Mitchell Environmental, P.A.

SEPTIC SYSTEM DESIGN

for

PRINCE PLACE SUBDIVISION- LOT 11

Fuquay-Varina, Harnett County, North Carolina

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

Prepared for:
Davidson Homes, LLC
336 James Record Road
Huntsville, Alabama 35824

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

DATE: October 20, 2021
PROJECT NO.: 4321

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

PRESSURE MANIFOLD DESIGN

Name: Davidson Homes **P.I.N. #:** 0633-76-5823 **D #:** N/A

Address: Royal Ella Court **Subdiv:** Prince Place **Lot#:** 11

# 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:** 1200 **gals (min.)** **Sq. Foot:** 1230 **Stone Depth:** N/A (EZ Flow)

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

Depth of Trenches: see Harnett County Permit **Manifold Length:** 48 **in**

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

Supply Line: length: 240 **ft** **Diameter:** 2 **in sch 40pvc**

Friction Loss + Fitting Loss: 9.50 **ft(supply line length + 70' for fittings in pump tank)**

Design Head: 2.0 **ft** **Elevation Head:** 7.78 **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: 27 **ft**

Orifice / Vent Hole Flowrate: 2.15 **gpm** **Head Loss at Orifice / Vent Hole:** 1.71 **ft**

Total Head: 20.99 **ft** **Pump to Deliver:** 39.06 **gals/min at** 20.99 **ft head**

Dosing Volume: 175.89 **gals.**

Drawdown: 175.89 **gals divided by** 19 **gals/in =** 9.26 **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: 153 **Other:**

TAP CHART

Bench Mark	4.1	is = 100.00	set at	Top EIR 6/7 rear corner			**Design Head:**	2.0	
Pump tank elev.		5.5	98.60	**Pump elev.**	93.60		**Manifold elev.**	101.38	
line	**color**	**rod read**	**Elevation**	**length**	**hole size**	**flow/tap**	**gal/day**	**trench area**	**LINE LTAR**
1	Red	3.22	100.88	60	1/2in SCH 80	5.48	71.27	180	0.3959
2	Green	3.44	100.66	75	1/2in SCH 40	7.11	92.46	225	0.4109
3	Purple	3.58	100.52	85	1/2in SCH 40	7.11	92.46	255	0.3626
4	Red	3.76	100.34	85	1/2in SCH 40	7.11	92.46	255	0.3626
5	Yellow	3.89	100.21	105	3/4in SCH 80	10.10	131.35	315	0.4170
		total	**feet =**	**410**	**gal/min =**	**36.9**		**LTAR =**	**0.3000**
% of Pipe Vol.		66		**Des. Flow**	480.00			**(ltar + 5%)**	0.3150
Dose Volume		175.89		**Pump Run=**	13.00			**(ltar W/ INOV)**	0.4000
Dose Pump Time		4.77		**Tank Gal/IN**	19			**(ltar + 5%)**	0.4200
Drawdown in Inches		9.26		**Elev. Head**	7.78				
Supply Line Length		240							

Comments:

PRESSURE MANIFOLD DESIGN

Name: Davidson Homes **P.I.N. #:** 0633-76-5823 **D #:** N/A

Address: Royal Ella Court **Subdiv:** Prince Place **Lot#:** 11

# 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:** 1200 **gals (min.)** **Sq. Foot:** 810 **Stone Depth:** N/A (Panel Block)

Number of Taps: 5 **Length of Trenches:** 54 **ft(See Tap Chart for Details)**

Depth of Trenches: see Harnett County Permit **Manifold Length:** 48 **in**

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

Supply Line: length: 140 **ft** **Diameter:** 2 **in sch 40pvc**

Friction Loss + Fitting Loss: 3.71 **ft(supply line length + 70' for fittings in pump tank)**

Design Head: 2.0 **ft** **Elevation Head:** 7.44 **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: 31 **ft**

Orifice / Vent Hole Flowrate: 2.31 **gpm** **Head Loss at Orifice / Vent Hole:** 1.97 **ft**

Total Head: 15.12 **ft** **Pump to Deliver:** 29.71 **gals/min at** 15.12 **ft head**

Dosing Volume: 115.83 **gals.**

Drawdown: 115.83 **gals divided by** 19 **gals/in =** 6.10 **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: 153 **Other:**

TAP CHART

Bench Mark	4.1	is = 100.00	set at	Top EIR 6/7 rear corner			**Design Head:**	2.0	
Pump tank elev.		5.5	98.60	**Pump elev.**	93.60		**Manifold elev.**	101.04	
line	**color**	**rod read**	**Elevation**	**length**	**hole size**	**flow/tap**	**gal/day**	**trench area**	**LINE LTAR**
6a	Pink	4.06	100.04	54	1/2in SCH 80	5.48	96.00	162	0.5926
6b	Pink	4.06	100.04	54	1/2in SCH 80	5.48	96.00	162	0.5926
7a	Green	4.15	99.95	54	1/2in SCH 80	5.48	96.00	162	0.5926
7b	Green	4.15	99.95	54	1/2in SCH 80	5.48	96.00	162	0.5926
8	Blue	4.59	99.51	54	1/2in SCH 80	5.48	96.00	162	0.5926
		total	**feet =**	**270**	**gal/min =**	**27.4**		**LTAR =**	**0.3000**
% of Pipe Vol.		66		**Des. Flow**	480.00			**(ltar + 5%)**	0.3150
Dose Volume		115.83		**Pump Run=**	17.52			**(ltar W/ INOV)**	0.6000
Dose Pump Time		4.23		**Tank Gal/IN**	19			**(ltar + 5%)**	0.6300
Drawdown in Inches		6.10		**Elev. Head**	7.44				
Supply Line Length		140							

Comments:

STB - 345 - Top Seam

Approval Date: 12 - 09 - 99

Liquid Capacity 1007 Gallons

Non Traffic Rated

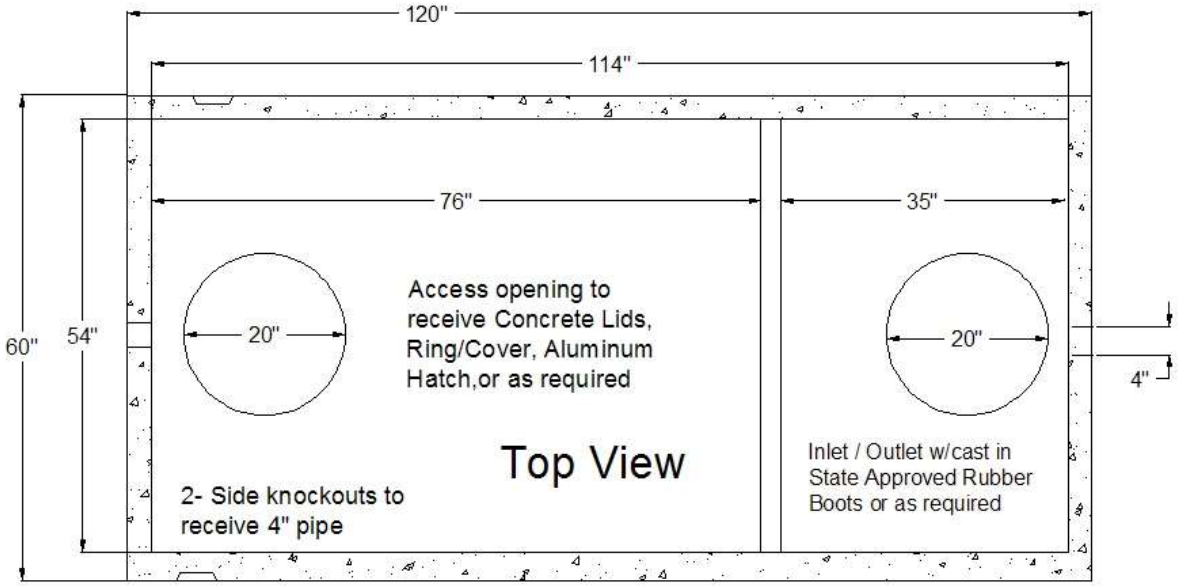
Reinforcing Schedule: # 3 Grade 60 Rebar

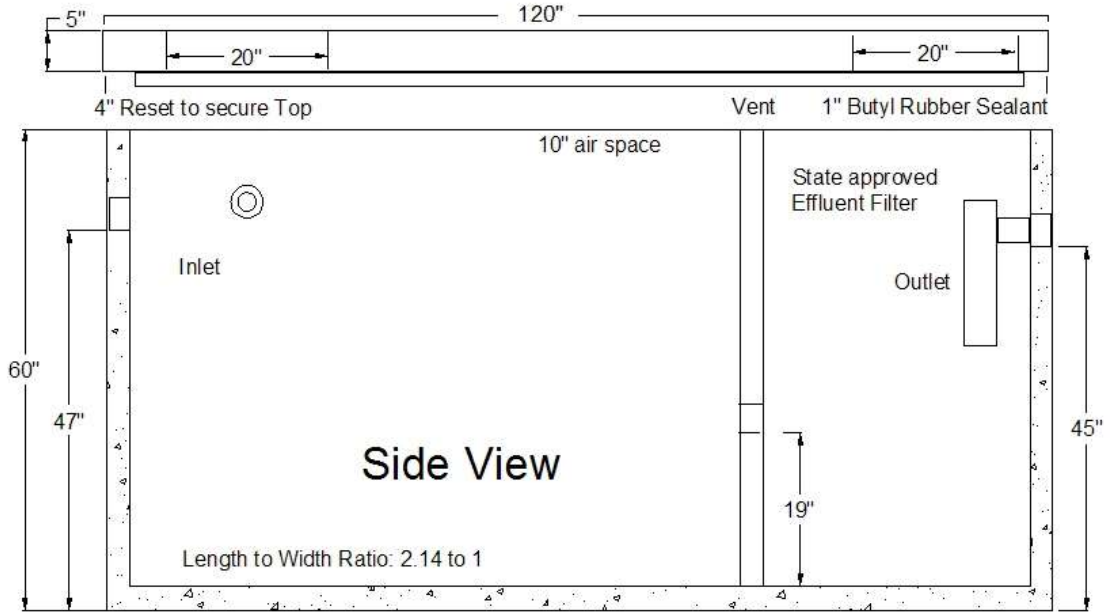
4500 PSI Concrete w/ State Approved Structural Fiber

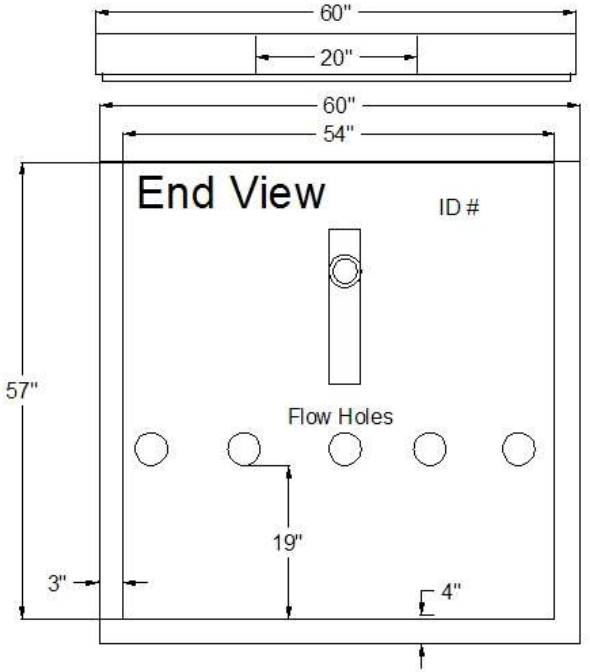
Est. Weight: 8,200 lbs.

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.

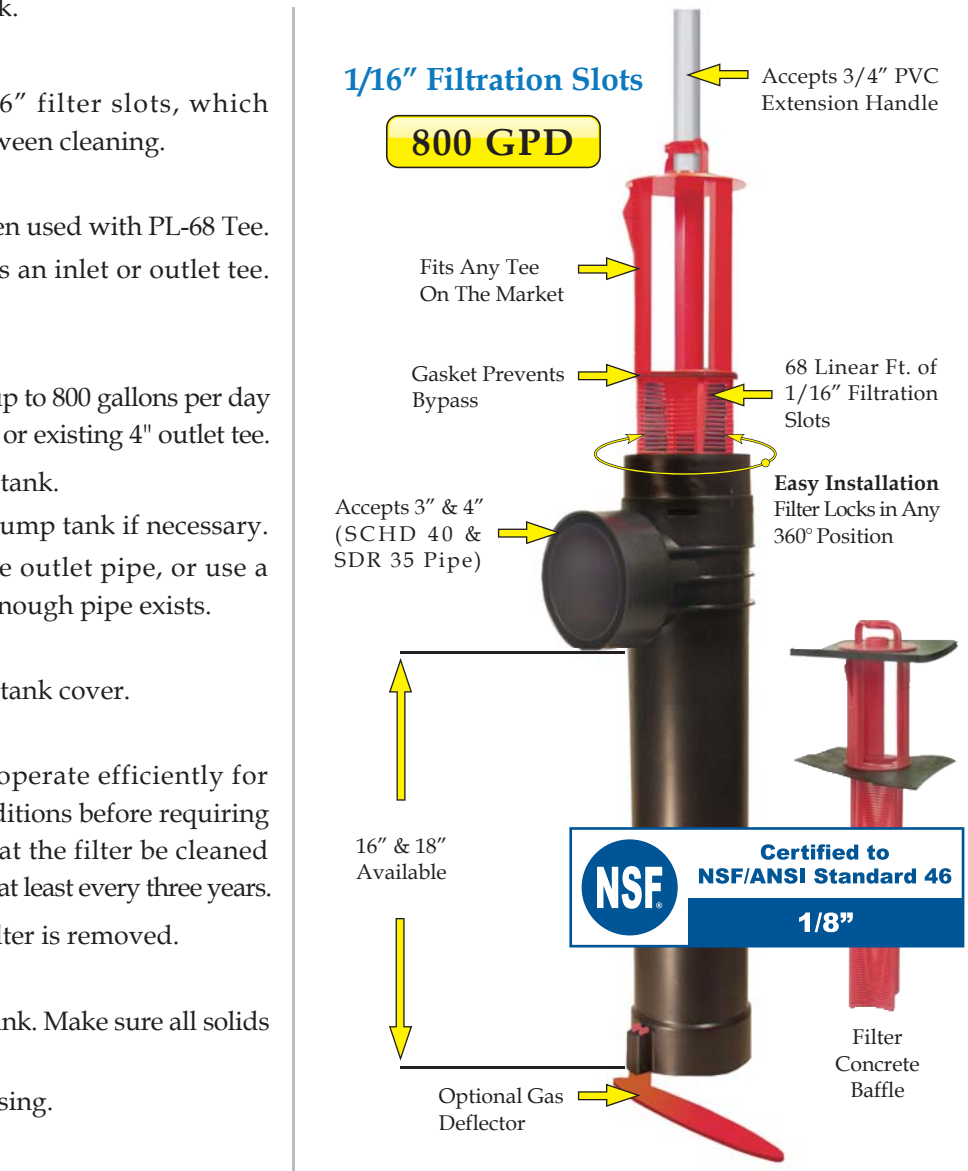
PL-68 Maintenance:

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™

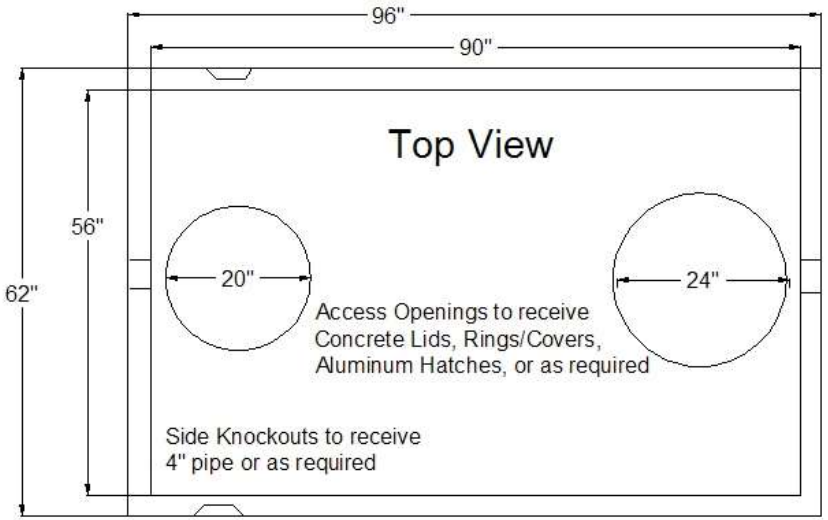


Extend & Lok™
Easily installs into existing tanks.

Spacer Bushing 4" SCHD 40 to SDR 35

Spacer Bushing 4" SCHD 40 to 110mm Pipe

2" Extender



PT - 213 Top seam

Date: 08-18-93

Non Traffic Rated

Liquid Capacity 1,211 Gallons

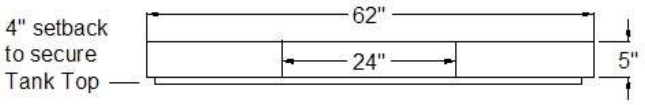
Reinforcing Schedule: # 3 Grade 60 Rebar

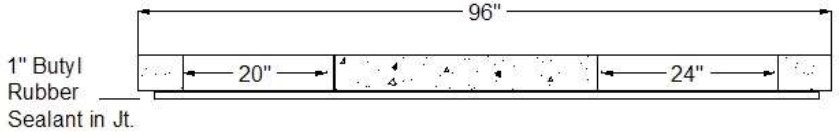
4500 PSI Concrete w/ State Approved Structural Fiber

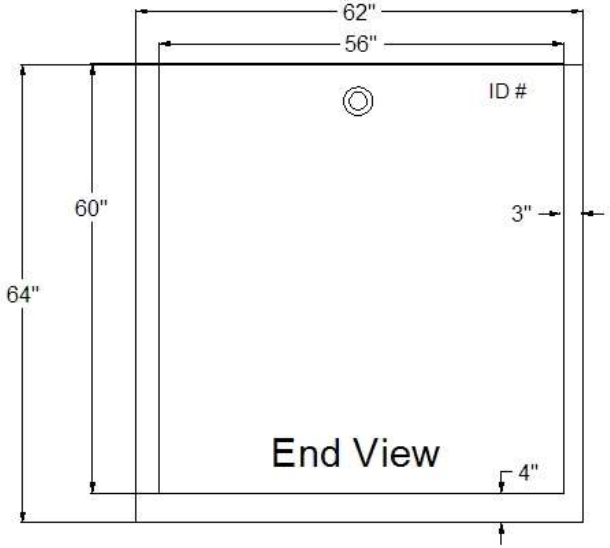
2.5 yds. Est. Weight 8,900 lbs. 19 gals. per in.

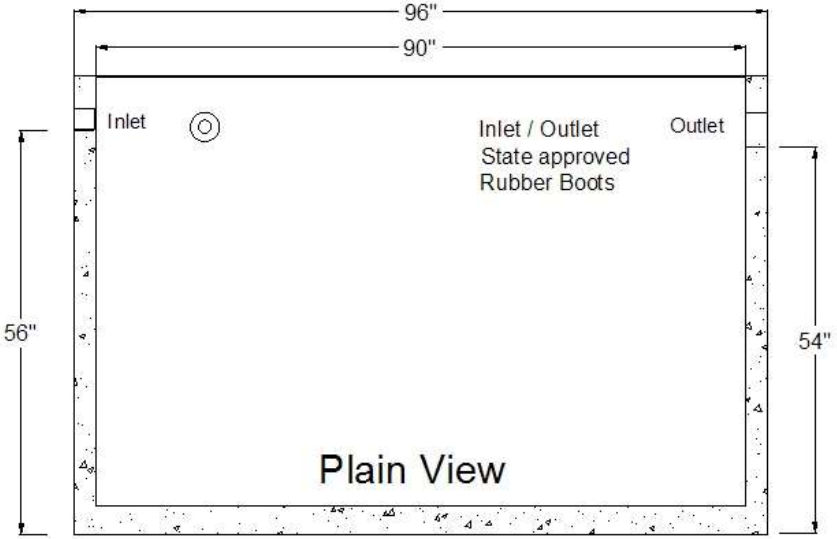
Manufactured By:

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.

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).

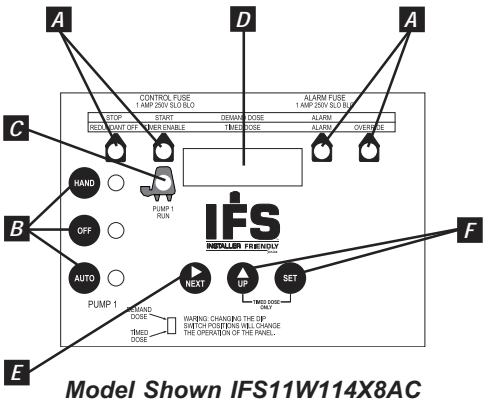
E. **NEXT Push Button** toggles display.

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

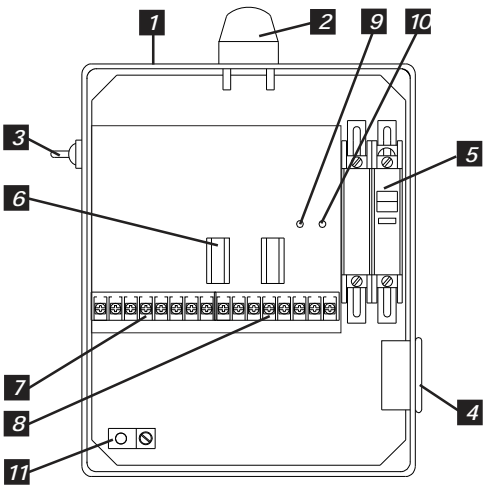
PANEL COMPONENTS

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



Model Shown IFS11W114X8AC (Inner door view)



Model Shown IFS11W114X8AC (Inside view)

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

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

SEE BACKSIDE FOR COMPLETE LISTING OF AVAILABLE OPTIONS.

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: 2.15.080
FM2784
1017
Supersedes
0315

TECHNICAL DATA SHEET
DOSE-MATE SERIES
Models 151, 152, 153 Effluent Pumps

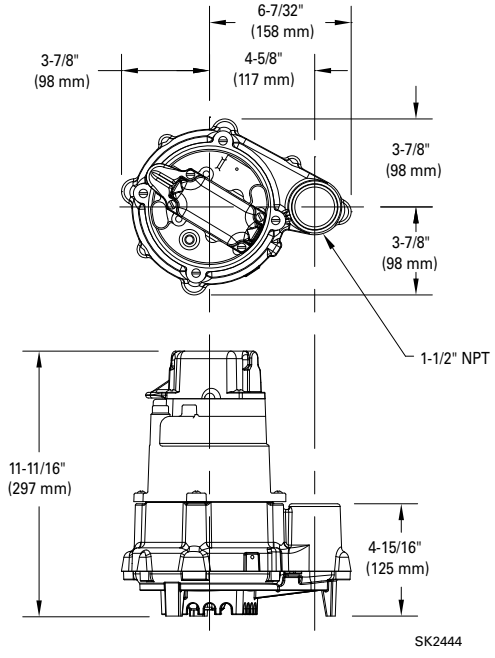
PRODUCT SPECIFICATIONS

MOTOR	Horse Power	1/3 (151), 4/10 (152), 1/2 (153)
	Voltage	115 or 230
	Phase	1 Ph
	Hertz	60 Hz
	RPM	3450
	Type	Permanent split capacitor
	Insulation	Class B
	Amps	3.0 - 10.5
PUMP	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)
	Cord Type	UL listed power cord
	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
MATERIALS	Cap	Cast iron
	Motor Housing	Cast iron
	Pump Housing	Cast iron
	Base	Plastic or cast iron
	Upper Bearing	Sleeve bearing
	Lower Bearing	Ball bearing
	Mechanical Seals	Carbon and ceramic
	Impeller Type	Non-clogging vortex
	Impeller	Engineered thermoplastic
	Hardware	Stainless steel
	Motor Shaft	AISI 1215 steel
	Gasket	Neoprene

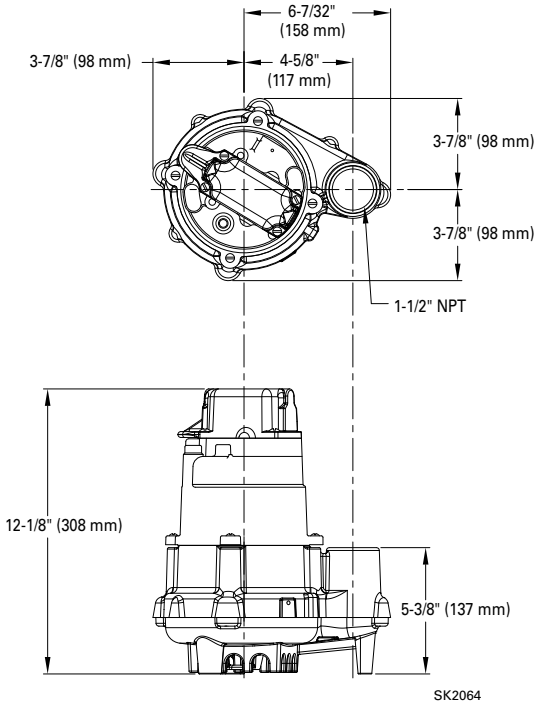
NOTE: The sizing of effluent systems normally requires variable level float(s) controls and properly sized basins to achieve required pumping cycles or dosing timers with nonautomatic pumps.

NOTE: See model comparison chart for specific details.

MODEL 151



MODELS 152 & 153

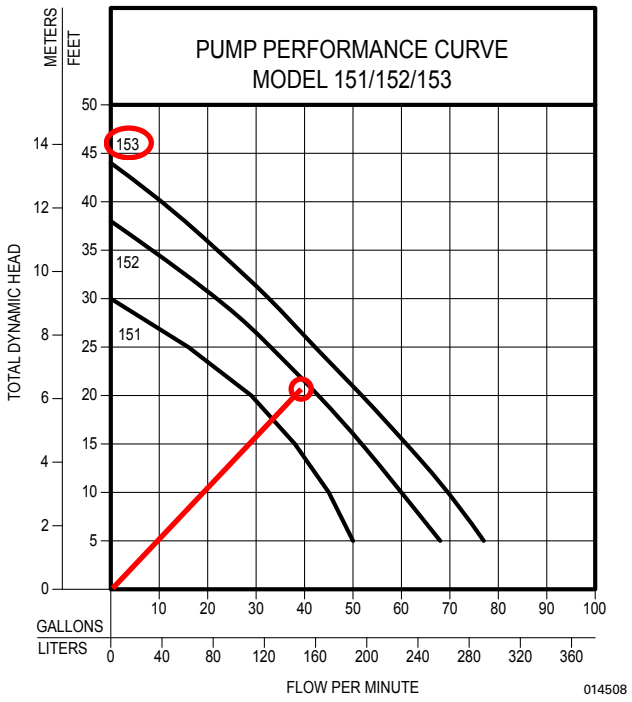


Tested to UL Standard UL778 and Certified to CSA Standard CSA22.2 No. 108

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

TOTAL DYNAMIC HEAD FLOW PER MINUTE

MODEL		151		152		153	
Feet	Meters	Gal.	Liters	Gal.	Liters	Gal.	Liters
5	1.5	50	189	69	261	77	291
10	3.0	45	170	61	231	70	265
15	4.6	38	144	53	201	61	231
20	6.1	29	110	44	167	52	197
25	7.6	16	61	34	129	42	159
30	9.1	--	--	23	87	33	125
35	10.7	--	--	--	--	22	85
40	12.2	--	--	--	--	11	42
Shut-off Head:		30 ft. (9.1m)		38 ft. (11.6m)		44 ft. (13.4m)	



Model	MODEL COMPARISON										
	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

*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.

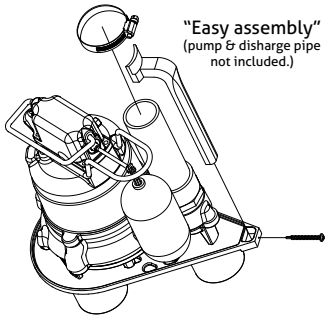
SELECTION GUIDE

1. 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).

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

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.

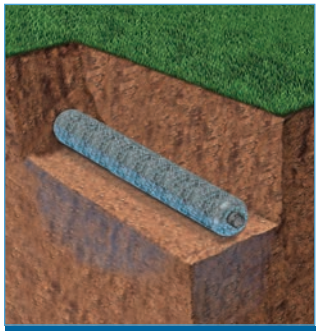
Lightweight expanded polystyrene construction offers structural integrity and resists compaction. Engineered flow-channels increase void space creating improved water flow and greater storage.

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

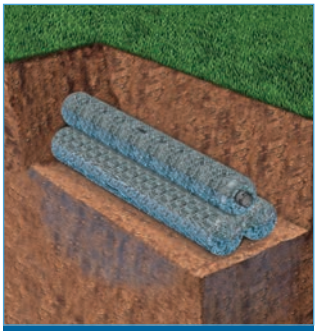
INFILTRATOR®
water technologies

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



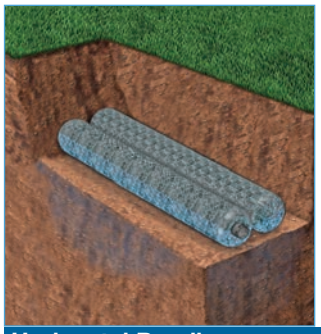
Single Bundle

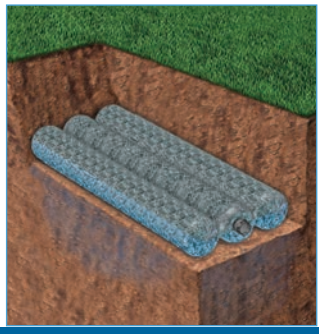
0701P-GEO 1201P-GEO
0801P-GEO 1401P-GEO
1201P-GEO 1801P-GEO
1001P-GEO



Triangular Bundle

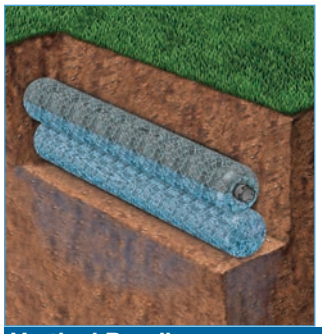
1003T-GEO 1303T-GEO
1203T-GEO 1403T-GEO

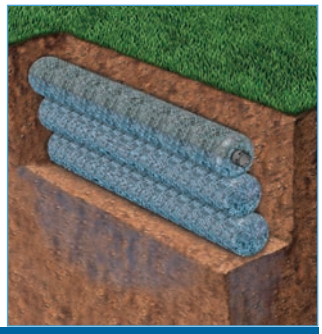




Horizontal Bundles

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.

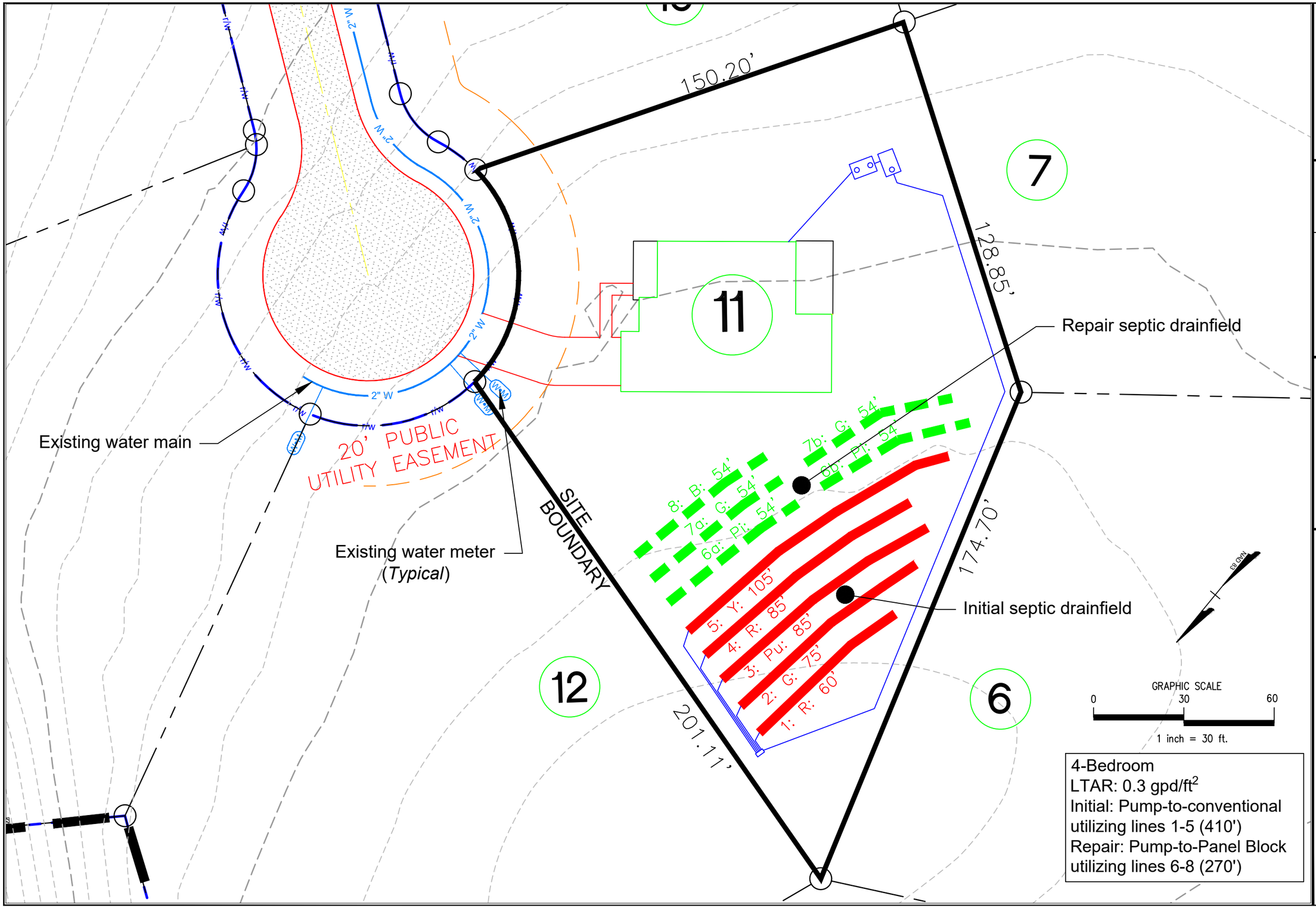
The above represents the Standard Limited Warranty offered by Infiltrator. A limited number of states and counties have different warranty requirements. Any purchaser of Units should contact Infiltrator’s Corporate Headquarters in Old Saybrook, Connecticut, prior to such purchase, to obtain a copy of 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



SHEET NUMBER
1 of 7

Prince Place
Lot 11
Overall Septic

REVISION NO.	DATE
Original Submittal	October 19, 2021
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

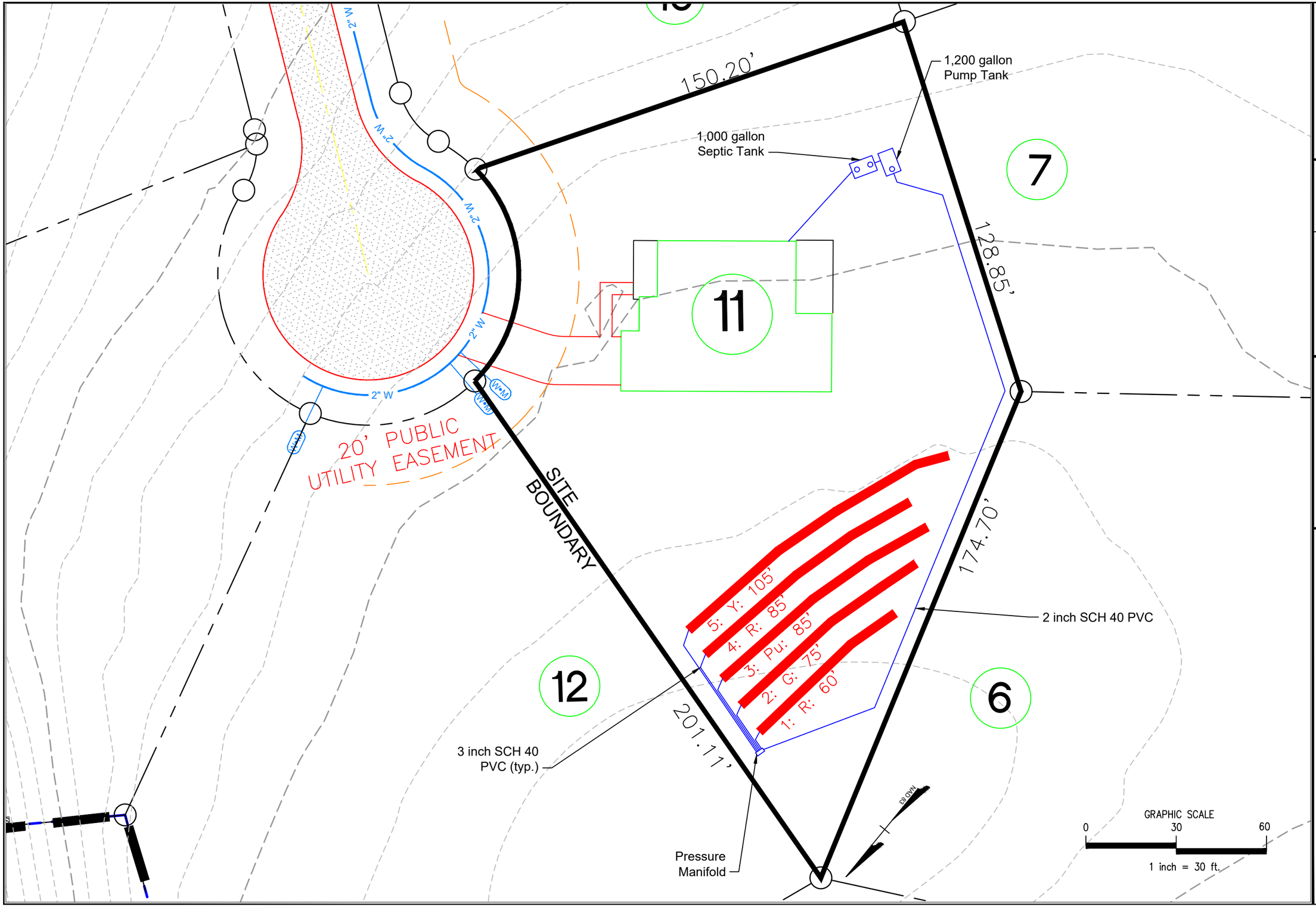
PREPARED FOR : Dovidson Homes
336 James Record Road
Huntsville, AL 35824

DATE : October 19, 2021

ENGINEER AND SOIL SCIENTIST CONTACT:
SCOTT MITCHELL, PE, LSS

DRAWN BY:
ADAM AYCOCK, EI

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



SHEET NUMBER
2 of 7

Prince Place
Lot 11
Initial Nitrification Field

REVISION NO.	DATE
Original Submittal	October 19, 2021
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : Davidson Homes
336 James Record Road
Huntsville, AL 35824

DATE : October 19, 2021

ENGINEER AND SOIL SCIENTIST CONTACT:
SCOTT MITCHELL, PE, LSS

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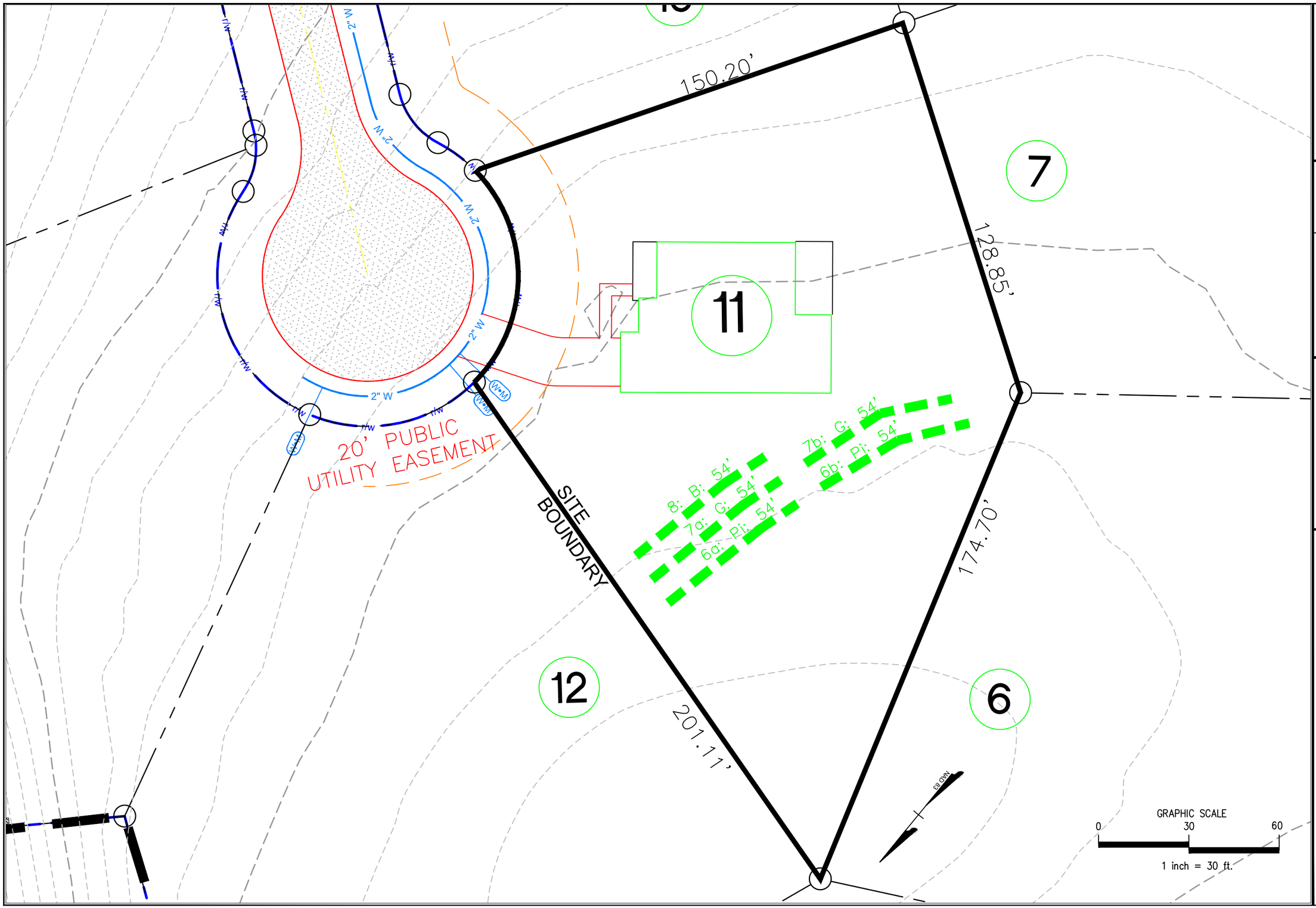
1501 LAKESTONE VILLAGE LANE
SUITE 205
FUQUAY VARINA, NC 27526



SHEET NUMBER	3 of 7

Prince Place
Lot 11
Repair Nitrification Field

REVISION NO.	DATE
Original Submittal	October 19, 2021
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : Davidson Homes
336 James Record Road
Huntsville, AL 35824

DATE : October 19, 2021

ENGINEER AND SOIL SCIENTIST CONTACT:
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1501 LAKESTONE VILLAGE LANE
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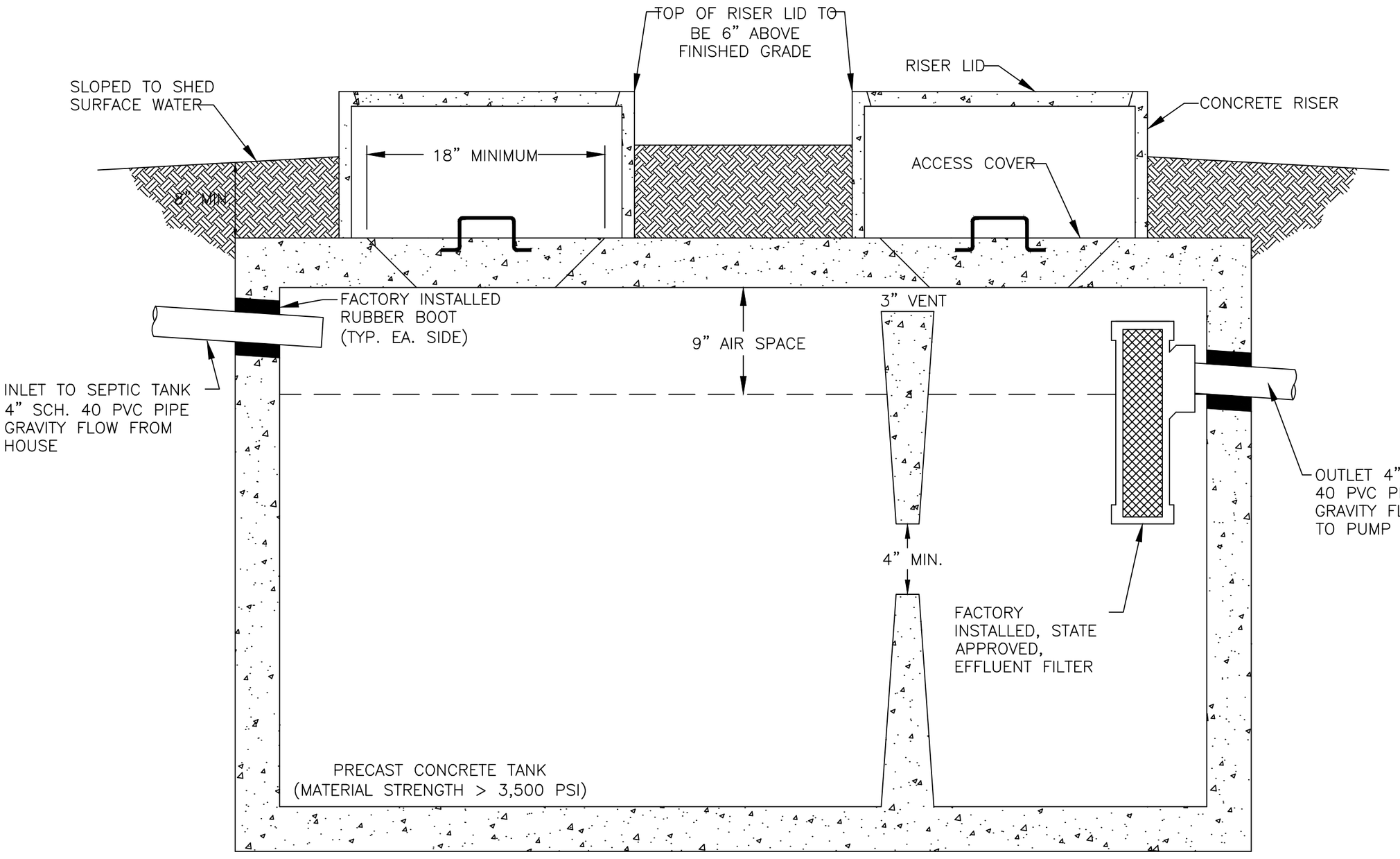
FUQUAY VARINA, NC 27526



1,000 GALLON SEPTIC TANK

SEPTIC TANK DETAIL

N.T.S.

SHEET NUMBER 4 of 7

Prince Place
Lot 11
Septic Tank Detail

REVISION NO.	DATE
Original Submittal	October 19, 2021
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : Davidson Homes
336 James Record Road
Huntsville, AL 35824

DATE : October 19, 2021

ENGINEER AND SOIL SCIENTIST CONTACT:
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DRAWN BY:
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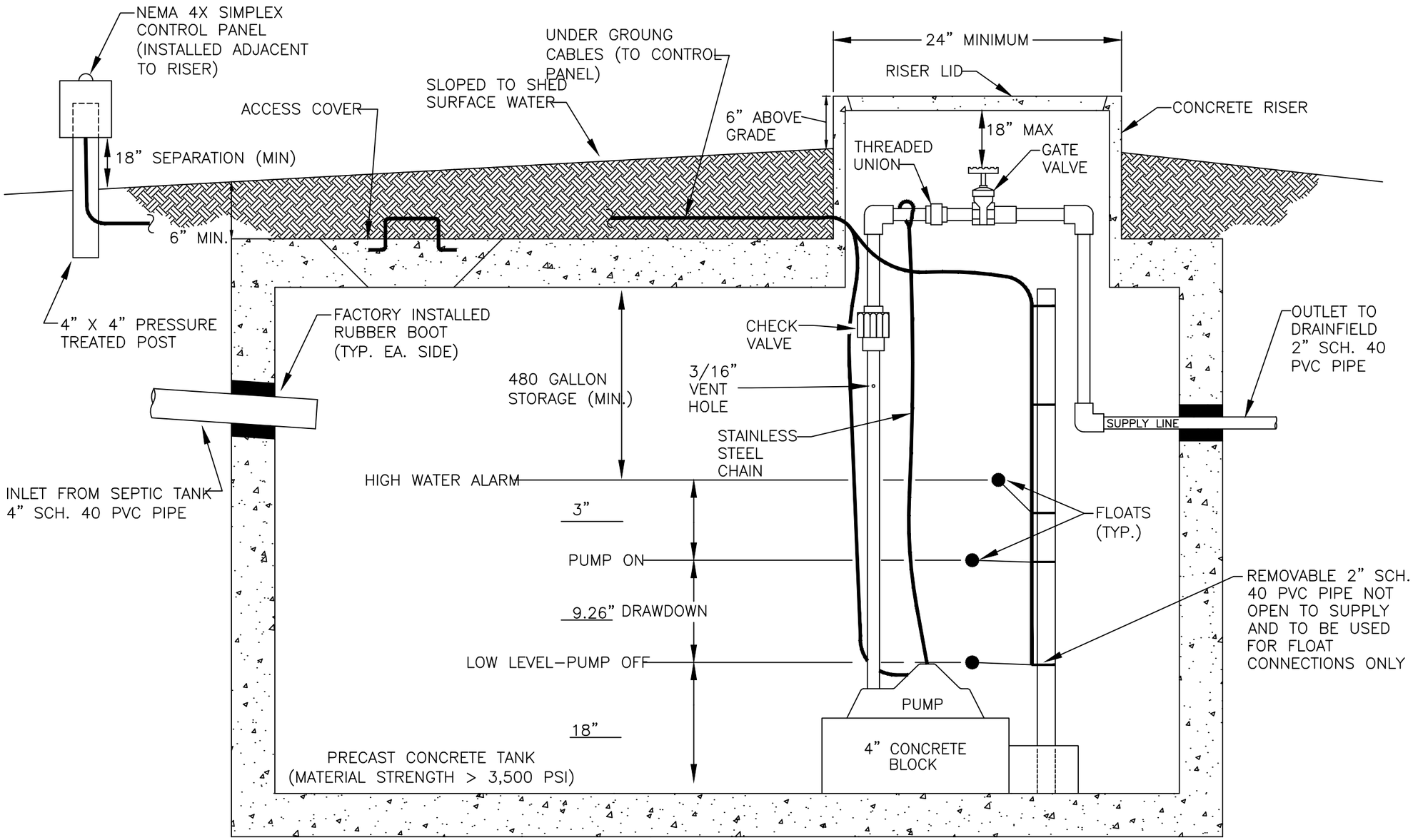
* DRAWDOWN SPECIFIED 19.0 GALLONS PER INCH



1,200 GALLON PUMP TANK

PUMP TANK DETAIL

N.T.S.

SHEET NUMBER 5 of 7

Prince Place
Lot 11
Pump Tank Detail

REVISION NO.	DATE
Original Submittal	October 19, 2021
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : Davidson Homes
336 James Record Road
Huntsville, AL 35824

DATE : October 19, 2021

ENGINEER AND SOIL SCIENTIST CONTACT:
SCOTT MITCHELL, PE, LSS

DRAWN BY:
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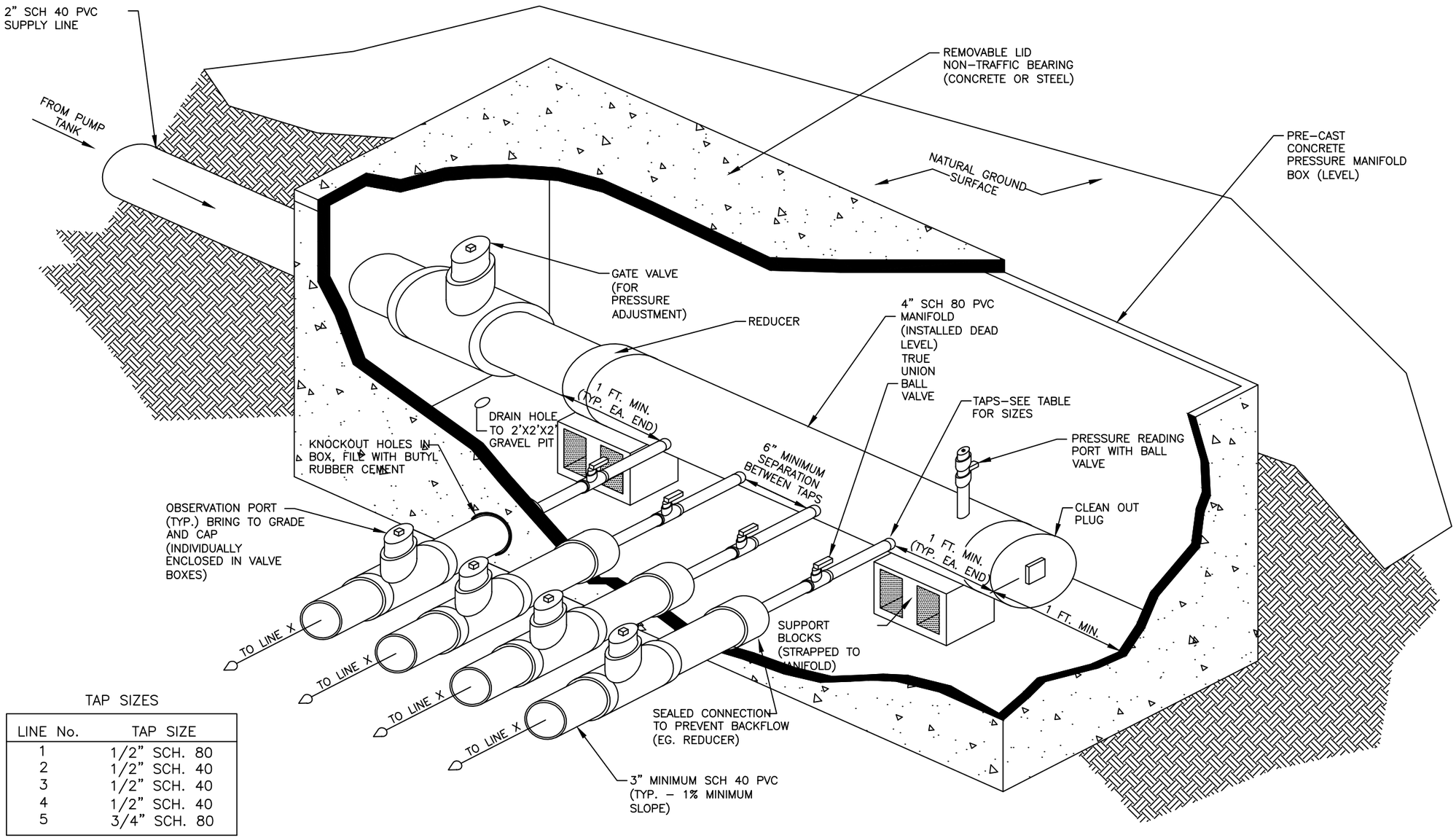
C-2911
1501 LAKESTONE VILLAGE LANE
SUITE 205
FUQUAY VARINA, NC 27526

PRESSURE MANIFOLD DETAIL
FOR PRINCE PLACE LOT 11 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
1	1/2" SCH. 80
2	1/2" SCH. 40
3	1/2" SCH. 40
4	1/2" SCH. 40
5	3/4" SCH. 80

REVISION NO.	DATE
Original Submittal	October 19, 2021
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : Davidson Homes
336 James Record Road
Huntsville, AL 35824

DATE : October 19, 2021

ENGINEER AND SOIL SCIENTIST CONTACT:
SCOTT MITCHELL, PE, LSS

DRAWN BY:
ADAM AYCOCK, EI

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

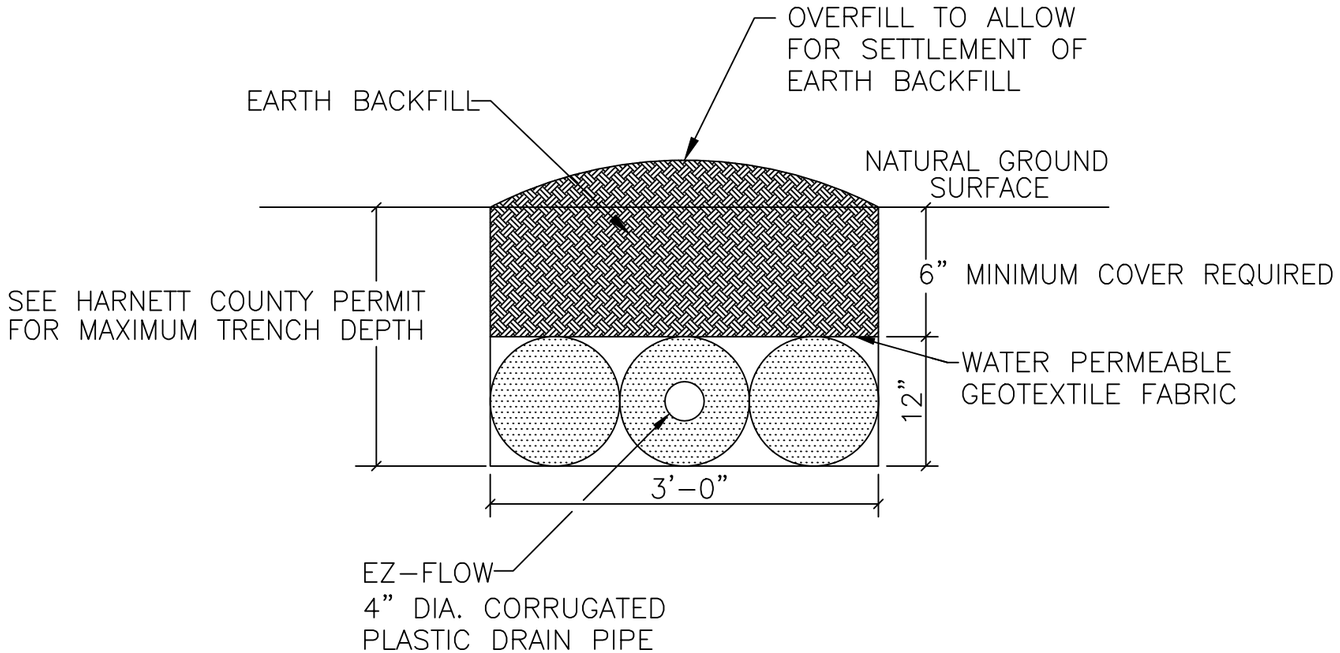
SHEET NUMBER

6 of 7

Prince Place
Lot 11
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

Prince Place
Lot 11
Trench Detail

REVISION NO.	DATE
Original Submittal	October 19, 2021
Revision 1	-----
Revision 2	-----
Revision 3	-----
Master Set	-----

PREPARED FOR : Davidson Homes
336 James Record Road
Huntsville, AL 35824

DATE : October 19, 2021

ENGINEER AND SOIL SCIENTIST CONTACT:
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