

Subsurface Wastewater Disposal System Design Packet

PIN:

# **Table of Contents**

## **Project Details**

Contact Information	
Table of contents page	2
Introduction Letter	3-4
Common Form	5-13
Site Specifications	
Soils Evaluation	14-15
Site Plans	16-19
Design Specifications	
Initial System	20
Repair System	21
System Components	
Septic Tank	22
Filter Specs	23
Nitrification Trench Detail	24
Horizontal Installation Diagram	25
Miscellaneous	
Information for the Contractor	26-27
Insurance Information	28-34

# 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 hereaft	er 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).





**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	rization (a2) Repair/Construction Authorization
If applying for a Construction Authorization, please indicate desire  Accepted Conventional Innovative Other	
<ul> <li>New Construction</li> <li>□ Expansion</li> <li>□ System Relocation</li> <li>□ S-Year Expiration Requested (site plan provided)</li> <li>□ Non-Exp</li> <li>Requesting DHHS review? (systems &gt;3000 GPD or IPWW)</li> <li>□ Yes</li> </ul>	iring Permit Requested (plat provided, defined in G.S.130A-334(7a)
Applicant:	Owner:
Mailing Address:	Mailing Address:
City:	City:
State: Zip:	State: Zip:
Phone #:	Phone #:
Email:	Email:
If the answer to any of the following questions is "yes", applican	· · · · · · · · · · · · · · · · · · ·
Yes No Does the site contain any jurisdictional	
	ed on the site other than domestic sewage?
Yes No Is the site subject to approval by any ot Yes No Are there any easements or right of wa	
res No Are there any easements of light of wa	ys on this property:
are to be used to issue an Improvement Permit and/or Construct I understand that authorized county and state officials are grant conduct necessary inspections to determine compliance with ap the application for an Improvements Permit and/or Construction then the Improvement Permit and Construction Authorization is	oplicable laws and rules. I understand that if the information in on Authorization is falsified, changed, or the site is altered, shall become invalid.
Applicant Signature:	Date:
Owner's Signature:	Date:

Permit/File #:	



**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

Submittal Includes:	(a2) Improvement Permit	(a2) Construction Authorization	☐ Fee \$
	IMPROVEN	MENT PERMIT FOR G.S. 130A-33	35(a2)
County:			
Subdivision (if applical	.ble)	Lot #:	Block: Section:
LSS Report Provided: `	Yes No No		
If yes, name and licens	se number of LSS:		
New 🗌	Expansion	System Relocation	Change of Use
Facility Type:			
Number of bedrooms:	: Number of Occupants:	Other:	
Design Wastewater St	trength: Domestic	High Strength Industr	rial Process Wastewater
Proposed Design Daily	y Flow: GPD	Proposed LTAR (Initial): P	Proposed LTAR (Repair):
Proposed Wastewater	r System Type*:	(Initial) Pump Re	equired: Yes No May be required
Proposed Wastewater	r System Type*:	(Repair) Pump Re-	equired: 🗌 Yes 🔲 No 🔲 May be required
*Please include systen	n classification for proposed wastev	water system types in accordance with Rule	e .1301 Table XXXII
Effluent Standard:	☐ DSE ☐ HSE ☐ NSF/ANSI 40	J ∏TS-I ∏TS-II ∏RCW	
Saprolite System (Initi	ial): 🗌 Yes 🔲 No Saprolite	e System (Repair): 🗌 Yes 🔲 No	
Fill System (Initial):	Yes No If yes, specify: Ne	ew Existing (when adding more than	6 inches of fill to system area provide a fill plan)
Fill System (Repair):	Yes No If yes, specify: No	ew Existing (when adding more than	n 6 inches of fill to system area provide a fill plan)
Usable Depth to LC (Ir	nitial) <sup>x</sup> :	Usable Depth to LC (Repair)x:	<sup>x</sup> Limiting Condition
Max. Trench Depth (Ir	nitial)‡: Max. Tr	ench Depth (Repair) <sup>‡</sup> :	<sup>‡</sup> Measured on the downhill side of the trench
Artificial Drainage Rec	quired: Yes No If yes, pleas	se specify details:	
Type of Water Supply:	: Private well Public well	Shared well Municipal Supply	Spring Other:
Drainfield location me	ets requirements of Rule .0508: Ye	es No Drainfield location meets	s requirements of Rule .0601: Yes 🔲 No 🗌
Permit valid for: 🗌 Fi	íve years [site plan submitted pursu	ant to GS 130A-334(13a)] 🔲 No expirati	ion [plat submitted pursuant to GS 130A-334(7a)]
Permit conditions:			
1			

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

\*See attached site sketch\*



Licensed Soil Scientist Print Name:

Licensed Soil Scientist Signature: \_ Alan Buter

Date: \_\_



## This Section for Local Health Department Use Only

initiai submittai received:		Dy	
_	Date	Initials	
G.S. 130A-335(a3) states the following:			
When an applicant for an Improvement Permit submits to a local health depart department, the common form developed by the Department, and a soil evalu within five business days of receiving the application, conduct a completeness Permit includes all of the required components. If the local health department shall notify the applicant of the components needed to complete the Improven department to cure the deficiencies in the Improvement Permit. The local heal is complete within five business days after the local health department receive act within any period set out in this subsection, the applicant may treat the fair common form for use as the Improvement Permit.	nation pursuant to suing review of the submit determines that the ment Permit. The appoint department shall its the additional informational i	osection (a2) of this section, the local health departital. A determination of completeness means that the Improvement Permit is incomplete, the local health licant may submit additional information to the local make a final determination as to whether the Impromation from the applicant. If the local health depar	ment shall, e Improvement department al health vement Permit tment fails to
The review for completeness of this Improvement Permit was Permit is determined to be:	conducted in acc	cordance with G.S. 130A-335(a3). This Im	provement
☐ Incomplete (If box is checked, information in this section i	s required.)		
The following items are missing:			
	5	→ \'\-	
Copies of this were sent to the LSS and the Applicant on	Date		
State Authorized Agent:		Date:	
☐ Complete			
State Authorized Agent:	-1/50	Date:	
This Improvement Permit is issued pursuant to G.S. 130A-335 attached here. The issuance of this permit in no way guarant for checking with appropriate governing bodies in meeting th plat, or the intended use changes. The Improvement Permit permit is subject to compliance with the provisions of 15A NOT The Department, the Department's authorized agents, and the any liabilities, duties, and responsibilities imposed by statute evaluations, submittals, or actions from a licensed soil scient	tees the issuance neir requirement shall not be affe CAC 18E and to t ne local health d e or in common l	e of other permits. The permit holder is rest. This permit is subject to revocation if the cted by a change in ownership of the site the conditions of this permit.  Experiments shall be discharged and release the conditions of this permit.	esponsible the site plan, This ased from
Improvement Permit Expiration Date:			

\*See attached site sketch\*

2



Permit/File #:
----------------

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

	LHD USE ONLY: This IP resultmittal receive	ed.	hv	
	LHD USE ONLY: This IP resubmittal receive	Date	Initials	
Γhe following i	items are being resubmitted pursuant to G.S. 13	0A-335(a3) for issuance	of the Improvement Permit	:
	THE .	SIAIF	<i>D</i>	
s accurate and	hereby atte Scientist (Print Name) complete to the best of my knowledge and tha laws, regulations, rules, and ordinances.		required to be included wit ment Permit meets all app	
Signatui	re of Licensed Soil Scientist		Date	
	The section below is for Local Health Departm	ent use after submittal of i	tems noted as missing above	
LHD Follow-	up Completeness Review of Improvem	ent Permit		
	completeness of this Improvement Permit re-s Permit is determined to be:	ubmittal was conducted	in accordance with G.S. 13	0A-335(a3). This
☐ Incomplete	e (If box is checked, information in this section i	is required.)		
Γhe following it	ems are missing:			
Copies of this w	vere sent to the LSS and the Applicant on	 Date		
State Authorize	ed Agent:		Date:	
☐ Complete				
State Authorize	ed Agent:		Date:	



Permit/File #:	
----------------	--

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

County:			Pre-Construction Conference Required: Yes No	
PIN/Lot Identifie	er:			
Issued To:				
Property Locatio	on:			
AOWE/PE Plans/	Evaluations Provided	d: Yes 🔲 No 🗌	If yes, name and license number of AOWE/PE:	
Facility Type:				
Number of bedro	ooms: Num	ber of Occupants:	Other:	
New	Expansion	Repair	System Relocation Change of Use	
Basement?	Yes	☐ No	Basement Fixtures?	
Crawl Space?	Yes	☐ No	Slab Foundation?	
Type of Wastewa	ater System*		(Initial)	(Repair)
*Please include s	system classification	for proposed waste	tewater system types in accordance with Rule .1301 Table XXXII	
Design Daily Flov	w:	_GPD Wa	astewater Strength: Domestic High Strength Industrial Pr	ocess WW
	4-120 Section 53, En ovide engineering do		Jtilizing Low-flow Fixtures and Low-flow Technologies?	
Effluent Standar	d: DSE H	SE NSF/ANSI	40 TS-I TS-II RCW	
Type of Water Su	upply: 🗌 Private we	ll Public well	I Shared well Municipal Supply Spring Other:	
Installation Requ	uirements/Condition	<u>15</u>		
Septic Tank Size:	: gallons	Total Trench/Be	ed Length:feet Trench/Bed Spacing:feet on center	
Trench/Bed Wid	th: inches	LTAR:	gpd/ft <sup>2</sup> Usable Depth to LC (Initial) <sup>x</sup> : <sup>x</sup> Limitin	g condition
Soil Cover:	_ inches	orrected Maximum	m Trench/Bed Depth‡: inches * Measured on the downhill side of	the trench
Pump Tank Size (	(if applicable):	gallons	Requires more than 1 pump?	
Pump Requireme	ents: ft. TDH	vs GPM	Grease Trap Size (if applicable): gallons	
Distribution Met	thod: Serial	D-Box or Parallel	Pressure Manifold(s) LPP Other:	
Artificial Drainag	ge Required: Yes	No 🗌 If yes, ple	ease specify details:	
Legal Agreemen	ts (If the answer is "	Yes" to any type of	f legal agreements, please attach a copy of the agreement.)	
Multi-party Agre	ement Required [.02	:04(g)]:	☐ No Declaration of Restrictive Covenants: ☐ Yes ☐ I	No
Easement, Right-	-of-Way, or Encroach	nment Agreement F	Required [.0301(b)]: Yes No	
Management En	tity Required: 🗌 Ye	es 🗌 No Minimu	num O&M Requirements:	
Permit conditi	ons:			
ho roquiromon	to of 1EA NCAC 19E	are incorporated b	ny reference into this permit and shall be met. Systems shall be installed in	accordance

with the attached site sketch. 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 Certification Number 10012E with the provisions of 15A NCAC 18E, or 15A NCAC 18A .1900, as applicable, and to the conditions of this permit.

AOWE/PE Print Name: \_ AOWE/PE Signature: \_ 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/File #:

## This Section for Local Health Department Use Only

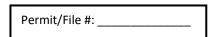
	Initial submittal received:		by
		Date	Initials
G.S. 130A-335(a5) states the follow	wing:		
Improvement Permit and Construction Autoperatment, and any necessary signed and engineer or a person certified pursuant to a department shall, within five business days the Construction Authorization or Improved determines that the Construction Authorizational information to the local health a conductional information to the local health apartment Authorization is complete within five busing department fails to act within any period supply for the building permit for the project Authorization by the local health department feessed engineer submitting the evaluation Authorization or Improvement Permit and	horization application together, the pead sealed plans or evaluations conducted Article 5 of Chapter 90A of the General sof receiving the application, conduct a ment Permit and Construction Authorization or Improvement Permit and Construction Authorization or Improvement Permit and Construction Authorization of the Construction Authorization of the Salamake a final determination as to ess days after the local health department to ut in this subsection, the applicant at upon the decision of completeness of ent or if the local health department fair new firm of the total health department fair or if the local health department fair pursuant to this subsection may requipation for cause. Ususpend or revoke the Construction All	rmit fee charged by the add by a person licensed pure Statutes as an Authorized completeness review of action includes all of the truction Authorized the Construction Authorized whether the Construction and treat the failure to be the Construction Authorial to act within five busing that the local health Upon written request of authorization or Improver	ration together, submits a Construction Authorization, or an allocal health department, the common form developed by the arsuant to Chapter 89C of the General Statutes as a licensed and On-Site Wastewater Evaluator, the local health of the submittal. A determination of completeness means that required components. If the local health department incomplete, the local health department shall notify the and Construction Authorization. The applicant may submit reation or Improvement Permit and Construction on Authorization or Improvement Permit and Construction and information from the applicant. If the local health act as a determination of completeness. The applicant may rization or Improvement Permit and Construction and Says. The Authorized On-Site Wastewater Evaluator or department revoke or suspend the Construction the Authorized On-Site Wastewater Evaluator or licensed ment Permit and Construction Authorization pursuant to G.S.
The review for completeness of th	is Construction Authorization v	was conducted in ac	ccordance with G.S. 130A-335(a5). This
Construction Authorization is dete	ermined to be:		
☐ Incomplete (If box is checked,	information in this section is re	equired.)	
The following items are missing: _		1	
11 04			
Copies of this were sent to the AO	WF/PF and the Applicant on	1 2 - in	
50p.00 0		Date	
State Authorized Agent:		1.384/10	Date:
7//	My Children		
☐ Complete			
State Authorized Agent:	M XV	. 12.12	Date of Issuance:
attached here. This Construction Construction Authorization shall it to compliance with the provisions  The Department, the Department	Authorization is subject to rev not be affected by a change in s of the Laws and Rules for Sev t's authorized agents, and the	ocation if the site pownership of the swage Treatment an local health depart	sing the signed and sealed plans or evaluations plan, plat, or the intended use changes. The lite. This Construction Authorization is subject d Disposal and to the conditions of this permit.  ments shall be discharged and released from om any claim arising out of or attributed to
plans, evaluations, preconstruction the General Statutes as a licensed Authorized On-Site Wastewater E agents, and the local health depa obligations under State law or rul	on conference findings, submit d engineer or a person certified Evaluator in GS 130A-335(a2), ( rtments shall be responsible a le, including the issuance of th	ttals, or actions froi d pursuant to Articl (a5), and (a7). The I nd bear liability for e operations permi	m a person licensed pursuant to Chapter 89C of e 5 of Chapter 90A of the General Statutes as an Department, the Department's authorized their actions and evaluations and other
Construction Authorization Expira	ation Date:		



Permit/File #:
----------------

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

	LHD USE ONLY: This CA resubmittal received:	Date	by Initials	
The following it	L tems are being resubmitted pursuant to G.S. 130A-33	35(a5) for issuance of	the Construction Authoriz	zation:
is accurate and	hereby attest the native Wastewater Evaluator (Print Name)  complete to the best of my knowledge and that the and local laws, regulations, rules, and ordinances.		quired to be included with on Authorization meets al	
Signatur	re of Authorized On-Site Wastewater Evaluator		Date	
	The section below is for Local Health Department us		ms noted as missing above.	
LHD Follow-ւ	up Completeness Review of Construction A	luthorization		
	completeness of this Construction Authorization reson Authorization is determined to be:	submittal was conduc	ted in accordance with G	S. 130A-335(a5).
☐ Incomplete (	(If box is checked, information in this section is requ	ired.)		
The following it	ems are missing:			
	AND 35E ONY	M VIDER		
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:	





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

County:	
PIN/Lot Identifier:	
Issued To:	
Additional Improvement Permit Conditions:	
	200
STATE STATE	
MAT DO 155	
9/23/03 9	
11 57 L AS 10	
	35 AB \ - V
Not In State of the State of th	
Additional Construction Authorization Conditions:	
1PRII 12 17	16/19
W Esse	DERIT /
QUAM V	



Permit #:	
-----------	--

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

	THD LISE ONLY:	This CA resultmittal resolved:		by	
	LHD OSE ONLY.	This CA resubmittal received:	Date	by Initials	
The following it	tems are being resub	omitted pursuant to G.S. 130A-33	35(a5) for issuance o	f the Construction Authoriz	cation:
		T	ATE	<i>y</i>	
l,			at the information re	equired to be included with	this re-submittal
is accurate and		tor (Print Name) st of my knowledge and that the ations, rules, and ordinances.	proposed Construct	cion Authorization meets all	applicable
Signatur	e of Authorized On-Site V	Vastewater Evaluator		Date	
		w is for Local Health Department us		ems noted as missing above.	
LHD Follow-เ	up Completeness	s Review of Construction A	uthorization		
	completeness of this on Authorization is c	s Construction Authorization re-s determined to be:	submittal was condu	icted in accordance with G.	S. 130A-335(a5).
☐ Incomplete (	If box is checked, in	formation in this section is requi	ired.)		
The following it	ems are missing:				
		ALIO 3CO ALIA	M VIDERLY		
Copies of this w	ere sent to the AOV	VE/PE and the Applicant on	Date		
State Authorize	d Agent:			Date:	
☐ Complete					
State Authorize	d Agent:			Date:	

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

6" separation requirement.

Sheet	1	of3		
PROPERTY I	D#:		9588-65-9326	
COLIN	TV.		HADNETT	

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

(Complete all fields in full)

Ow	NER:	BLW HOLDIN	NGS 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 PROPERTY SIZE:			TY SIZE:	0.527 Acres		
LO	CATION OF SIT	ГЕ:	LOT 1 BRIARWOO	DD BLUFF	*	PROPERTY RECORDED:					
WA	TER SUPPLY:		1	Public		WATER SUPPLY SETBACK					
EV.	ALUATION ME	ETHOD:	Auger Boring		TYPI	TYPE OF WASTEWATER:					
P R O F	.0502		SOIL MC	<b>ORPHOLOGY</b>	PROF	OTHE TLE FA	R CTORS				
I	LANDSCAPE	HORIZON			.0504				.0509	.0502(d)	
Ĺ	POSITION/	DEPTH	.0503	.0503	SOIL	.0505	.0506	.0507	PROFILE	SLOPE	
E	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				Cuitable		
	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%								gpd/sqft	inches	
		14	GR/SL	FR/NS/NP/SEXP	10YR 4/4				0 11		
	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			0.300	1	
	2%								gpd/sqft	inches	
		20	GR/SL	FR/NS/NP/SEXP	10YR 4/4						
	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%				455	D SOIL S			gpd/sqft	inches	
			/	///		¥.					
4							<b>(</b> )				
					Marie No.	RIH CARO	<i>5</i> //				
	DESCRIPT	ION	INITIAL SYSTEM	REPAIR SYSTEM	Dephen	WBU	now				
-	ilable Space (.0:	508)	yes	yes	SITE CLASSIFICAT	TION (.05	09):	Suitable			
<u> </u>	tem Type(s)		IIIg	IIIg	EVALUATED BY:		Stephen W B	ristow			
	LTAR (gpd/sqf		0.300	0.300	OTHER(S) PRESEN	IT:					
	ximum Trench D		18	16							
CC	DMMENTS:	Profile 3 has so	oil wetness as a limit	ing condition within 30" o	f the surface. Profile 3 w	ill require i	fill material to r	neet			

## **LEGEND**

LANDSCAPE POSITION	SOIL GROUP	SOIL TEXTURE	CONVENTIONAL LTAR (gpd/ft²)	SAPROLITE LTAR (gpd/ft <sup>2</sup> )	LPP LTAR (gpd/ft <sup>2</sup> )	MINERALOGY/ CONSISTENCE		STRUCTURE
CC (Concave slope)		S (Sand)		0.6 - 0.8		MOIST	WET	SG (Single grain)
CV (Convex Slope)	I	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 Ioam)		0.4 -0.6		VFR (Very friable)	SS (Slightly sticky)	GR (Granular)
FP (Flood plain)	П	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)	Ш	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					

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

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

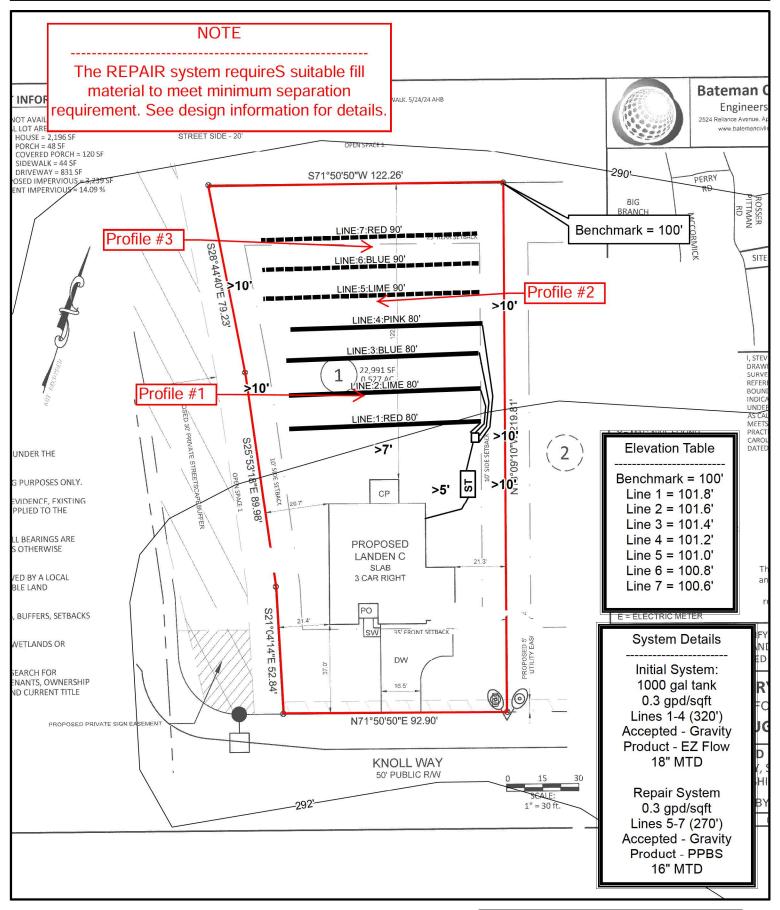
chip designation

CLASSIFICATION S (Suitable) or U (Unsuitable)

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



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



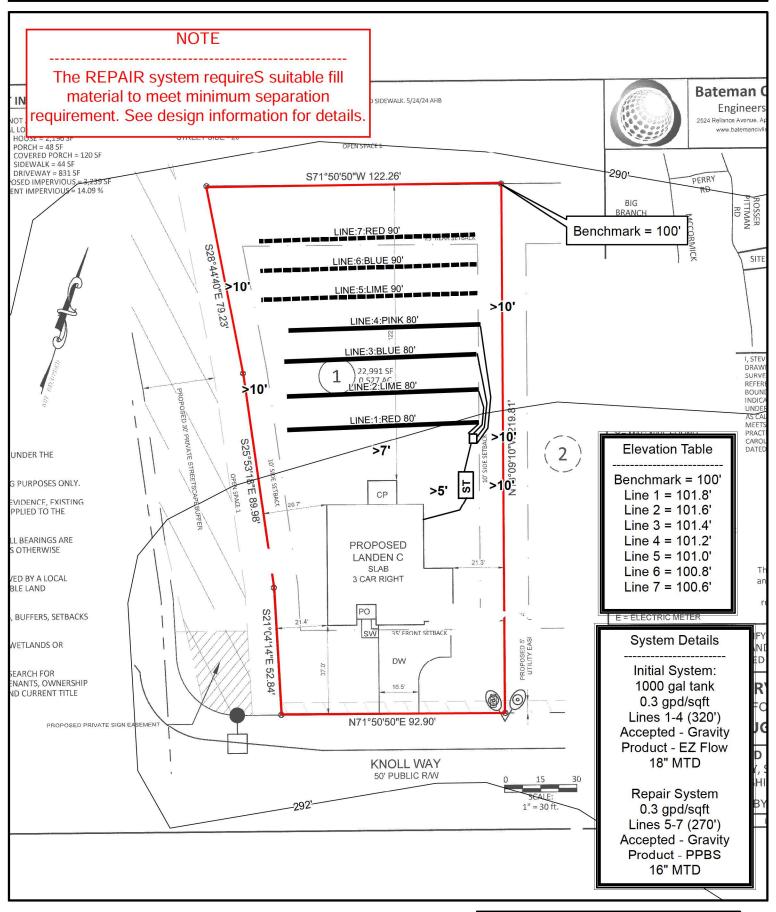
Legend
System ---- Repair

Map provided by PAC-One LLC
|:| Locations are approximations and |:|
|:| are provided for reference only |:|
Parcel data provided by: Harnett County
Elevation data provided by: NCDOT

Coordinate System: NAD 1983 StatePlane North Carolina FIPS 3200
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

N
1 inch = 40 feet

0 5 10 20 30 40
Feet



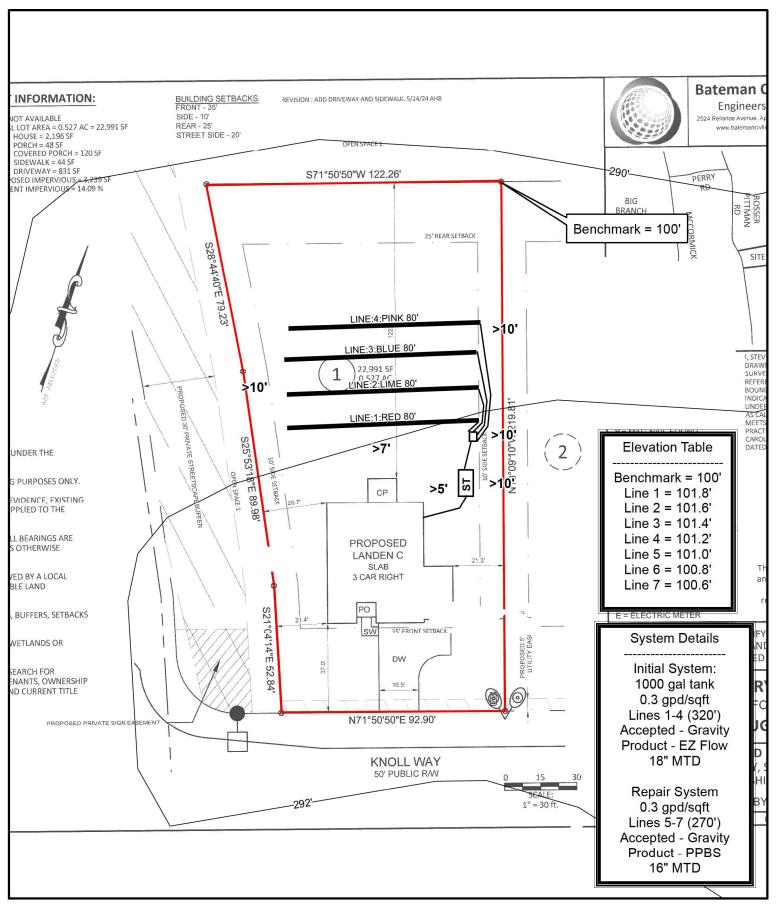
Legend
System ---- Repair

Map provided by PAC-One LLC
|:| Locations are approximations and |:|
|:| are provided for reference only |:|
Parcel data provided by: Harnett County
Elevation data provided by: NCDOT

Coordinate System: NAD 1983 StatePlane North Carolina FIPS 3200
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

N
1 inch = 40 feet

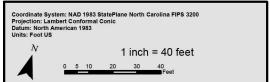
0 5 10 20 30 40
Feet

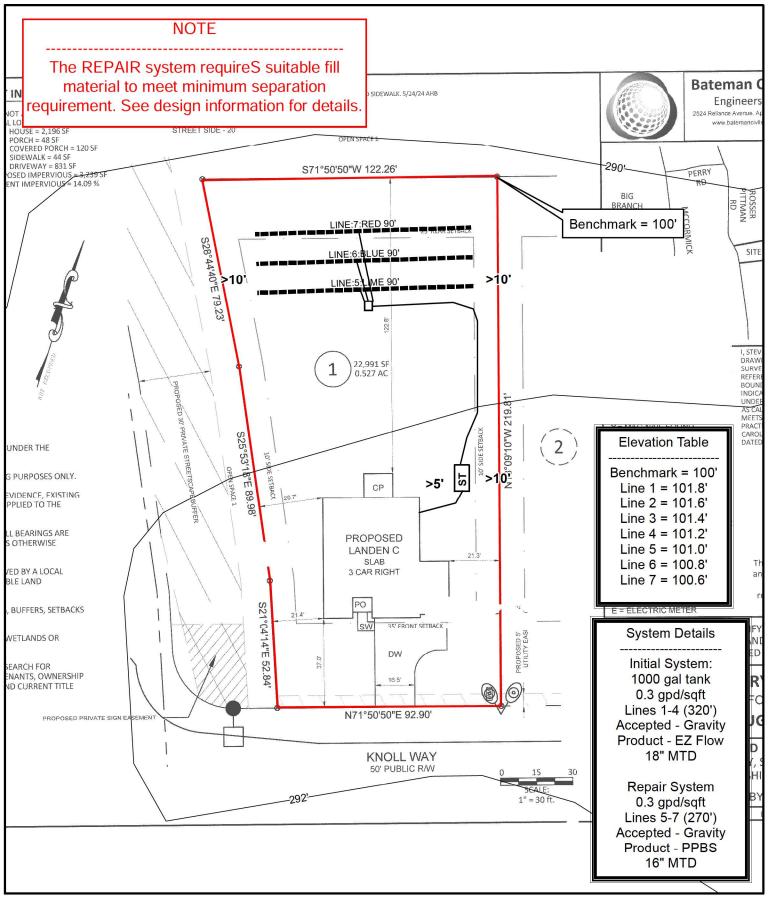




Map provided by PAC-One LLC

|:| Locations are approximations and |:|
|:| are provided for reference only |:|
Parcel data provided by: Harnett County
Elevation data provided by: NCDOT

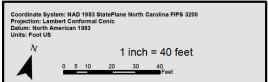






Map provided by PAC-One LLC

|:| Locations are approximations and |:|
|:| are provided for reference only |:|
Parcel data provided by: Harnett County
Elevation data provided by: NCDOT



## **Initial System Overview for**

LOT 1 BRIARWOOD BLUFF

	gn		

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

## **System Components**

<b>Trench Product</b>		
Septic Tank	1000	gallons
Effluent Filter	Polylok PL	-68 (or approved equivalent)

## **Repair System Overview for**

**LOT 1 BRIARWOOD BLUFF** 

**Design Criteria** 



**System Details** 

Trench Depth	16	inches
Total Trench Length	270	feet

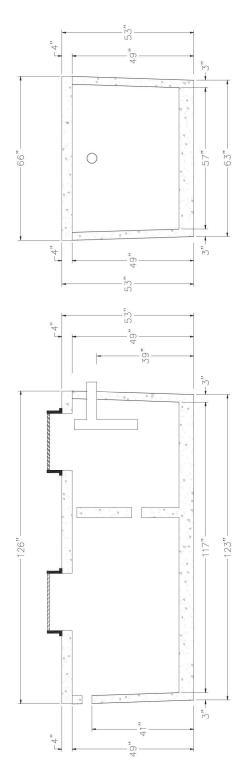
**System Components** 

Trench Product	PPBS		
Septic Tank	1000	gallons	
<b>Effluent Filter</b>	Polylok PL	-68 (or approved equivalent)	

## NOTE

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

1 10 1				linstaller•gmail.com
l lo l		Master Set		area li compezall atorit
		Revision 3		E443-0443
SHEET NUMBER		Revision 3	CORY BRANTLEY	
	_	Revision 2	CONTACT:	OHICE 252-478-3721
			DATE : April 11, 2014	Zebulon, NC 27597
667 TS 000,		Revision 1	Zepnjou' NC SJ297	37 Fine Ridge Fid.
BRANTLEY TANK MODEL	Aros , ff lingA	Original Submittal	37 Pine Ridge Rd.	DVAID BEVALTEX & SONS
BRANT EY TANK MODE	DATE	REVISION NO.	PREPARED FOR: David Brantley & Sons	Sieos v mannitud umva



NON TRAFFIC BEARING

1,000 ST 499



## 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 (CPD). 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.

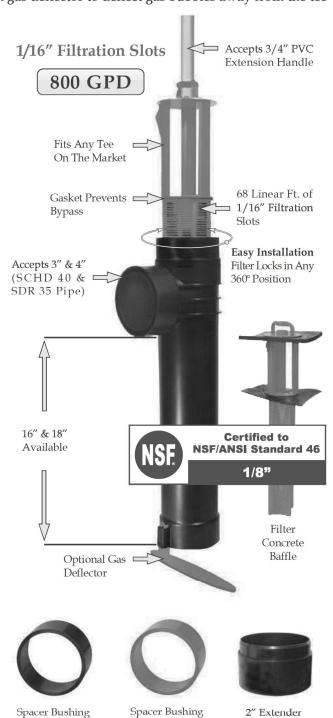
## **Related Products:**

PL-68 Filter Concrete Baffle

Extend & Lok<sup>TM</sup>



Extend & Lok™ Easily installs into existing tanks.

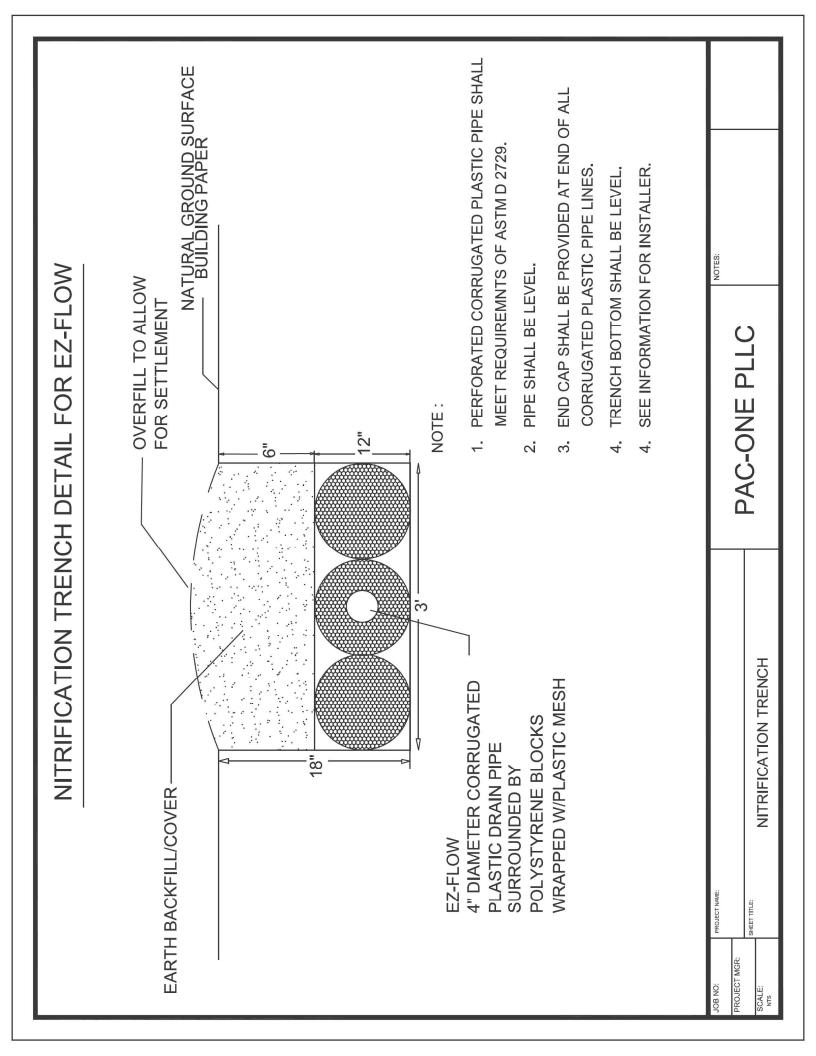


4" SCHD 40

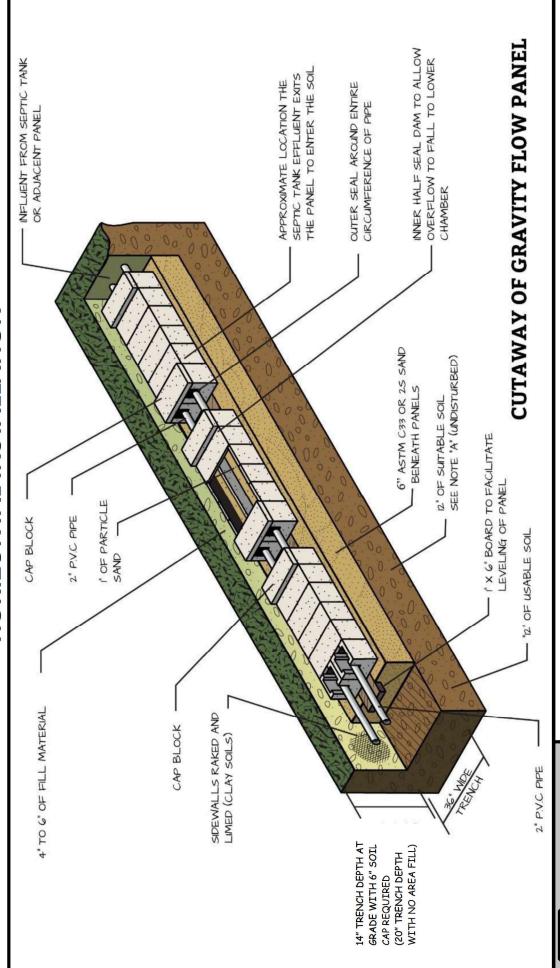
to 110mm Pipe

4" SCHD 40

to SDR 35



# **ISOMETRIC DRAWING OF A SEGMENT OF T&J PANEL HORIZONTAL INSTALLATION**





# **NITRIFICATION TRENCH DETAIL FOR PANEL BLOCK SYSTEM**

## 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 **5 week days** 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® 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®" 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.

For more information about our programs, risk management articles, and FAQs, please visit **markelinsurance.com**. To pay your bill or view policy documents, please visit **portal.markelinsurance.com**.





DED

(Mandatory in NH)

WORKERS COMPENSATION

AND EMPLOYERS' LIABILITY
ANY PROPRIETOR/PARTNER/EXECUTIVE
OFFICER/MEMBER EXCLUDED?

Errors & Omissions

If yes, describe under DESCRIPTION OF OPERATIONS below

RETENTION \$

## CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/30/2023

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 REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s)

certificate holder in lie	u of such endorsement(s).		
PRODUCER		CONTACT Angela Sensenig	
Wade Associates, L	LC	PHONE (A/C, No, Ext): (252)631-5269 FAX (A/C, No): (252)64	9-2443
250 Pollock St.		E-MAIL ADDRESS: asensenig@wadeict.com	
		INSURER(S) AFFORDING COVERAGE	NAIC #
New Bern	NC 28560	INSURER A: Auto-Owners	18988
INSURED		INSURER B: Builders Mutual	10844
Permit Acquistion Company One, PLLC		INSURER C: Markel Insurance Company	38970
920 Garner Rd.		INSURER D:	
		INSURER E :	
Selma	NC 27576-7763	INSURER F:	
COVERAGES	CERTIFICATE NUMBER: 23-24	REVISION NUMBER:	
	THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD		
	INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS		

CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS ADDL SUBR INSD WVD INSR LTR TYPE OF INSURANCE POLICY NUMBER (MM/DD/YYYY) (MM/DD/YYYY) X **COMMERCIAL GENERAL LIABILITY** 1,000,000 EACH OCCURRENCE \$ DAMAGE TO RENTED 300,000 CLAIMS-MADE X OCCUR Α \$ PREMISES (Ea occurrence) 35613487 11/22/2023 11/22/2024 10,000 MED EXP (Any one person) \$ Excluded PERSONAL & ADV INJURY \$ 2,000,000 GEN'L AGGREGATE LIMIT APPLIES PER: GENERAL AGGREGATE \$ PRO-JECT POLICY PRODUCTS - COMP/OP AGG 2,000,000 \$ \$ OTHER: COMBINED SINGLE LIMIT (Ea accident) \$ **AUTOMOBILE LIABILITY** BODILY INJURY (Per person) \$ ANY AUTO ALL OWNED AUTOS SCHEDULED BODILY INJURY (Per accident) \$ AUTOS NON-OWNED PROPERTY DAMAGE \$ HIRED AUTOS AUTOS (Per accident) \$ UMBRELLA LIAB EACH OCCURRENCE OCCUR \$ **EXCESS LIAB** CLAIMS-MADE AGGREGATE \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

MEO1642

69KOUB-5N24039-7-23

CERTIFICATE HOLDER	CANCELLATION

N/A

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

x | PER STATUTE

General Aggregate

Each Occurrence

E.L. EACH ACCIDENT

E.L. DISEASE - EA EMPLOYEE

E.L. DISEASE - POLICY LIMIT

AUTHORIZED REPRESENTATIVE

11/14/2023

11/22/2023

11/14/2024

11/22/2024

N Whitsett/RACHEL

© 1988-2014 ACORD CORPORATION. All rights reserved.

\$

\$

500,000

500,000

500,000

\$1,000,000 \$1,000,000



## 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.

Kathleen Anne Sturgeon By W. Sahres

Secretary

President

MJIL 1000 06 10 Page 1 of 1



## 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.

MPIL 1074 07 14 Page 1 of 1



## 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.

## **Markel Insurance Company**



## 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.

**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

## **Additional Payments**

A.	Contingent Bodily Injury And Property Damage	\$100,000
B.	Pollution	\$10,000
C.	Pre-Claim Assistance Expenses	\$20,000
D.	Sexual Abuse	\$10,000
E.	Third Party Discrimination	\$25,000

## **Supplementary Payments**

Α.	Disciplinary Proceeding	\$25,000	per Polic	y Period
----	-------------------------	----------	-----------	----------

В.	Loss Of Earnings And Expense Reimbursement	\$10,000
C.	Public Relations Expenses	\$5,000
D.	Subpoena And Record Request Assistance	\$5.000

## **Producer Number, Name and Mailing Address**

98496

Wade Associates, LLC. - New Bern

PO Box 1209

Davidson, NC, 28036

MDST 1000 07 17 Page 1 of 2

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

MDST 1000 07 17 Page 2 of 2