

Subsurface Wastewater Disposal System Design Packet

HARRINGTON PLACE LOT 57 143 Mildred Place Broadway NC 27505 PIN: 9680-59-1927

4/17/25

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# PAC-ONE, PLLC

\_\_\_\_\_

# **Subsurface Wastewater Disposal System Design Packet**

Date: 4/17/25

Proposed for a:

4 -bedroom residential dwelling

Located at:

#### **143 MILDRED PLACE BROADWAY NC 27505**

**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:

#### **143 MILDRED PLACE BROADWAY NC 27505**

at the behest	of:				
Owner Print:	Smith Do	ouglas Ho	mes		
Owner Signat	ture:	\	Will Smith		
Owner's Repr	esentative	(if any):	Will Smith		
Date:	4/17/	25	2		
	1		<b>-</b> 4		

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 desired Accepted Conventional Innovative Other	ed system type(s): r
	cation Change of Use Repair Diring Permit Requested (plat provided, defined in G.S.130A-334(7a
Applicant: Smith Douglas Homes	Owner: Smith Douglas Homes
Mailing Address: 3412 Apex Peakway Dr.	Mailing Address: 3412 Apex Peakway Dr.
City: Apex	City: Apex
State: NC Zip: 27502	State: NC Zip: 27502
Phone #:	Phone #:
Email:	Email:
If the answer to any of the following questions is "yes", applica	
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 o	
are to be used to issue an Improvement Permit and/or Constru I understand that authorized county and state officials are gran	
Applicant Signature:	Date: 4/17/25
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 \$
	IMPROVEMEI	NT PERMIT FOR G.S. 130A-335	(a2)
County: Harnett PIN/Lot Identifier: 968	30-59-1927	_	
Issued To: Smith D			
	3 MILDRED PLACE BRO		
Subdivision (if applicabl	<sub>e)</sub> HARRINGTON PLACE	Lot #: LOT 57	Block: Section:
LSS Report Provided: Y	es 🔳 No 🗌		
If yes, name and license	e number of LSS: Stephen W Brist	tow # 1167	
New ■ Facility Type: SFD		System Relocation	Change of Use
Number of bedrooms:	4 Number of Occupants: 8	Other:	
Design Wastewater Stre		High Strength Industria	
Proposed Design Daily I	Flow: 480 GPD F	Proposed LTAR (Initial):30 Pro	pposed LTAR (Repair): .30
Proposed Wastewater S	System Type*: IIIb	(Initial) Pump Requ	uired: 🔳 Yes 🗌 No 🔲 May be required
Proposed Wastewater S	System Type*: IIIb	(Repair) Pump Requ	uired: ■ Yes ☐ No ☐ May be required
*Please include system	classification for proposed wastewat	er system types in accordance with Rule .	1301 Table XXXII
Effluent Standard:	DSE HSE NSF/ANSI 40	TS-I TS-II RCW	
Saprolite System (Initial	): Yes No Saprolite S	ystem (Repair): 🗌 Yes 🔳 No	
Fill System (Initial):	Yes  No If yes, specify:  New	Existing (when adding more than 6	inches of fill to system area provide a fill plan)
Fill System (Repair):	Yes ■ No If yes, specify: ☐ New	Existing (when adding more than 6	inches of fill to system area provide a fill plan)
		Jsable Depth to LC (Repair) $^{x}$ : $48$	
			Measured on the downhill side of the trench
Artificial Drainage Requ	ired: Yes No If yes, please s	specify details:	
Type of Water Supply: [	Private well Public well	Shared well   Municipal Supply	Spring Other:
Drainfield location mee	ts requirements of Rule .0508: Yes	No Drainfield location meets r	equirements of Rule .0601: Yes 🔳 No 🗌
Permit valid for: Five	e years [site plan submitted pursuant	to GS 130A-334(13a)] No expiration	n [plat submitted pursuant to GS 130A-334(7a)]
Chamber product specif	e an at site meeting to discuss changing the first fir	can be a direct repacement if needed.	
Licensed Soil Scientist P	rint Name. Steve Bristow #1167		100

Licensed Soil Scientist Signature: \_ Alex Buter

Date: 4/17/25



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

## This Section for Local Health Department Use Only

initial submittal received:		by	
	Date	Initials	
G.S. 130A-335(a3) states the following:			
When an applicant for an Improvement Permit submits to a local health departmed department, the common form developed by the Department, and a soil evaluati within five business days of receiving the application, conduct a completeness revermit includes all of the required components. If the local health department deshall notify the applicant of the components needed to complete the Improvement department to cure the deficiencies in the Improvement Permit. The local health discomplete within five business days after the local health department receives the cut within any period set out in this subsection, the applicant may treat the failur common form for use as the Improvement Permit.	on pursuant to sui view of the submit termines that the nt Permit. The app department shall i he additional infor	osection (a2) of this sec tal. A determination of Improvement Permit is licant may submit addi make a final determina mation from the applic	tion, the local health department shall, completeness means that the Improvement incomplete, the local health department tional information to the local health tion as to whether the Improvement Permit ant. If the local health department fails to
The review for completeness of this Improvement Permit was co Permit is determined to be:	nducted in acc	cordance with G.S.	130A-335(a3). This Improvement
☐ Incomplete (If box is checked, information in this section is r	equired.)		
The following items are missing:			
			I W
Copies of this were sent to the LSS and the Applicant on	Date		
State Authorized Agent:			Date:
☐ Complete	1		21
State Authorized Agent:	Vall		Date:
This Improvement Permit is issued pursuant to G.S. 130A-335 (a attached here. The issuance of this permit in no way guarantee for checking with appropriate governing bodies in meeting theis plat, or the intended use changes. The Improvement Permit shapermit is subject to compliance with the provisions of 15A NCA. The Department, the Department's authorized agents, and the any liabilities, duties, and responsibilities imposed by statute o	es the issuance r requirement all not be affe C 18E and to t local health d	e of other permits. s. This permit is sucted by a change in the conditions of the conditions of the conditions shall the conditions.	The permit holder is responsible ubject to revocation if the site plan, n ownership of the site. This his permit.  De discharged and released from
evaluations, submittals, or actions from a licensed soil scientist	or licensed ge	-	_
Improvement Permit Expiration Date:			

\*See attached site sketch\*



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

# **Re-submittal of Improvement Permit**

	LHD USE ONLY: This IP resubmittal received:	Date	by	
Γhe following i	items are being resubmitted pursuant to G.S. 130A-	·335(a3) for issuance of	of the Improvement Permit	l :
	THE S	ATE	Mr.	
s accurate and	hereby attest to scientist (Print Name)  complete to the best of my knowledge and that the laws, regulations, rules, and ordinances.		equired to be included wit ment Permit meets all app	
Signatur	re of Licensed Soil Scientist		Date	
	The section below is for Local Health Department up Completeness Review of Improvemen	t Permit		
	completeness of this Improvement Permit re-subn Permit is determined to be:	nittal was conducted i	in accordance with G.S. 13	JA-335(a3). This
•	e (If box is checked, information in this section is re	equired.)		
The following it	tems are missing:	M AIDE	#	
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: Harnett	Pre-Construction Conference Required: Yes ■ No □
PIN/Lot Identifier: 9680-59-1927	
Issued To: Smith Douglas Homes	
Property Location: 143 MILDRED PLACE	BROADWAY NC 27505
AOWE/PE Plans/Evaluations Provided: Yes ■ No	o If yes, name and license number of AOWE/PE: Steve Bristow # 10012E
Facility Type: SFD	
Number of bedrooms: $\underline{\underline{4}}$ Number of Occupa	nts: <u>8</u> Other:
■ New	System Relocation Change of Use
Basement? Yes • No	Basement Fixtures? ☐ Yes ■ No
Crawl Space? Yes • No	Slab Foundation? ■ Yes
Type of Wastewater System* Illb	(Initial) <u>IIIb</u> (Repair)
*Please include system classification for proposed v	wastewater system types in accordance with Rule .1301 Table XXXII
Design Daily Flow: 480 GPD	Wastewater Strength: ■ Domestic ☐ High Strength ☐ Industrial Process WW
Session Law 2014-120 Section 53, Engineering Desi (if yes, please provide engineering documentation)	gn Utilizing Low-flow Fixtures and Low-flow Technologies?   Yes  No
Effluent Standard:   DSE HSE NSF/A	NSI 40 TS-I TS-II RCW
Type of Water Supply: Private well Public	well Shared well Municipal Supply Spring Other:
Installation Requirements/Conditions	
Septic Tank Size: 1200 gallons Total Trenc	h/Bed Length: $\frac{424}{}$ feet Trench/Bed Spacing: $\frac{9}{}$ feet on center
	gpd/ft <sup>2</sup> Usable Depth to LC (Initial) <sup>x</sup> : 48 xLimiting condition
	mum Trench/Bed Depth‡: 26 inches * Measured on the downhill side of the trench
Pump Tank Size (if applicable): 1200 gallons	Requires more than 1 pump?  Yes  No
Pump Requirements: $20.79$ ft. TDH vs. $40.76$ GP	PM Grease Trap Size (if applicable): gallons
Distribution Method: Serial D-Box or Par	allel ■ Pressure Manifold(s)
Artificial Drainage Required: Yes No III If ye	s, please specify details:
Legal Agreements (If the answer is "Yes" to any typ	oe of legal agreements, please attach a copy of the agreement.)
Multi-party Agreement Required [.0204(g)]:	es No Declaration of Restrictive Covenants: Yes No
Easement, Right-of-Way, or Encroachment Agreem	
Management Entity Required: Yes No M	inimum O&M Requirements:
Permit conditions: Installer- Call to arrange an at site meeting to discuss check the condition of the condi	product can be a direct repacement if needed.
	had by reference into this negatit and shall be most. Customs shall be installed in assertance

The requirements of 15A NCAC 18E are incorporated by 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 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:

Steve Bristow 10012E

Date: 4/17/25

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

\*See attached site sketch\* with the attached site sketch. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The



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

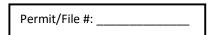
	Initial submittal received:	b	У
		Date	Initials
G.S. 130A-335(a5) states the follow	ing:		
Improvement Permit and Construction Author Department, and any necessary signed and sengineer or a person certified pursuant to Ard department shall, within five business days of the Construction Authorization or Improvem determines that the Construction Authorizat applicant of the components needed to comp additional information to the local health de Authorization. The local health department of the partment fails to act within any period set apply for the building permit for the project of Authorization by the local health departmen dicensed engineer submitting the evaluation Authorization or Improvement Permit and Co	prization application together, the persealed plans or evaluations conducted ticle 5 of Chapter 90A of the General of receiving the application, conduct a cent Permit and Construction Authorization or Improvement Permit and Construction Authorization or Improvement Permit and Construction Authorization or Improvement Permit and Construction Authorization of compartment to cure the deficiencies in the shall make a final determination as to say after the local health department out in this subsection, the applicant is upon the decision of completeness of the or if the local health department fair pursuant to this subsection may requiponstruction Authorization for cause. Lesspend or revoke the Construction Authorization for cause.	rmit fee charged by the lot by a person licensed pur Statutes as an Authorized completeness review of ation includes all of the retruction Authorization is it or Improvement Permit a by whether the Construction Authorized whether the failure to a the Construction Authorized whether the failure to a the Construction Authorization are the Construction Authoricals to act within five business that the local health of Jpon written request of the other person and proventive that the request of the other person and proventive that the local health of Jpon written request of the other person are personal person and person are personal person are personal person and person are personal person are personal person and person are personal person and person are personal person are personal person are personal person are personal person are person are person and person are pers	ation together, submits a Construction Authorization, or an an acal health department, the common form developed by the issuant to Chapter 89C of the General Statutes as a licensed of On-Site Wastewater Evaluator, the local health the submittal. A determination of completeness means that required components. If the local health department neomplete, the local health department shall notify the and Construction Authorization. The applicant may submit ation or Improvement Permit and Construction and Authorization or Improvement Permit and Construction al information from the applicant. If the local health act as a determination of completeness. The applicant may reation or Improvement Permit and Construction ress days. The Authorized On-Site Wastewater Evaluator or department revoke or suspend the Construction are Authorized On-Site Wastewater Evaluator or licensed then Permit and Construction pursuant to G.S.
The review for completeness of this	Construction Authorization v	vas conducted in acc	cordance with G.S. 130A-335(a5). This
Construction Authorization is deter	mined to be:		
☐ Incomplete (If box is checked, i	nformation in this section is re	equired.)	
The following items are missing:	1.K = ///s	The Deep	
11 04	6.25///		
Copies of this were sent to the AOV	VE/PE and the Applicant on	1 Francis	
V/\		Date	
State Authorized Agent:			Date:
- UM	A Landon		15-14
☐ Complete			
State Authorized Agent:			Date of Issuance:
attached here. This Construction A Construction Authorization shall no to compliance with the provisions The Department, the Department's any liabilities, duties, and responsi plans, evaluations, preconstruction the General Statutes as a licensed of Authorized On-Site Wastewater Ev	uthorization is subject to reve of the affected by a change in of the Laws and Rules for Sev is authorized agents, and the bilities imposed by statute or in conference findings, submit engineer or a person certified raluator in GS 130A-335(a2), ( iments shall be responsible and	ocation if the site plownership of the sivage Treatment and local health department in common law frostals, or actions from Jays and (a7). The Dand bear liability for e operations permit	ing the signed and sealed plans or evaluations an, plat, or the intended use changes. The te. This Construction Authorization is subject I Disposal and to the conditions of this permit.  Inents shall be discharged and released from any claim arising out of or attributed to a a person licensed pursuant to Chapter 89C of 5 of Chapter 90A of the General Statutes as an epartment, the Department's authorized their actions and evaluations and other pursuant to GS 130A-337.



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

	LHD USE ONLY: This CA resubmittal receiv	ved:	by	-
The following is	Lems are being resubmitted pursuant to G.S. 130	0A-335(a5) for issuance	of the Construction Authori	l ization:
	-UE S	STATE	<i>B</i>	
l,		est that the information r	equired to be included wit	h this re-submittal
is accurate and	nsite Wastewater Evaluator (Print Name) complete to the best of my knowledge and that and local laws, regulations, rules, and ordinance		ction Authorization meets a	ıll applicable
Signatur	re of Authorized On-Site Wastewater Evaluator	1	Date	
	The section below is for Local Health Departm	nent use after submittal of i	tems noted as missing above.	
LHD Follow-ւ	up Completeness Review of Constructi	ion Authorization		
	completeness of this Construction Authorization Authorization Authorization is determined to be:	on re-submittal was cond	ucted in accordance with G	i.S. 130A-335(a5).
☐ Incomplete (	(If box is checked, information in this section is	s required.)		
The following it	ems are missing:			
	11 32 B	UAM VIDERS	9	
Copies of this w	vere sent to the AOWE/PE and the Applicant or	n	_	
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:	
THE SIAIE	
6/01	1.1
Al North	
8/47/89 9	
	Zanz-I ( ) IN
	W 19#
Additional Construction Authorization Conditions:	
	1 -2 1 fg
W + 12 11 11	* //
QUAM VIDE	13



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

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

	THD LICE ONLY	This CA resubmittal received:		hv.	
	LHD 03E ONLY.	Tills CA resubilittal received	Date	by	
The following it	tems are being resub	mitted pursuant to G.S. 130A-33.	5(a5) for issuance o	f the Construction Authoriz	ation:
		ST	ATT	h	
l,			it the information re	equired to be included with	this re-submittal
is accurate and		or (Print Name) t of my knowledge and that the pations, rules, and ordinances.	proposed Construct	ion Authorization meets all	applicable
Signatur	e of Authorized On-Site V			Date	
	The section below	v is for Local Health Department use	e after submittal of ite	ems noted as missing above.	
LHD Follow-ւ	up Completeness	Review of Construction A	uthorization		
	completeness of this on Authorization is d	Construction Authorization re-si etermined to be:	ubmittal was condu	cted in accordance with G.S	5. 130A-335(a5).
☐ Incomplete (	If box is checked, in	formation in this section is requi	red.)		
The following it	ems are missing:				
		TALLO 3UP	M VIDER		
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:	

	Page <u>1</u> of
PROPERTY ID #:	9680-59-1927
COUNTY:	Harnett

# SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM (Complete all fields in full)

OWNE a ddr	R: Smith Douglas Home ESS: 3412 Apex Peakv	es vay Dr. Apex, NC, 275	502	(Complete uni			DAT	E EVALU	JATED: 4/7/25	
PROPO	OSED FACILITY	: SFD	PR	OPOSED DESIGN I	FLOW (.0400):	480 gpd		ERTY SIZ		
	TION OF SITE:			Shared Well	knring Doth				ORDED: yes SETBACK: n	
			er Boring Pit		PE OF WASTE				Strength I	
P R O F I		SOIL MORPHOLOGY		OTHER PROFILE			E FACTORS			
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
	SIDE	12	GR/SL	VFR/NS/NP/SEXP	10YR 2/2	48+			Suitable	1.8in
	SLOPE 5%	24	GR/SL	FR/SS/SP/SEXP	5YR4/4				.35	
1	370	48	SBK/CL	FR/SS/SP/SEXP	7.5YR 4/6					
	SIDE	10	GR/gravellySL	VFR/NS/NP/SEXP	10YR 7/2	48+			Suitable	1.8in
	SLOPE 5%	40	SBK/CL	FR/SS/SP/SEXP	7.5YR4/6				.30	
2	370	48	SBK/CL	FR/SS/SP/SEXP	7.5YR4/6 w/					
					Cr2					
	SIDE	3	GR/gravellySL	VFR/NS/NP/SEXP	10YR 2/2	48+			Suitable	1.8in
	SLOPE 5%	8	GR/gravellySL	VFR/NS/NP/SEXP	10YR7/2				.30	
3	370	48	SBK/C	FR/SS/SP/SEXP	2.5YR 4/8					
	SIDE	3	GR/gravellySL	VFR/NS/NP/SEXP	10YR 2/2	48+			Suitable	1.8in
	SLOPE  5%	6	GR/gravellySL	VFR/NS/NP/SEXP	10YR7/2				.30	
4	070	48	SBK/C	FR/SS/SP/SEXP	2.5YR 4/8					
D	ESCRIPTION	INITIAL SYS	STEM REPAIR SY	YSTEM				5		
Availab	le Space (.0508)	YES	YES	SITE CLAS	SSIFICATION (			501	L SCI	
System Site LT	Type(s)	.30	.30		ED BY: Stephen V	V Bristow LSS 116	· //			
Maximu	ım Trench Depth	26	26				((	7		
Comme	ents: Profile 1/2/3 are pits -	MTD Profile 2 so MTD 40	0-12-2=26							

#### **LEGEND**

LANDSCAPE POSITION	SOIL GROUP	SOIL TEXTURE	CONVENTIONAL LTAR (gpd/ft²)	SAPROLITE LTAR (gpd/ft²)	LPP LTAR (gpd/ft²)	MINERA CONSIS	•	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)	11	SL (Sandy loam)	0.6 - 0.8	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)						•
A1' (ITAD 1 / 1		O (Organic)	None	· · · · · · · · · · · · · · · · · · ·	1 12	]		

<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.

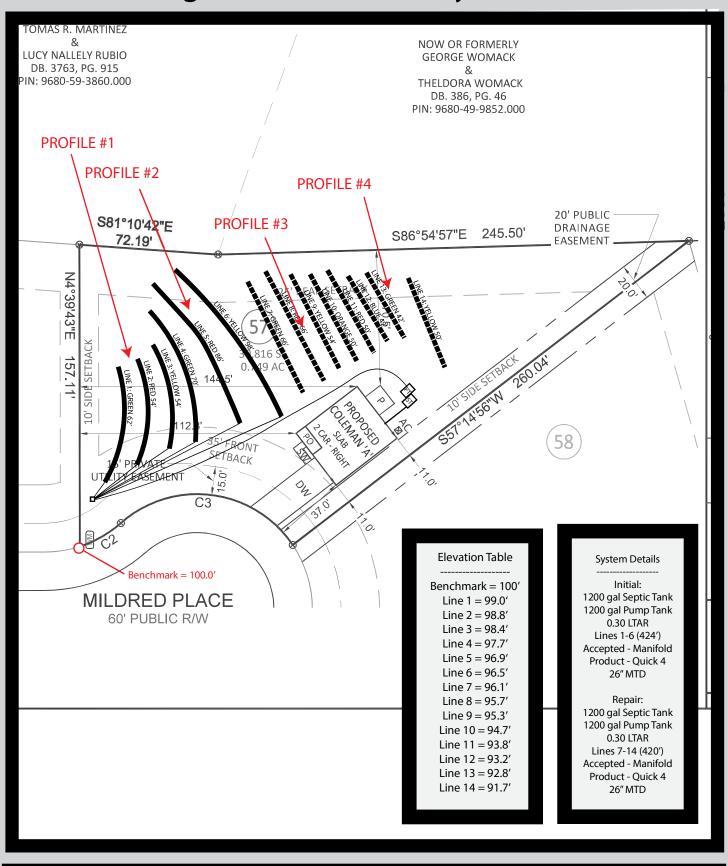
SOIL WETNESS Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation

CLASSIFICATION S (Suitable) or U (Unsuitable)

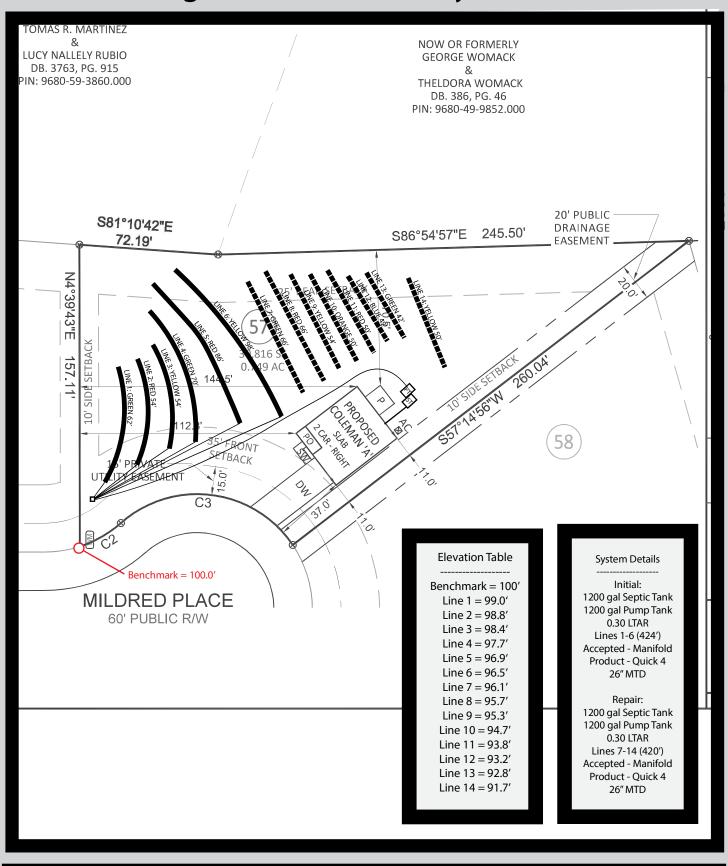
Show profile locations and other site features (dimensions, reference or benchmark, and North).

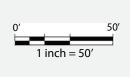
NCDHHS/DPH/EHS/OSWP Revised January 2024

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







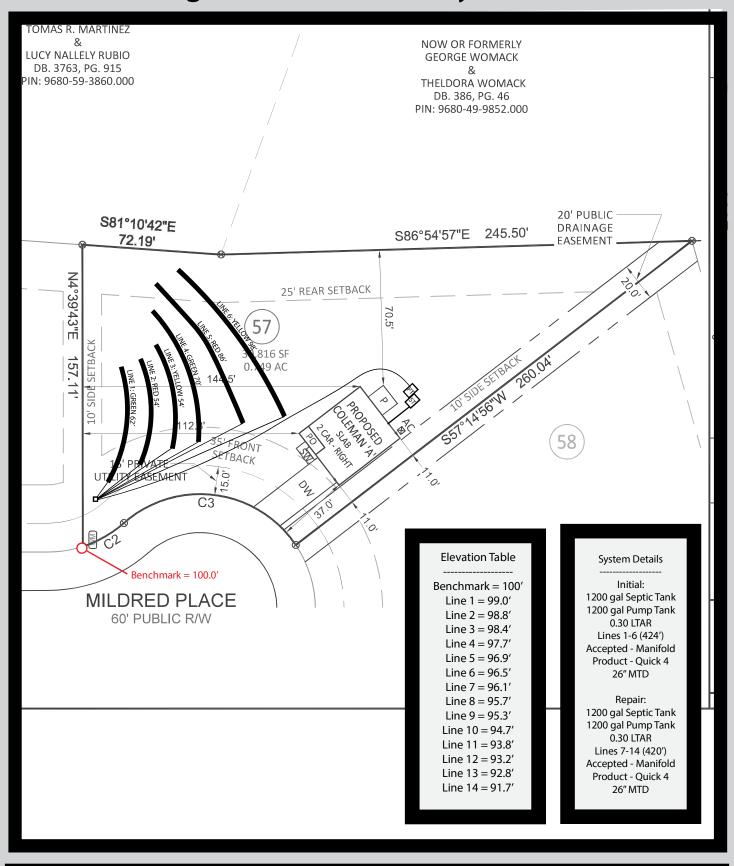




Legend

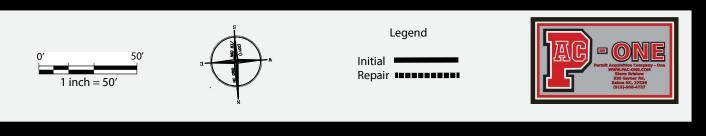












# System Overview ☑ Initial □ Repair

Harrington Place Lot 57

Design Criteria

Number of Bedrooms	4	_
Design Flow	480	gal/day
Soil L.T.A.R.	.30	gal/day/sq ft

System Details

Trench Depth	26	inches
Total Trench Length	424	feet
Manifold Length	54	inches
Manifold Diameter	4in s	ch 80pvc
Supply Line Length	60	feet
Design Head	2.0	feet
Elevation Head	14.0	feet
Total Design Head	20.79	feet
Dose Volume	193	gallons
% Pipe Volume	70	_
Drawdown	9.6	inches
Pump Run Time	11.78	minutes

**System Components** 

Trench Product	Chamber
Septic Tank	1200 gal
Pump Tank	1200 gal
Effluent Filter	Polylok PL-68 (or approved equivalent)
Effluent Pump	Zoeller Dose Mate Model 151/152/153 (or approved equivalent)
Control Panel	SJE Rhombus Model 112 panel (or approved equivalent)

#### RESIDENTIAL PRESSURE MANIFOLD DESIGN

Permit # <u>Harrington 57</u>

# of BDR: 4 Daily Flow: 480 gal/day L.T.A.R.: 0.3000 gal/day/sq.ft

Number of Taps: 6 Length of Trenches: 424 ft(See Tap Chart for Details)

Depth of Trenches: <u>26</u> in Manifold Length: <u>54</u> in

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

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

Friction Loss + Fitting Loss:  $\underline{4.79}$  ft(supply line length + 70' for fittings in pump tank)

Design Head:  $\underline{2}$  ft Elevation Head:  $\underline{14.00}$  ft

Total Head: 20.79 ft Pump to Deliver: 40.76 gals/min at 20.79 ft head

Dosing Volume: <u>193</u> gals,

Drawdown: 193 gals divided by  $\underline{20}$  gals/in =  $\underline{9.6}$  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** 

is = 100.00Design Head: Benchmark 1.7 set at elect box on property line 2 86.00 Manifold elev. 100.00 Pump tank elev. 10.7 91.00 Pump elev. # of Panels Spacing of LINE LTAR (PPBPS) line color rod read Elevation length hole size flow/tap gal/day trench area Panels (in) 0.3470 1 Green 2.70 99.00 62 1/2in SCH 80 5.48 64.53 186 2 Red 2.90 98.80 54 1/2in SCH 80 5.48 64.53 162 0.3984 3 5.48 Yellow 3.30 98.40 54 1/2in SCH 80 64.53 162 0.3984 4 Green 4.00 97.70 70 1/2in SCH 40 7.11 83.73 210 0.3987 5 Red 4.80 96.90 86 1/2in SCH 40 7.11 83.73 258 0.3245 6 Yellow 5.20 96.50 98 3/4in SCH 80 10.1 118.94 294 0.4046 101.70 0 0.00 0 #DIV/0! 101.70 0 0.00 0 #DIV/0! 101.70 0 0.00 0 #DIV/0! 0 101.70 0.00 0 #DIV/0! Total Feet = 424 gal/min = 40.76 LTAR = 0.3000 Feet Required = 400 Velocity = 3.90 (Itar + 5%) 0.3150 Total # of Panels (PPBPS) Des. Flow 480 (Itar w/25% red) 0.4000 (Itar + 5%) 0.4200 % of Dose Vol. 70 Pump Run= 11.78 Tank Gal/IN 20 **Dose Volume** 193 **Dose Pump Time** 4.73 Elev. Head 14.00 Drawdown in Inches 9.6 Comments:

# System Overview ☐ Initial ☐ Repair

Harrington Place Lot 57

Design Criteria

Number of Bedrooms	4	_
Design Flow	480	gal/day
Soil L.T.A.R.	0.30	gal/day/sq ft

System Details

Trench Depth	26	inches
Total Trench Length	420	feet
Manifold Length	66	inches
Manifold Diameter	4in s	ch 80pvc
Supply Line Length	50	feet
Design Head	2	feet
Elevation Head	11.1	feet
Total Design Head	22.02	feet
Dose Volume	191	gallons
% Pipe Volume	70	•
Drawdown	96	inches
Pump Run Time	8.05	minutes
	· ·	

## **System Components**

Trench Product	Chamber
Septic Tank	1200 gal
Pump Tank	1200 gal
Effluent Filter	Polylok PL-68 (or approved equivalent)
Effluent Pump	Zoeller Dose Mate Model 151/152/153 (or approved equivalent)
Control Panel	SJE Rhombus Model 112 panel (or approved equivalent)

#### PRESSURE MANIFOLD DESIGN - REPAIR SYSTEM

# of BDR: <u>4</u> Daily Flow: <u>480</u> gal/day L.T.A.R.: <u>0.3000</u> gal/day/sq.ft

Septic Tank: 1200 gals Pump Tank: 1200 gals Sq. Foot: 1260 System Type: Accepted

Number of Taps: 8 Length of Trenches: 420 ft(See Tap Chart for Details)

Depth of Trenches: 26 in Manifold Length: 66 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: 8.92 ft(supply line length + 70' for fittings in pump tank)

Design Head:  $\underline{2}$  ft Elevation Head:  $\underline{11.10}$  ft

Total Head:  $\underline{22.02}$  ft Pump to Deliver:  $\underline{59.60}$  gals/min at  $\underline{22.02}$  ft head

Dosing Volume: <u>191</u> gals,

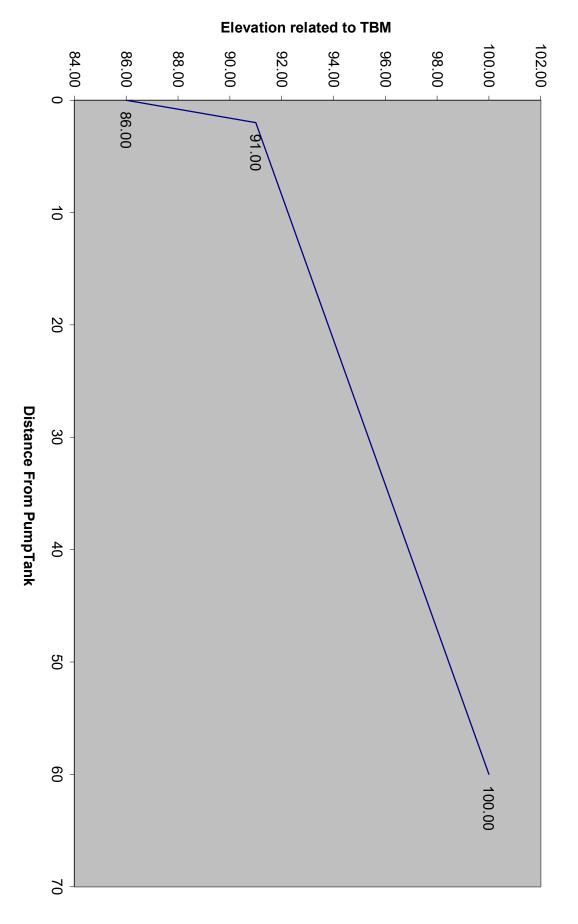
Drawdown: 191 gals divided by  $\underline{20}$  gals/in =  $\underline{9.6}$  inches

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

#### **TAP CHART**

Benchmark	<u>1.7</u>	is = 100.00	set at elect box o	n property line			Design Head:	2			Change in
Pump tank elev.		10.7	91.00	Pump elev.	86.00		Manifold elev.	97.10		# of Panels	Spacing of
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	(PPBPS)	Panels (in)
7	Green	5.60	96.10	66	3/4in SCH 80	10.1	81.34	198	0.4108		
8	Red	6.00	95.70	66	3/4in SCH 80	10.1	81.34	198	0.4108		
9	Yellow	6.40	95.30	54	1/2in SCH 40	7.11	57.26	162	0.3535		
10	Orange	7.00	94.70	50	1/2in SCH 40	7.11	57.26	150	0.3817		
11	Red	7.90	93.80	50	1/2in SCH 40	7.11	57.26	150	0.3817		
12	Blue	8.50	93.20	42	1/2in SCH 80	5.48	44.13	126	0.3503		
13	Green	8.90	92.80	42	1/2in SCH 80	5.48	44.13	126	0.3503		
14	yellow	10.00	91.70	50	1/2in SCH 40	7.11	57.26	150	0.3817		
			101.70			0	0.00	0	#DIV/0!		
			101.70			0	0.00	0	#DIV/0!		
			Total Feet =	420	gal/min =	59.60		LTAR =	0.3000		
			Feet Required =	400	Velocity =	5.70		(Itar + 5%)	0.3150		
Total # of Panels	(PPBPS)			Des. Flow	<u>480</u>			(Itar w/25% red)	0.4000		
% of Dose Vol.		70		Pump Run=	8.05			(Itar + 5%)	0.4200		
Dose Volume		191		Tank Gal/IN	<u>20</u>						
Dose Pump Time		3.21		Elev. Head	11.10						
Drawdown in Incl	hes	9.6									
Comments:											





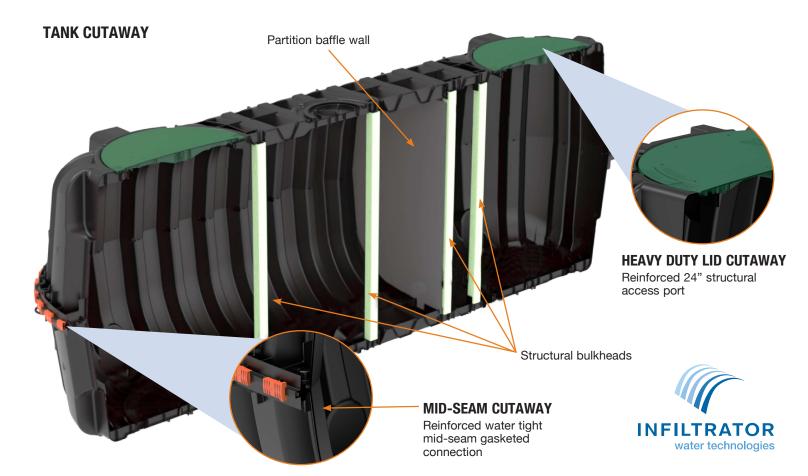




#### **Features & Benefits**

- · Strong injection molded polypropylene construction
- Lightweight plastic construction and inboard lifting lugs allow for easy delivery and handling
- Integral heavy-duty green lids that interconnect with EZsnap risers, Safety Star secondary safety lid system, and pipe riser solutions
- Structurally reinforced access ports eliminate distortion during installation and pump-outs
- Reinforced structural ribbing and fiberglass bulkheads offer additional strength
- · Can be installed with 6" to 48" (152 to 1,219 mm) of cover
- · Can be pumped dry during pump-outs
- Suitable for use as a septic tank, pump tank, or rainwater (non-potable) tank
- · No special water filling requirements are necessary
- The tank may be backfilled with suitable native soil. See installation instructions for guidance.

The Infiltrator IM-1250 is a lightweight, strong and durable septic tank. This watertight tank design is offered with Infiltrator's line of custom-fit EZsnap risers and heavy-duty lids. Infiltrator injection molded tanks provide a revolutionary improvement in plastic tank design, offering exceptional long-term strength and watertightness.



#### **IM-1250 General Specifications and Illustrations**

The IM-1250 is an injection molded two-piece mid-seam polypropylene tank. The injection molded design of theIM-1250 allows for a mid-seam joint that has precise dimensions for accepting an engineered EPDM gasket. The engineered mid-seam joint accepts a continuous loop EPDM gasket. Infiltrator's EPDM gasket design utilizes technology and materials from the sanitary sewer pipe industry to deliver a reliable watertight seal. The two-piece design is permanently fastened using a system of molded-in alignment dowels and locking seam clips. The IM-1250 is assembled and sold through a network of certified Infiltrator distributors.



Must be backfilled and installed in accordance with the Infiltrator IM- and CM-Series Septic Tank General Installation Instructions. For shallow ground water conditions reference the Infiltrator IM- and CM-Series Tank Buoyancy Control Guidance.

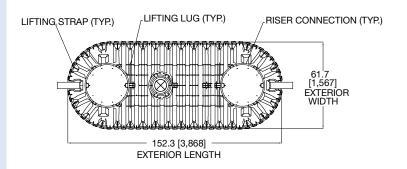
Please visit www.infiltratorwater.com or scan QR code for the latest information.

IM-1250	
Working Capacity	1,278 GAL (4,839 L)
Total Capacity	1,480 GAL (5,602 L)
Airspace	16.30%
Length	154" (3,911 mm)
Width	61.7" (1,567 mm)
Length-to-Width Ratio	2.8 : 1
Height	54.6" (1,387 mm)
Liquid Level	44" (1,118 mm)
Invert Drop	3" (76 mm)
Fiberglass Supports	4
Compartments	1 or 2
Maximum Burial Depth	48" (1,219 mm)
Minimum Burial Depth	6" (152 mm)
Maximum Pipe Diameter	4" (102 mm)
Weight	405 lbs (184 kg)

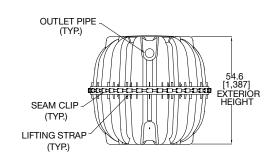


4 Business Park Road P.O. Box 768 Old Saybrook, CT 06475 860-577-7000 • Fax 860-577-7001

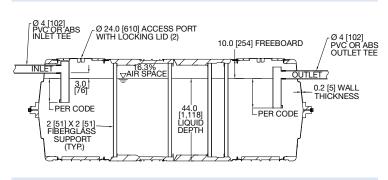
1-800-221-4436 www.infiltratorwater.com info@infiltratorwater.com



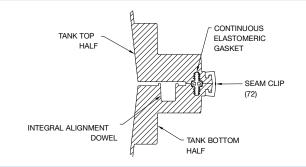
#### **TOP VIEW**



#### **END VIEW**



#### SIDE VIEW



**MID-HEIGHT SEAM SECTION** 

For U.S. Patents information visit www.infiltratorwater.com/patents. Other patents pending. Infiltrator, Quick4 and EZflow are registered trademarks of Infiltrator Water Technologies. Infiltrator Water Technologies is a wholly-owned subsidiary of Advanced Drainage Systems, Inc. (ADS).

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IM125 0124

**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

		SPECIFICATIONS
	Horse Power	1/3 (151), 4/10 (152), 1/2 (153)
	Voltage	115 or 230
~	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)
PUMP	Cord Type	UL listed power cord
Ď	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
	Cap	Cast iron
	Motor Housing	Cast iron
	Pump Housing	Cast iron
S	Base	Plastic or cast iron
AL.	Upper Bearing	Sleeve bearing
<u>R</u>	Lower Bearing	Ball bearing
MATERIALS	Mechanical Seals	Carbon and ceramic
_₹	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.

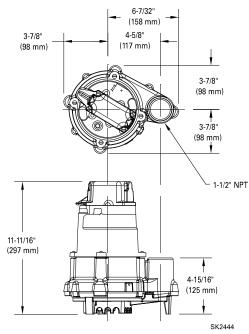
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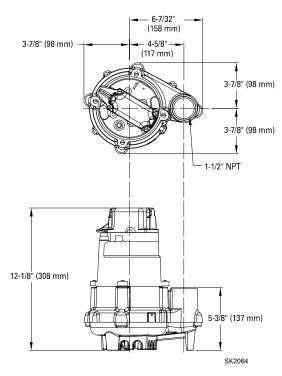




#### **MODEL 151**

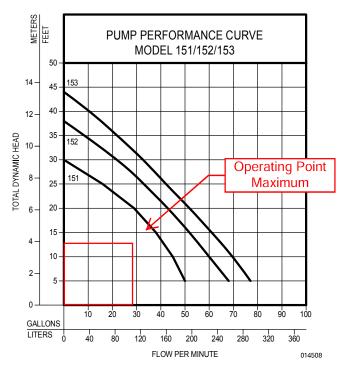


#### **MODELS 152 & 153**



# TOTAL DYNAMIC HEAD FLOW PER MINUTE

MO	DEL	1	51	1:	52	1:	53
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	34	129	42	159
30	9.1			23	87	33	125
35	10.7					22	85
40	12.2					11	42
Shut-of	Shut-off Head: 30 ft. (9.1m)			38 ft. (11.6m) 44 ft. (13.4m)			



Madal	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	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	

<sup>\*</sup>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.

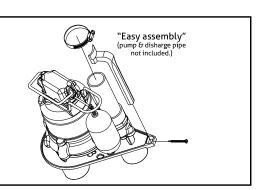
NOTE: Model 151 has a plastic base. Models 152 & 153 have a cast iron base.

#### **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.



▲ 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 & Lok<sup>TM</sup>



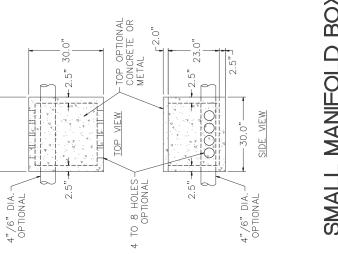
Extend & Lok™ Easily installs into existing tanks.



to 110mm Pipe

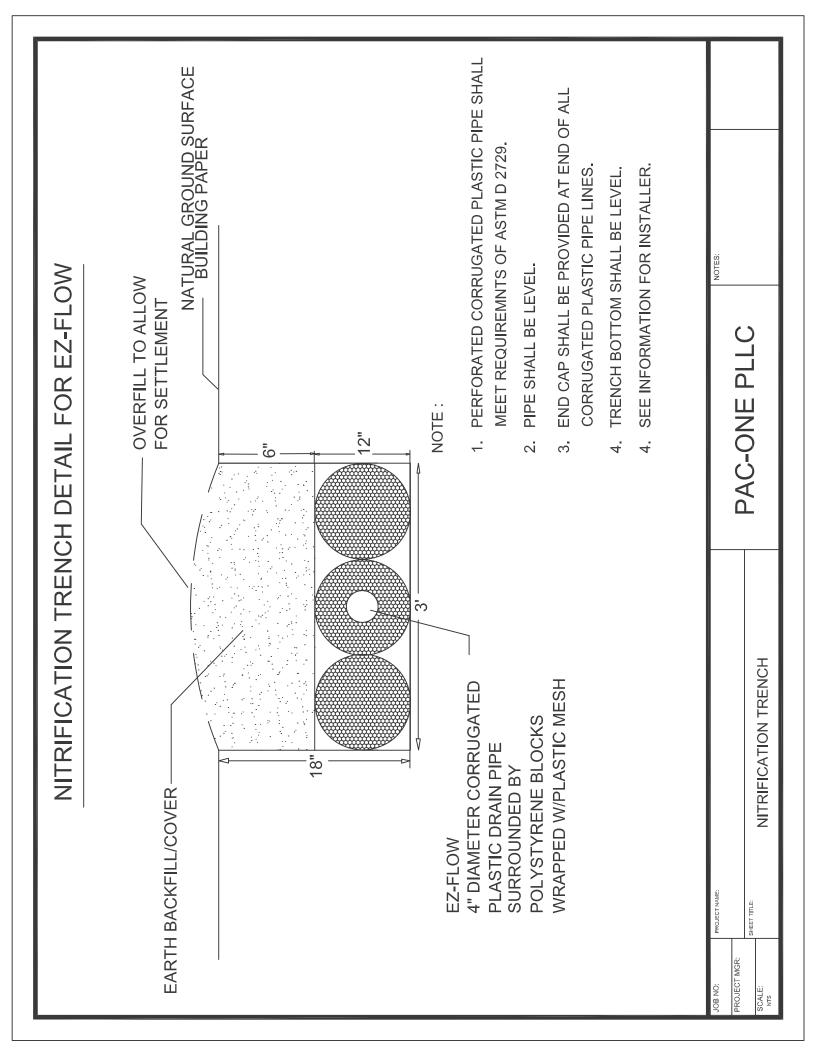
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MANIFOLD BOX		Revision 1	DATE: April 11, 2014	37 Pine Ridge Rd. Zebulon, NC 27597
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BRANTLEY TANK MODEL	3TAQ	REVISION NO.	PREPARED FOR: David Brantley & Sons	SNOS ( NEIEMVAA AMVA



-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

- 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.
- 2. 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).

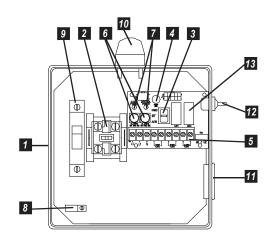
**Note:** NEMA 1 style utilizes an internally mounted buzzer in lieu of horn.

- 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-year limited warranty



Model Shown 1121W914X





PO Box 1708, Detroit Lakes, MN 56502 1-888-DIAL-SJE • 1-218-847-1317 1-218-847-4617 Fax

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

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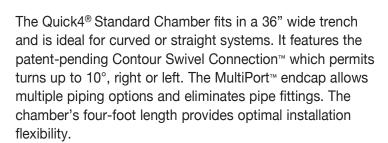




# The Quick4® Standard Chamber



# 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



#### M

#### Quick4® Series

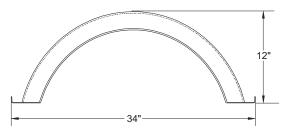
Because installations are faster with Quick4 chambers, you save on heavy equipment operation and labor.

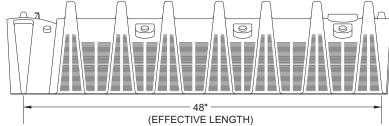
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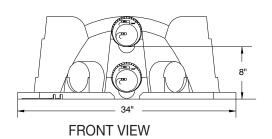
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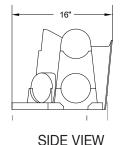


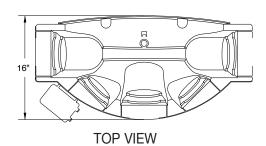




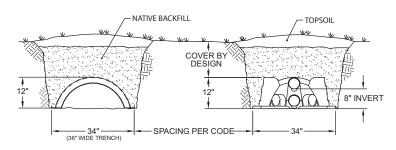
#### MultiPort EndCap







#### **Typical Trench View** -



Quick4® Standard Chamber 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)							



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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. Ontour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickClut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Water Technologies. PolyLok is a trademark of 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.
- 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 Quick 4 Chamber 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.

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PROD	UCE	R					CONTA NAME:	<sup>CT</sup> Angela :	Sensenig				
Wad	e A	Associates, LLC					PHONE (A/C, No	o. Ext): (252)	631-5269	F	AX A/C, No):	252) 649	-2443
250	Po	ollock St.							ig@wadeict	.com			
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920 Garner Rd				INSURER D :									
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	х	COMMERCIAL GENERAL LIABI	ILITY							EACH OCCURRENCE		\$	1,000,000
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						SSEP0476240AEM		11/22/2024	11/22/2025	MED EXP (Any one pe	erson)	\$	10,000
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A		CLAIMS-MADE X OCCUR						DAMAGE TO RENTED 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	LAGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$ 2,000,000
	х	POLICY PRO- JECT LOC						PRODUCTS - COMP/OP AGG	\$ 2,000,000
		OTHER:							\$
	AUT	OMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	\$
		ANY AUTO						BODILY INJURY (Per person)	\$
		ALL OWNED SCHEDULED AUTOS AUTOS						BODILY INJURY (Per accident)	\$
		HIRED AUTOS NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	\$
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	EXCESS LIAB CLAIMS-MADE							AGGREGATE	\$
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	ANY	PROPRIETOR/PARTNER/EXECUTIVE CER/MEMBER EXCLUDED?	N/A					E.L. EACH ACCIDENT	\$ 500,000
В	(Man	datory in NH)			69KOUB-5N24039-7-24	11/14/2024	11/14/2025	E.L. DISEASE - EA EMPLOYEE	\$ 500,000
	If yes	, describe under CRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	\$ 500,000
A	A Errors & Omissions				SSEP0476240AEM	11/22/2024	11/22/2025	Each Occurrence	\$1,000,000
								General Aggregate	\$2,000,000
DESC	ESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101 Additional Pararle Schedule, may be attached if more space is required)								

**CERTIFICATE HOLDER** CANCELLATION

Smith Douglas Homes 3412 Apex Peakway Apex, NC 27502

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

AUTHORIZED REPRESENTATIVE

N Whitsett/RACHEL

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#### MARKEL INSURANCE COMPANY

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

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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. Salus

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
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
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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