK/SCL	Fr,SS,SP,SEXP					
	Linear	0-33	GR/SL	VFR,NS,NP,SEXP	N.O	40"	N.O	N.O	P.S .35
	Slope/6%	33-40	SBK/SCL	FR,SS,SP,SEXP	10	40	1.00		1.5.55
	T :	0.26	CD/GI	VFR,NS,NP,SEXP	NO	4022	NO	N.O	D.C. 4
	Linear Slope/6%	0-36	GR/SL		N.O	40"	N.O	N.O	P.S .4
		36-40	SBK/SCL	FR,SS,SP,SEXP					
	Linear Slope/6%	0-32	GR/SL	VFR,NS,NP,SEXP	N.O	40"	N.O	N.O	P.S .4
		32-38	SBK/SCL	FR,SS,SP,SEXP					

DESCRIPTION	INITIAL SYSTEM REPAIR SYSTE		OTHER FACTORS (.1946):				
Available Space (.1945)	S	S	SITE CLASSIFICATION (.1948): PS				
System Type(s)	Type III B Type III B		EVALUATED BY:A. Adams OTHER(S) PRESENT:				
Site LTAR	0.35	0.4					

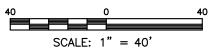
COMMENTS: Updated February 2014

- *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 156 4 BR, w/ 360gpd **Harnett County**



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



NOTES

INITIAL: Lines 1-4 (260') Accepted Status Pressure Manitee REPAIR: Lines 5-8 (200') **PPBPS** Pressure Manifold

Duncan's Creek Lot#156 PRESSURE MANIFOLD DESIGN -Initial SYSTEM

of BDR: $\underline{4}$ Daily Flow: $\underline{360}$ gal/day L.T.A.R.: $\underline{0.3500}$ gal/day/sq.ft

Septic Tank: 1000 gals Pump Tank: 1000 gals Sq. Foot: 780 System Type: Accepted

Number of Taps: $\underline{4}$ Length of Trenches: $\underline{260}$ ft(See Tap Chart for Details)

Depth of Trenches: 18 in Manifold Length: 42 in

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

Supply Line: length: 75 ft Diameter: 2 in sch 40pvc

Friction Loss + Fitting Loss: $\underline{2.74}$ ft(supply line length + 70' for fittings in pump tank)

Design Head: $\underline{2}$ ft Elevation Head: $\underline{8.00}$ ft

Total Head: 12.74 ft Pump to Deliver: 28.44 gals/min at 12.74 ft head

Dosing Volume: <u>118</u> gals,

Drawdown: 118 gals divided by 21.4 gals/in = 5.5 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>2</u>	95.00	Pump elev.	90.00		Manifold elev.	96.00		# of Panels	Spacing of
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	(PPBPS)	Panels (in)
1		5.00	95.00	65	1/2in SCH 40	7.11	90.00	195	0.4615		
2		5.50	94.50	65	1/2in SCH 40	7.11	90.00	195	0.4615		
3		6.00	94.00	65	1/2in SCH 40	7.11	90.00	195	0.4615		
4		6.50		65	1/2in SCH 40	7.11	90.00	195	0.4615		
			Total Feet =	260	gal/min =	28.44		<u>LTAR =</u>	0.3500		
			Feet Required =	257	Velocity =	2.72		(Itar + 5%)	0.3675		
Total # of Panels (PPBPS)				Des. Flow	<u>360</u>			(Itar w/25% red)	0.4667		
% of Dose Vol.		70		Pump Run=	12.66			(Itar + 5%)	0.4900		
Dose Volume		118		Tank Gal/IN	<u>21.4</u>						
Dose Pump Time		4.16		Elev. Head	8.00						
Drawdown in Inches		5.5			2.2						
Comments:											

