

# Subsurface Wastewater Disposal System Design Packet



PIN:

# Table of Contents

Project Details
Contact Information 1
Table of contents page    2
Introduction Letter
Common Form 5-13
Site Specifications
Soils Evaluation
Site Plans
Design Specifications
Initial System
Repair System
System Components
Septic Tank
Filter Specs
Nitrification Trench Detail24
Horizontal Installation Diagram25
Miscellaneous
Information for the Contractor
Insurance Information

# **PAC-ONE**, **PLLC**

Subsurface Wastewater Disposal System Design Packet

Date:

Proposed for a: -bedroom residential dwelling

Located at:

DESIGNED BY: Steve Bristow 920 Garner Rd, Selma NC 27576 Email: stevebristow57@gmail.com Phone: (919)906-4737

## Session Law 2022-11 (S372) Introduction Letter

This information contained within this packet concerns a soils and subsurface wastewater evaluation conducted by:

#### Stephen W. Bristow (LSS#1167) of Permit Acquisition Company – One, PLLC

for the property hereafter described as:

at the behest of:

Owner Print:	

Owner Signature: Natascha Clark

Owner's Representative (if any):

Date:

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 Permit in accordance with G.S. 130A-335 (a2), (a5), and (a6).

The LSS Evaluation is being submitted pursuant to, and meets the requirements, of G.S. 130A-335(a2).



Stephen WBurton



ROY COOPER • Governor KODY H. KINSLEY • Secretary MARK BENTON • Chief Deputy Secretary for Health SUSAN KANSAGRA • Assistant Secretary for Public Health Division of Public Health

# **Application for Services**

This application, in conjunction with the common form established in G.S. 130A-335(a3) and (a5), is optional for local health departments to be used for applications submitted in accordance with G.S. 130A-335(a2), (a3), and (a5). [hereinafter, G.S. 130A-335(a3) and (a5) permits referred to as (a2) Improvement Permit and (a2) Construction Authorization]

Applying for: (a2) Improvement Permit (a2) Construction Author	prization (a2) Repair/Construction Authorization
If applying for a Construction Authorization, please indicate desir Accepted Conventional Innovative Othe	red system type(s):
<ul> <li>New Construction</li> <li>Expansion</li> <li>System Reloce</li> <li>5-Year Expiration Requested (site plan provided)</li> <li>Non-Expression</li> <li>Requesting DHHS review? (systems &gt;3000 GPD or IPWW)</li> </ul>	piring Permit Requested (plat provided, defined in G.S.130A-334(7a)
Applicant: Mailing Address:	Owner: Mailing Address:
City:	City:
If the answer to any of the following questions is "yes", applica         Yes       No       Does the site contain any jurisdictional         Yes       No       Is any wastewater going to be generated         Yes       No       Is the site subject to approval by any o         Yes       No       Are there any easements or right of waster	I wetlands? ed on the site other than domestic sewage? other public agency?
are to be used to issue an Improvement Permit and/or Constru I understand that authorized county and state officials are gran	
Applicant Signature:	Date: Date:
Owner Sugnature.	Date

Permit/	'Fil	e	#:
---------	------	---	----

NC DEPARTMENT OF	ROY COOPER • Governor KODY H. KINSLEY • Secre	
HEALTH AND		•
HUMAN SERVICE	5	sistant Secretary for Public Health
The CLAM YORK &	Division of Public Health	
Submittal Includes: 🛛 🗌 (a2) Improvement Perm		Fee \$
		F(-3)
IVIPROV	EMENT PERMIT FOR G.S. 130A-33	5(d2)
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
Facility Type:		
Number of bedrooms: Number of Occupants	s: Other:	
Design Wastewater Strength: 🗌 Domestic	High Strength Industr	ial Process Wastewater
Proposed Design Daily Flow: GPD	Proposed LTAR (Initial): P	roposed LTAR (Repair):
Proposed Wastewater System Type*:	(Initial) Pump Rec	quired: 🗌 Yes 🗌 No 📄 May be required
Proposed Wastewater System Type*:	(Repair) Pump Rec	quired: 🗌 Yes 🗌 No 🗌 May be required
*Please include system classification for proposed wa	stewater system types in accordance with Rule	2.1301 Table XXXII
Effluent Standard: 🗌 DSE 🗌 HSE 🗌 NSF/ANS	51 40 🔲 TS-I 🗌 TS-II 🔲 RCW	
Saprolite System (Initial): 🗌 Yes 🗌 No Sapr	olite System (Repair): 🗌 Yes 🔲 No	
Fill System (Initial): 🗌 Yes 📄 No 🛛 If yes, specify: 🦳	New 🗌 Existing (when adding more than 6	5 inches of fill to system area provide a fill plan)
Fill System (Repair): 🗌 Yes 🗌 No 🛛 If yes, specify: 🗌	] New 🔲 Existing (when adding more than	6 inches of fill to system area provide a fill plan)
Usable Depth to LC (Initial) <sup>x</sup> :	Usable Depth to LC (Repair) <sup>x</sup> :	× Limiting Condition
Max. Trench Depth (Initial) <sup>‡</sup> : Max	. Trench Depth (Repair) <sup>‡</sup> : #	<sup>‡</sup> Measured on the downhill side of the trench
Artificial Drainage Required: 🗌 Yes 🗌 No 🛛 If yes, p		
Type of Water Supply: 🗌 Private well 🛛 Public we		
Drainfield location meets requirements of Rule .0508	Yes No Drainfield location meets	requirements of Rule .0601: Yes 🗌 No 🗌
Permit valid for: 🗌 Five years [site plan submitted pu	ırsuant to GS 130A-334(13a)] 🔲 No expiratio	on [plat submitted pursuant to GS 130A-334(7a)]
Permit conditions:		
Licensed Soil Scientist Print Name:		Laft
Licensed Soil Scientist Finit Valle.		S AW SOLO
,	mitted pursuant to and meets the requireme	11 「私留」第33公 ) (
	*See attached site sketch*	Non 23 Charles and a charles a
NCDHHS/DPH/FHS/OSWP		Revised January 2024

Permit/File #: \_\_



## This Section for Local Health Department Use Only

Initial submittal received: \_\_\_\_\_\_ by \_\_\_\_\_ Date Initials

G.S. 130A-335(a3) states the following:

When an applicant for an Improvement Permit submits to a local health department an Improvement Permit application, the permit fee charged by the local health department, the common form developed by the Department, and a soil evaluation pursuant to subsection (a2) of this section, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Improvement Permit includes all of the required components. If the local health department determines that the Improvement Permit is incomplete, the local health department shall notify the applicant of the components needed to complete the Improvement Permit. The applicant may submit additional information to the local health department to cure the deficiencies in the Improvement Permit. The local health department shall make a final determination as to whether the Improvement Permit is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The Department shall develop a common form for use as the Improvement Permit.

The review for completeness of this Improvement Permit was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

Incomplete (If box is checked, information in this section is required.)					
The following items are missing:					
Copies of this were sent to the LSS and the Applicant on	Date				
State Authorized Agent:		Date:	_		
Complete					
State Authorized Agent:		Date:			

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. <u>This permit is subject to revocation if the site plan, plat, or the intended use changes</u>. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of 15A NCAC 18E and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: \_\_\_\_\_

\*See attached site sketch\*



Permit/File #: \_\_\_\_\_

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

LHD USE ONLY: This IP resubmittal received:		by	
	Date	Initials	

The following items are being resubmitted pursuant to G.S. 130A-335(a3) for issuance of the Improvement Permit:

I, \_\_\_\_\_\_\_hereby attest that the information required to be included with this re-submittal Licensed Soil Scientist (Print Name) is accurate and complete to the best of my knowledge and that the proposed Improvement Permit meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

Signature of Licensed Soil Scientist

The section below is for Local Health Department use after submittal of items noted as missing above.

Date

#### 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:

Date

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

State Authorized Agent: \_\_\_\_\_

Complete

State Authorized Agent: \_\_\_\_\_

Date: \_\_\_\_\_

Date:



Permit/File #: \_\_\_\_

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

County:			Pre-Construction Conference Required: Yes 🗌 No 🗌
PIN/Lot Identifier:			
Issued To:			
Property Location	:		
AOWE/PE Plans/E	valuations Provided	: Yes 🗌 🛛 No 🗌 🛛	If yes, name and license number of AOWE/PE:
Facility Type:			
Number of bedroo	oms: Numb	per of Occupants: _	Other:
New	Expansion	Repair	System Relocation Change of Use
Basement?	Yes	🗌 No	Basement Fixtures? Yes No
Crawl Space?	Yes	🗌 No	Slab Foundation? Yes No
Type of Wastewat	er System*		(Initial)(Repair)
*Please include sy	stem classification f	or proposed waste	water system types in accordance with Rule .1301 Table XXXII
Design Daily Flow:	:	GPD Was	stewater Strength: Domestic High Strength Industrial Process WW
	-120 Section 53, Eng vide engineering doc		ilizing Low-flow Fixtures and Low-flow Technologies? 🗌 Yes 🗌 No
Effluent Standard:	DSE HSI	E 🗌 NSF/ANSI 4	0 TS-I TS-II RCW
Type of Water Sup	oply: 🗌 Private well	I 🗌 Public well	Shared well Municipal Supply Spring Other:
Installation Requi	rements/Conditions	<u>s</u>	
Septic Tank Size: _	gallons	Total Trench/Bec	d Length: feet Trench/Bed Spacing: feet on center
Trench/Bed Width	n: inches	LTAR:	gpd/ft <sup>2</sup> Usable Depth to LC (Initial) <sup>x</sup> : <sup>x</sup> Limiting condition
Soil Cover:	inches Slope Co	prrected Maximum	Trench/Bed Depth <sup>‡</sup> : inches <i>* Measured on the downhill side of the trench</i>
Pump Tank Size (if	f applicable):	gallons	Requires more than 1 pump? 🗌 Yes 📄 No
Pump Requiremer	nts: ft. TDH v	vs GPM	Grease Trap Size (if applicable): gallons
Distribution Meth	od: 🗌 Serial 🗌	D-Box or Parallel	Pressure Manifold(s)  LPP  Other:
Artificial Drainage	Required: Yes 🗌	No 🗌 If yes, plea	ase specify details:
Legal Agreements	s (If the answer is "Ye	es" to any type of le	legal agreements, please attach a copy of the agreement.)
Multi-party Agree	ment Required [.020	04(g)]: 🗌 Yes 🗌	No Declaration of Restrictive Covenants: Yes No
			equired [.0301(b)]: 🗌 Yes 🔲 No
Management Enti	ty Required: 🗌 Yes	s 🗌 No Minimu	Im O&M Requirements:
Permit condition	ns:		
	(		
			y reference into this permit and shall be met. Systems shall be installed in accordance rization is subject to revocation if the site plan, plat, or the intended use changes. The
		-	hange in ownership of the site. This Construction Authorization is subject to compliance 
AOWE/PE Print Na	ame:		
AOWE/PE Signatu	re:Alexa Deg	ter	Date: Date:
			uant to and meets the requirements of G.S. 130A-335(a2) and (a5).
		:	Date: Date: Date: Date: Certification Number 10012E



## 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	Date	
State Authorized Agent:	D	ate:

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\*



# **Re-submittal of Construction Authorization**

	LHD USE ONLY: This CA resubmittal received:		by	
		Date	Nitials	-
The following i	items are being resubmitted pursuant to G.S. 130A-33:	5(a5) for issuance	of the Construction Author	ization:
	ST /	ATTr	S-	
I,		t the information	required to be included wit	h this re-submittal
is accurate and	Donsite Wastewater Evaluator (Print Name) I complete to the best of my knowledge and that the p and local laws, regulations, rules, and ordinances.	proposed Construc	ction Authorization meets a	ill applicable
Signatur	re of Authorized On-Site Wastewater Evaluator		Date	
	The section below is for Local Health Department use	after submittal of i	items noted as missing above	
LHD Follow-u	up Completeness Review of Construction Au	uthorization		
	completeness of this Construction Authorization re-su on Authorization is determined to be:	ubmittal was cond	lucted in accordance with G	6.S. 130A-335(a5).
Incomplete	(If box is checked, information in this section is requir	red.)		
The following it	tems are missing:			
	QUAN	N VIDEN	19	
Copies of this w	vere sent to the AOWE/PE and the Applicant on	Date	_	
State Authorize	ed Agent:		Date:	
Complete				



Permit/File #: \_\_\_\_\_

## ADDENDUM TO G.S. 130A-335(a2) SUBMITTAL

County:	
PIN/Lot Identifier:	
Issued To:	
Additional Improvement Permit Conditions:	
THE STATE	
A NAR S	
845/ 3	710
	I I I
Additional Construction Authorization Conditions:	
1PRIL 12 VT16	
	R1+ 12
QUAM VID	



Permit #:

# **Re-submittal of Construction Authorization**

	LHD USE ONLY: This CA resubmittal received:		by	
		Date	Initials	
The following i	items are being resubmitted pursuant to G.S. 130A-335	(a5) for issuance	of the Construction Authoriz	zation:
١,	hereby attest that	the information	required to be included with	n this re-submittal
	nsite Wastewater Evaluator (Print Name)			
	complete to the best of my knowledge and that the p and local laws, regulations, rules, and ordinances.	roposed Constru	ction Authorization meets al	l applicable
Tederal, State, a	and local laws, regulations, rules, and ordinances.			
Sianatu	re of Authorized On-Site Wastewater Evaluator	1.00	 Date	
- <u>-</u>				
	The section below is for Local Health Department use	after submittal of	items noted as missing above	
	The section below is for Local Health Department ase	ajter sabinitar oj	nems noted as missing above.	
LHD Follow-	up Completeness Review of Construction Au	thorization		
The review for	completeness of this Construction Authorization re-su	hmittal was con	ducted in accordance with C	S 1204 22E/2E)
	on Authorization is determined to be:	Diffictal was cond	ducted in accordance with G.	.3. 130A-333(d3).
Incomplete	(If box is checked, information in this section is require	ed.)		
The following it	tems are missing:			
-	* ALL V			
	JE OLIN	1 VIDEN	18	
Conice of this	were cont to the AOME/DE and the Analizant an		7	
Copies of this v	vere sent to the AOWE/PE and the Applicant on	Date		
State Authorize	ed Agent:		Date:	
_				
Complete				
	ed Agent:		Date:	

DEI	PARTMENT OF	HEALTH AN	D HUMAN SERVI	CES		Sheet	1	of	3	
DIV	ISION OF PUBI	.IC HEALTH,	ENVIRONMENTA	AL HEALTH SECTION		PRO	PERTY ID #:		9588-65-932	6
ON-SITE WATER PROTECTION BRANCH							COUNTY:		HARNETT	
			SOIL/SIT	E EVALUATION for	<b>ON-SITE WASTEV</b>	VATER S	YSTEM			
				(Complet	te all fields in full)					
OW	NER:	BLW HOLDIN	IGS LLC				DATE EVA	LUATED:	4/4/2024	
AD	DRESS:	350 WAGONI	ER DR FAYETTEVI	LLE, NC 28303-4647						
PRO	OPOSED FACII	LITY:	DWELLING	PROPOSED D	DESIGN FLOW(.0400):	360gpd	PROPER	TY SIZE:	0.527 Acres	
LO	CATION OF SIT	ГE:	LOT 1 BRIARWOO	DD BLUFF		Pl	ROPERTY REC	ORDED:		
WA	TER SUPPLY:		-	Public		WAT	TER SUPPLY S	ETBACK:		
EV.	ALUATION ME	ETHOD:	Auger Boring		TYP	E OF WA	STEWATER:		Sewage	
P R O	.0502		SOIL MC	ORPHOLOGY	PROF	OTHE TILE FA	R CTORS			
F I	LANDSCAPE	HORIZON			.0504				.0509	.0502(d)
Ĺ	POSITION/	DEPTH	.0503	.0503	SOIL	.0505	.0506	.0507	PROFILE	SLOPE
Е	SLOPE %	(IN.)	STRUCTURE/	CONSISTENCE/	WETNESS/	SOIL	SAPRO	RESTR	CLASS	CORRE
#			TEXTURE	MINERALOGY	COLOR	DEPTH	CLASS	HORIZ	& LTAR	CTION
		12	GR/SL	FR/NS/NP/SEXP	10YR 4/4				Suitable	
	Linear Slope	44	SBK/SCL	FR/SS/SP/SEXP	7.5YR 4/6				Suitable	1
		48	SBK/SCL	FR/SS/SP/SEXP	2.5YR 4/6 w/10YR 4/2	48in			0.300	1
	2%								0.500	
	2%				1				gpd/sqft	inches
		14	GR/SL	FR/NS/NP/SEXP	10YR 4/4				0.411	
	Linear Slope	40	SBK/SCL	FR/SS/SP/SEXP	7.5YR 4/6				Suitable	1
2		48	SBK/SCL	FR/SS/SP/SEXP	2.5YR 4/6 w/10YR 4/2	48in			0.200	1
	20/				1				0.300	
	2%				1				gpd/sqft	inches
		20	GR/SL	FR/NS/NP/SEXP	10YR 4/4				0.111	
	Linear Slope	28	SBK/SCL	FR/SS/SP/SEXP	7.5YR 4/6				Suitable	1
3		48	SBK/SCL	FR/SS/SP/SEXP	2.5YR 4/6 w/10YR 4/2	48in			0.300	1
	2%								gpd/sqft	inches
			/	///		D SOIL SC	9		gpu/squ	menes
			,				18g			
4							×			
+										
						RTH CARO	Ĭ			
	DESCRIPT	ION	INITIAL SYSTEM	REPAIR SYSTEM	Stephen	WBA	tow			
Ava	uilable Space (.0:	508)	yes	yes	SITE CLASSIFICAT	ΓΙΟΝ (.05	09):	Suitable		
Sys	tem Type(s)		IIIg	IIIg	EVALUATED BY:		Stephen W B	ristow		
Site	LTAR (gpd/sqf	t)	0.300	0.300	OTHER(S) PRESEN	JT:				

111		
6"	senaration	requirement.

Maximum Trench Depth (in)

18

16 COMMENTS: Profile 3 has soil wetness as a limiting condition within 30" of the surface. Profile 3 will require fill material to meet

#### LEGEND

LANDSCAPE POSITION	SOIL GROUP	SOIL TEXTURE	CONVENTIONAL LTAR (gpd/ft <sup>2</sup> )	SAPROLITE LTAR (gpd/ft <sup>2</sup> )	LPP LTAR (gpd/ft <sup>2</sup> )		ALOGY/ STENCE	STRUCTURE
CC (Concave slope)		S (Sand)		0.6 - 0.8		MOIST	WET	SG (Single grain)
CV (Convex Slope)	Ţ	LS (Loamy sand)	0.8 - 1.2	0.5 -0.7	0.4 -0.6	Lo (Loose)	NS (Non-sticky)	M (Massive)
D (Drainage way)		SL (Sandy loam)		0.4 -0.6		VFR (Very friable)	SS (Slightly sticky)	GR (Granular)
FP (Flood plain)	Ш	L (Loam)	0.6 - 0.8	0.2 - 0.4	0.3 - 0.4	FR (Friable)	S (Sticky)	SBK (Subangular blocky)
FS (Foot slope)		SiL (Silt loam)		0.1 - 0.3		Fl (Firm)	VS (Very sticky)	ABK (Angular blocky)
H (Head slope)		SCL (Sandy clay loam)		0.05 - 0.15**		VFI (Very firm)	NP (Non-plastic)	PR (Prismatic)
L (Linear Slope)		CL (Clay loam)				EFI (Extremely firm)	SP (Slightly plastic)	PL (Platy)
N (Nose slope)		SiCL (Silty clay loam)					P (Plastic)	
R (Ridge/summit)		Si (Silt)	0.3 - 0.6		0.15 - 0.3		VP (Very plastic)	
S (Shoulder slope)		SC (Sandy clay)				SEXP (Slight	ly expansive)	
T (Terrace)		SiC (Silty clay)				EXP (Ex	pansive)	
TS (Toe Slope)	IV	C (Clay)	0.1 - 0.4	None	0.05 - 0.2			-
		O (Organic)	None					

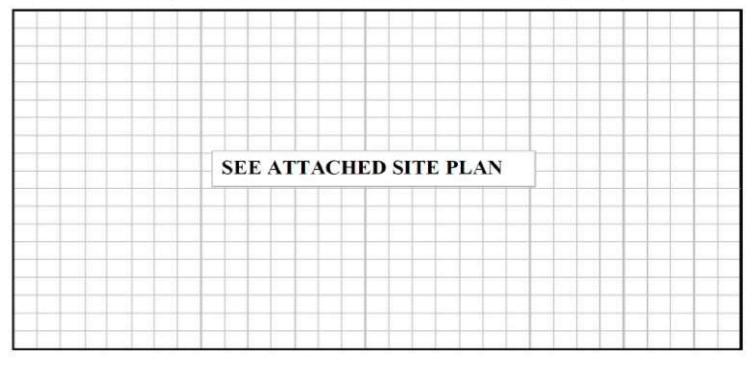
\* Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.

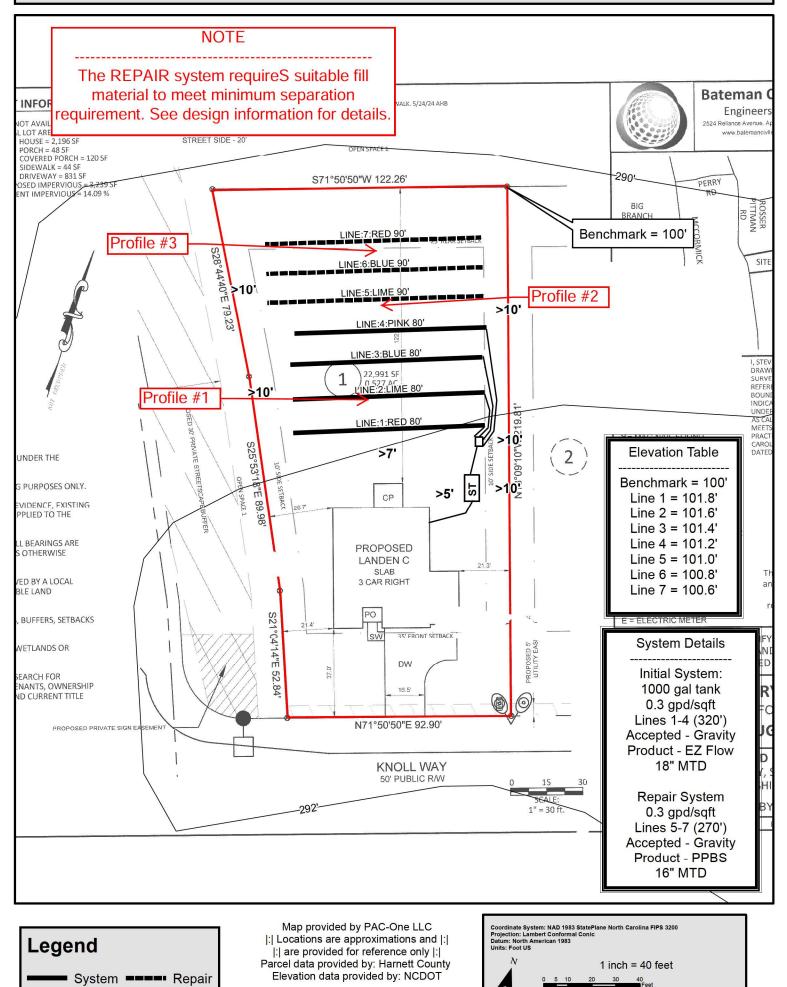
\*\*Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200.

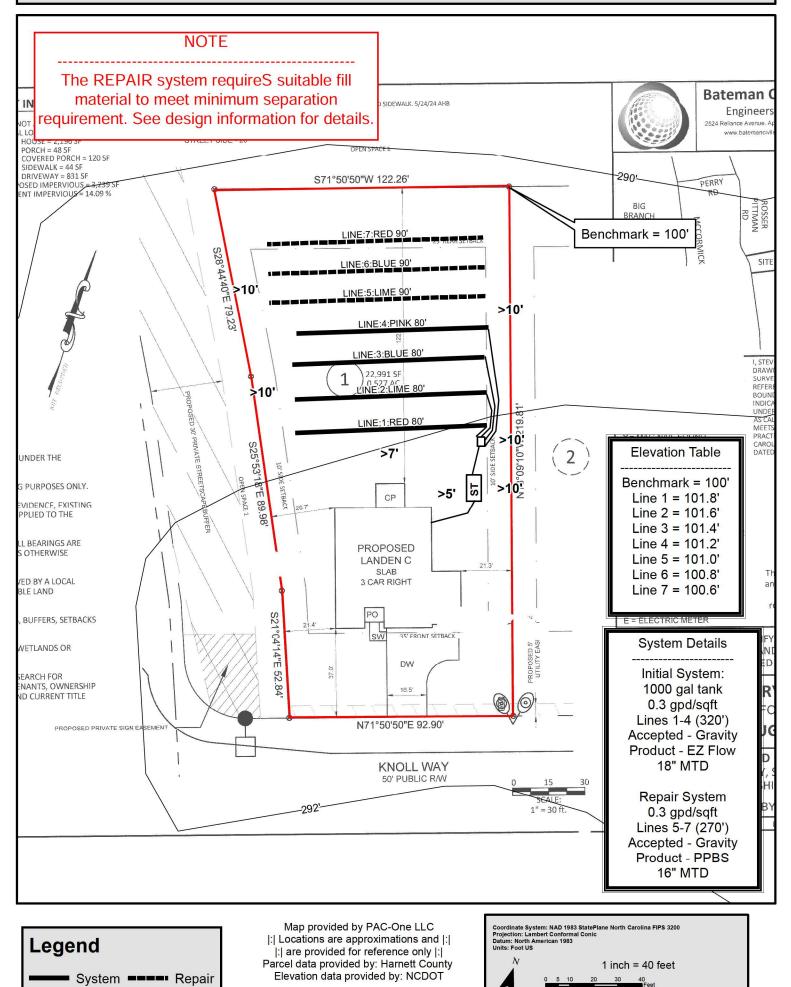
HORIZON DEPTH In inches below natural soil surface DEPTH OF FILL In inches from land surface RESTRICTIVE HORIZON Thickness and depth from land surface SAPROLITE S(suitable) or U(unsuitable); Evaluation of saprolite shall be by pits. SOIL WETNESS Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation CLASSIFICATION

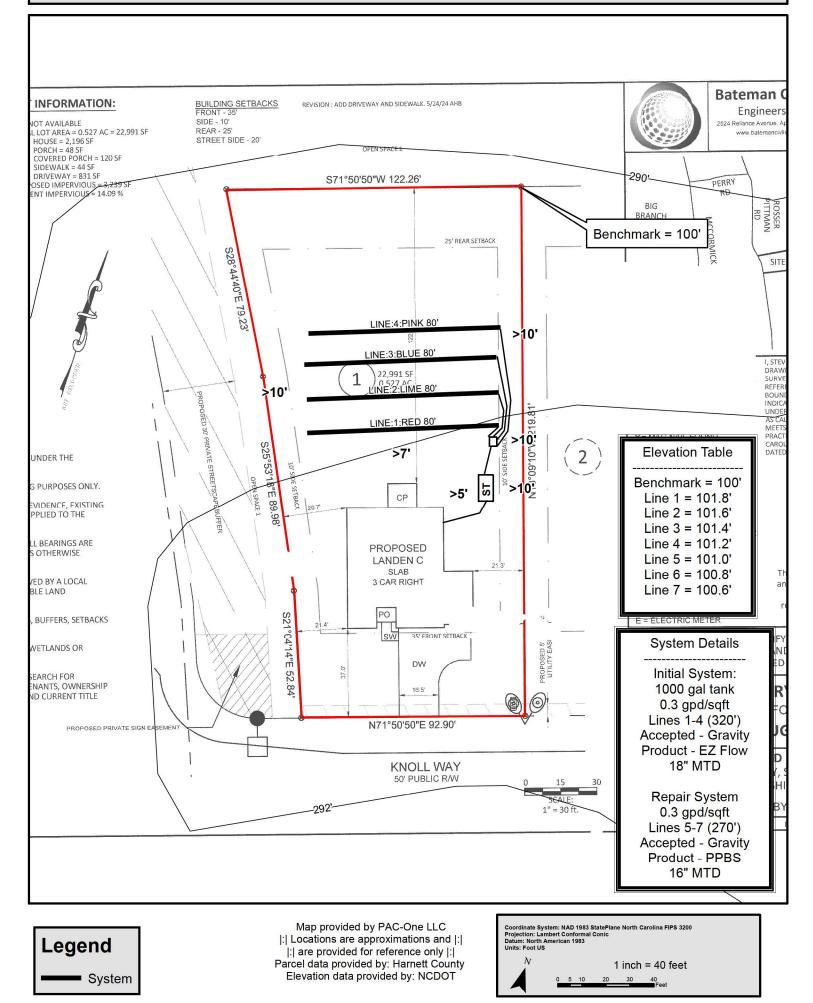
S (Suitable) or U (Unsuitable)

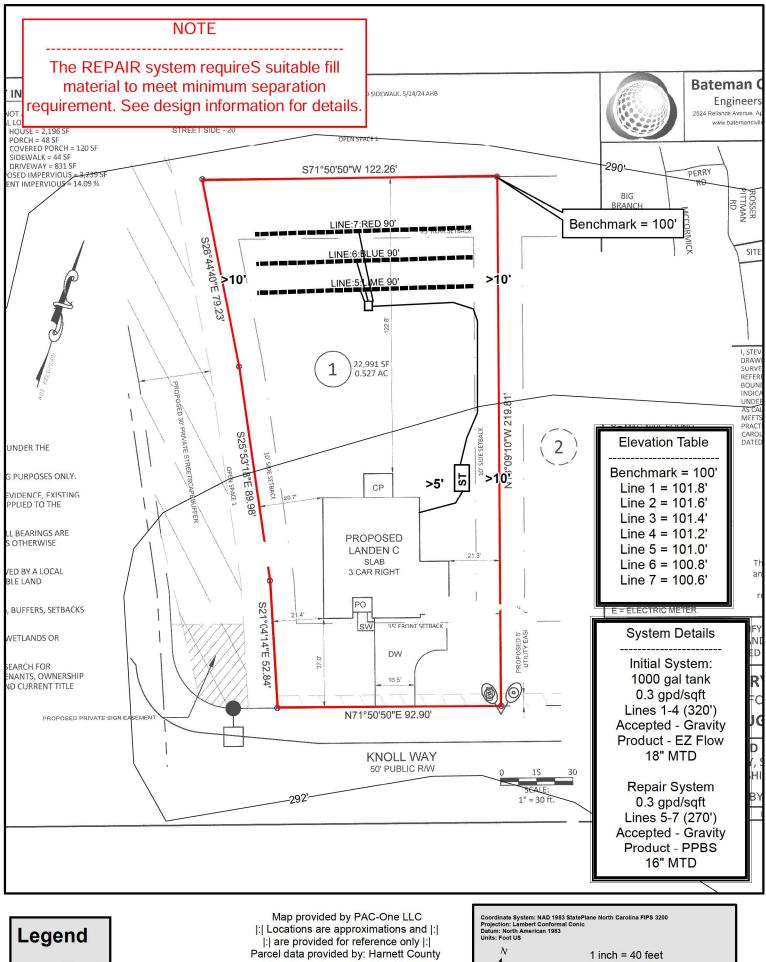
Show profile locations and other site features (dimensions, reference or benchmark, and North).











Repair

Elevation data provided by: NCDOT

10 20 30 40 Feet

# **Initial System Overview for**

LOT 1 BRIARWOOD BLUFF

Design Criteria	_	
Number of bedrooms	3	_
Design Flow	360	_ gal/day
Soil L.T.A.R.	0.300	 gal/day/sq ft
		-
System Details		
Trench Depth	18	inches
Total Trench Length	320	feet
	h.	-
System Components		
Trench Product	EZ Flow	
Septic Tank	1000	gallons

Effluent Filter Polylok PL-68 (or approved equivalent)

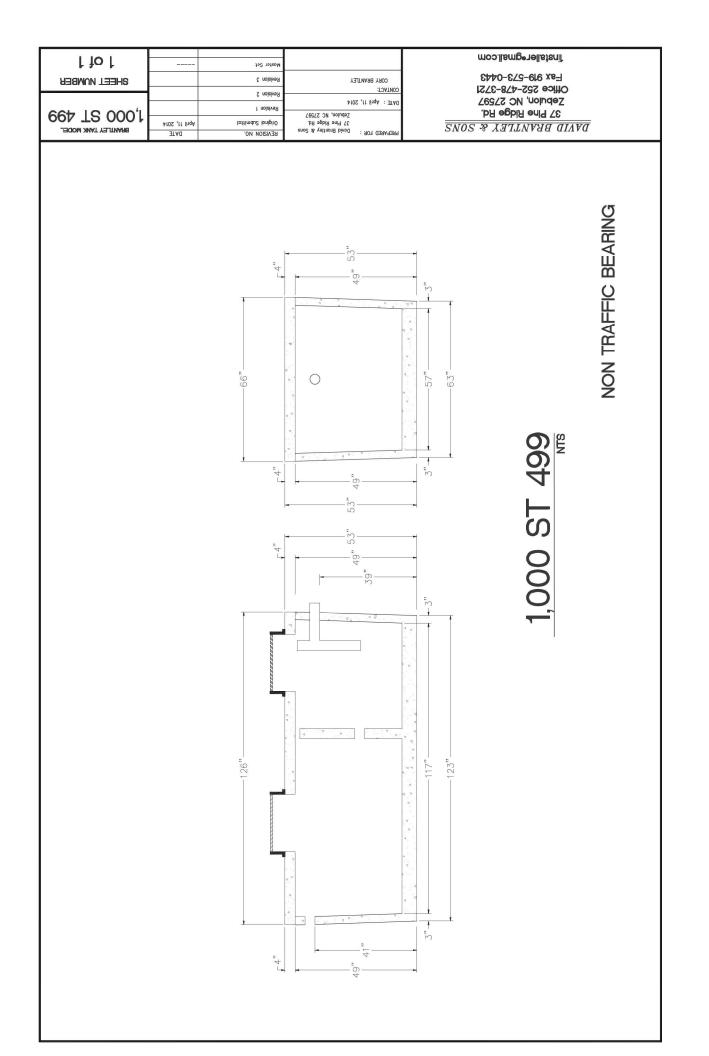
# **Repair System Overview for**

LOT 1 BRIARWOOD BLUFF

_
ent)
_ ei

# NOTE

This system requires 4" of settled suitable fill material to meet minimum separation requirement. See design information for details.





### PL-68 Filter and Tee

PL-68 is much more than just an effluent filter. The housing can also be used as an inlet baffle (tee) or an outlet baffle. The housing is designed to accept Polylok's snap in gas deflector to deflect gas bubbles away from the tee and to keep the solids in the tank.

Features:

- Offers 68 linear feet of 1/16" filter slots, which significantly extends time between cleaning.
- Accepts 3/4" PVC handle.
- Locks in any 360° position when used with PL-68 Tee.
- PL-68 Housing can be used as an inlet or outlet tee.
- Gasket prevents bypass.

#### **PL-68** Installation:

Ideal for residential waste flows up to 800 gallons per day (GPD). Easily installs in any new or existing 4" outlet tee.

- 1. Locate the outlet of the septic tank.
- 2. Remove the tank cover and pump tank if necessary.
- 3. Glue the filter housing to the outlet pipe, or use a Polylok Extend & Lok if not enough pipe exists.
- 4. Insert the PL-68 filter into tee.
- 5. Replace and secure the septic tank cover.

#### PL-68 Maintenance:

The PL-68 Effluent Filter will operate efficiently for several years under normal conditions before requiring cleaning. It is recommended that the filter be cleaned every time the tank is pumped, or at least every three years.

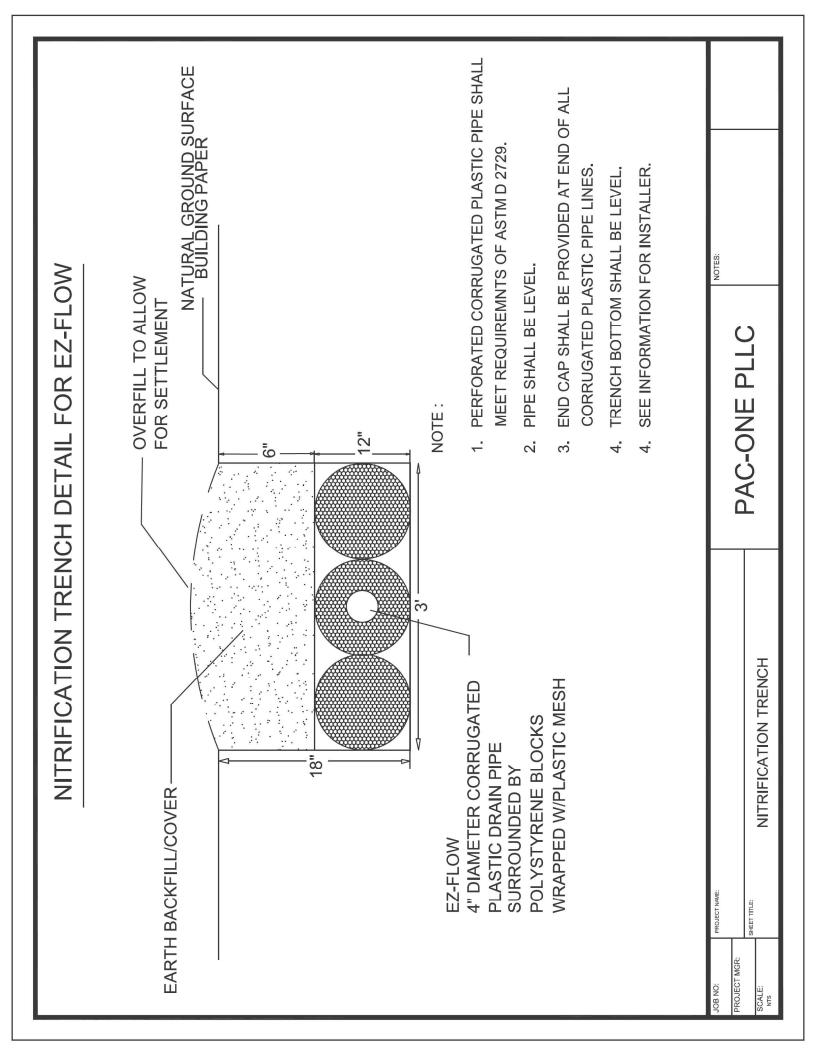
- 1. Do not use plumbing when filter is removed.
- 2. Pull PL-68 out of the tee.
- 3. Hose off filter over the septic tank. Make sure all solids fall back into septic tank.
- 4. Insert filter back into tee/housing.

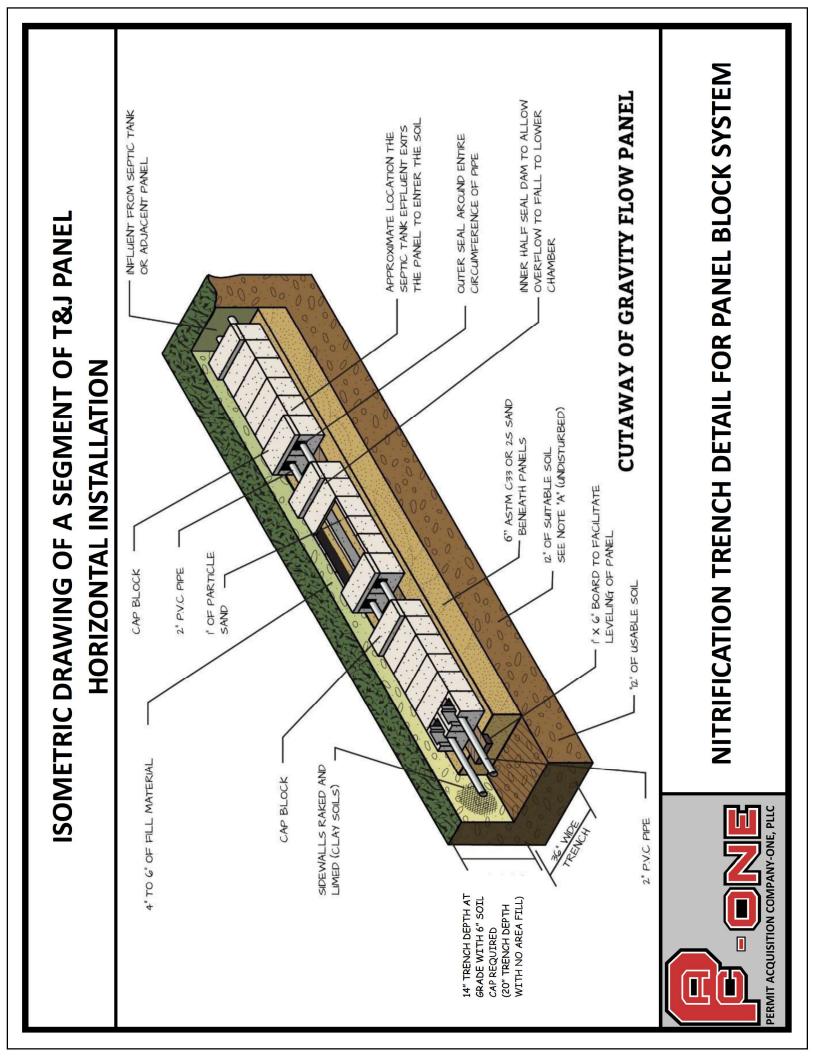
Related Products: PL-68 Filter Concrete Baffle Extend & Lok™



Extend & Lok™ Easily installs into existing tanks.







# **INFORMATION FOR THE CONTRACTOR**

# The permit should be read very carefully prior to bidding. The following are details that must be considered by the contractor prior to and during installation:

- Tanks shall be approved by NCDHHS and certification supplied by the manufacturer.

- The installer shall be responsible to the owner for placement of the tanks and to ensure that final grades are returned to the original grade, with exception of added structural features.

- The supply trench shall be compacted to eliminate cavities left during initial fill placement without damage or displacement of pipe or fittings.

- Installation of the system shall be during dry conditions in order to protect the soil structure.

- All fittings shall be pressure rated fittings.

- All joints shall be cleaned with PVC pipe cleaner and a heavy-bodied PVC pipe glue applied to weld all joints.

- Where required by the regulating County Health Department, post installation inspections by the Engineer or his representative must be scheduled <u>5 week days</u> in advance.

- Trenches shall be carefully excavated so the bottom is level **for the entire length and width of the trench**. If the trench bottom level needs adjusting after excavation it **must** be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over-excavated during initial trenching. All fine grading within the trench will be done by hand with a shovel. No loose material will be left in the trench.

- All pipe openings in the tanks shall be properly filled with press boot seal. This also applies to the joints around the riser.

- All tanks shall be properly back filled and compacted to prevent settlement.

- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.

- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.

- Elevations at pin flag locations should be checked by the contractor prior to beginning trench excavation.

- Pump tank riser shall be 6" above grade, control panel shall be 18" above grade.

-Septic tank shall have specified effluent filter or approved equivalent.

#### **System Specifics:**

- System uses EZ-Flow drain line.
- Repair uses PPBS drain line. This system requires the use of fill material.

# **Considerations for Sites Requiring the Use of Fill Material**

Sites requiring fill material to be imported must meet certain criteria as specified in 15A NCAC 18A .1900 and any other stipulations detailed in the manufacturers specifications of any product being proposed. Fill is considered any soil material that is not "naturally occurring soil". Per section .1935 (16) naturally occurring soil means soil formed in place due to natural weathering processes and being unaltered by filling, removal, or other man-induced changes other than tillage.

Sites classified UNSUITABLE as to soil depth or soil wetness may be reclassified as PROVISIONALLY SUITABLE with respect to soil depth or soil wetness conditions by utilizing shallow placement of nitrification trenches in the naturally occurring soil as per section .1956 (1). Shallow trenches may be used where at least 24 inches (if conventional trench depth product is being used) of naturally occurring soil are present above saprolite, rock, or soil wetness conditions and all other factors are PROVISIONALLY SUITABLE or SUITABLE.

## Certain criteria must be met for the installation of these systems:

- 1. Systems shall be installed only on sites with uniform slopes less than 15 percent. Storm water diversions and subsurface interceptor drains or swales may be required upslope of the system.
- 2. Soil cover above the original grade shall be placed at a uniform depth over the entire nitrification field and shall extend laterally five feet beyond the nitrification trench.
- 3. The soil cover shall be placed over a nitrification field only after proper preparation of the original ground surface. Where fill material is added, the fill material and the existing soil shall be mixed to a depth of six inches below the interface. Heavy vegetative cover or organic litter shall be removed before the additional fill material is incorporated.
- 4. The type and placement of soil cover shall be approved by the local health department. Fill material shall have such soil texture to be classified as sand or loamy sand (Soil Group I) up to the top of the nitrification trenches. The final six inches of fill used to cover the system shall have a finer texture (such as Group II, III) for the establishment of a vegetative cover. Existing fill material shall have no more than ten percent by volume of fibrous organics, building rubble, or other debris and shall not have discreet layers containing greater than 35 percent of shell fragments. If any questions about the suitability of fill material exist, approval must be gained from the designer and local health department.
- 5. After placement of fill the covered trench surface material shall be shaped to shed surface water and prevent the ponding of surface water while maintaining the minimum 6" separation requirement, and shall be stabilized with a vegetative cover against erosion.

# Miscellaneous errors and omissions

Markel has over 35 years of experience providing miscellaneous errors and omissions insurance. Our leadership has a wealth of knowledge and expertise in protecting small business owners from litigation stemming from actual or perceived negligence. Our underwriting team has crafted policies that fit your specific needs, while our seasoned, in-house claims professionals will help you successfully navigate a loss or claim should you need their assistance.

#### **Reporting new professional liability claims**

New Claims can be reported in writing by website, email, fax, or regular mail. Please refer to your specific policy for all relevant reporting requirements.

To report a new claim, visit **markelinsurance.com/file-a-claim** and select "BOP/Miscellaneous errors and omissions/Workers compensation" from the drop down. You can also email **newclaims@markelcorp.com** and include the following:

- Policy number
- Insured and claimant names with contact details
- Date of loss
- Location and description of loss
- All pertinent documentation available (incident report, police report, witness information, photos, etc.)

#### **General claims questions**

For information about an already reported Professional Liability claim, email: **markelclaims@markelcorp.com**, or contact your assigned claim examiner directly.

Additional contact information:

- (800) 362-7535 or (800) 3 MARKEL
- (855) 662-7535 or (855) 6 MARKEL
- Markel Claims Department, P.O. Box 2009, Glen Allen, VA 23058-2009

While your policy is primarily designed to protect against a variety of professional errors and omissions claims, it may also provide protection for other specific exposures such as pollution claims, disciplinary proceedings, third party discrimination claims, subpoena and public relations expenses, among others. Contact your agent for more information, or if you have reported a Claim, your assigned examiner.

#### **Risk management and loss prevention**

Policyholders have access to loss control and risk management resources that can assist in a better understanding of potential hazards within their operation and ways to reduce claims.

Here's a sample of the many services available:

- Exposure assessments
- Loss analysis tools
- Safety videos
- Safety training materials
- Regulatory program guidance

# Designed Protection<sup>®</sup> for professional service providers and associations – professional service providers hotline

Our panel of Risk Management experts is available to discuss general risk management related concerns and questions. Please visit **markelcorp.com/riskmanagement** and under "Designed Protection<sup>®</sup>" click "Click here," enter your policy number, then select "Professional Service Providers Hotline" to access our panel of experts.

#### Visit our website at: markelinsurance.com/risk-management-home.

For more information about any of Markel's loss control services, contact us at (888) 500-3344 or email **losscontrol@markelcorp.com**.



Products and services are offered through Markel Specialty, a business division of Markel Service Incorporated. Policies are written by one or more Markel insurance companies. Terms and conditions for rate and coverage may vary. 201806



ACORD	

# **CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY)

C B	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED								
IN	EPRESENTATIVE OR PRODUCER, AND MPORTANT: If the certificate holder is a ne terms and conditions of the policy, ce	n ADI	DITIC	ONAL INSURED, the polic				· · · ·	
	ertificate holder in lieu of such endorse		•	oloo may roquiro an onao				ninoato dece net conter rigino	
PRO	DUCER				CONTAC NAME:	T Angela S	Sensenig	1	
Wad	le Associates, LLC				PHONE (A/C, No	, EAU.	631-5269	FAX (A/C, No): (252)649	9-2443
250	) Pollock St.				E-MAIL ADDRES	<sub>SS:</sub> asensen:	ig@wadeict	.com	
						INS	URER(S) AFFOR	DING COVERAGE	NAIC #
	w Bern NC 2856	50			INSURE	RA: Auto-Ow	mers		18988
INSU					INSURE	RB:Builder	s Mutual		10844
	rmit Acquistion Company One, P	PLLC			INSURE	RC:Markel	Insurance	Company	38970
920	) Garner Rd.				INSURE				
Sel	lma NC 275	76-7	763		INSURE				
				NUMBER: 23-24	INSURE	RF:		REVISION NUMBER:	
	HIS IS TO CERTIFY THAT THE POLICIES OF	-		-	EN ISSU	ED TO THE IN			
С	NDICATED. NOTWITHSTANDING ANY REQUI ERTIFICATE MAY BE ISSUED OR MAY PERT XCLUSIONS AND CONDITIONS OF SUCH PC	AIN, T	HE IN	ISURANCE AFFORDED BY T	HE POL	ICIES DESCRI	BED HEREIN I		3
INSR LTR		ADDL S	SUBR WVD	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	X COMMERCIAL GENERAL LIABILITY		Τ					EACH OCCURRENCE \$	1,000,000
A	CLAIMS-MADE X OCCUR							DAMAGE TO RENTED PREMISES (Ea occurrence) \$	300,000
				35613487		11/22/2023	11/22/2024	MED EXP (Any one person) \$	10,000
								PERSONAL & ADV INJURY \$	Excluded
	GEN'L AGGREGATE LIMIT APPLIES PER:							GENERAL AGGREGATE \$	2,000,000
								PRODUCTS - COMP/OP AGG \$	2,000,000
								COMBINED SINGLE LIMIT	
								(Ea accident)	
	ANY AUTO							BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$	
	AUTOS AUTOS NON-OWNED							PROPERTY DAMAGE	
	HIRED AUTOS							(Per accident) \$	
	UMBRELLA LIAB OCCUR							EACH OCCURRENCE \$	
	EXCESS LIAB CLAIMS-MADE							AGGREGATE \$	
	DED RETENTION \$							\$	
	WORKERS COMPENSATION							X PER OTH- STATUTE ER	
	AND EMPLOYERS' LIABILITY Y / N ANY PROPRIETOR/PARTNER/EXECUTIVE							E.L. EACH ACCIDENT \$	500,000
в	(Mandatory in NH)	N/A		69KOUB-5N24039-7-23		11/14/2023	11/14/2024	E.L. DISEASE - EA EMPLOYEE \$	500,000
	If yes, describe under DESCRIPTION OF OPERATIONS below							E.L. DISEASE - POLICY LIMIT \$	500,000
С	Errors & Omissions			ME01642		11/22/2023	11/22/2024	General Aggregate	\$1,000,000
								Each Occurrence	\$1,000,000
DES	DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)								
CE	CERTIFICATE HOLDER CANCELLATION								
	*FOR INFORMATIONAL PURPO XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	xxx	_Y*	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.				D BEFORE
					AUTHOR	RIZED REPRESEN	TATIVE		
	I				N Whi	tsett/RACI	HEL	N. Reed WD	-

The ACORD name and logo are registered marks of ACORD

© 1988-2014 ACORD CORPORATION. All rights reserved.

### A STOCK COMPANY



# MARKEL INSURANCE COMPANY

10275 West Higgins Road, Suite 750 Rosemont, IL 60018 (800) 431-1270

**INSURANCE POLICY** 

Coverage afforded by this policy is provided by the Company (Insurer) and named in the Declarations.

In **Witness Whereof**, the company (insurer) has caused this policy to be executed and attested and countersigned by a duly authorized representative of the company (insurer) identified in the Declarations.

Kapileen anne Sturgeon

Bun W. Jakes

Secretary

President



# MARKEL INSURANCE COMPANY

# NOTICE TO POLICYHOLDERS CLAIM REPORTING

Please immediately report a new claim under this policy to:

#### newclaims@markel.com

For general claims inquiries after a claim has been reported, please email:

#### markelclaims@markel.com

In order for us to expedite the handling of your claim and quickly refer it to the appropriate party, please have the following information available:

- Claim number (or report as new)
- Your name, contact information and position with the Named Insured
- Date of loss
- Policy number and insured name
- Details of loss

Our address and additional contact information are as follows:

Markel Claims P.O. Box 2009 Glen Allen, VA 23058-2009 Phone: 800-362-7535 (800) 3MARKEL Fax: 855-662-7535 (855) 6MARKEL

Markel understands the importance of having knowledgeable claims professionals prepared to answer your questions with personal attention and expertise. With claims professionals located across four times zones, you are sure to find the claims assistance you need -- when you need it.

#### PLEASE REFER TO THE POLICY FOR ANY NOTICE AND REPORTING PROVISIONS AND DUTIES IN THE EVENT OF LOSS OR DAMAGE TO COVERED PROPERTY.



# MARKEL INSURANCE COMPANY

# U.S. TREASURY DEPARTMENT'S OFFICE OF FOREIGN ASSETS CONTROL ("OFAC") ADVISORY NOTICE TO POLICYHOLDERS

No coverage is provided by this Policyholder Notice nor can it be construed to replace any provisions of your policy. You should read your policy and review your Declarations page for complete information on the coverages you are provided.

This Notice provides information concerning possible impact on your insurance coverage due to directives issued by OFAC. **Please read this Notice carefully.** 

The Office of Foreign Assets Control (OFAC) administers and enforces sanctions policy, based on Presidential declarations of "national emergency". OFAC has identified and listed numerous:

- Foreign agents;
- Front organizations;
- Terrorists;
- Terrorist organizations; and
- Narcotics traffickers;

as "Specially Designated Nationals and Blocked Persons". This list can be located on the United States Treasury's web site – https://www.treasury.gov/ofac.

In accordance with OFAC regulations, if it is determined that you or any other insured, or any person or entity claiming the benefits of this insurance has violated U.S. sanctions law or is a Specially Designated National and Blocked Person, as identified by OFAC, this insurance will be considered a blocked or frozen contract and all provisions of this insurance are immediately subject to OFAC. When an insurance policy is considered to be such a blocked or frozen contract, no payments nor premium refunds may be made without authorization from OFAC. Other limitations on the premiums and payments also apply.



# **PROFESSIONAL LIABILITY INSURANCE DECLARATIONS**

**Claims Made and Reported Coverage:** The coverage afforded by this policy is limited to liability for only those **Claims** that are first made against the **Insured** during the **Policy Period** or the Extended Reporting Period, if exercised, and reported to Markel Insurance Company during the **Policy Period** or the Extended Reporting Period, if exercised, or within 60 days after the expiration of the **Policy Period** or the Extended Reporting Period, if exercised, or within 60 days after the expiration of the **Policy Period** or the Extended Reporting Period.

**Notice:** This policy contains provisions that reduce the Limits of Liability stated in the policy by the costs of legal defense and permit legal defense costs to be applied against the deductible, unless the policy is amended by endorsement. Please read the policy carefully.

POLICY NUMBER: MEO1642-05

RENEWAL OF POLICY: MEO1642-04

NAMED INSURED: Permit Acquisition Company-One LLC

BUSINESS ADDRESS: 920 Garner Road

Selma, NC 27576

POLICY PERIOD: From 11/22/2023 to 11/22/2024

12:01 A.M. Standard Time at address of Insured stated above.

IN RETURN FOR THE PAYMENT OF THE PREMIUM, AND SUBJECT TO ALL THE TERMS OF THIS POLICY, THE COMPANY AGREES WITH THE NAMED INSURED TO PROVIDE THE INSURANCE AS STATED IN THIS POLICY.

#### 1. PROFESSIONAL SERVICES: soil science

#### 2. LIMITS OF LIABILITY

**Professional Liability Coverage** 

	, ,	
Α.	Each Claim:	\$2,000,000
В.	Policy Aggregate:	\$2,000,000
Ad	ditional Payments	
Α.	Contingent Bodily Injury And Property Damage	\$100,000
В.	Pollution	\$10,000
C.	Pre-Claim Assistance Expenses	\$20,000
D.	Sexual Abuse	\$10,000
E.	Third Party Discrimination	\$25,000
Su	pplementary Payments	
Α.	Disciplinary Proceeding	\$25,000 per Policy Period
В.	Loss Of Earnings And Expense Reimbursement	\$10,000
C.	Public Relations Expenses	\$5,000
D.	Subpoena And Record Request Assistance	\$5,000
Prod	ucer Number, Name and Mailing Address	
9849	6	
Wade	e Associates, LLC New Bern	
PO E	ox 1209	

Davidson, NC, 28036

3.	DEDUCTIBLE	
	A. Each Claim:	\$1,000
	B. Aggregate:	\$3,000
4.	RETROACTIVE DATE: 11/22/2019	
5.	PREMIUM RATE: Flat	PREMIUM BASE: Flat
6.	PREMIUM FOR POLICY PERIOD	
	Minimum:	\$560
	Deposit:	\$560
	Adjusted Annual Premium:	\$560

# 7. PREMIUM PERCENTAGE FOR EXTENDED REPORTING PERIOD: ADDITIONAL PERIOD:

#### 8. FORMS AND ENDORSEMENTS ATTACHED AT POLICY INCEPTION:

#### See MDIL 1001 attached.

# These declarations, together with the Coverage Form and any Endorsement(s), complete the above numbered policy.

Countersigned: 08/30/2023	
(Date)	
	By: John K Clark Authorized Representative Signature