NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

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

County: Harnett **Pre-Construction Conference Required:** Yes ☐ No ■

PIN/Lot Identifier: 0519-69-4694.000

Issued To: LGI Homes NC LLC

Property Location: 44 Teepee Drive, Lillington, NC

AOWE/PE Plans/Evaluations Provided: Yes ■ No ☐ If yes, name and license number of AOWE/PE: Scott Mitchell - PE 27458

Facility Type: Single-Family Dwelling Unit

Number of bedrooms: 4 Number of Occupants: 8 or less Other: _____

■ New ☐ Expansion ☐ Repair ☐ System Relocation ☐ Change of Use

Basement? ☐ Yes ■ No Basement Fixtures? ☐ Yes ☐ No

Crawl Space? ☐ Yes ■ No Slab Foundation? ■ Yes ☐ No

Type of Wastewater System* IIIb (Initial) IIIb (Repair)

**Please include system classification for proposed 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 Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ■ No
(if yes, please provide engineering documentation)

Effluent Standard: ■ DSE ☐ HSE ☐ NSF/ANSI 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: 1,000 gallons Total Trench/Bed Length: 400 feet Trench/Bed Spacing: 9 feet on center

Trench/Bed Width: 36 inches LTAR: 0.3 gpd/ft² Usable Depth to LC (Initial)ˣ: 35" ˣ***Limiting condition***

Soil Cover: 11 inches Slope Corrected Maximum Trench/Bed Depth‡: 23 inches ‡ ***Measured on the downhill side of the trench***

Pump Tank Size (if applicable): 1,000 gallons Requires more than 1 pump? ☐ Yes ■ No

Pump Requirements: 14 ft. TDH vs. 24 GPM Grease Trap Size (if applicable): N/A gallons

Distribution Method: ☐ Serial ☐ D-Box or Parallel ■ Pressure Manifold(s) ☐ LPP ☐ Other: _____

Artificial Drainage Required: Yes ☐ No ■ If yes, please specify details: _____

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.0204(g)]: ☐ Yes ■ No Declaration of Restrictive Covenants: ☐ Yes ■ No

Easement, Right-of-Way, or Encroachment Agreement Required [.0301(b)]: ☐ Yes ■ No

Management Entity Required: ☐ Yes ■ No Minimum O&M Requirements: _____

Permit conditions: Secondary lid, concrete plug, or other safety mechanisms shall be provided inside all risers.
Trench walls shall be raked when any Group III or Group IV soils are present. Inspector to confirm prior to product placement.
Photo documentation of trench sidewall raking is required, where Group III or Group IV soils are present.
All lot corners and boundaries shall be clearly marked by a licensed surveyor prior to system installation.
Septic system installation not allowed when soil moisture conditions are near saturation within initial or repair drainfield areas.
No garbage disposals / insinkerators allowed in the house. County shall provide system O&M guidance materials to Owner.

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: B. Scott Mitchell

AOWE/PE Signature: _____ Date: April 10, 2025

NORTH CAROLINA PROFESSIONAL SEAL 027458 ENGINEER B. SCOTT MITCHELL

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

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date *Initials*

G.S. 130A-335(a5) states the following:

When an applicant for a Construction Authorization, or an Improvement Permit and Construction Authorization together, submits a Construction Authorization, or an Improvement Permit and Construction Authorization application together, the permit fee charged by the local health department, the common form developed by the Department, and any necessary signed and sealed plans or evaluations conducted by a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Construction Authorization or Improvement Permit and Construction Authorization includes all of the required components. If the local health department determines that the Construction Authorization or Improvement Permit and Construction Authorization is incomplete, the local health department shall notify the applicant of the components needed to complete the Construction Authorization or Improvement Permit and Construction Authorization. The applicant may submit additional information to the local health department to cure the deficiencies in the Construction Authorization or Improvement Permit and Construction Authorization. The local health department shall make a final determination as to whether the Construction Authorization or Improvement Permit and Construction Authorization is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The applicant may apply for the building permit for the project upon the decision of completeness of the Construction Authorization or Improvement Permit and Construction Authorization by the local health department or if the local health department fails to act within five business days. The Authorized On-Site Wastewater Evaluator or licensed engineer submitting the evaluation pursuant to this subsection may request that the local health department revoke or suspend the Construction Authorization or Improvement Permit and Construction Authorization for cause. Upon written request of the Authorized On-Site Wastewater Evaluator or licensed engineer, the local health department shall suspend or revoke the Construction Authorization or Improvement Permit and Construction Authorization pursuant to G.S. 130A-23. The Department shall develop a common form for use as the Construction Authorization.

The review for completeness of this Construction Authorization was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date of Issuance: _____

This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: _____

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

Re-submittal of Construction Authorization

LHD USE ONLY: This CA resubmittal received: _____ by _____
Date *Initials*

The following items are being resubmitted pursuant to G.S. 130A-335(a5) for issuance of the Construction Authorization:

_____

_____

_____

_____

I, _____hereby attest that the information required to be included with this re-submittal
Authorized Onsite Wastewater Evaluator (Print Name)
is accurate and complete to the best of my knowledge and that the proposed Construction Authorization meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ _____
Signature of Authorized On-Site Wastewater Evaluator *Date*

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

LHD Follow-up Completeness Review of Construction Authorization

The review for completeness of this Construction Authorization re-submittal was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

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

County: _____

PIN/Lot Identifier: _____

Issued To: _____

Additional Improvement Permit Conditions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Additional Construction Authorization Conditions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Mitchell Environmental, P.A.

I hereby authorize representatives of Mitchell Environmental, P.A., to provide subsurface wastewater evaluations and septic system designs on my behalf, for the issuance of an IP and CA, for the property identified below.

For Improvement Permit (IP) issuance:
"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)."

For Construction Authorization (CA) issuance:
"The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335(a2), (a5), and (a6)."

The LSS evaluation attached to this application was used to produce and design a subsurface wastewater septic system for permitting to obtain an IP and CA in accordance with G.S. 130A-335(a2), (a3), (a5), and (a6).

Subject Property (*Address, PIN, etc.*): Lot 43 (64 Teepee Dr.), Lot 44 (44 Teepee Dr.), Lot 45 (20 Teepee Dr.) > Boone Trail Village

Property Owner Name (*Print*): LGI Homes

Owner Representative (*Print*): Keith Sears

Owner Representative (*Sign*): Keith Sears

Date: 4/11/25

1501 Lakestone Village Lane, Suite 205
Fuquay-Varina, North Carolina 27526
919-669-0329

MITCENV-01 EMARTY

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 1/16/2025

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

PRODUCER Alera Group 4131 Parklake Avenue, Suite 225 Raleigh, NC 27612	CONTACT NAME: Select Business Unit PHONE (A/C, No, Ext): (919) 469-2473 FAX (A/C, No): (919) 467-4987 E-MAIL ADDRESS: em@trisure.com
INSURED Mitchell Environmental PA Scott Mitchell 5601 Maggie Run Lane Fuquay Varina, NC 27526	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : Westchester Surplus Lines — 10172 INSURER B : Sirius America Insurance Company — 38776 INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY			G28210486009	1/27/2025	1/27/2026	EACH OCCURRENCE	$ 1,000,000
	[ ] CLAIMS-MADE [X] OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 50,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	[ ] POLICY [X] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	[ ] OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	[ ] ANY AUTO						BODILY INJURY (Per person)	$
	[ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	[ ] HIRED AUTOS ONLY [ ] NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
A	[ ] UMBRELLA LIAB [X] OCCUR			G46616182008	1/27/2025	1/27/2026	EACH OCCURRENCE	$ 1,000,000
	[X] EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$ 1,000,000
	[ ] DED [ ] RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			WC PC 602055-000	2/7/2025	2/7/2026	[ ] PER STATUTE [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [ ] (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	Professional Liabili			G28210486009	1/27/2025	1/27/2026	Limit	1,000,000
A	Professional Liabili			G28210486009	1/27/2025	1/27/2026	Limit	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Operations of the Named Insured covered by the above referenced policies.

CERTIFICATE HOLDER

LGI Homes – NC, LLC
1450 Lake Robbins Drive
Suite 430
The Woodlands, TX 77380

CANCELLATION

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

Mitchell Environmental, P.A.

SEPTIC SYSTEM DESIGN

for

BOONE TRAIL VILLAGE SUBDIVISION- LOT 44

Lillington, Harnett County, North Carolina

Submitted to:
Harnett County Health Department
307 Cornelius Harnett Blvd.
Lillington, NC 27546

Prepared for:
LGI Homes
5511 Capital Center Drive
Suite 560
Raleigh, North Carolina 27606

Prepared by:
Scott Mitchell, PE, LSS
Adam Aycock, EI

DATE: April 10, 2025
PROJECT NO.: 1624

1501 Lakestone Village Lane, Suite 205
Fuquay-Varina, North Carolina 27526
919-669-0329

Harnett County GIS

PID: 130519 0103 49

PIN: 0519-69-4694.000

Account Number: 1500028388

Owner: LGI HOMES NC LLC

Mailing Address: 1450 LAKE ROBBINS DR STE 430 THE WOODLANDS, TX 77380-3294

Physical Address: 44 TEEPEE DR LILLINGTON, NC 27546 ac

Description: LOT#44 BOONE TRAIL VILLAGE PH1 MAP#2024-600

Surveyed/Deeded Acreage: 0.64

Calculated Acreage: 0.64

Deed Date:

Deed Book/Page: 4144 - 0878

Plat(Survey) Book/Page: 2024 - 600

Last Sale: 2022 - 4

Sale Price: $2220000

Qualified Code: A

Vacant or Improved: V

Transfer of Split: T

Actual Year Built:

Heated Area : SqFt

Building Count : 0

Building Value: $0

Parcel Outbuilding Value: $0

Parcel Land Value: 27330

Market Value: $27330

Deferred Value: $0

Total Assessed Value: $27330

Zoning: RA-30 - 0.64 acres (100.0%)

Zoning Jurisdiction: Harnett County

Wetlands: No

FEMA Flood: Minimal Flood Risk

Within 1mi of Agriculture District: Yes

Elementary School: Boone Trail Elementary

Middle School: Western Harnett Middle

High School: Western Harnett High

Fire Department: Boone Trail

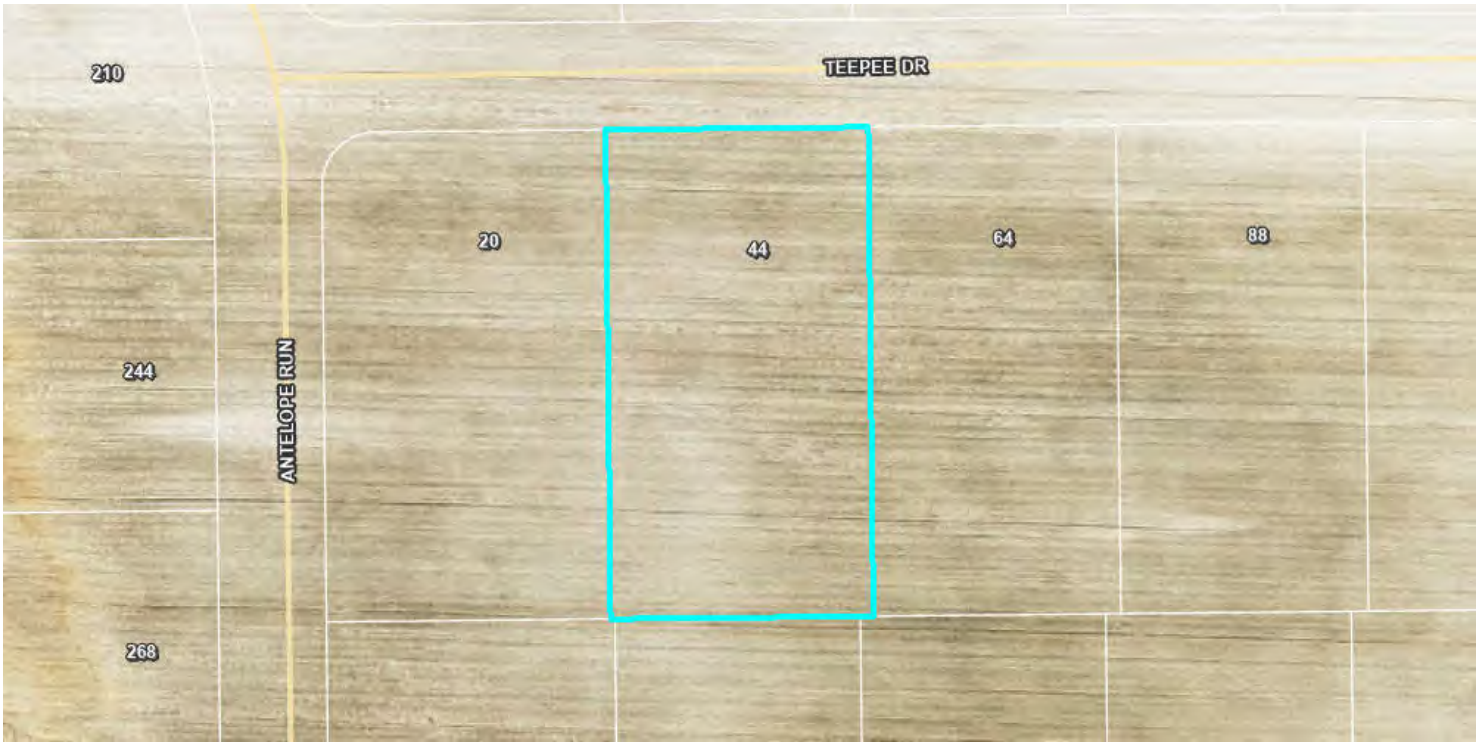
EMS Department: Medic 12, D12 EMS

Law Enforcement: Harnett County Sheriff

Voter Precinct: Boone Trail

County Commissioner : Duncan Edward Jaggers

School Board Member: John Hairr



PRESSURE MANIFOLD DESIGN

Name: LGI Homes **P.I.N. #:** 0519-69-4694 **D #:** N/A

Address: 44 Teepee Drive **Subdiv:** Boone Trail Village **Lot#:** 44

# of BDR: 4 **Daily Flow:** 480 **gal/day** **L.T.A.R.:** 0.300 **gal/day/sq.ft**

Septic Tank: 1000 **gals (min.)** **Pump Tank:** 1000 **gals (min.)** **Sq. Foot:** 1200 **Stone Depth:** N/A (EZ Flow)

Number of Taps: 4 **Length of Trenches:** 100 **ft(See Tap Chart for Details)**

Depth of Trenches: 23" **Manifold Length:** 42 **in**

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

Supply Line: length: 100 **ft** **Diameter:** 2 **in sch 40pvc**

Friction Loss + Fitting Loss: 1.99 **ft(supply line length + 70' for fittings in pump tank)**

Design Head: 2.0 **ft** **Elevation Head:** 8.23 **ft**

Vent Hole Size: 3/16 **in** **Orifice Coefficient of Discharge:** 0.60

Orifice Coefficient of Contraction: 0.62 **Orifice Coefficient of Velocity:** 0.97

Maximum Head Supplied by Selected Pump(s) at Total Design Flowrate: 23 **ft**

Orifice / Vent Hole Flowrate: 1.99 **gpm** **Head Loss at Orifice / Vent Hole:** 1.46 **ft**

Total Head: 13.68 **ft** **Pump to Deliver:** 23.91 **gals/min at** 13.68 **ft head**

Dosing Volume: 171.60 **gals.**

Drawdown: 171.60 **gals divided by** 18 **gals/in =** 9.53 **inches**

SJE Rhombus Installer Friendly Series simplex control panel, or equivalent, required
A septic tank filter, or equal is required.
Possible pumps: **Hydromatic:** **Goulds:** **Myers:**
Zoeller: 137 **Other:**

TAP CHART

Bench Mark	3.85	is = 100.00	set at	EG at 43/44 back EIP			**Design Head:**	2.0	
Pump tank elev.		7.5	96.35	**Pump elev.**	91.35		**Manifold elev.**	99.58	
line	**color**	**rod read**	**Elevation**	**length**	**hole size**	**flow/tap**	**gal/day**	**trench area**	**LINE LTAR**
6	Orange	5.27	98.58	100	1/2in SCH 80	5.48	120.00	300	0.4000
7	Purple	5.38	98.47	100	1/2in SCH 80	5.48	120.00	300	0.4000
8	Red	5.58	98.27	100	1/2in SCH 80	5.48	120.00	300	0.4000
9	Green	6.00	97.85	100	1/2in SCH 80	5.48	120.00	300	0.4000
		total	**feet =**	**400**	**gal/min =**	**21.9**		**LTAR =**	**0.3000**
% of Pipe Vol.		66		**Des. Flow**	480.00			**(ltar + 5%)**	0.3150
Dose Volume		171.60		**Pump Run=**	21.90			**(ltar W/ INOV)**	0.4000
Dose Pump Time		7.83		**Tank Gal/IN**	18			**(ltar + 5%)**	0.4200
Drawdown in Inches		9.53		**Elev. Head**	8.23				
Supply Line Length		100							

Comments:

PRESSURE MANIFOLD DESIGN

Name: LGI Homes **P.I.N. #:** 0519-69-4694 **D #:** N/A

Address: 44 Teepee Drive **Subdiv:** Boone Trail Village **Lot#:** 44

# of BDR: 4 **Daily Flow:** 480 **gal/day** **L.T.A.R.:** 0.250 **gal/day/sq.ft**

Septic Tank: 1000 **gals (min.)** **Pump Tank:** 1000 **gals (min.)** **Sq. Foot:** 1500 **Stone Depth:** N/A (EZ Flow)

Number of Taps: 5 **Length of Trenches:** 100 **ft(See Tap Chart for Details)**

Depth of Trenches: 24" **Manifold Length:** 48 **in**

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

Supply Line: length: 150 **ft** **Diameter:** 2 **in sch 40pvc**

Friction Loss + Fitting Loss: 3.88 **ft(supply line length + 70' for fittings in pump tank)**

Design Head: 2.0 **ft** **Elevation Head:** 9.13 **ft**

Vent Hole Size: 3/16 **in** **Orifice Coefficient of Discharge:** 0.60

Orifice Coefficient of Contraction: 0.62 **Orifice Coefficient of Velocity:** 0.97

Maximum Head Supplied by Selected Pump(s) at Total Design Flowrate: 21 **ft**

Orifice / Vent Hole Flowrate: 1.90 **gpm** **Head Loss at Orifice / Vent Hole:** 1.33 **ft**

Total Head: 16.35 **ft** **Pump to Deliver:** 29.30 **gals/min at** 16.35 **ft head**

Dosing Volume: 214.50 **gals.**

Drawdown: 214.50 **gals divided by** 18 **gals/in =** 11.92 **inches**

SJE Rhombus Installer Friendly Series simplex control panel, or equivalent, required
A septic tank filter, or equal is required.
Possible pumps: **Hydromatic:** **Goulds:** **Myers:**
Zoeller: 137 **Other:**

TAP CHART

Bench Mark	3.85	is = 100.00	set at	EG at 43/44 back EIP			**Design Head:**	2.0	
Pump tank elev.		7.5	96.35	**Pump elev.**	91.35		**Manifold elev.**	100.48	
line	**color**	**rod read**	**Elevation**	**length**	**hole size**	**flow/tap**	**gal/day**	**trench area**	**LINE LTAR**
1	Pink	4.37	99.48	100	1/2in SCH 80	5.48	96.00	300	0.3200
2	White	4.51	99.34	100	1/2in SCH 80	5.48	96.00	300	0.3200
3	Blue	4.77	99.08	100	1/2in SCH 80	5.48	96.00	300	0.3200
4	Red	4.85	99.00	100	1/2in SCH 80	5.48	96.00	300	0.3200
5	Yellow	5.20	98.65	100	1/2in SCH 80	5.48	96.00	300	0.3200
		total	**feet =**	**500**	**gal/min =**	**27.4**		**LTAR =**	**0.2500**
% of Pipe Vol.		66		**Des. Flow**	480.00			**(ltar + 5%)**	0.2625
Dose Volume		214.50		**Pump Run=**	17.52			**(ltar W/ INOV)**	0.3333
Dose Pump Time		7.83		**Tank Gal/IN**	18			**(ltar + 5%)**	0.3500
Drawdown in Inches		11.92		**Elev. Head**	9.13				
Supply Line Length		150							

Comments:

STB - 345 - Top Seam

Approval Date: 12 - 09 - 99

Liquid Capacity 1007 Gallons

Non Traffic Rated

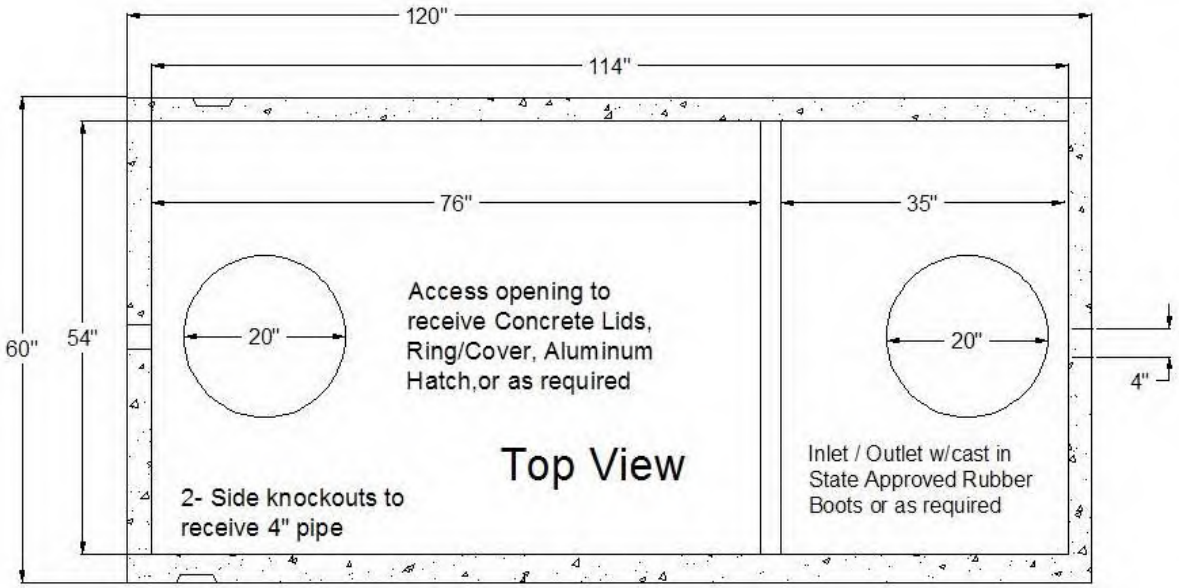
Reinforcing Schedule: # 3 Grade 60 Rebar

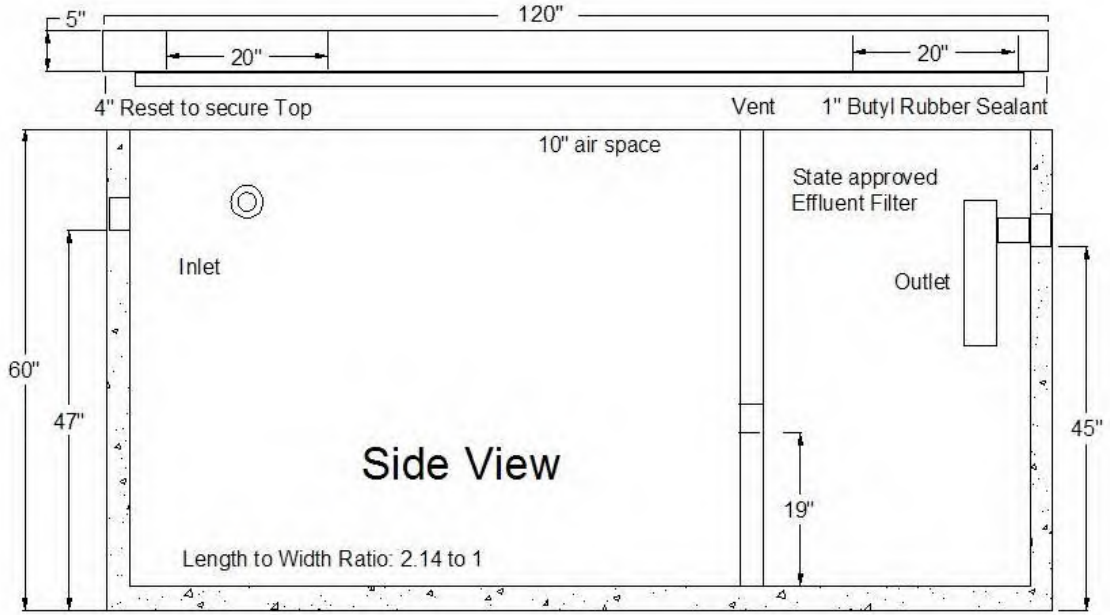
4500 PSI Concrete w/ State Approved Structural Fiber

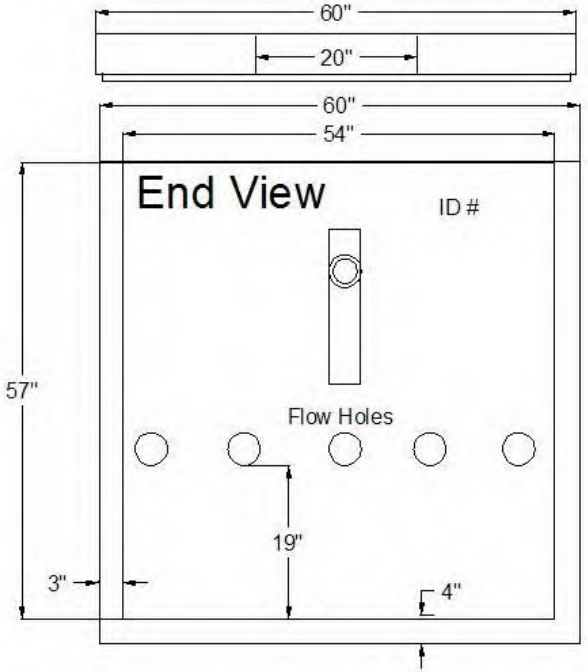
Est. Weight: 8,200 lbs.

Manufactured By:

GARNERS
Septic Tanks, Inc.
Eddie Garner, *President*
919-718-5181
121 Stanton Hill Road
Carthage, NC 28327
Fax 919-775-2229
Eddie@garnersseptictanks.com







POLYLOK™ Inc.
Innovations in Precast, Drainage & Wastewater Products
Zabel® A Division of Polylok Inc.

PL-68 Effluent Filter

PL-68 Filter and Tee

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

Features:

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

PL-68 Installation:

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

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

PL-68 Maintenance:

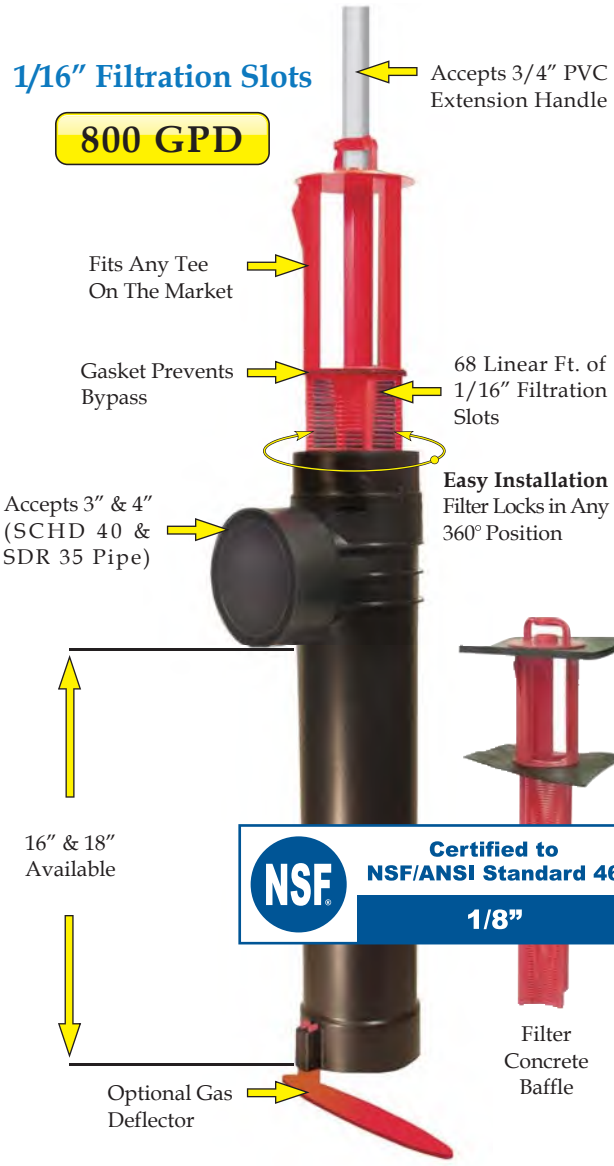
The PL-68 Effluent Filter will operate efficiently for several years under normal conditions before requiring cleaning. It is recommended that the filter be cleaned every time the tank is pumped, or at least every three years.

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

Related Products:

PL-68 Filter Concrete Baffle
Extend & Lok™

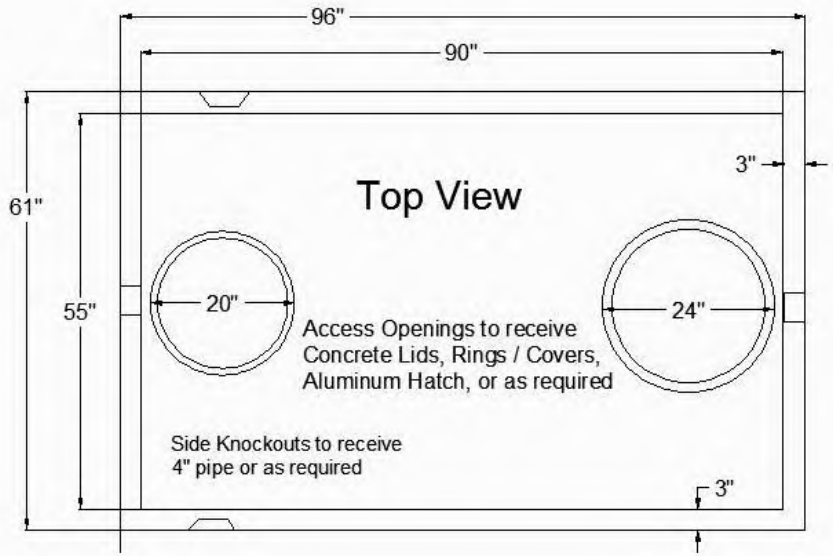
Extend & Lok™
Easily installs into existing tanks.



Spacer Bushing 4" SCHD 40 to SDR 35

Spacer Bushing 4" SCHD 40 to 110mm Pipe

2" Extender

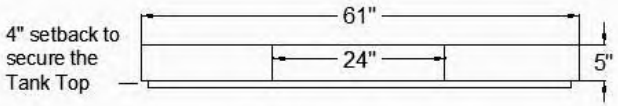


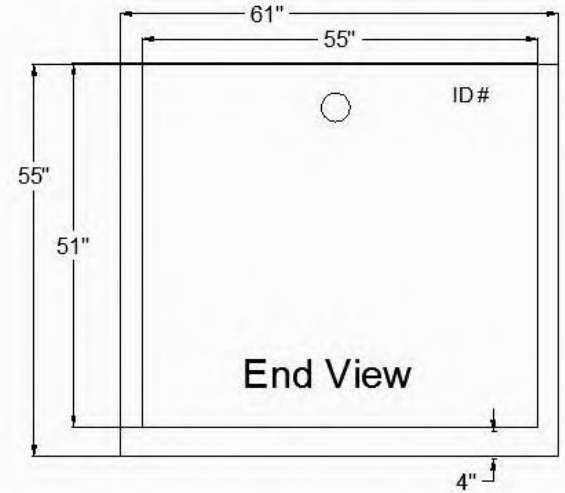
PT - 214

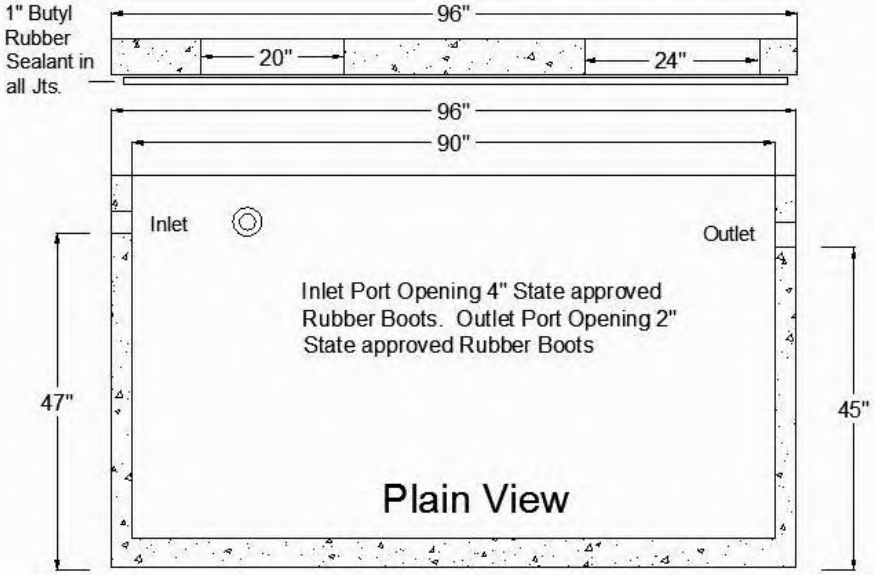
Date: 12-16-93
Non Traffic Rated
Liquid Capacity 1,028 Gallons
18 gals. per inch
Reinforcing Schedule: # 3 Grade 60 Rebar
4500 PSI Concrete w/ State Approved Structural Fiber
2 yds. Est Weight 8200 lbs

Manufactured By:

GARNERS
Septic Tanks, Inc.
Eddie Garner, *President*
919-718-5181
121 Stanton Hill Road
Carthage, NC 28327 Fax 919-775-2229
Eddie@garnersseptictanks.com







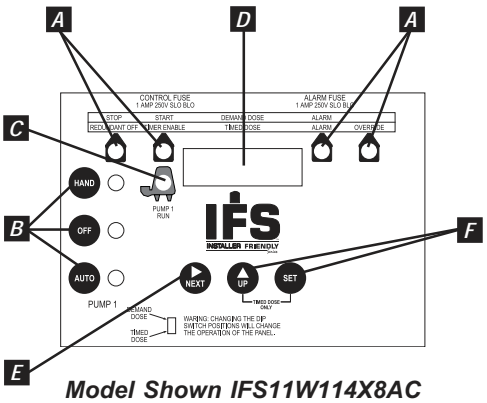
INSTALLER FRIENDLY SERIES® - IFS Single Phase Simplex (Demand/TD)

Single phase, simplex demand dose or timed dose, float controlled system for pump control and system monitoring.

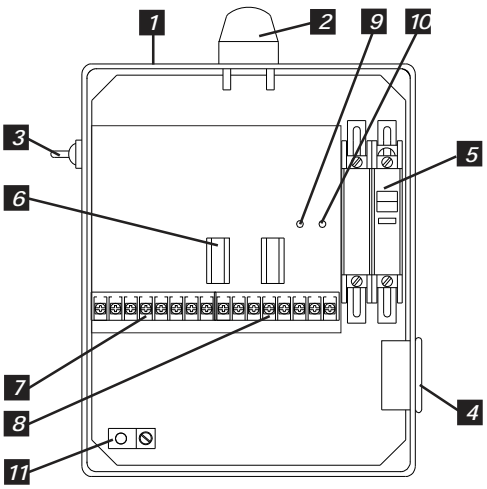
The IFS simplex control panel is designed to control one 120, 208, 240 VAC single phase pump in water and sewage installations.

The IFS control panel features an easy-to-use touch pad with display on the inner door for programming and system monitoring.

The panel configuration can be easily converted in the field to either a timed dose or demand dose.



Model Shown IFS11W114X8AC (Inner door view)



Model Shown IFS11W114X8AC (Inside view)

TOUCH PAD FEATURES

A. Float Indicators illuminate when floats are activated. Alarm will activate if a float operates out of sequence.

B. HOA (Hand-Off-Automatic) Buttons control pump mode with indication. Hand mode defaults to Automatic when stop level or redundant off level is reached.

C. Pump Run Indicator illuminates when pump is called to run.

D. LED Display shows system information including: mode, pump elapsed time (hh:mm), events (cycles), alarm counter, float error count, timed dose override counter (timed dose only), and ON/OFF times (timed dose only).

E. NEXT Push Button toggles display.

F. UP and SET Push Buttons set pump ON/OFF times (timed dose only).

PANEL COMPONENTS

1. **Enclosure** base measures 10 X 8 X 4 inches (25.4 X 20.32 X 10.16 cm). NEMA 4X (ultraviolet stabilized thermoplastic with removable mounting feet for outdoor or indoor use). **Note:** Options, voltage, and amp range selected may change enclosure size and component layout.
2. **Red Alarm Beacon** provides 360° visual check of alarm condition.
3. **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 is cleared.
4. **Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating).
5. **Circuit Breaker** (optional) provides pump disconnect and branch circuit protection.
6. **Power Relay** controls pump by switching electrical lines. Definate purpose contactor used when pump full load amps are above 15.
7. **Float Connection Terminal Block**
8. **Incoming Control/Alarm Power & Pump Terminal Block**
9. **Control Power Indicator/Fuse** indicator light illuminates if control power is present in panel. Alarm will activate if control fuse is blown.
10. **Alarm Power Indicator/Fuse** indicator light illuminates if alarm power is present in panel.
11. **Ground Lug**

NOTE: Schematic/Wiring Diagram and Pump Specification Label are located inside the panel on enclosure cover

Reg. Cdn Pat. & TM Off

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: **Demand Dose** - three 20' SJE MilliAmpMaster™ control switches **Timed Dose** - two 20' SJE MilliAmpMaster™ control switches
- Complete with step-by-step installation instructions
- Three-year limited warranty

c UL us LISTED

SEE BACKSIDE FOR COMPLETE LISTING OF AVAILABLE OPTIONS.

SJE Rhombus®
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

IFS	2	1	W	Note	Note	4	H	8AC, 10E, 10F	15A

MODEL IFS

MODEL TYPE
- [ ] 1 = SPLX TIMED DOSE (includes option 8AC standard)
- [X] 2 = SPLX DEMAND DOSE (includes option 8AC standard)

ALARM PACKAGE
- [✔] 1 = alarm package (includes test/normal/silence switch, fuse, red light & horn)

ENCLOSURE RATING
- [✔] W = NEMA 4X

STARTING DEVICE
- [ ] 1 = 120/208/240 VAC
- [ ] 9 = 120 VAC

PUMP FULL LOAD AMPS
- [ ] 0 = 0-7 FLA
- [ ] 1 = 7-15 FLA
- [ ] 2 = 15-20 FLA

PUMP DISCONNECTS
- [ ] 0 = no pump disconnect
- [X] 4 = circuit breaker
  - 120 VAC (must select starting device option 9)
  - 120/208/240 VAC (must select starting device option 1)

SWITCH APPLICATIONS
- [X] H = floats (Timed dose = low level and alarm / Demand dose = stop, start, and alarm) (select 17 option)
- [ ] X = no float
  - timed dose
  - demand Dose

Note: Pump down applications only.

OPTIONS *Listed below*

Note: Starting device, pump full load amps, cord length, and float type to be selected by installer and their electrician upon selection of pump.

If additional features are required, call the factory for a quote on an Engineered Custom control panel.

	CODE	DESCRIPTION
[ ]	1J	Duo alarm inputs
[ ]	3A	Alarm flasher
[ ]	3B	Manual reset alarm
[ ]	4A	Redundant off *(select option 4D if floats are required)* Demand Dose Timed Dose
[ ]	4D	Redundant off float
[ ]	6A	Auxiliary alarm contacts, form C
[✔]	8AC	Display board includes: ETM counter, events (cycles) counter, alarm counter, and override counter (timed dose only). ***(Included as standard.)***
[X]	10E	Lockable latch - NEMA 4X
[X]	10F	Lightning arrestor *(must select pump circuit breaker, control and alarm power combined)*
[ ]	10K	Anti-condensation heater
[ ]	11C	NEMA 1 remote alarm panel *(must select option 6A)*

	CODE	DESCRIPTION
[ ]	11D	NEMA 4X remote alarm panel *(must select option 6A)*
[X]	15A	Control / Alarm circuit breaker
[ ]	16A	10' cord in lieu of 20' *(per float)*
[ ]	16B	15' cord in lieu of 20' *(per float)*
[ ]	16C	30' cord in lieu of 20' *(per float)*
[ ]	16D	40' cord in lieu of 20' *(per float)*
[ ]	17C	Sensor Float® / internally weighted ▲ *(per float)*
[ ]	17D	Sensor Float® / externally weighted ▲ *(per float)*
[ ]	17G	MilliAmpMaster™/ pipe clamp ● *(per float)*
[ ]	17H	MilliAmpMaster™/ externally weighted ● *(per float)*
[ ]	17J	Sensor Float® / pipe clamp ▲ *(per float)*
[ ]	18A	Timer override option with float (timed dose only)

● Mechanically-activated ▲ Mercury-activated

SAMPLE

MODEL IFS 1 1 W 9 1 4 H 8AC 10E17G

- **Model Type** — IFS
- **Alarm Package** — 1
- **Enclosure Rating** — W
- **Starting Device** — 9
- **Pump Full Load Amps** — 1
- **Pump Disconnects** — 4
- **Switch Application** — H
- **Options: Display, Lockable Latch, SJE MilliAmpMaster™/pipe clamp** — 8AC 10E17G

Trusted. Tested. Tough.™

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

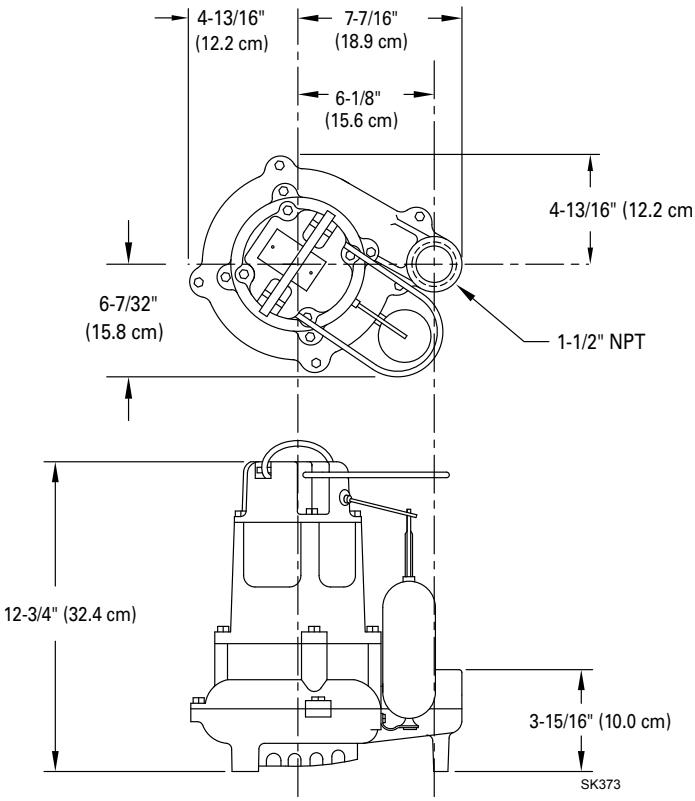
ZOELLER® PUMP COMPANY

SECTION: 2.15.060
FM2782
1016
Supersedes
0916

TECHNICAL DATA SHEET
FLOW-MATE SERIES
Models 137, 139 Effluent / Dewatering Pumps

PRODUCT SPECIFICATIONS

MOTOR	Horse Power	1/2
	Voltage	115 - 460
	Phase	1 or 3 Ph
	Hertz	60 Hz
	RPM	1750
	Type	Split phase or 3 phase
	Insulation	Class B
	Amps	1.4 - 10.7
PUMP	Operation	Automatic or nonautomatic
	Auto On/Off Points	10" (25.4 cm) / 2-3/4" (7 cm)
	Discharge Size	1-1/2" NPT
	Solids Handling	5/8" (15 mm) spherical solids
	Cord Length	10' (3 m) automatic, 15' (5 m) nonautomatic
	Cord Type	UL listed, neoprene cord
	Max. Head	26' (8 m)
	Max. Flow Rate	93 GPM (352 LPM)
	Max. Operating Temp.	130° F (54° C) [extra duty 140°F (60°C)]
	Cooling	Oil filled
	Motor Protection	Auto reset thermal overload (1 Ph)
MATERIALS	Motor Housing	Cast iron (137) or bronze (139)
	Pump Housing	Cast iron (137) or bronze (139)
	Base	Cast iron (137) or bronze (139)
	Upper Bearing	Sleeve bearing
	Lower Bearing	Sleeve bearing
	Mechanical Seals	Carbon and ceramic
	Impeller Type	Non-clogging vortex
	Impeller	Cast iron or bronze
	Hardware	Stainless steel
	Motor Shaft	AISI 1215 cold rolled steel
	Gasket	Neoprene



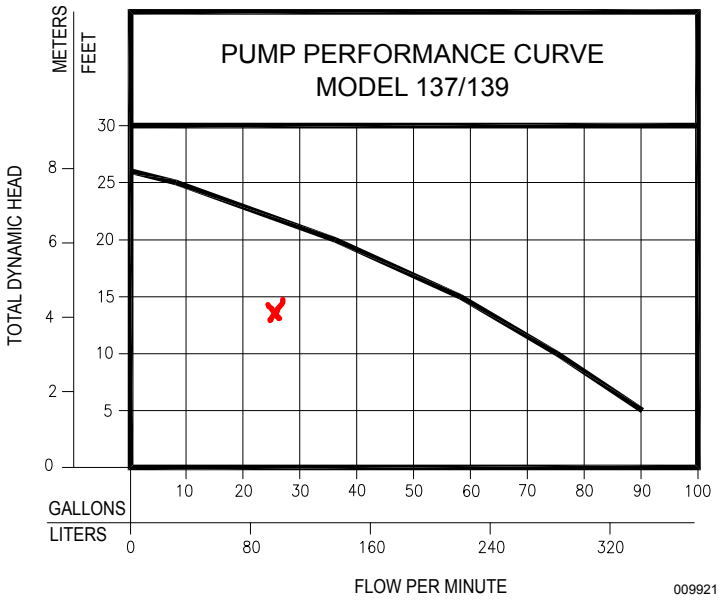
NOTE: See model comparison chart for specific details.

C US
Tested to Standard UL778 and Certified to CSA Standard C22.2 No. 108

502-778-2731 | 800-928-7867 | 3649 Cane Run Road | Louisville, KY 40211-1961 | www.zoeller.com

TOTAL DYNAMIC HEAD FLOW PER MINUTE

MODEL		137/139	
Feet	Meters	Gal.	Liters
5	1.5	90	340
10	3.0	75	284
15	4.6	58	220
20	6.1	36	136
25	7.6	8	30
Shut-off Head:		26 ft.(8.0m)	



Model	MODEL COMPARISON											CERTIFICATIONS	
	Seal	Mode	Volts	Ph	Amps	HP	Hz	Lbs	Kg	Simplex	Duplex	CSA	UL
M137	Single	Auto	115	1	10.7	1/2	60	47	21	1	4	Y	Y
N137	Single	Non	115	1	10.7	1/2	60	46	21	2 or 3	2 or 4	Y	Y
BN137	Single	Auto	115	1	10.7	1/2	60	48	22	**	4	Y	Y
D137	Single	Auto	230	1	5.8	1/2	60	47	21	1	4	Y	Y
E137	Single	Non	230	1	5.8	1/2	60	48	22	2 or 3	4	Y	Y
* H137	Single	Auto	200	1	6.2	1/2	60	48	22	1	4	Y	N
* I137	Single	Non	200	1	6.2	1/2	60	48	22	3	4	Y	N
* J137	Single	Non	200	3	2.6	1/2	60	46	21	3	4	Y	Y
* F137	Single	Non	230	3	2.6	1/2	60	48	22	3	4	Y	Y
* G137	Single	Non	460	3	1.4	1/2	60	48	22	3	4	N	N
BE137	Single	Auto	230	1	5.8	1/2	60	48	22	**	---	Y	Y
M139	Single	Auto	115	1	10.7	1/2	60	51	23	1	4	Y	Y
N139	Single	Non	115	1	10.7	1/2	60	51	23	2 or 3	2 or 4	Y	Y
D139	Single	Auto	230	1	5.8	1/2	60	47	21	1	4	Y	Y
E139	Single	Non	230	1	5.8	1/2	60	48	22	2 or 3	4	Y	Y
*H139	Single	Auto	200	1	6.2	1/2	60	48	22	1	4	Y	N
*I139	Single	Non	200	1	6.2	1/2	60	48	22	3	4	Y	N
*J139	Single	Non	200	3	2.6	1/2	60	50	23	3	4	Y	Y
*F139	Single	Non	230	3	2.6	1/2	60	48	22	3	4	Y	Y
*G139	Single	Non	460	3	1.4	1/2	60	48	22	3	4	N	N

* No molded plug ** Single piggyback switch included BE and BN models include a piggyback variable level pump switch.

SELECTION GUIDE

1. Integral float-operated mechanical switch, no external control required.
2. For automatic, use single piggyback variable level float switch or double piggyback variable level float switch. Refer to FM0477.
3. See FM1228 for correct model of simplex control panel.
4. See FM0712 for correct model of duplex control panel or FM1663 for a residential alternator system.

⚠ 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).

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EZflow by INFILTRATOR

GEOSYNTHETIC AGGREGATE TECHNOLOGY

EZflow by Infiltrator is an environmentally friendly replacement to traditional stone and pipe drainfields using an engineered geosynthetic aggregate modular design. The EZflow system is designed to improve infiltration performance by eliminating the fines associated with crushed stone, and reducing compaction and embedment associated with stone. Preassembled units include a 3" or 4" perforated pipe surrounded by aggregate and held in place with a durable high-strength netting. This product comes in easy-to-contour 5' and 10' lengths and in diameters of 7, 8, 9, 10, 12, 13, or 14 inches.

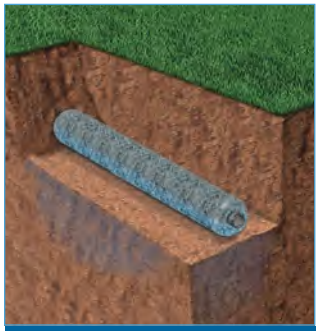
Lightweight expanded polystyrene construction offers structural integrity and resists compaction. Engineered flow-channels increase void space creating improved water flow and greater storage.

Compared with stone and pipe, benefits include:

- Always clean and free of fines
- Bundles are quick to install, saving costs on heavy machinery and labor
- Modular construction allows configurations to match trench dimensions for most system shapes and sizes
- Engineered for optimal storage and absorption efficiencies
- Ability to contour along sloped sites and around trees or landscaping
- Lightweight system is perfect for repairs and tight job sites
- Easily hand-carried into position reducing time and labor
- 5' or 10' lengths with simple snap, internal couplers
- Easier cleanup at the job site with the elimination of stone
- Manufactured from recycled materials rather than a mined natural resource
- A wide variety of diameters and configurations to meet any installation professional's needs
- Approved in many jurisdictions with an increased efficiency rating, reducing drainfield size
- Backed by the leader in the onsite wastewater industry

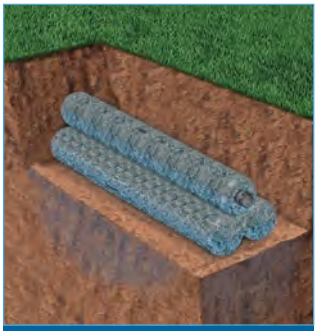
INFILTRATOR®
water technologies

Bundle System Configurations: Available in 7”, 8”, 9”, 10”, 12”, 13” and 14” diameter bundles.



Single Bundle

0701P-GEO 1201P-GEO
0801P-GEO 1401P-GEO
1201P-GEO 1801P-GEO
1001P-GEO



Triangular Bundle

1003T-GEO 1303T-GEO
1203T-GEO 1403T-GEO

Horizontal Bundles

0705H-GEO 1303H-GEO 1206H-GEO 1402H-GEO
0904H-GEO 1202H-GEO 1303H-GEO 1802H-GEO
1002H-GEO 1203H-GEO

Vertical Bundles

1002V-GEO 1006V-GEO 1203V-GEO 1206V-GEO
1003V-GEO 1202V-GEO 1204V-GEO 1402V-GEO
1004V-GEO

Notes:

1. Other systems include 10” and 12” bed systems. Bed size will dictate the number of bundles.
2. System dimensions are dependent upon bundle diameter and configuration.
3. LLP is for “Low Pressure Pipe” in which a pressurized distribution pipe is field installed within the corrugated pipe.
4. Internal pipe and couplings meet the requirements of ASTM F405.
5. Bundles are also available without geotextile between the netting and synthetic aggregrate.

INFILTRATOR WATER TECHNOLOGIES STANDARD LIMITED WARRANTY

(a) The structural integrity of each EZflow by Infiltrator expanded polystyrene drainfield system and other accessories manufactured by EZflow 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 EZflow by Infiltrator to be covered by this Limited Warranty. EZflow by 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 EZflow system is manufactured by anyone other than EZflow by 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.

INFILTRATOR®
water technologies

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

EZ01 0315AG

Contact Infiltrator Water Technologies’ Technical Services Department for assistance at 1-800-221-4436

4-Bedroom
Initial LTAR: 0.3 gpd/ft^2
Initial: Pump-to-Innovative 25% Reduction Status Product utilizing lines 6-9 (400')
Repair LTAR: 0.25 gpd/ft^2
Repair: Pump-to-Innovative 25% Reduction Status Product utilizing lines 1-5 (500')

TEEPEE DRIVE

8"W 8"W 8"W 8"W 8"W

122.00'

Water Meter

PROP CONC DRIVE

45

44

43

PATIO

226.78'

226.78'

9: G: 100'
8: R: 100'
7: Pu: 100'
6: □: 100'

Initial septic drainfield

5: Y: 100'
4: R: 100'
3: B: 100'
2: W: 100'
1: Pi: 100'

Repair septic drainfield

SITE BOUNDARY

114.00'

ANTELOPE RUN

NAD 83

GRAPHIC SCALE
0 30 60
1 inch = 30 ft.

Notes:
-No soil cuts within 20 feet of septic trenches.
-No swales within 30 feet of septic trenches unless approved, in writing, by Engineer.

SHEET NUMBER
1 of 7

Boone Trail Village
Lot 44
Overall Septic

REVISION NO.	DATE
Original Submittal	April 7, 2025
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : LGI Homes
5511 Capital Center Drive
Suite 560
Raleigh, NC 27612

DATE : April 7, 2025

DESIGNER CONTACT:
ADAM AYCOCK, EI

DRAWN BY:
ADAM AYCOCK, EI

MITCHELL ENVIRONMENTAL, PA
C-2911
1501 LAKESTONE VILLAGE LANE
SUITE 205
FUQUAY VARINA, NC 27526

TEEPEE DRIVE

8"W 8"W 8"W 8"W 8"W 8"W 8"W

122.00'

PROP CONC DRIVE

45

44

43

PATIO

1,000 gallon Septic Tank

1,000 gallon Pump Tank

2 inch SCH 40 PVC

226.78'

226.78'

9: G: 100'

8: R: 100'

7: Pu: 100'

6: □: 100'

3 inch SCH 40 PVC (typ.)

Pressure Manifold

NAD 83

ANTELOPE RUN

SITE BOUNDARY

114.00'

GRAPHIC SCALE

0 30 60

1 inch = 30 ft.

Notes:

-No soil cuts within 20 feet of septic trenches.

-No swales within 30 feet of septic trenches unless approved, in writing, by Engineer.

SHEET NUMBER 2 of 7

Boone Trail Village
Lot 44
Initial Nitrification Field

REVISION NO.	DATE
Original Submittal	April 7, 2025
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : LGI Homes
5511 Capital Center Drive
Suite 560
Raleigh, NC 27612

DATE : April 7, 2025

DESIGNER CONTACT: ADAM AYCOCK, EI

DRAWN BY: ADAM AYCOCK, EI

MITCHELL ENVIRONMENTAL, PA
C-2911
1501 LAKESTONE VILLAGE LANE
SUITE 205
FUQUAY VARINA, NC 27526

TEEPEE DRIVE

8"W 8"W 8"W 8"W 8"W 8"W 8"W

122.00'

PROP CONC DRIVE

45

44

43

PATIO

226.78'

226.78'

NAD 83

ANTELOPE RUN

5: Y: 100'
4: R: 100'
3: B: 100'
2: W: 100'
1: Pi: 100'

SITE BOUNDARY

114.00'

GRAPHIC SCALE
0 30 60
1 inch = 30 ft.

Notes:
-No soil cuts within 20 feet of septic trenches.
-No swales within 30 feet of septic trenches unless approved, in writing, by Engineer.

SHEET NUMBER
3 of 7

Boone Trail Village
Lot 44
Repair Nitrification Field

REVISION NO.	DATE
Original Submittal	April 7, 2025
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : LGI Homes
5511 Capital Center Drive
Suite 560
Raleigh, NC 27612

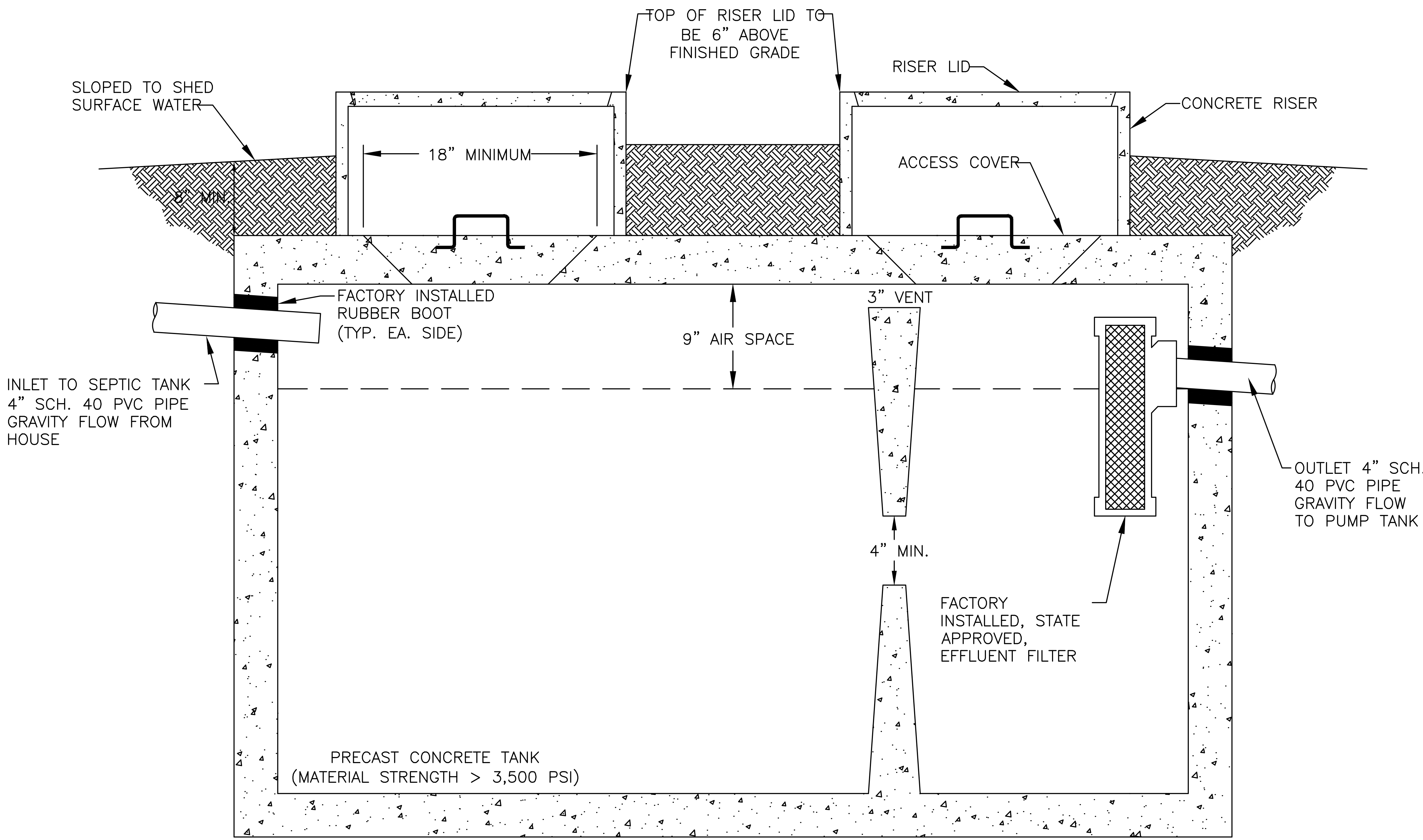
DATE : April 7, 2025

DESIGNER CONTACT:
ADAM AYCOCK, EI

DRAWN BY:
ADAM AYCOCK, EI

MITCHELL ENVIRONMENTAL, PA
C-2911

1501 LAKESTONE VILLAGE LANE
SUITE 205
FUQUAY VARINA, NC 27526



1,000 GALLON SEPTIC TANK

SEPTIC TANK DETAIL

N.T.S.

SHEET NUMBER

4 of 7

Boone Trail Village
Lot 44
Septic Tank Detail

REVISION NO.	DATE
Original Submittal	April 7, 2025
Revision 1	----
Revision 2	----
Revision 3	----
Master Set	----

PREPARED FOR : LGI Homes
5511 Capital Center Drive
Suite 560
Raleigh, NC 27612

DATE : April 7, 2025

DESIGNER CONTACT:
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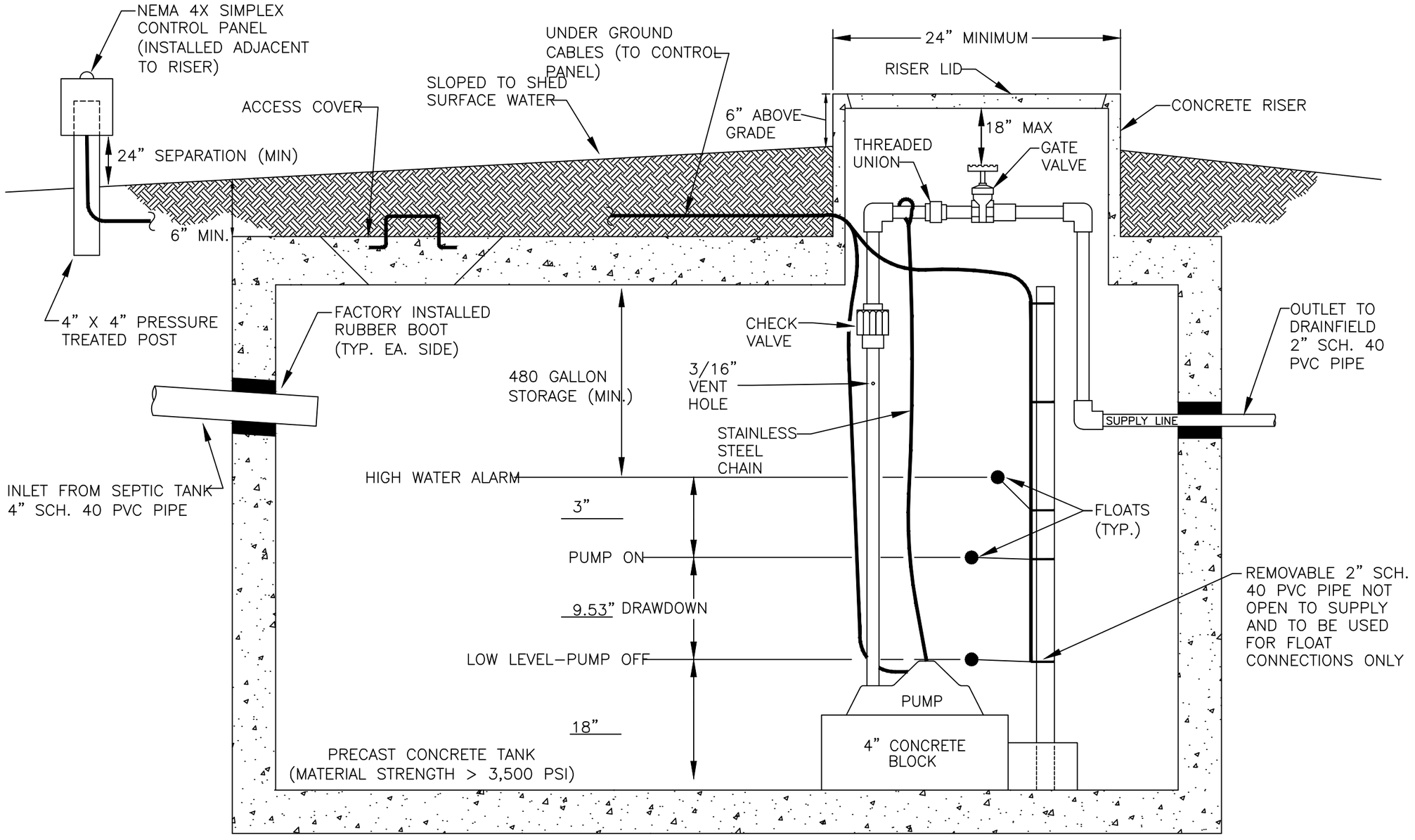
* DRAWDOWN SPECIFIED 18.0 GALLONS PER INCH



1,000 GALLON PUMP TANK

PUMP TANK DETAIL

N.T.S.

SHEET NUMBER 5 of 7

Boone Trail Village
Lot 44
Pump Tank Detail

REVISION NO.	DATE
Original Submittal	April 7, 2025
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : LGI Homes, 5511 Capitol Center Drive, Suite 560, Raleigh, NC 27612

DATE : April 7, 2025

DESIGNER CONTACT: ADAM AYCOCK, EI

DRAWN BY: ADAM AYCOCK, EI

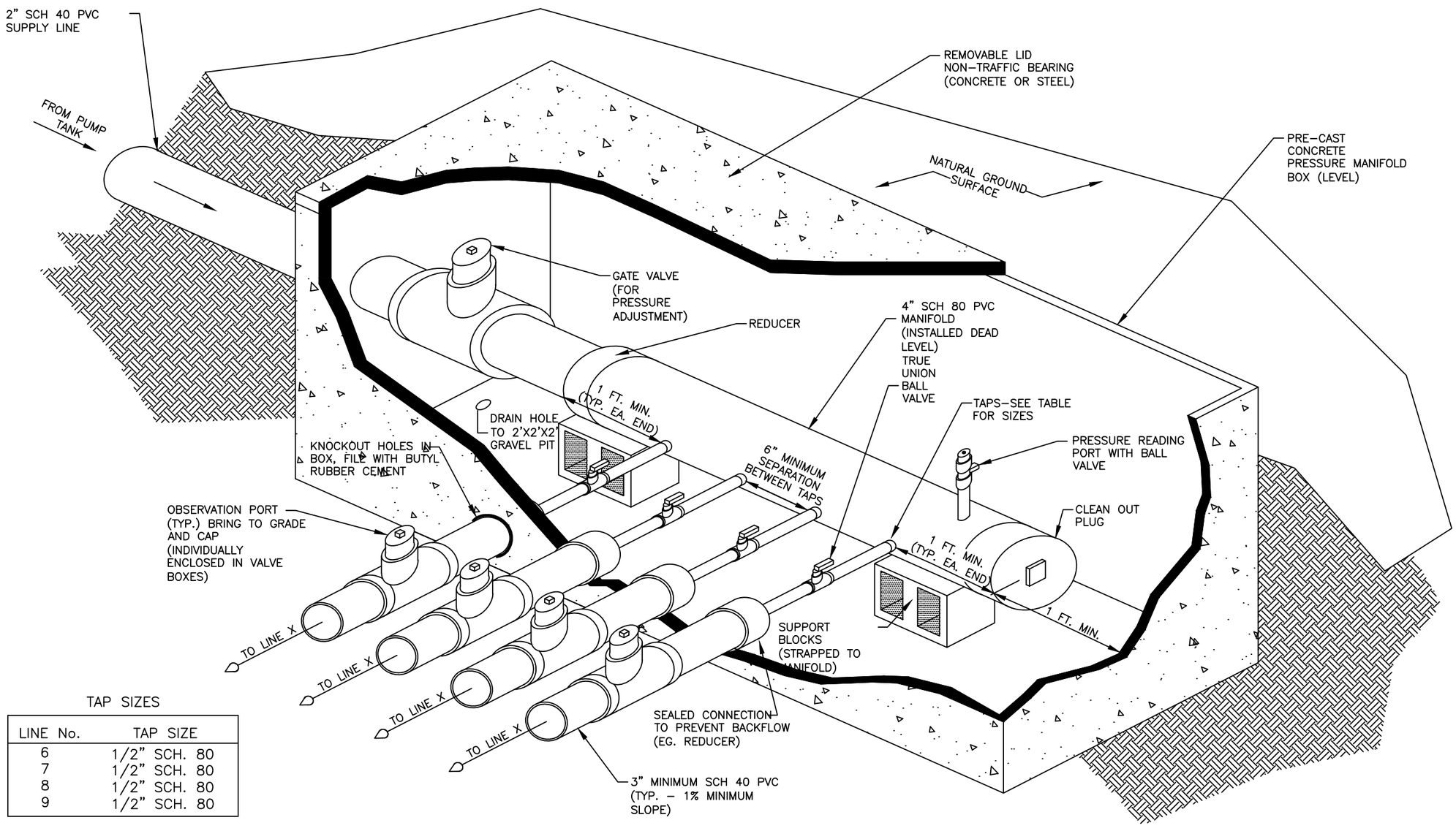
MITCHELL ENVIRONMENTAL, PA
C-2911
1501 LAKESTONE VILLAGE LANE
SUITE 205
FUQUAY VARINA, NC 27526

PRESSURE MANIFOLD DETAIL
FOR BOONE TRAIL VILLAGE LOT 44 INITIAL SEPTIC SYSTEM

N.T.S.

NOTE: MANIFOLD MAY NEED TO BE FLIPPED SO THAT SUPPLY LINE ENTRANCE AND CLEANOUTS ARE REVERSED. SEE SITE PLAN.

NOTE: THE NUMBER OF TAPS MAY VARY FROM LOT TO LOT. SEE DESIGN SHEET FOR NUMBER OF TAPS.



TAP SIZES

LINE No.	TAP SIZE
6	1/2" SCH. 80
7	1/2" SCH. 80
8	1/2" SCH. 80
9	1/2" SCH. 80

REVISION NO.	DATE
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Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : LGI Homes
5511 Capitol Center Drive
Suite 560
Raleigh, NC 27612

DATE : April 7, 2025

DESIGNER CONTACT:
ADAM AYCOCK, EI

DRAWN BY:
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MITCHELL ENVIRONMENTAL, PA
C-2911
1501 LAKESTONE VILLAGE LANE
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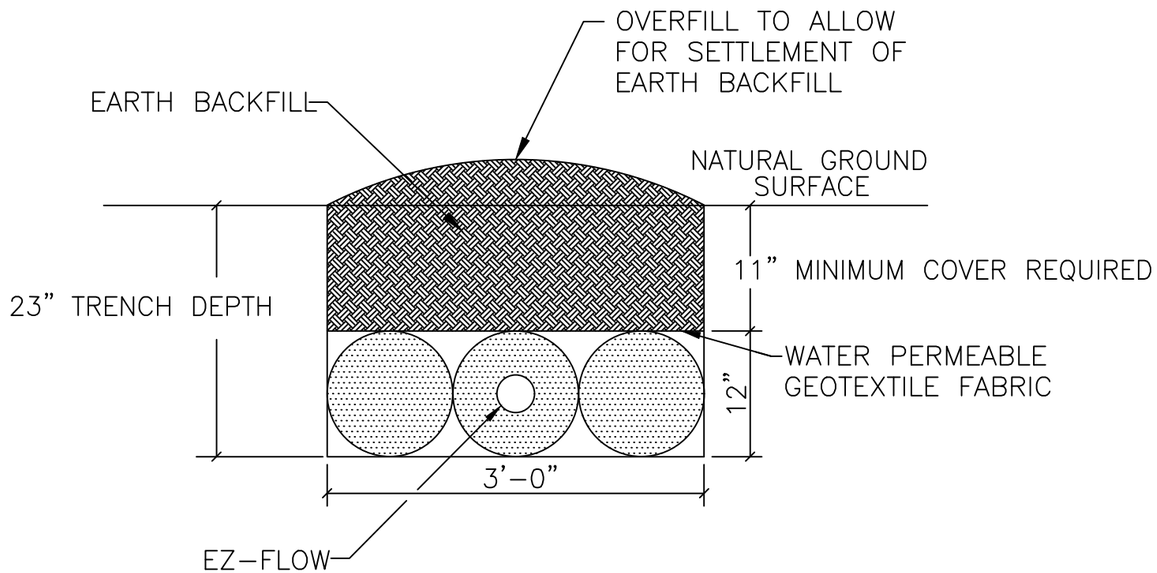
SHEET NUMBER
6 of 7

Boone Trail Village
Lot 44
Pressure Manifold Detail

NITRIFICATION TRENCH DETAIL FOR EZ-FLOW

N.T.S.



NOTES:

1. PERFORATED CORRUGATED PLASTIC PIPE SHALL MEET REQUIREMENTS OF ASTM D 2729.
2. PIPE SHALL BE LEVEL.
3. ENDCAP SHALL BE PROVIDED AT END OF ALL CORRUGATED PLASTIC PIPE LINES.
4. TRENCH BOTTOM SHALL BE LEVEL.
5. HAND RAKE TRENCH WALLS PRIOR TO PLACEMENT OF TRENCH MEDIA IF SOIL SMEARING IS PRESENT.

SHEET NUMBER 7 of 7

Boone Trail Village
Lot 44
Trench Detail

REVISION NO.	DATE
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Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : LGI Homes
5511 Capital Center Drive
Suite 560
Raleigh, NC 27612

DATE : April 7, 2025

DESIGNER CONTACT:
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