Harnett County Environmental Health

	Fi	le/Permit Number: Sl	FD2404-0011
IM	IPROVEMENT PERMIT		
County: Harnett			
PIN/Lot Identifier: 9692-70-1192.000			
Owner: HHHunt Homes	Applicant: Scott N	litchell	
Property Location: 996 Hollies Pines Rd			
Subdivision (if applicable)	Lot #:	Block:	Section:
New ■ Expansion □	System Relocation	Change of Use	
Facility Type: SFD (35'x38')			
Number of bedrooms: 3 Number of Occupants: 6	Other:		
Design Wastewater Strength: Domestic	High Strength Industr	rial Process Wastewater	
Proposed Design Daily Flow: GPD GPD	Proposed LTAR (Initial): F	Proposed LTAR (Repair):	.3
Proposed Wastewater System Type*: 10" Large Diame	eter Pipe (Initial) Pump Re	equired: 🗌 Yes 🔳 No	May be required
Proposed Wastewater System Type*: Horizontal Panel	Block (Repair) Pump Re	quired: 🗌 Yes 🔳 No	May be required
*Please include system classification for proposed wastewo	ater system types in accordance with Rule	e .1301 Table XXXII	
Effluent Standard: 🔳 DSE 🗌 HSE 🔲 NSF/ANSI 40	TS-I TS-II RCW		
Saprolite System (Initial): ☐ Yes ■ No Saprolite	System (Repair): Yes No		
Fill System (Initial): \square Yes \blacksquare No If yes, specify: \square 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	w Existing (when adding more than	6 inches of fill to system	area provide a fill plan
Usable Depth to LC (Initial)x: 36			
Max. Trench Depth (Initial)‡: 18 Max. Tren	nch Depth (Repair)‡: 18	‡ Measured on the down	nhill side of the trench
Artificial Drainage Required: Tes No If yes, please	specify details:		
Type of Water Supply: Private well Public well	Shared well Municipal Supply	Spring Othe	r:
Drainfield location meets requirements of Rule .0508: Yes	■ No Drainfield location meets	requirements of Rule .0	601: Yes 🔳 No 🗌
Permit valid for: \blacksquare Five years [site plan submitted pursual	nt to GS 130A-334(13a)] No expirati	on [plat submitted pursu	ant to GS 130A-334(7a)
Permit conditions:			
Authorized Agent's Printed Name: Oliver Tolksdorf		Expiration Date	: 5/8/29
Authorized Agent's Signature:	KAIS	Date: 5/8/24	

The issuance of this permit in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. <u>This permit is subject to revocation if the site plan, plat, or the intended use changes.</u> The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of 15A NCAC 18E and to the conditions of this permit.

See attached site sketch

Harnett County Environmental Health

File/Permit Number: SFD2404-0011
CONSTRUCTION AUTHORIZATION
County: Harnett PIN/Lot Identifier: 9692-70-1192.000
Owner: HHHunt Homes Applicant: Scott Mitchell
Property Location: 996 Hollies Pines Rd
Facility Type: SFD (35'x38')
Number of bedrooms: 3 Number of Occupants: 6 Other:
■ New
Basement? ☐ Yes ■ No Basement Fixtures? ☐ Yes ☐ No
Crawl Space? ☐ Yes ■ No Slab Foundation? ■ Yes ☐ No
Type of Wastewater System* 10" Large Diameter Pipe (Initial) Horizontal Panel Block (Repa
*Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII
Design Daily Flow: 360 GPD Wastewater Strength: Domestic High Strength Industrial Process Wastewater
Rule .0403(e) Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies (S.L. 2013-413 and 2014-120)? Yes In 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: 1000 gallons Total Trench/Bed Length: 660 feet Trench/Bed Spacing: 6 feet on center
Trench/Bed Width: 1 inches LTAR: .3 gpd/ft² Usable Depth to LC (Initial)x: 36 xLimiting condition
Soil Cover: 6 inches Slope Corrected Maximum Trench/Bed Depth [‡] : 18 inches * Measured on the downhill side of the trench
Pump Tank Size (if applicable): gallons Requires more than one pump? Yes No
Pump Requirements: ft. TDH vs GPM Grease Trap Size (if applicable): gallons
Distribution Method: Serial D-Box or Parallel Pressure Manifold(s) LPP Other: W/ Flow Dividers
Artificial Drainage Required: Yes No II If yes, please specify details:
<u>Legal Agreements</u> (If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)
Multi-party Agreement Required [Rule .0204(g)]: Yes No
Easement, Right-of-Way, or Encroachment Agreement Required [Rule .0204(d)]: Yes No
Declaration of Restrictive Covenants: Yes No Pre-Construction Conference Required: Yes No
Management Entity Required: Yes No Minimum O&M Requirements:
Conditions: CA based on proposal from applicants LSS
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. <u>This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes.</u> 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.
Authorized Agent's Printed Name: Oliver Tolksdoot Expiration Date: 5/8/29
Authorized Agent's Signature: Date: 5/8/24
See attached site sketch

NCDHHS/DPH/EHS/OSWP

Mitchell Environmental, P.A.

SEPTIC SYSTEM DESIGN

for

HOLLIES PINES- LOT 4
Broadway, Harnett County, North Carolina

Submitted to:

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

Prepared for:

HHHunt Homes
1 Fenton Main Street
Suite 280
Cary, North Carolina 27511

Prepared by: Adam Aycock, El

DATE: March 22, 2024 PROJECT NO.: 1922



PID: 139692 0014 92 PIN: 9692-70-1192.000

Account Number: 1500051599

Owner: HHHUNT HOMES RALEIGH-DURHAM LLC

Mailing Address: 11237 NUCKOLS RD GLEN ALLEN, VA 23059-5502

Physical Address: 996 HOLLIES PINES RD BROADWAY, NC 27505 ac

Description: LOT#4 PINEDAROSA 1 MAP#2020-109

Surveyed/Deeded Acreage: 0.57
Calculated Acreage: 0.58
Deed Date: 1662008400000

Deed Book/Page: 4165 - 0651

Plat(Survey) Book/Page: 2020 - 109

Last Sale: 2022 - 9
Sale Price: \$240000
Qualified Code: A
Vacant or Improved: V
Transfer of Split: T
Actual Year Built:

Heated Area: SqFt

Harnett County GIS

Building Value: \$0

Parcel Outbuilding Value: \$0
Parcel Land Value: 20460
Market Value: \$20460

Deferred Value: \$0

Total Assessed Value: \$20460

Zoning: RA-30 - 0.58 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

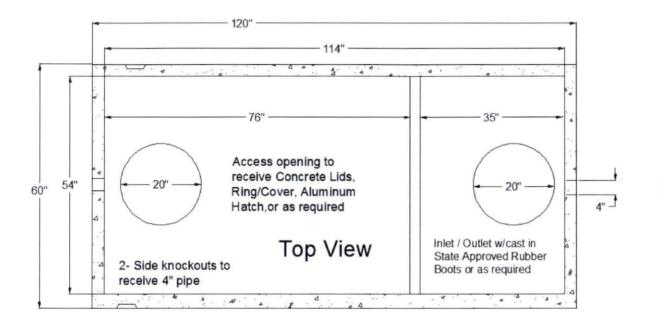
EMS Department: Medic 12, D12 EMS

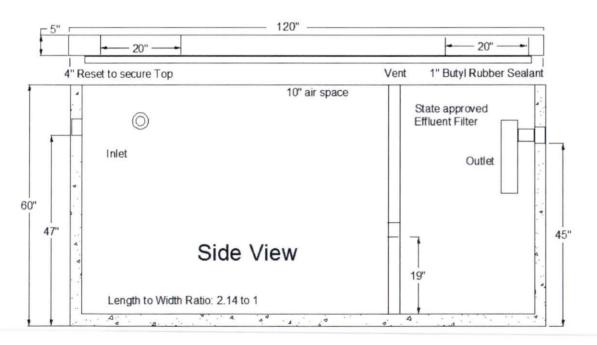
Law Enforcement: Harnett County Sheriff

Voter Precinct: Boone Trail

County Commissioner: Lewis Weatherspoon School Board Member: Duncan Jaggers







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:

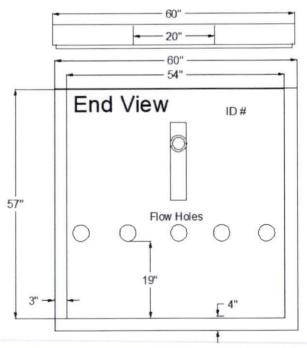


Eddie Garner, President 919-718-5181

121 Stanton Hill Road

Carthage, NC 28327

Fax 919-775-2229 Eddie@garnersseptictanks.com





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.
- 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:

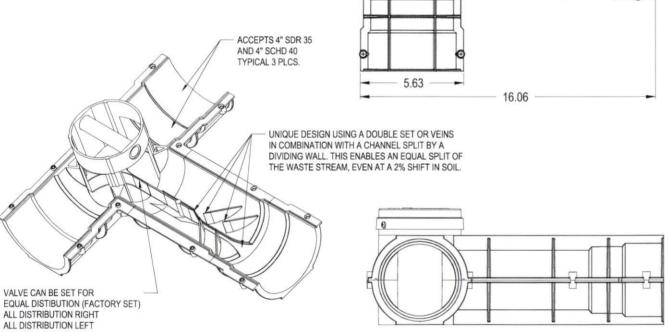
PL-68 Filter Concrete Baffle Extend & Lok™

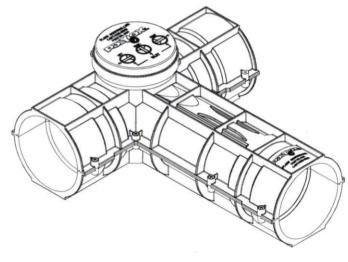


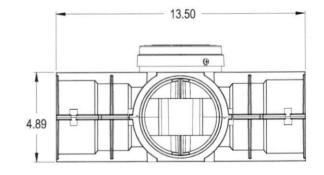
Extend & Lok™
Easily installs
into existing tanks.



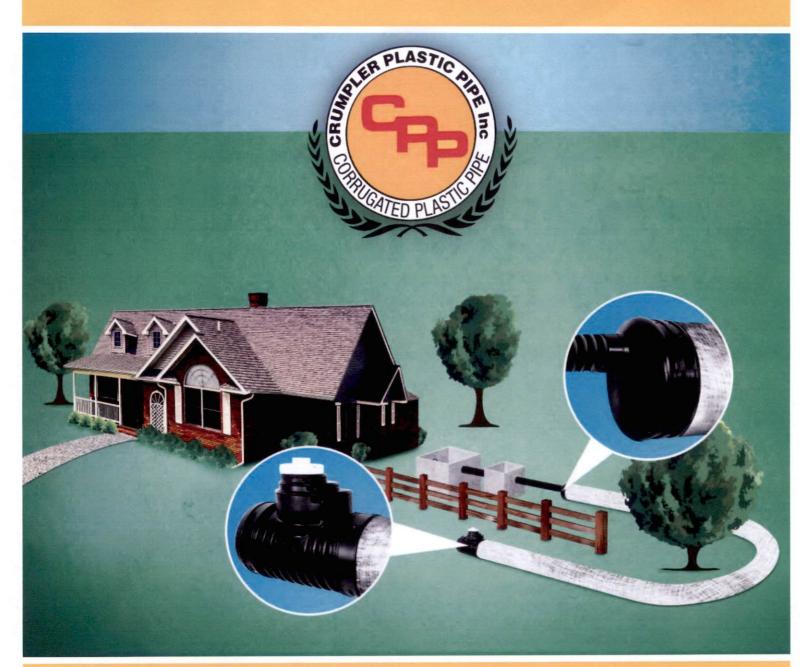
POLYLOK FLOW CONTROLLER PART NO. 3051 MATERIAL - ABS







Crumpler's No-Rock™ Fabric Wrapped Large Diameter (LDP) Septic Pipe



Crumpler Plastic Pipe, Inc.

Manufacturers of Corrugated Plastic Drainage Pipe

Phone 910-525-4046 / (800) 334-5071

Post Office Box 2068

Roseboro, North Carolina 28382

Web Site: www.cpp-pipe.com



CPP-NR Rev. 9/18



Crumpler's No-Rock™ Fabric Wrapped Large Diameter (LDP) Septic Pipe

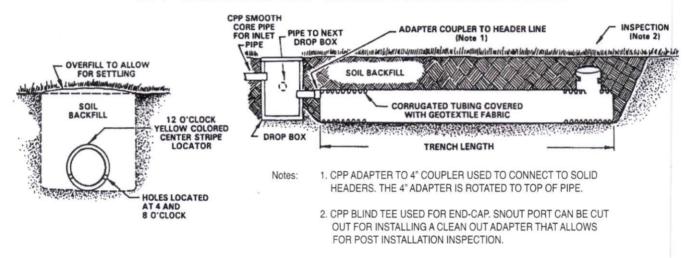




Snap Combo End Cap/4" Reducer/Adapter



CPP Gravelless LDP Trench Construction Details



120	TYPE	SIZE	PART NO.	PACKAGE DESCRIPTION	PRICE
		8"	0830020B	CRUMPLER'S NO-ROCK™ SEPTIC - 20 ft. with filter wrap	
		10"	1030020B	CRUMPLER"S NO-ROCK™ SEPTIC - 20 ft. with filter wrap	

Large diameter (LDP) CPP GRAVELLESS septic tank trench systems use a filter wrap that allows for the installation of septic treatment pipes without gravel. The advantage in using CPP NO-ROCK is evident in areas where there is a shortage of inexpensive quality rock or where the shape and topography of a lot hinder the access of heavy construction equipment. Less equipment use means more trees can be saved,

less lot grading is needed, and thus fuel and labor are saved. Additionally, narrow trenches for 8" and 10" CPP pipes create a reduced OC (On-Center) Spacing between parallel septic trenches. An 8" CPP pipe can fit in a 10" wide trench and a 10" CPP pipe in a 12" wide trench. Thus Lot space is saved for other uses.

- · Eliminates Rock
- · Saves On Lot Grading
- Saves Trees On Lot
- Saves on Installation Labor
- · Saves Fuel
- · Increases Lot Value



Crumpler's No-Rock™ Fabric Wrapped Large Diameter (LDP) Septic Pipe





TYPE	SIZE	PART NO.	PACKAGE DESCRIPTION	PRICE
	8" 10"	0830020B 1030020B	CRUMPLER'S NO-ROCK™ SEPTIC - 20 ft. with filter wrap CRUMPLER"S NO-ROCK™ SEPTIC - 20 ft. with filter wrap	

Large diameter GRAVELLESS septic tank trench systems were developed as an alternative to 4" pipe systems in gravel-filled trenches for use in soils that most conventional 4" gravel would be allowed in. Organic Iron Ochre soils, however, are unsuitable For Filter Enclosed Gravelless Septic Pipes. The advantage in using the large diameter systems is evident in areas where there is a shortage of inexpensive quality rock, or where the shape and topography of a lot hinder the access of heavy construction equipment. The use of small trenchers for digging narrow trenches means more trees can be saved, less grading is needed, and thus fuel and labor are saved.

Crumpler's NO-ROCK™ septic systems include using either an 8" or a 10" corrugated HDPE pipe enclosed in a polypropylene filter wrap. ASTM-F-481 septic installation specification should be reviewed prior to installation. Most states allow GRAVELLESS large diameter systems to be substituted for conventional systems in ANY SOIL TYPE deemed acceptable for a

conventional system. One should check with local septic inspectors for locally approved soils.

Crumpler's NO-ROCK™ septic system may be substituted for any conventional 4" pipe gravel trench system utilizing distribution devices, serial distribution, hillside or stepdowns. However, it should not be substituted for bed systems. It should also be limited to domestic sewage, and not used where there will be large amounts of grease or oil such as in restaurants unless designed by an engineer.

The 8" size pipe will equal to 2-foot wide conventional trench; and the 10" size will equal a 2.5 foot wide trench. To determine the required linear footage of either pipe size, first determine the square footage by dividing the design sewage flow by the appropriate soil's long term application rate. Then divide this total square footage area figure by either 2 feet (for 8") or 2.5 feet (for 10") to establish the linear footage amount. Per chart below, on center (oc) spacing will be determined by actual trench width.

Example:

A 3-bedroom house on a loam soil 0.6 gpd/ft² = loam soil's long term application rate.

3BR x 120 gpd = 360 gpd 360 gpd \div 0.6 gpd/ft² = 600 ft.

600 ft² \div 2ft = 300 linear ft of 8" or 600 ft² \div 2.5 ft = 240 linear ft of 10"

600 ft2 ÷ 3 ft = 200 ft for conventional 4" gravel

SUGGESTED INSTALLATION OF STANDARDS

Nitrification trench bottom minimum width for 8"
Nitrification trench bottom minimum width for 10"
Nitrification line center spacing on 8"5' oc
Nitrification line center spacing on 10"6' oc
Nitrification trench bottom minimum depth18"
Nitrification trench bottom maximum depth (24" preferred)36"
Nitrification trench bottom slopelevel to 1" per 100 ft
Nitrification line minimum cover6"
Nitrification line maximum cover (12" preferred)24"

To eliminate voids and clods under pipes 15" - 18" trenches is recommended unless sand backfill is used.

The corrugated pipe used shall comply with ASTM-F-667. Also the installer should be careful to note that the filter wrap is light

sensitive, and should not be exposed to sunlight for extended periods of time. The installer should also take care during installation to avoid tearing of the filter material. The protective plastic wrap that protects the filter should be disposed of off site.

WEB SITE: www.cpp-pipe.com / E-Mail: cppsales@cpp-pipe.com

(800) 334-5071

OUR PIPE IS LABORATORY TESTED

(910) 525-5801



Slope Correction Table



NOTE: Add the inches from Slope Table to the MSD1 to determine the RSD2

PERCENT SLOPE	10" Trench	12" Trench	18" Trench	24" Trench	36" Trench
6	0.6	0.7	1.1	1.4	2.2
12	1.2	1.4	2.2	2.9	4.3
18	1.8	2.2	3.2	4.3	6.5
24	2.4	2.9	4.3	5.8	8.6
30	3	3.6	5.4	7.2	10.8
36	3.6	4.3	6.5	8.6	13.0
42	4.2	5.0	7.6	10.1	15.1
48	4.8	5.8	8.6	11.5	17.3
54	5.4	6.5	9.7	13.0	19.4
60	6	7.2	10.8	14.4	21.6

NOTE: For sloping sites a calcuation of the <u>additional</u> required soil depth is necessary using the table above or the following formula: $RSD = MSD + (TW \times .S)$

Where; RSD = Required Soil Depth (inches),

MSD - Min. Soil Depth (Min. Soil Cover + Ht. of Sys. + Min. Separation) (in)

TW = Trench Width (inches), &

.S = Percent Slope (.00)

Example: Assume site for septic system dispersal field has a slope of 28% and the trench bottom is required to be 12 inches above a site limitation, such as, weathered rock or perched water table. Also, assume that the proposed site has a usable or acceptable soil depth of 38 inches. Further, a minimum soil cover of 6 inches is required over the dispersal system.

- **Trial 1:** Conventional trench (36 inches wide, 12 inches gravel, 6 inches over) would require a usable soil depth of 40 inches. [40 inches RSD 30 inches MSD + (36 inches TW x .28 S)] Thus, a conventional or 36 inch wide trench is unsuitable at this site.
- Trial 2: Crumpler NO ROCK[™] 8 inch ID (10 in. OD) installed in a 12 inch wide trench would require a usable soil depth of 31.4 inches. [31.4 RSD = 28 inches MSD + (12 inches TW x .28 S)] Therefore, site is acceptable for Crumpler 8 in. NO ROCK[™].
- Trial 3: Crumpler NO ROCK™ 10 inch ID (12 in. OD) installed in an 18 inch wide trench would require a usable soil depth of 35 inches. [35 inches RSD = 30 inches MSD + (18 inches TW x .28 S)] Therefore, site is acceptable for Crumpler 10 inch NO ROCK™.

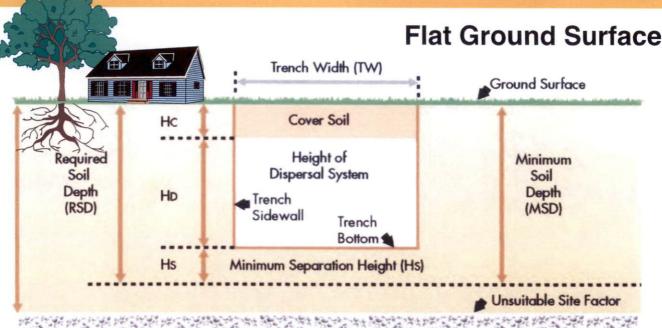
¹ MSD is the minimum soil depth at 0% slope and is the sum of the min. separation distance between trench bottom and limiting horizon (typ. 12 in), plus the system height, plus the min. soil cover (typ. 6 in.).

² **RSD** is the required soil depth to install a trench on a sloping site with the added inches to meet the minimum separation distance on the uphill side of the trench.

Septic Effluent Disposal Trenches on Sloping Sites

(Cross Section View)





MSD = Hc + Hp + HsMSD = RSD on Flat Sites

USD ≥ RSD

Usable

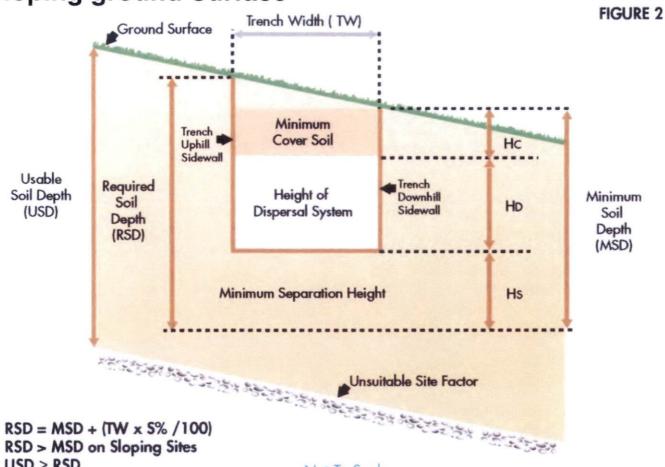
Soil Depth

(USD)

Not To Scale

FIGURE 1



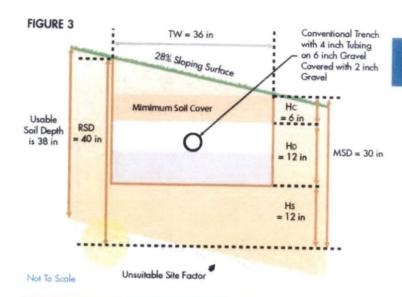


Not To Scale



Septic Effluent Disposal Trenches on Sloping Sites (Cross Section View)





Septic Effluent Disposal Trenches on Sloping Sites (Cross Section) Trial No. 1

Site has 28% slope and soil is 38 inches deep

Trial No. 1: Use 36 inch wide conventional trench system

MSD = 6 in + 12 in + 12 in = 30 inches

 $RSD = 30 \text{ in } (36 \text{ in } \times 28\%/100)$

= 40 inches RSD (40 in) > USD (38 in)

Proposed System **Unsuitable** for Slope

Septic Effluent Disposal Trenches on Sloping Sites (Cross Section) Trial No. 2

Site has 28% slope and soil is 38 inches deep

Trial No. 2: Use CPP 8 inch NO-ROCK™ with 12 inch wide trench.

MSD = 6 in + 10 in + 12 in = 28 inches

RSD = 30 in (12 in \times 28%/100) = 31.4 inches

USD (38 in) > RSD (31.4 in)

Proposed CPP 8 inch NO-ROCKTM
Suitable for Slope

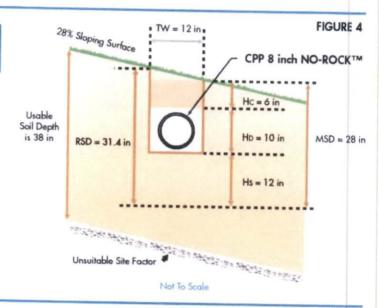
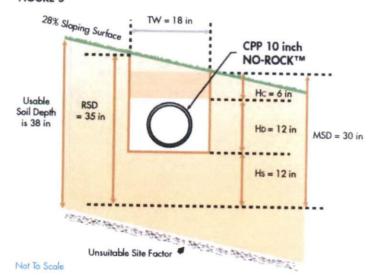


FIGURE 5



Septic Effluent Disposal Trenches on Sloping Sites (Cross Section) Trial No. 3

Site has 28% slope and soil is 38 inches deep

Trial No. 3: Use CPP 10 inch NO-ROCKTM with 18 inch wide trench.

MSD = 6 in + 12 in + 12 in= 30 inches

 $RSD = 30 \text{ in } (18 \text{ in } \times 28\%/100)$ = 35 inches

USD (38 in) > RSD (35 in)

Proposed CPP 10 inch NO-ROCKTM
Suitable for Slope



Crumpler's No-Rock™ Fabric Wrapped Large Diameter (LDP) Septic Pipe





NC State University layout of CPP No-Rock Septic at the Ed Booth field Learning Lab.



Laser Level adjustment setting prior to trenching sequence.



Laser Level check of trench depth grade and bag encased protected pipe moved onto trench site. The plastic bags protect the filter wrap from extended storage UV deterioration and natural handling abuses.



Protective plastic bags removed just prior to trench placement.



Protective plastic bags removed from the site for disposal elsewhere.



Trenching complete, and ready for Side-Wall rake prep sequence.



CPP No-Rock Septic pipes allow for narrow trenches that offer a closer OC spacing, which requires a reduced land area foot print compared to conventional 3-foot wide trenches.



A Blind Tee with a screw off Clean Out Plug is placed at the end of each individual line. This allows for a line inspection.



Final cover sequence begins.

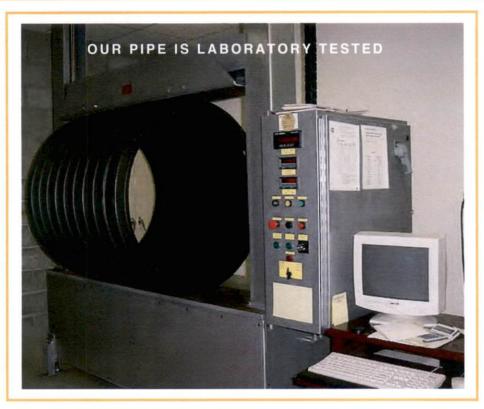


Narrow trenches allow for faster, less cumbersome of equipment about the site during the final cover phase, and this saves equipment time on the job.

To Spec (HDPE) Corrugated Plastic Pipe Spec as:

ASTM General Construction CPP-ASTM-F-677 (3" - 24") CPP-ASTM-F-2306 (12" - 60") CPP-ASTM-F-2648 (2"-60") **AASHTO Highway Construction**

CPP-AASHTO-M-252 (3" - 10") CPP-AASHTO-M-294 (12" - 60"





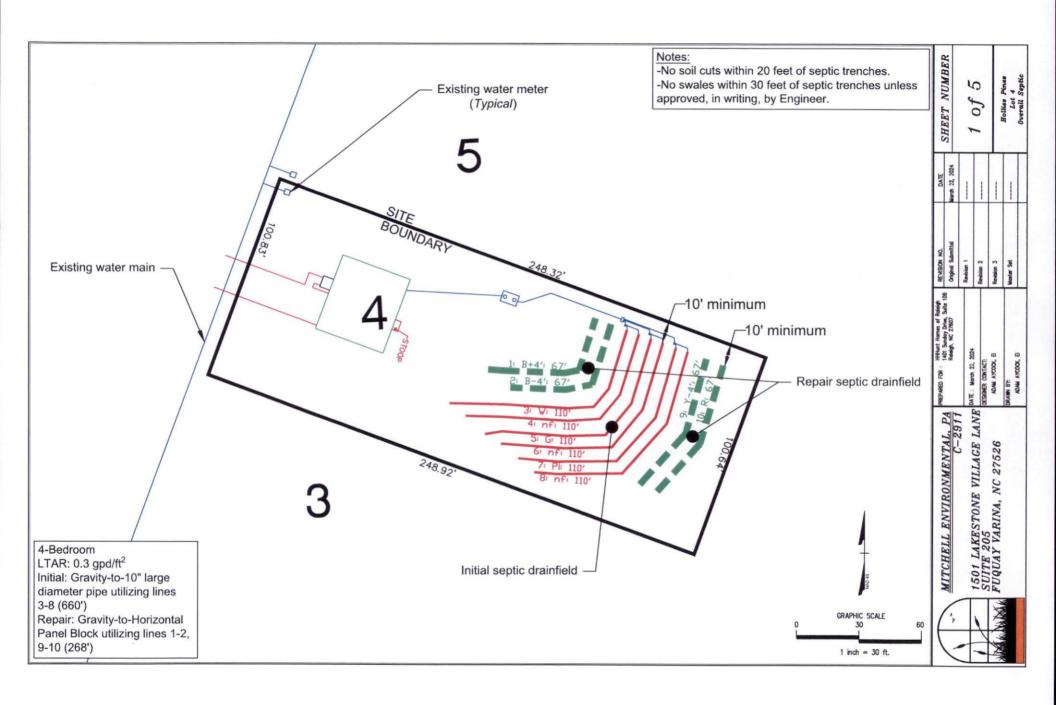
WEB SITE: www.cpp-pipe.com

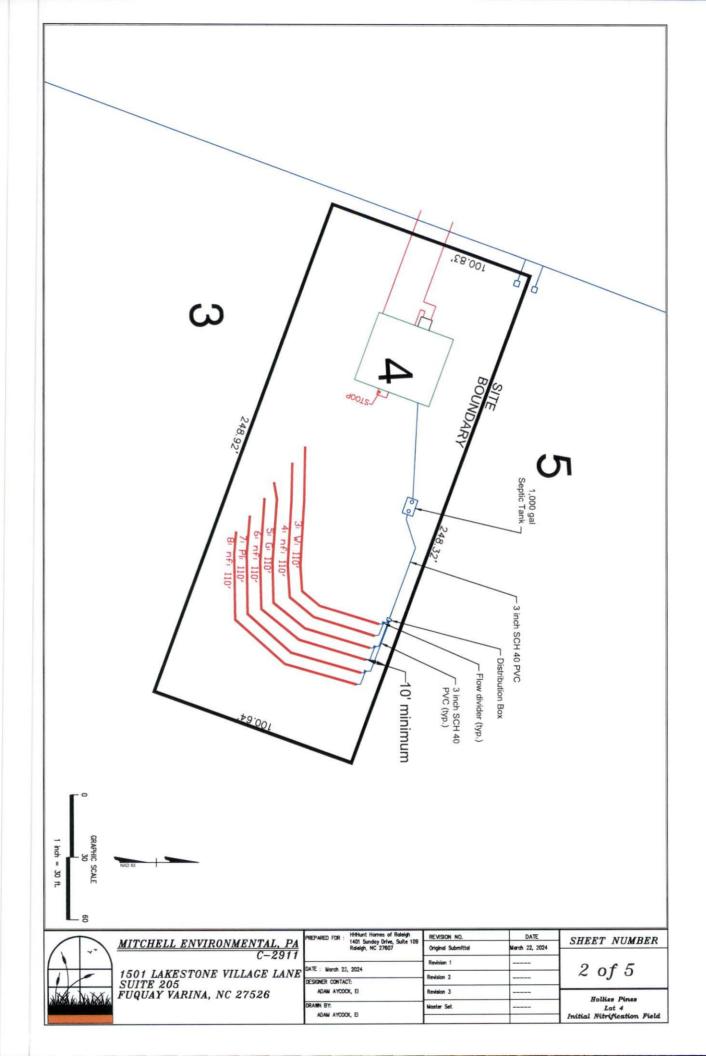
The East Coast's Largest Producer Under One Roof

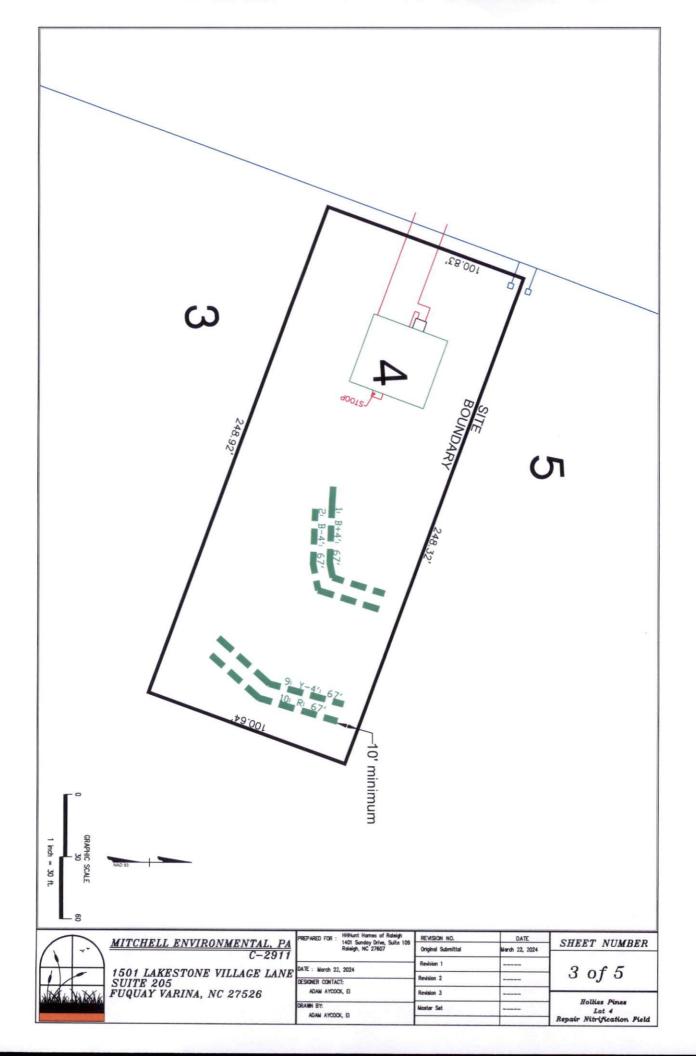


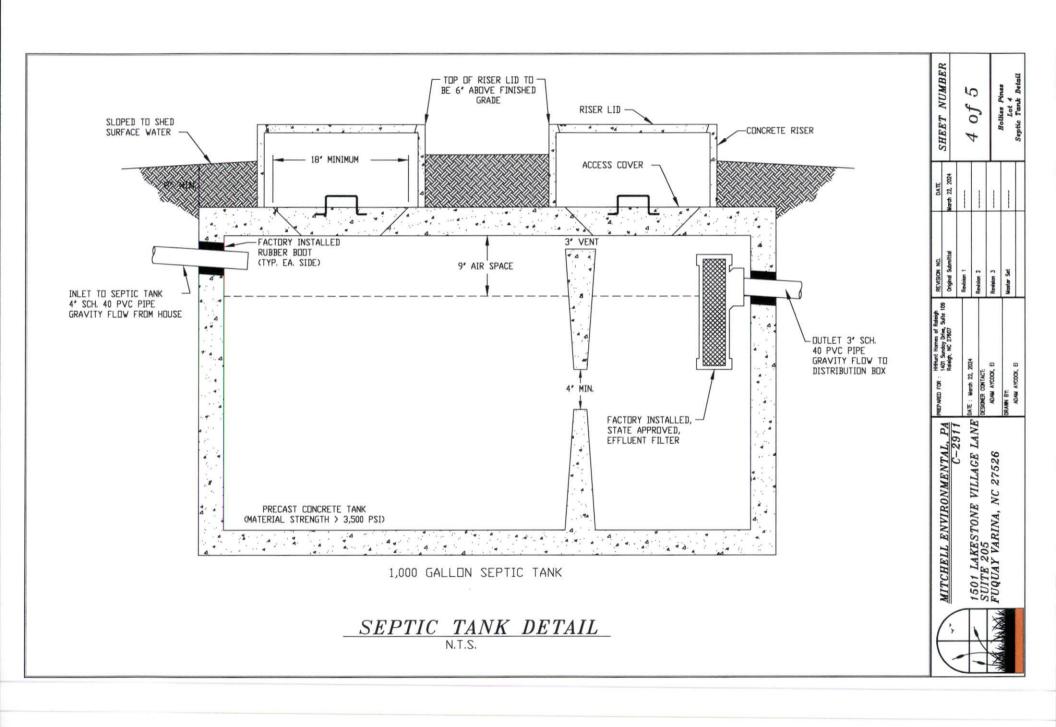






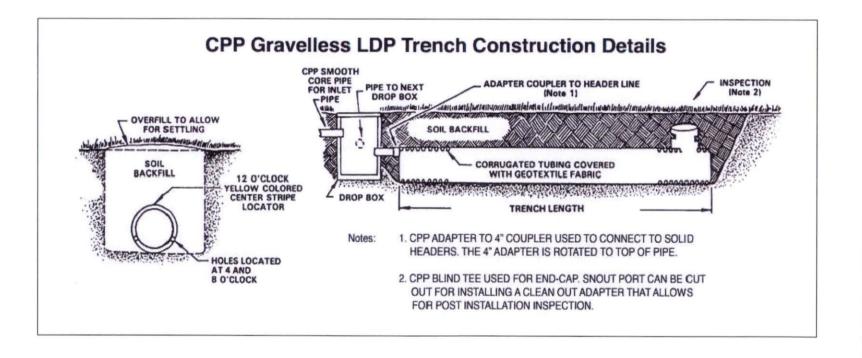






Trench Width = 12 Inches minimum Trench Depth = see Harnett County permit

Trench Spacing = 6 Feet (Center-to-Center, Minimum)



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MITCHELL ENVIRONMENTAL, PA	Rdeigh, NC 27607	Original Submittal	March 22, 2024	SHEET NUMBER
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1501 LAKESTONE VILLAGE LANE	3	Designation of		0 0 0
STITTE 205	MANUFACTURER CONTACT:	Ventreen 7		-
	ADMINISTRA DE ACTIVA DIOC			
FUQUAY VARINA, NC 27526	CHOMPLEN POSITION FOR	Newtoken 3		
5	DRAWN BY:	Moster Set	-	Lot 4
	CAMPLEX PLASTIC HIPE			Twench Detail