

Subsurface Wastewater Disposal System Design Packet

PIN:

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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:

Owner's Representative (if any):

Natascha Clark

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).

Date:

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			
 New Construction □ Expansion □ System Relocation □ S-Year Expiration Requested (site plan provided) □ Non-Exp Requesting DHHS review? (systems >3000 GPD or IPWW) □ Yes 	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			
Yes No Is any wastewater going to be generated 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 #:	١
	١



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	on Fee \$
	IMPROVEM	IENT PERMIT FOR G.S. 130A-3	335(a2)
County:			
Issued To:			
Subdivision (if applicab	le)	Lot #:	Block: Section:
LSS Report Provided: Y	′es		
If yes, name and license	e number of LSS:		
New 🗌	Expansion	System Relocation	Change of Use
Facility Type:			
Number of bedrooms:	Number of Occupants:	Other:	
Design Wastewater Str	ength: Domestic	High Strength Indu	ustrial Process Wastewater
	Flow: GPD		Proposed LTAR (Repair):
Proposed Wastewater	System Type*:	(Initial) Pump	Required: Yes No May be required
Proposed Wastewater	System Type*:	(Repair) Pump	Required: Yes No May be required
*Please include system	classification for proposed wastew	water system types in accordance with R	Rule .1301 Table XXXII
Effluent Standard:	DSE HSE NSF/ANSI 40) TS-I TS-II RCW	
Saprolite System (Initia	al): 🗌 Yes 🔲 No Saprolite	e System (Repair): 🗌 Yes 🔲 No	
Fill System (Initial):	Yes No If yes, specify: Ne	w Existing (when adding more tha	nan 6 inches of fill to system area provide a fill plan)
Fill System (Repair):	Yes No If yes, specify: Ne	ew Existing (when adding more th	han 6 inches of fill to system area provide a fill plan)
Usable Depth to LC (Ini	tial)x:	Usable Depth to LC (Repair) ^x :	× Limiting Condition
Max. Trench Depth (Ini	tial)‡: Max. Trє	ench Depth (Repair)‡:	[‡] Measured on the downhill side of the trench
Artificial Drainage Requ	uired: 🗌 Yes 🔲 No If yes, pleas	se specify details:	
Type of Water Supply:	Private well Dublic well	Shared well Municipal Supply	oly Spring Other:
Drainfield location mee	ets requirements of Rule .0508: Ye	s No Drainfield location me	eets requirements of Rule .0601: Yes 🔲 No 🗌
Permit valid for: Tiv	re years [site plan submitted pursua	ant to GS 130A-334(13a)]	ration [plat submitted pursuant to GS 130A-334(7a)]
Permit conditions:			

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: __



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

initial submittal 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 evalua within five business days of receiving the application, conduct a completeness repermit includes all of the required components. If the local health department as shall notify the applicant of the components needed to complete the Improvem department to cure the deficiencies in the Improvement Permit. The local health is complete within five business days after the local health department receives act within any period set out in this subsection, the applicant may treat the fails common form for use as the Improvement Permit.	ation pursuant to suiteview of the submit determines that the lent Permit. The app the department shall it the additional infor	osection (a2) of this section, the local health departmental. A determination of completeness means that the lmprovement Permit is incomplete, the local health a licant may submit additional information to the local make a final determination as to whether the Improv mation from the applicant. If the local health depart.	nent shall, Improvement Iepartment I health ement Permit ment fails to
The review for completeness of this Improvement Permit was of Permit is determined to be:	conducted in acc	cordance with G.S. 130A-335(a3). This Imp	rovement
☐ Incomplete (If box is checked, information in this section is	required.)		
The following items are missing:			
	5		
Copies of this were sent to the LSS and the Applicant on	Date		
State Authorized Agent:	13	Date:	
☐ Complete			
State Authorized Agent:	-1/26	Date:	
This Improvement Permit is issued pursuant to G.S. 130A-335 attached here. The issuance of this permit in no way guarante for checking with appropriate governing bodies in meeting the plat, or the intended use changes. The Improvement Permit is permit is subject to compliance with the provisions of 15A NC 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 scienting.	ees the issuance eir requirement hall not be affe AC 18E and to t e local health do or in common l	e of other permits. The permit holder is rest. Solution of the street of the street of the site of the conditions of this permit. Separtments shall be discharged and releations of the site of the shall be discharged and releating out of or attribute.	esponsible the site plan, . This sed from
Improvement Permit Expiration Date:			

See attached site sketch



Permit/File #:

Re-submittal of Improvement Permit

	LUDINE ONLY: This ID result mittal resoil	und:	by	
	LHD USE ONLY: This IP resubmittal recei	vea	Dy	
Γhe following i	items are being resubmitted pursuant to G.S. 1	30A-335(a3) for issuance	of the Improvement Permit	:
	THE .	SIAIF	AD.	
s accurate and	Scientist (Print Name) complete to the best of my knowledge and the laws, regulations, rules, and ordinances.		required to be included wit	
Signatui	re of Licensed Soil Scientist		Date	
	The section below is for Local Health Departi	ment use after submittal of	items noted as missing above	
LHD Follow-ı	up Completeness Review of Improver	ment Permit		
	completeness of this Improvement Permit re- Permit is determined to be:	submittal was conducted	in accordance with G.S. 13	0A-335(a3). This
☐ Incomplete	e (If box is checked, information in this section	n is required.)		
Γhe following it	tems 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 #:	
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CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)

County:			Pre-Construction Confe	erence Required: Yes] No 🗌
AOWE/PE Plans/Ev	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?	☐ No	
Crawl Space?	Yes	☐ No	Slab Foundation? Yes	☐ No	
Type of Wastewate	er System*		(Initial)		(Repair)
*Please include sys	stem classification f	or proposed waste	water system types in accordance v	vith Rule .1301 Table XXX	(II
Design Daily Flow:		GPD Was	stewater Strength: Domestic	High Strength	☐ Industrial Process WW
	120 Section 53, Eng vide engineering doo		ilizing Low-flow Fixtures and Low-fl	ow Technologies?	es No
Effluent Standard:	DSE HS	E NSF/ANSI	0 TS-I TS-II RCW		
Type of Water Sup	pply: Private wel	I Public well	Shared well Municipal S	Supply Spring [Other:
Installation Requir	rements/Condition	<u>.s</u>			
Septic Tank Size: _	gallons	Total Trench/Be	d Length: feet Trench/E	Bed Spacing: feet o	on center
Trench/Bed Width	ı: inches	LTAR:	gpd/ft ² Usable Depth to	LC (Initial) ^x :	^x Limiting condition
Soil Cover: i	inches Slope Co	orrected Maximum	Trench/Bed Depth [‡] :inc	thes * Measured on the	downhill side of the trench
Pump Tank Size (if	applicable):	gallons	Requires more than 1 pump?	Yes No	
Pump Requiremen	nts: ft. TDH v	vs GPM	Grease Trap Size (if applicable):	gallons	
Distribution Metho	od: Serial 🗌	D-Box or Parallel	☐ Pressure Manifold(s) ☐ LF	PP Other:	18
Artificial Drainage	Required: Yes	No 🗌 If yes, ple	ase specify details:		Ŋ.
Legal Agreements	(If the answer is "Y	es" to any type of	legal agreements, please attach a co	opy of the agreement.)	
Multi-party Agreer	ment Required [.020	04(g)]:	No Declaration	of Restrictive Covenants	: Yes No
			equired [.0301(b)]: Yes No		
Management Entit	ty Required: 🔲 Ye	s 🗌 No Minimu	ım O&M Requirements:		
Permit condition	ns:				
The requirements	of 15A NCAC 18E a	re incorporated b	v reference into this permit and sha	all be met. Systems shal	ll 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 follo	wing:		
Improvement Permit and Construction Aut Department, and any necessary signed and engineer or a person certified pursuant to a department shall, within five business days the Construction Authorization or Improve, determines that the Construction Authoriza applicant of the components needed to con additional information to the local health of Authorization. The local health departmen Authorization is complete within five busin department fails to act within any period s apply for the building permit for the project Authorization by the local health departmen dicensed engineer submitting the evaluatio Authorization or Improvement Permit and	horization application together, the per disealed plans or evaluations conducted Article 5 of Chapter 90A of the General of receiving the application, conduct a ment Permit and Construction Authoriz ation or Improvement Permit and Const mplete the Construction Authorization of department to cure the deficiencies in the t shall make a final determination as to ess days after the local health department et out in this subsection, the applicant of the topon the decision of completeness of ent or if the local health department fail in pursuant to this subsection may requal Construction Authorization for cause. Let Il suspend or revoke the Construction Authorization	rmit fee charged by the of by a person licensed pure Statutes as an Authoriza a completeness review of ation includes all of the truction Authorization is or Improvement Permit and the Construction Authorization to whether the Construction and treat the failure to a the Construction Authorities to act within five businest that the local health Upon written request of uthorization 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 a	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	
Copies of this were sent to the AC	WE/PE and the Applicant on	10 Fire 20	
		Date	
State Authorized Agent:			Date:
7//	My Children		
Complete			
State Authorized Agent:	M XX	. 12.1	Date of Issuance:
attached here. This Construction Construction Authorization shall to compliance with the provision. The Department, the Department any liabilities, duties, and responplans, evaluations, preconstructions defends as a licensed the General Statutes as a licensed.	Authorization is subject to revenot be affected by a change in s of the Laws and Rules for Sevet's authorized agents, and the sibilities imposed by statute or conference findings, submit dengineer or a person certified	ocation if the site pownership of the swage Treatment and local health departer in common law frotals, or actions from pursuant to Article	sing the signed and sealed plans or evaluations plan, plat, or the intended use changes. The ite. 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 ma person licensed pursuant to Chapter 89C of e 5 of Chapter 90A of the General Statutes as an
agents, and the local health depa obligations under State law or ru	rtments shall be responsible a le, including the issuance of the	nd bear liability for e operations perm	Department, the Department's authorized their actions and evaluations and other transport to GS 130A-337.
Construction Authorization Expira	ation Date:		

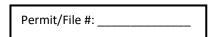
See attached site sketch



Permit/File #:

Re-submittal of Construction Authorization

	LHD USE ONLY: T	his CA resubmittal receive	d: Date	by Initials	
The following is	Ltems are being resubm	itted pursuant to G.S. 1302	A-335(a5) for issuance	of the Construction Authori	zation:
		OF S	TATE	<i>Sb</i> .	
l,		hereby attes	t that the information r	equired to be included witl	n this re-submittal
is accurate and				tion Authorization meets a	ll applicable
Signatur	e of Authorized On-Site Wa	stewater Evaluator	Y_	Date	
LHD Follow-u		s for Local Health Departmen		tems noted as missing above.	
	completeness of this C on Authorization is def		re-submittal was cond	ucted in accordance with G	.S. 130A-335(a5).
☐ Incomplete ((If box is checked, info	rmation in this section is r	equired.)		
The following it	ems are missing:				
		JOE OF	AM AIDE	A Company	
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:	
E STATE	
6 N N 1 30 1 - 5 N N	
Net - Y S/M Elizable 2 / Vene O M	
Additional Construction Authorization Conditions:	
10RH 12 1776	
White Tell I	
QUAM VI	

7



Permit #:	
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Re-submittal of Construction Authorization

	LHD USE ONLY: This CA resubmittal received:		by	
		Date	Initials	
The following it	tems are being resubmitted pursuant to G.S. 130A-33	35(a5) for issuance of	f the Construction Authoriz	ation:
		AFF A		
l,	hereby attest tha	at the information re	quired to be included with	this re-submittal
is accurate and	complete to the best of my knowledge and that the and local laws, regulations, rules, and ordinances.			
Signatur	re of Authorized On-Site Wastewater Evaluator		Date	
	The section below is for Local Health Department us		ems noted as missing above.	
LHD Follow-ւ	up Completeness Review of Construction A	uthorization		
	completeness of this Construction Authorization re-son Authorization is determined to be:	submittal was conduc	cted in accordance with G.S	5. 130A-335(a5).
☐ Incomplete ((If box is checked, information in this section is requi	ired.)		
The following it	ems are missing:			
	SJE OUA	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:	

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

	Page <u>1</u> of
PROPERTY ID #:	
COUNTY:	

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

OWNE				(Complete all				E EVALU	JATED:	
ADDR PROPO	ESS: DSED FACILITY FION OF SITE:	<u></u>	PR	OPOSED DESIGN	FLOW (.0400):		PROP	ERTY SIZI	E:	
WATE	R SUPPLY: 🗆 1	Public 🗌 Sin		☐ Shared Well ☐ ☐ Cut TY			WATE	R SUPPLY	SETBACK:_	
P R O F				RPHOLOGY			LE FACTO			
I L E	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ	.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRE CTION
1					- - -					
2					-					
3					-					
4					-					
	ESCRIPTION	INITIAL SYS	STEM REPAIR ST	YSTEM						
	le Space (.0508) Type(s)			SITE CLA EVALUA	SSIFICATION (.0509):		500 SOI	E SCIENT	
Site LT				OTHER(S	PRESENT:		//			
	ım Trench Depth						((-
Comme	ents:						\	NOR NOR		
								The second second		

Revised January 2024 Form SSE-24.2

Hen Buter

LEGEND

LANDSCAPE POSITION	SOIL GROUP	SOIL TEXTURE	CONVENTIONAL LTAR (gpd/ft²)	SAPROLITE LTAR (gpd/ft²)	LPP LTAR (gpd/ft²)	MINERALOGY/ CONSISTENCE		STRUCTURE
CC (Concave slope)		S (Sand)		0.6 - 0.8		MOIST	WET	SG (Single grain)
CV (Convex Slope)	'	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)	li li	SL (Sandy loam)	0.4 -0.6		0.3 - 0.4	VFR (Very friable)	SS (Slightly sticky)	GR (Granular)
FP (Flood plain)		L (Loam)		0.2 - 0.4		FR (Friable)	S (Sticky)	SBK (Subangular blocky)
FS (Foot slope)		SiL (Silt loam)		0.1 - 0.3		FI (Firm)	VS (Very sticky)	ABK (Angular blocky)
H (Head slope)		SCL (Sandy clay Ioam)		0.05 - 0.15**		VFI (Very firm)	NP (Non-plastic)	PR (Prismatic)
L (Linear Slope)	III	CL (Clay loam)	0.3 - 0.6		0.15 - 0.3	EFI (Extremely firm)	SP (Slightly plastic)	PL (Platy)
N (Nose slope)		SiCL (Silty clay loam)					P (Plastic)	
R (Ridge/summit)		Si (Silt)		None			VP (Very plastic)	
S (Shoulder slope)	SC (Sandy clay)					SEXP (Slightly	expansive)	
T (Terrace)	IV	SiC (Silty clay)	0.1 - 0.4		0.05 - 0.2	EXP (Exp	ansive)	
TS (Toe Slope)]	C (Clay)						-
	•	O (Organic)	None]		

^{*} 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 RESTRICTIVE HORIZON In inches from land surface

Thickness and depth from land surface

SAPROLITE S(suitable) or U(unsuitable); Evaluation of saprolite shall be by pits.

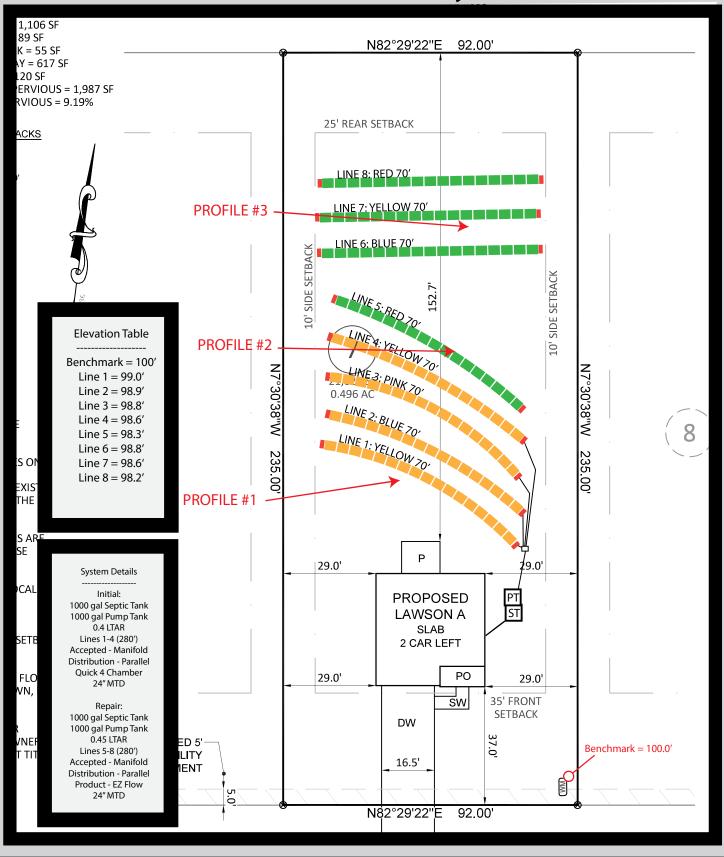
Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation SOIL WETNESS

CLASSIFICATION S (Suitable) or U (Unsuitable)

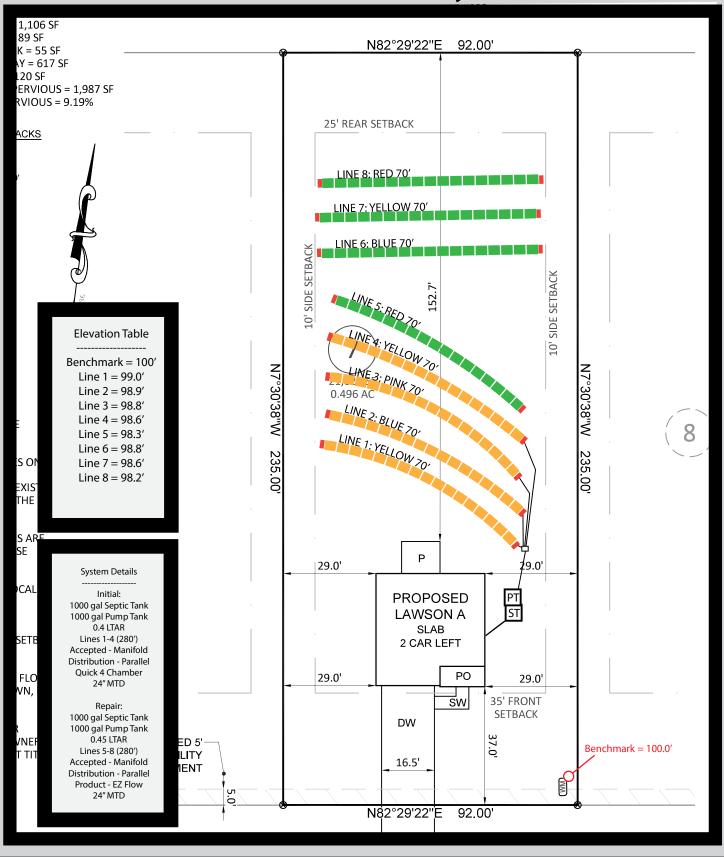
Show profile locations and other site features (dimensions, reference or benchmark, and North).

NCDHHS/DPH/EHS/OSWP Revised January 2024

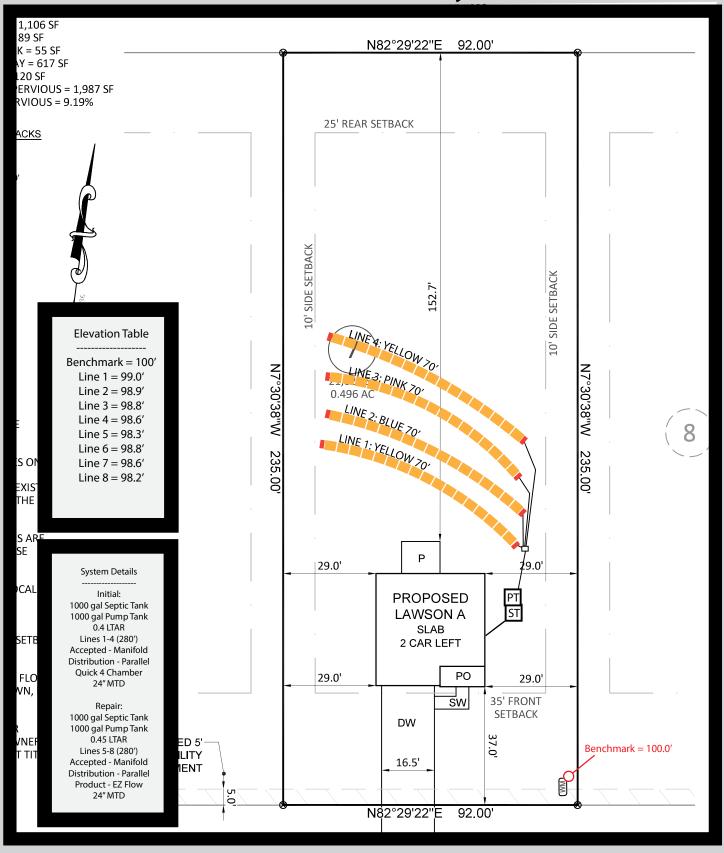
^{**}Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200.



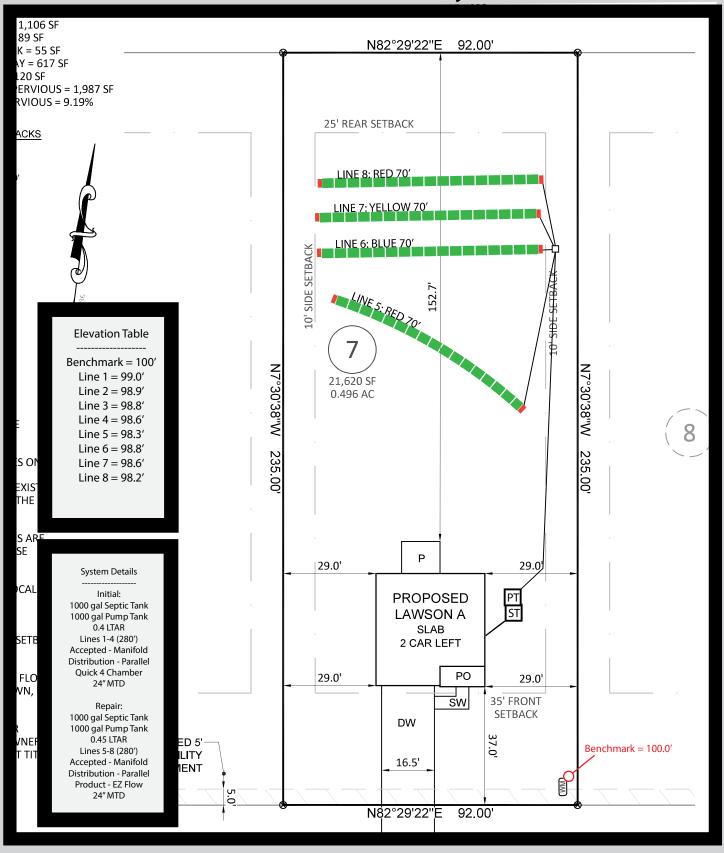


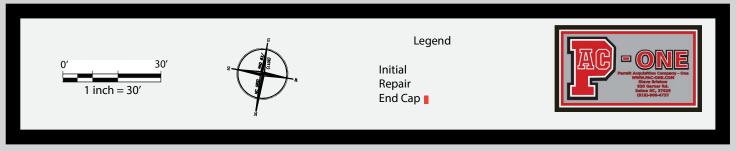












System Overview □ Initial □ Repair

Design Criteria	
Number of Bedrooms	
Design Flow	gal/day
Soil L.T.A.R.	gal/day/sq ft
System Details	
Trench Depth	inches
Total Trench Length	feet
Manifold Length	inches
Manifold Diameter	
Supply Line Length	feet
Design Head	feet
Elevation Head	feet
Total Design Head	feet
Dose Volume	gallons
% Pipe Volume	
Drawdown	inches
Pump Run Time	minutes
System Components	
Trench Product	
Septic Tank	
Pump Tank	
	ylok PL-68 (or approved equivalent)
	eller Dose Mate Model 151/152/153 (or approved equivalent)
Control Panel S.IF	Rhombus Model 112 panel (or approved equivalent)

RESIDENTIAL PRESSURE MANIFOLD DESIGN

Permit # Briarwood Bluffs Lot 7

of BDR: <u>3</u> Daily Flow: <u>360</u> gal/day L.T.A.R.: <u>0.4000</u> gal/day/sq.ft

Septic Tank: 1000 gals Pump Tank: 1000 gals Sq. Foot: 840 System Type: Accepted

Number of Taps: $\underline{4}$ Length of Trenches: $\underline{280}$ ft(See Tap Chart for Details)

Depth of Trenches: $\underline{24}$ in Manifold Length: $\underline{42}$ in

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

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

Friction Loss + Fitting Loss: $\underline{1.40}$ ft(supply line length + 70' for fittings in pump tank)

Design Head: $\underline{2}$ ft Elevation Head: $\underline{6}$ ft

Total Head: 9.40 ft Pump to Deliver: 21.92 gals/min at 9.40 ft head

Dosing Volume: <u>127</u> gals,

Drawdown: 127 gals divided by $\underline{20}$ gals/in = $\underline{6.4}$ inches

Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.

TAP CHART

Benchmark	2.8	is = 100.00	set at front left-w	ater meter box			Design Head:	2			
Pump tank elev.		3.5	99.30	Pump elev.	94.30		Manifold elev.	100.00			
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	# of Panels (PPBPS)	Spacing of Panels (in)
1	Yellow	3.80	99.00	70	1/2in SCH 80	5.48	90.00	210	0.4286		
2	Blue	3.90	98.90	70	1/2in SCH 80	5.48	90.00	210	0.4286		
3	Pink	4.00	98.80	70	1/2in SCH 80	5.48	90.00	210	0.4286		
4	Yellow	4.20	98.60	70	1/2in SCH 80	5.48	90.00	210	0.4286		
			102.80			0	0.00	0	#DIV/0!		
			102.80			0	0.00	0	#DIV/0!		
			102.80			0	0.00	0	#DIV/0!		
			102.80			0	0.00	0	#DIV/0!		
			102.80			0	0.00	0	#DIV/0!		
			102.80			0	0.00	0	#DIV/0!		
			Total Feet =	280	gal/min =	21.92		LTAR =	0.4000		
			Feet Required =	225	Velocity =	2.10		(Itar + 5%)	0.4200		
Total # of Panels (P	PPBPS)			Des. Flow	360			(Itar w/25% red)	0.5333		
% of Dose Vol.		70		Pump Run=	16.42			(Itar + 5%)	0.5600		
Dose Volume		127		Tank Gal/IN	20						
Dose Pump Time		5.81		Elev. Head	6						
Drawdown in Inche	es	6.4									
Comments:											

System Overview □ Initial □ Repair

Design Criteria	
Number of Bedrooms	
Design Flow	gal/day
Soil L.T.A.R.	gal/day/sq ft
System Details	
Trench Depth	inches
Total Trench Length	feet
Manifold Length	inches
Manifold Diameter	
Supply Line Length	feet
Design Head	feet
Elevation Head	feet
Total Design Head	feet
Dose Volume	gallons
% Pipe Volume	
Drawdown	inches
Pump Run Time	minutes
System Components	
Trench Product	
Septic Tank	
Pump Tank	
	ylok PL-68 (or approved equivalent)
	eller Dose Mate Model 151/152/153 (or approved equivalent)
Control Panel S.IF	Rhombus Model 112 panel (or approved equivalent)

PRESSURE MANIFOLD DESIGN - REPAIR SYSTEM

of BDR: <u>3</u> Daily Flow: <u>360</u> gal/day L.T.A.R.: <u>0.4500</u> gal/day/sq.ft

Septic Tank: 1000 gals Pump Tank: 1000 gals Sq. Foot: 840 System Type: Accepted

Number of Taps: 4 Length of Trenches: 280 ft(See Tap Chart for Details)

Depth of Trenches: 24 in Manifold Length: 42 in

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

Supply Line: length: 120 ft Diameter: 2 in sch 40pvc

Friction Loss + Fitting Loss: 2.22 ft(supply line length + 70' for fittings in pump tank)

Design Head: $\underline{2}$ ft Elevation Head: $\underline{6}$ ft

Total Head: 10.22 ft Pump to Deliver: 21.92 gals/min at 10.22 ft head

Dosing Volume: <u>127</u> gals,

Drawdown: 127 gals divided by $\underline{20}$ gals/in = $\underline{6.4}$ inches

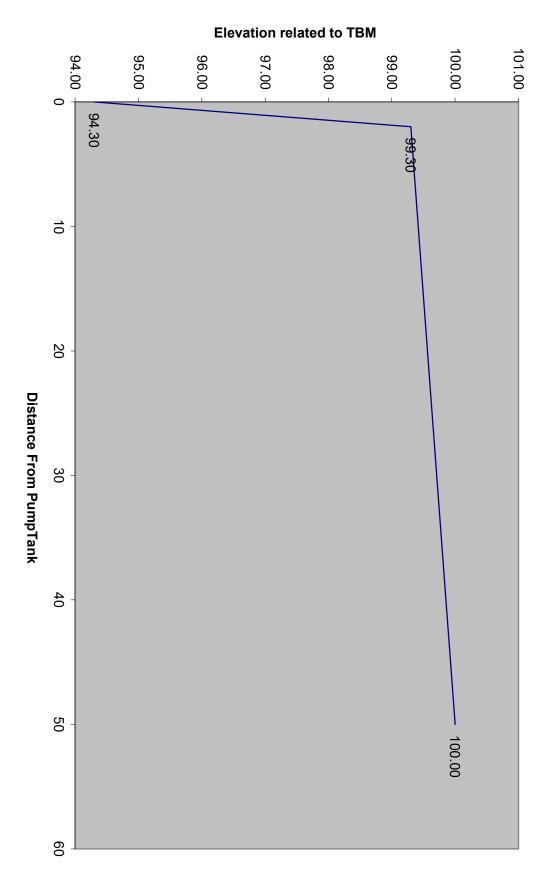
Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.

TAP CHART

Benchmark	2.8	is = 100.00	set at front left-w	ater meter box			Design Head:	2			Change in
Pump tank elev.		3.5	99.30	Pump elev.	94.30		Manifold elev.	99.30		# of Panels	Spacing of
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	(PPBPS)	Panels (in)
5	Red	4.50	98.30	70	1/2in SCH 80	5.48	90.00	210	0.4286		
6	Blue	4.00	98.80	70	1/2in SCH 80	5.48	90.00	210	0.4286		
7	Yellow	4.20	98.60	70	1/2in SCH 80	5.48	90.00	210	0.4286		
8	Red	4.60	98.20	70	1/2in SCH 80	5.48	90.00	210	0.4286		
			102.80			0	0.00	0	#DIV/0!		
			102.80			0	0.00	0	#DIV/0!		
			102.80			0	0.00	0	#DIV/0!		
			102.80			0	0.00	0	#DIV/0!		
			102.80			0	0.00	0	#DIV/0!		
			102.80			0	0.00	0	#DIV/0!		
			Total Feet =	280	gal/min =	21.92		LTAR =	0.4500		
			Feet Required =	200	Velocity =	2.10		(Itar + 5%)	0.4725		
Total # of Panels	(PPBPS)			Des. Flow	<u>360</u>			(Itar w/25% red)	0.6000		
% of Dose Vol.		70		Pump Run=	16.42			(Itar + 5%)	0.6300		
Dose Volume		127		Tank Gal/IN	<u>20</u>						
Dose Pump Time	,	5.81		Elev. Head	6						
Drawdown in Incl	hes	6.4									

Comments: Very sandy soil for lines 6,7,8 so chamber system is not recommended for this repair drainfield.

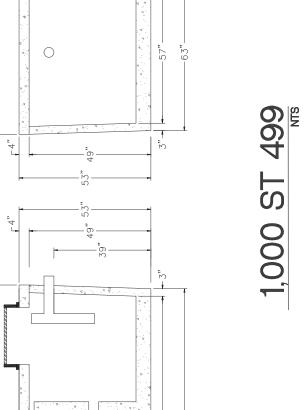
Recomment ez-flow product for the repair drainfield.



Esx 319-2\3-0443 Coll. Brail Coll. Bra	SHEET NUMBER		COKY BRANTEY	5740-5/3-919 X8-1			
1, 2014 27597 27			CONTACT:				
SNOS & SLITTING HAALT Store fields fall in 11, 2014	664 10 000,1						
PREPARED FOR: DATE	PATE PRANK MODEL April 11, 2014	REVISION NO. Original Submittal					

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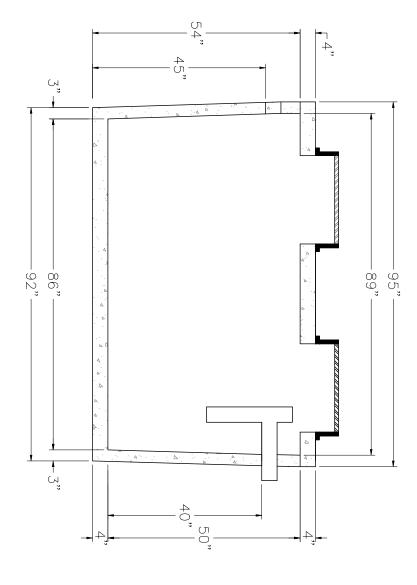


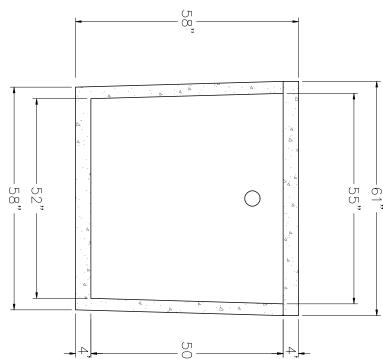
-117"--123"-

2,

NON TRAFFIC BEARING







BEARING

DAVID BRANTLEY &	SONS
------------------	------

1,000 PT 237

37 Pine Ridge Rd. Zebulon, NC 27597 Office 252-478-3721 Fax 919-573-0443

1installer•gmail.com

PREPARED FOR: David Brantley & Sons 37 Pine Ridge Rd. PREVISION NO. DATE Original Submittal April 11, 2014	Т
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	┨,
Zebulon, NC 27597 Revision 1	1
DATE : April 11, 2014	_
Revision 2	L
CONTACT:	-[
CORY BRANTLEY Revision 3	ı
Master Set	1

BRANTLEY TANK MODEL 1,000 PT 237

> SHEET NUMBER 1 of 1

Productinformation presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.



SECTION: 2.15.080 FM2784 1017 Supersedes 0315

TECHNICAL DATA SHEET

DOSE-MATE SERIES

Models 151, 152, 153 Effluent Pumps

PRODUCT SPECIFICATIONS

	1110000	ISPECIFICATIONS							
	Horse Power	1/3 (151), 4/10 (152), 1/2 (153)							
	Voltage	115 or 230							
8	Phase	1 Ph							
2	Hertz	60 Hz							
MOTOR	RPM	3450							
Σ	Туре	Permanent split capacitor							
	Insulation	Class B							
	Amps	3.0 - 10.5							
	Operation	Automatic or nonautomatic							
	Discharge Size	1-1/2" NPT							
	Solids Handling	1/2" (12 mm), 3/4" (19 mm) spherical solids							
_	Cord Length	20' (6 m)							
Ξ	Cord Type	UL listed power cord							
PUMP	Max. Head	44' (13.4 m)							
	Max. Flow Rate	77 GPM (291 LPM)							
	Max. Operating Temp.	130 °F (54 °C)							
	Cooling	Oil filled							
	Motor Protection	Auto reset thermal overload							
	Сар	Cast iron							
	Motor Housing	Cast iron							
	Pump Housing	Cast iron							
S	Base	Plastic or cast iron							
AL	Upper Bearing	Sleeve bearing							
RI,	Lower Bearing	Ball bearing							
MATERIALS	Mechanical Seals	Carbon and ceramic							
ΙΑ̈́	Impeller Type	Non-clogging vortex							
2	Impeller	Engineered thermoplastic							
	Hardware	Stainless steel							
	Motor Shaft	AISI 1215 steel							
	Gasket	Neoprene							

NOTE: The sizing of effluent systems normally requires variable level float(s) controls and properly sized basins to achieve required pumping cycles or dosing timers with nonautomatic pumps.

NOTE: See model comparison chart for specific details.

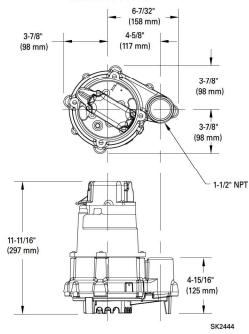
CUS US Tested to UL Standard UL778 and Certified to CSA Standard CSA22.2 No. 108



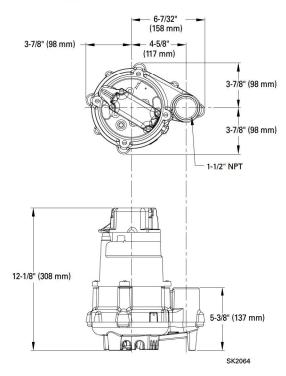




MODEL 151

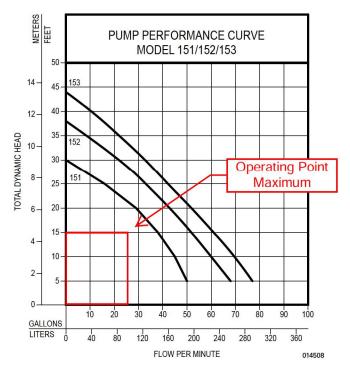


MODELS 152 & 153



TOTAL DYNAMIC HEAD FLOW PER MINUTE

				<u> </u>						
МО	DEL	1:	51	1	52	153				
Feet	Meters	Gal.	Liters	Gal.	Liters	Gal.	Liters			
5	1.5	50	189	69	261	77	291			
10	3.0	45	170	61	231	70	265			
15	4.6	38	144	53	201	61	231			
20	6.1	29	110	44	167	52	197			
25	7.6	16	61	61	61	61	34	129	42	159
30	9.1	-		-	23	87	33	125		
35	10.7					22	85			
40	12.2		s=-1			11	42			
Shut-o	ff Head:	30 ft. ((9.1m)	38 ft. (11.6m)	44 ft. (13.4m)				



Marial		MODEL COMPARISON										
Model	Seal	Mode	Volts	Ph	Amps	HP	Hz	Lbs	Kg	Simplex	Duplex	
N151	Single	Non	115	1	6.0	1/3	60	32	15	1	2 or 3	
E151	Single	Non	230 1 3.0		3.0	1/3	1/3 60	32	15	1	2 or 3	
BN151	Single	Auto	115	1	6.0	1/3	60	33	15	*	2 or 3	
BE151	Single	Auto	230	1	3.0	1/3	60	33	15	*	2 or 3	
N152	Single	Non	115	1	8.5	4/10	60	37	17	1	2 or 3	
E152	Single	Non	230	1	4.3	4/10	60	37	17	1	2 or 3	
BN152	Single	Auto	115	1	8.5	4/10	60	39	18	*	2 or 3	
BE152	Single	Non	230	1	4.3	4/10	60	39	18	*	2 or 3	
N153	Single	Non	115	1	10.5	1/2	60	37	17			
BN153	Single	Auto	115	1	10.5	1/2	60	39	18	*	2 or 3	
E153	Single	Non	230	1	5.3	1/2	60	37	17	1	2 or 3	
BE153	Single	Non	230	1	5.3	1/2	60	39	18	*	2 or 3	

^{*}BN and BE models include a 20' (6 m) piggyback variable level pump switch. Additional cord lengths are available in 25' (8 m) and 35' (11 m). 50' (15 m) cords are available for 230 V units only.

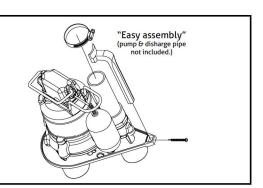
NOTE: Model 151 has a plastic base. Models 152 & 153 have a cast iron base.

SELECTION GUIDE

- For automatic, use single piggyback variable level float switch or double piggyback variable level float switch. Refer to FM0477.
- 2. See FM1228 for correct model of simplex control panel.
- 3. See FM0712 for correct model of duplex control panel.

OPTIONAL PUMP STAND P/N 10-2421

- Reduces potential clogging by debris
- Replaces rocks or bricks under the pump
- Made of durable, noncorrosive ABS
- Raises pump 2" (5 cm) off bottom of basin
- Provides the ability to raise intake by adding sections of 1½" or 2" (DN40 or DN50) PVC piping
- · Attaches securely to pump
- Accommodates sump, dewatering and effluent applications NOTE: Make sure float is free from obstruction.



A CAUTION

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).



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 & LokTM



Extend & LokTM Easily installs into existing tanks.

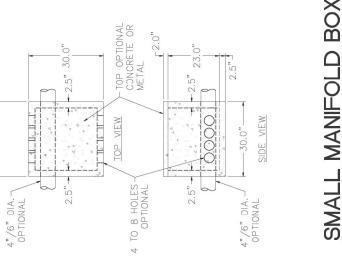


to 110mm Pipe

4" SCHD 40

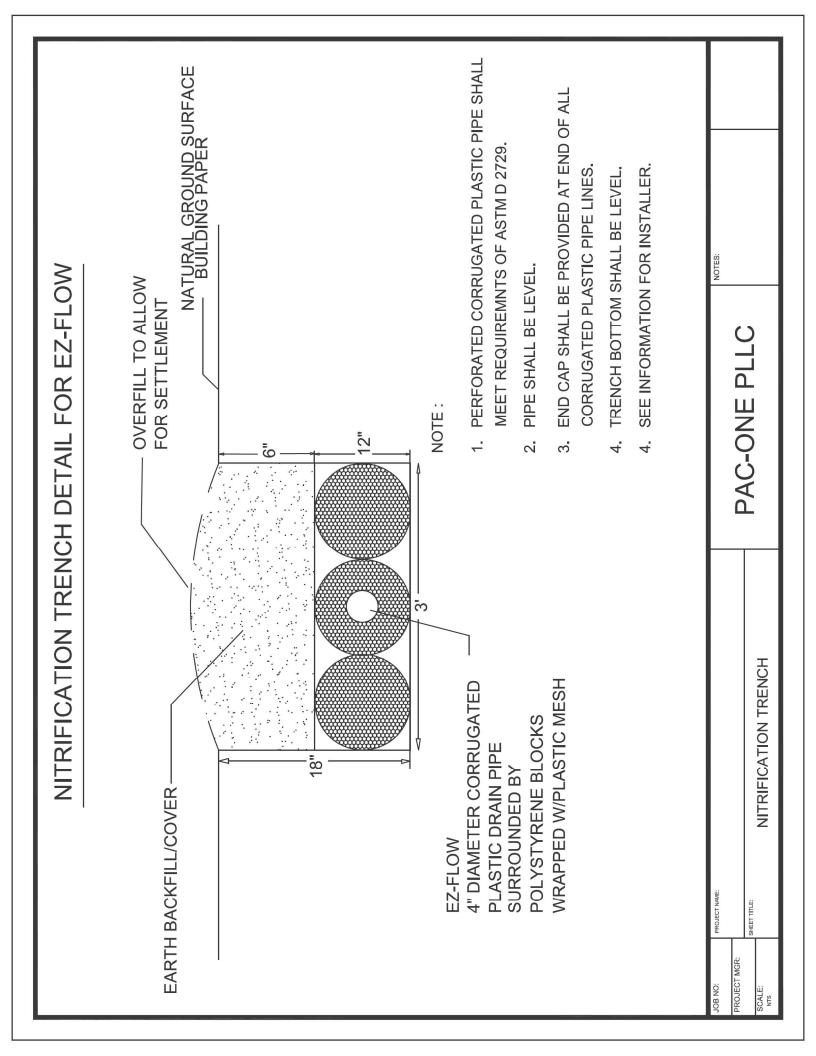
to SDR 35

V 12 V				Tinstaller • gmail com
l ìo l		Master Set		The telleternesi com
SHEET NUMBER		Revision 3	CORY BRANTLEY	Fax 919-573-0443
V06 650 IN 15 //4/		Revision 2	CONTACT:	Office 252-478-3721
MANIFOLD BOX		Revision 1	Pri 11, 2014	
JJAMS	April 11, 2014	Original Submittal	37 Pine Ridge Rd. Zebulon, NC 27597	37 Pine Ridge Rd.
JEIGOM YNAT YELTNARB	DATE	REVISION NO.	PREPARED FOR : David Brantley & Sons	DVAID BEVALTEX & 2002



-30.0"-

SMALL MANIFOLD BOX



MODEL 112 Control Panel

Single phase, simplex motor contactor control.

The Model 112 control panel provides a reliable means of controlling one 120, 208, or 240 VAC single phase pump in pump chambers, sump pump basins, irrigation systems and lift stations. Two control switches activate a magnetic motor contactor to turn the pump on and off. If an alarm condition occurs, an additional alarm switch activates the audio/visual alarm system.

PANEL COMPONENTS

- 1. Enclosure measures 8 x 8 x 4 inches (20.32 X 20.32 X 10.16 cm). Choice of NEMA 1 (steel for indoor use), or NEMA 4X (ultraviolet stabilized thermoplastic with removable mounting feet for outdoor or indoor use).
 - * Options selected may increase enclosure size and change component layout.
- Magnetic Motor Contactor controls pump by switching electrical lines.
- 3. HOA Switch for manual pump control (mounted on circuit board).
- 4. Green Pump Run Indicator Light (mounted on circuit board).
- 5. Float Switch Terminal Block (mounted on circuit board).
- 6. Alarm and Control Fuses (mounted on circuit board).
- 7. Alarm and Control Power Indicators (mounted on circuit board).
- 8. Ground Lug
- Circuit Breaker (optional) provides pump disconnect and branch circuit protection.

STANDARD ALARM PACKAGE

- Red Alarm Beacon provides 360° visual check of alarm condition.
 Note: NEMA 1 style utilizes a door mounted indicator in lieu of a beacon.
- 11. Alarm Horn provides audio warning of alarm condition (83 to 85 decibel rating)

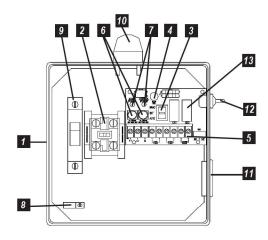
Note: NEMA 1 style utilizes an internally mounted buzzer in lieu of horn.

- 12. Exterior Alarm Test/Normal/Silence Switch allows horn and light to be tested and horn to be silenced in an alarm condition. Alarm automatically resets once alarm condition has been cleared.
- 13. Horn Silence Relay (mounted on circuit board).

NOTE: other options available.

FEATURES

- Entire control system (panel and switches) is UL Listed to meet and/ or exceed industry safety standards
- Dual safety certification for the United States and Canada
- Standard package includes three 20' SJE SignalMaster® control switches
- Complete with step-by-step installation instructions
- Three-vear limited warranty



Model Shown 1121W914X





1-888-DIAL-SJE • 1-218-847-1317 1-218-847-4617 Fax

email: sje@sjerhombus.com www.sjerhombus.com

	112		1		W		9		1		4	Н		8A,	,8C,3	A,10E,	15A
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	ALARMPAC																
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	PUMP FULL																
	0 = 0-7 FLA	\															
	1 = 7-15 FL																
-	2 = 15-20 F 3 = 20-30 F																
	PUMP DISC		ECTS_														
	0 = no pump	E 5 55 EF															
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	1E Alarm flo	at						_	**	0-20		iout (rotal)	o.,		rough doe	.,	,
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 ★	4B Red redu	ındant	off indic	ator & a	alarm							eu of 20' (pe					
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	reset (for	pump	s w/thern	nal switc	h leads)			_			® / externally	_				
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₩	6A Auxiliary 8A Elapsed			form C				<u> </u>				Mini / exte		0	(per floa	at)	
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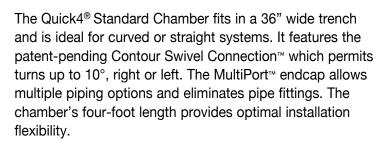




The Quick4® Standard Chamber



Quick4 Standard with MultiPort EndCap



Chamber Benefits:

- Advanced contouring connections swivel up to 10°, right or left
- Latching mechanism allows for quick installation
- · Four-foot chambers are easy to handle and install
- The Quick4 Standard Chamber supports wheel loads of 16,000 lbs/axle with only 12" of cover
- Certified by the International Association of Plumbing and Mechanical Officials (IAPMO)



MultiPort Endcap Benefits:

- · Tear-out seals on inlet ports provide a tight fit to the pipe
- Eight molded-in inlets/outlets allow for maximum piping flexibility
- · Eliminates pipe fittings
- Fits on either end of the Quick4 Standard Chamber



Quick

Quick4® Series

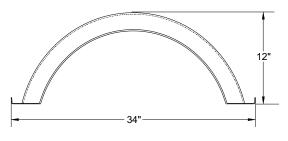
Because installations are faster with Quick4 chambers, you save on heavy equipment operation and labor.

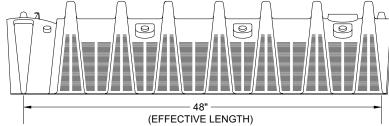
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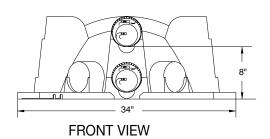
Ouick4 Standard Chamber

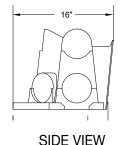


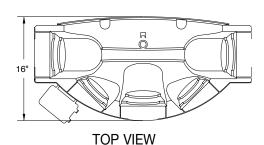




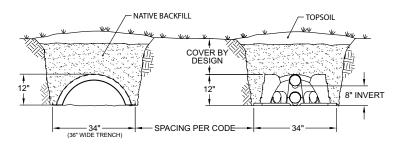
MultiPort EndCap







Typical Trench View -



Quick4® Standard Cham	ber Specifications						
Size	34"W x 53"L x 12"H (864 mm x 1346 mm x 305 mm)						
Effective Length	48" (1219 mm)						
Louver Height	8" (203 mm)						
Storage Capacity	43 gal (163 L)						
Invert Height	8" (203 mm)						

INFILTRATOR water technologies

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4 Business Park Road P.O. Box 768 Old Saybrook, CT 06475 860-577-7000 • Fax 860-577-7001 1-800-221-4436 www.infiltratorwater.com

INFILTRATOR WATER TECHNOLOGIES, LLC ("INFILTRATOR") Infiltrator Water Technologies, LLC STANDARD LIMITED Drainfield WARRANTY

(a) The structural integrity of each chamber, endcap, EZflow expanded polystyrene and/or other accessory manufactured by Infiltrator ("Units"), when installed and operated in a leachfield of an onsite septic system in accordance with Infiltrator's instructions, is warranted to the original purchaser ("Holder") against defective materials and workmanship for one year from the date that the septic permit is issued for the septic system containing the Units; provided, however, that if a septic permit is not required by applicable law, the warranty period will begin upon the date that installation of the septic system commences. To exercise its warranty rights, Holder must notify Infiltrator in writing at its Corporate Headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect. Infiltrator will supply replacement Units for Units determined by Infiltrator to be covered by this Limited Warranty. Infiltrator's liability specifically excludes the cost of removal and/or installation of the Units.

(b) THE LIMITED WARRANTY AND REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

(c) This Limited Warranty shall be void if any part of the chamber system is manufactured by anyone other than Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the Holder or any third party. Specifically excluded from Limited Warranty coverage are damage to the Units due to ordinary wear and tear, alteration, accident, misuse, abuse or neglect of the Units; the Units being subjected to vehicle traffic or other conditions which are not permitted by the installation instructions; failure to maintain the minimum ground covers set forth in the installation instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper siting or improper sizing, excessive water usage, improper grease disposal, or improper operation; or any other event not caused by Infiltrator. This Limited Warranty shall be void if the Holder fails to comply with all of the terms set forth in this Limited Warranty. Further, in no event shall Infiltrator be responsible for any loss or damage to the Holder, the Units, or any third party resulting from installation or shipment, or from any product liability claims of Holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and Infiltrator's installation instructions.

(d) No representative of Infiltrator has the authority to change or extend this Limited Warranty. No warranty applies to any party other than the original Holder. The above represents the Standard Limited Warranty offered by Infiltrator. A limited number of states and counties have different warranty requirements. Any purchaser of Units should contact Infiltrator's Corporate Headquarters in Old Saybrook, Connecticut, prior to such purchase, to obtain a copy of the applicable warranty, and should carefully read that warranty prior to the purchase of Units.

Q25 0816

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844 Canadian Patents: 1,329,959; 2,004,564 Other patents pending. Infiltrator, Equalizer, Quick4, and SideWinder are registered trademarks of Infiltrator Water Technologies. Infiltrator is a registered trademark in France. Infiltrator Water Technologies is a registered trademark of Infiltrator Water Technologies. Contour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickCut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Water Technologies. PolyLok, Inc. TUF-TITE is a registered trademark of TUF-TITE, INC. Ultra-Rib is a trademark of IPEX Inc.

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 Quick 4 Chamber drain line.
- Repair uses EZ Flow drain line.

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**.





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/26/2024

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

	ne terms and conditions of the policy, pertificate holder in lieu of such endors		•	icies may require an endo	orsement. A statement on this certificate does not confer rights to the						
	DUCER		-(-)		CONTAC NAME:	T Angela	Sensenig				
Wad	le Associates, LLC				PHONE (A/C, No, Ext): FAX (A/C, No): (252)649-2443						
250	Pollock St.				E-MAIL ADDRES	ss: asensen:	ig@wadeict	com			
					INSURER(S) AFFORDING COVERAGE					NAIC #	
Nev	Bern NC 28	560			INSURE	44776					
INSU	RED				INSURE	10844					
	mit Acquistion Company One,	PLLC	2		INSURE	R C:					
920	Garner Rd				INSURE	RD:					
					INSURE	RE:					
Sel		576		NUMBER 24 25	INSURE	RF:		DEV//01011 NUMBER			
				NUMBER: 24-25	REVISION NUMBER: EEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD						
IN C	IDICATED. NOTWITHSTANDING ANY REQ ERTIFICATE MAY BE ISSUED OR MAY PEF	UIREM TAIN,	IENT, THE II	TERM OR CONDITION OF AN NSURANCE AFFORDED BY T	NY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS,						
E)	XCLUSIONS AND CONDITIONS OF SUCH		ES. LI	MITS SHOWN MAY HAVE BE	EN RED	UCED BY PAIC POLICY EFF	CLAIMS. POLICY EXP				
LTR	TYPE OF INSURANCE	INSD	WVD	POLICY NUMBER		(MM/DD/YYYY) (MM/DD/YYYY) LIMIT					
	X COMMERCIAL GENERAL LIABILITY							EACH OCCURRENCE DAMAGE TO RENTED	\$	1,000,000	
A	CLAIMS-MADE X OCCUR							PREMISES (Ea occurrence)	\$	100,000	
				SSEP0476240AEM		11/22/2024	11/22/2025	MED EXP (Any one person)	\$	10,000	
								PERSONAL & ADV INJURY	\$	1,000,000	
	GEN'L AGGREGATE LIMIT APPLIES PER: PRO- LOC							GENERAL AGGREGATE	\$	2,000,000	
	POLICY JECT LOC							PRODUCTS - COMP/OP AGG	\$	2,000,000	
	OTHER: AUTOMOBILE LIABILITY	+						COMBINED SINGLE LIMIT	\$		
	ANY AUTO							(Ea accident) BODILY INJURY (Per person)	\$		
	ALL OWNED SCHEDULED							BODILY INJURY (Per accident)	\$		
	AUTOS AUTOS NON-OWNED AUTOS							PROPERTY DAMAGE (Per accident)	\$		
	HIRED AUTOS AUTOS							(Per accident)	\$		
	UMBRELLA LIAB OCCUR							EACH OCCURRENCE	\$		
	EXCESS LIAB CLAIMS-MADE							AGGREGATE	\$		
	DED RETENTION \$							\$			
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY							X PER OTH- STATUTE ER			
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?	CUTIVE Y/N N/A			1	11/14/2024	11/14/2025	E.L. EACH ACCIDENT	\$	500,000	
В	(Mandatory in NH)			69KOUB-5N24039-7-24				E.L. DISEASE - EA EMPLOYEE	\$	500,000	
	If yes, describe under DESCRIPTION OF OPERATIONS below							E.L. DISEASE - POLICY LIMIT	\$	500,000	
A	Errors & Omissions			SSEP0476240AEM		11/22/2024	11/22/2025	Each Occurrence		\$1,000,000	
								General Aggregate		\$2,000,000	
DEG	DESTRUCTION OF OPERATIONS (LOCATIONS (MEMO		000.40	4.41122		.119					
DES	CRIPTION OF OPERATIONS / LOCATIONS / VEHICL	S (AC	10 טאט	1, Additional Remarks Schedule, m	ay be atta	cnea it more spac	ce is required)				
CF	RTIFICATE HOLDER				CANC	ELLATION					
<u> </u>											
								SCRIBED POLICIES BE CAN) BEFORE	
	Smith Douglas Homes							F, NOTICE WILL BE DELIVER! PROVISIONS.	ED IN		
	3412 Apex Peakway Apex, NC 27502				L						
	Apex, NC 2/302				AUTHOR	RIZED REPRESEN	ITATIVE				
								M D . 1	\bigcap		
l	1				N Whitsett/RACHEL						



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 North Southers.

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.

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
В.	Pollution	\$10,000
C.	Pre-Claim Assistance Expenses	\$20,000
D.	Sexual Abuse	\$10,000
E.	Third Party Discrimination	\$25,000

Supplementary Payments

A. Disciplinary Proceeding \$25.	000 pe	* Policy	/ Period
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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