



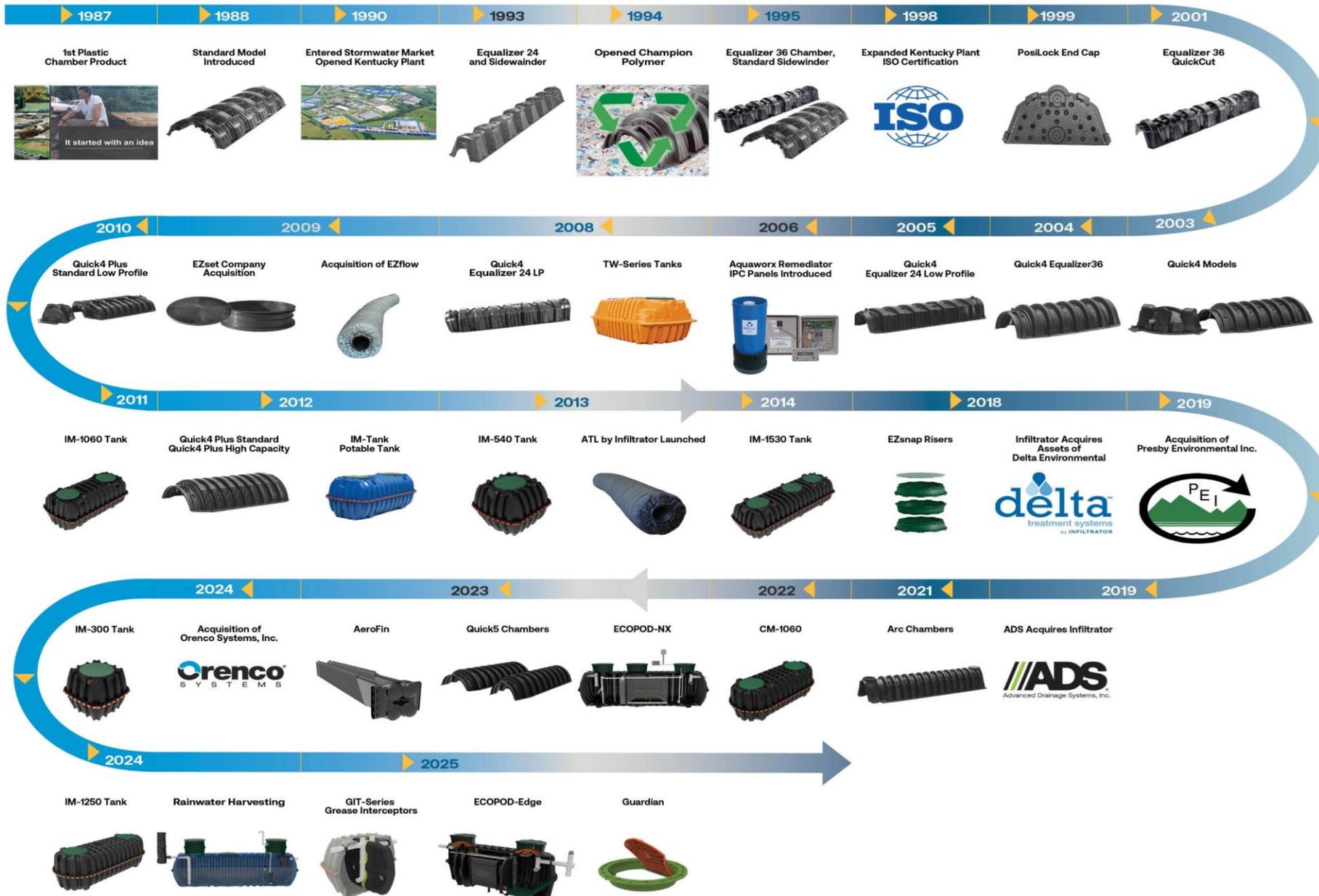
Infiltrator Water Technologies: Solutions for Pennsylvania

Pat Cole

Sales Development Representative



Infiltrator's History of Innovation



Infiltrator's Family of Products



TANKS

IM-Tanks

CM-Tanks

Potable Tanks

GIT-Tanks



DRAINFIELD

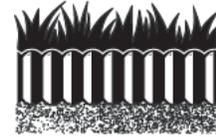
Quick4 Chambers

Quick4 Plus Chambers

Quick5 Chambers

Arc Chambers

EZflow



COMBINED TREATMENT AND DISPERSAL

Advanced Enviro-Septic (AES)

AeroFin

Advanced Treatment Leachfield (ATL)



ADVANCED TREATMENT

ECOPOD

ENVIRO-AIRE

Whitewater

Package Plants



TANK RISERS

EZsnap Risers

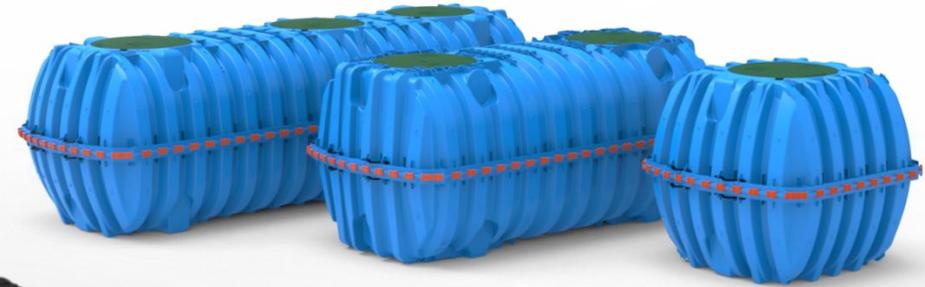
EZset Risers



PUMP CONTROLLERS

Aquaworx and Infiltrator Controls

Infiltrator Tanks



Potable Tanks



Septic Tanks



Grease Interceptors



Installation Best Practices

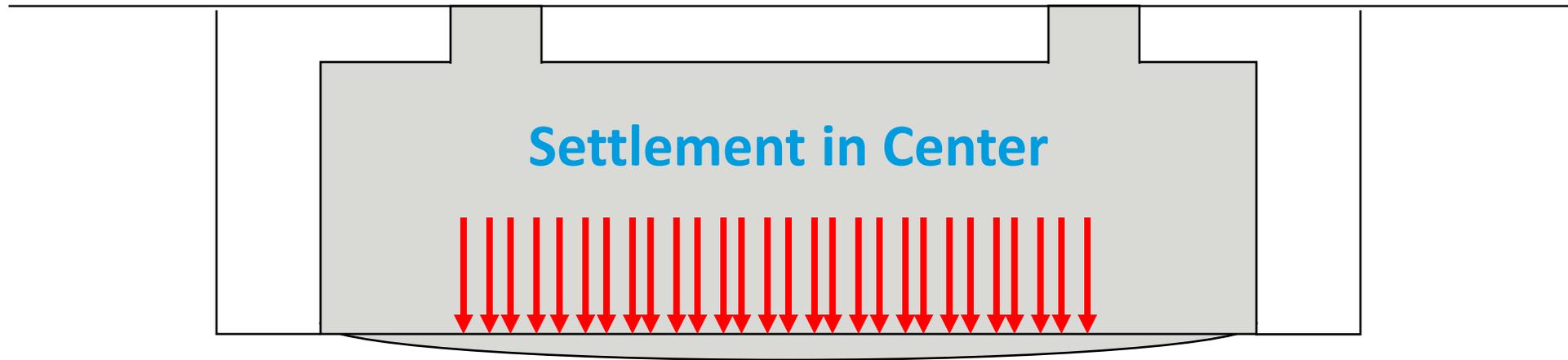
Excavating the Hole

Hard Base

Loose Base

Installation Best Practices

Concave Excavation: Tank will Deform in Center



Installation Best Practices

Convex Excavation: Tank will Deform at Ends





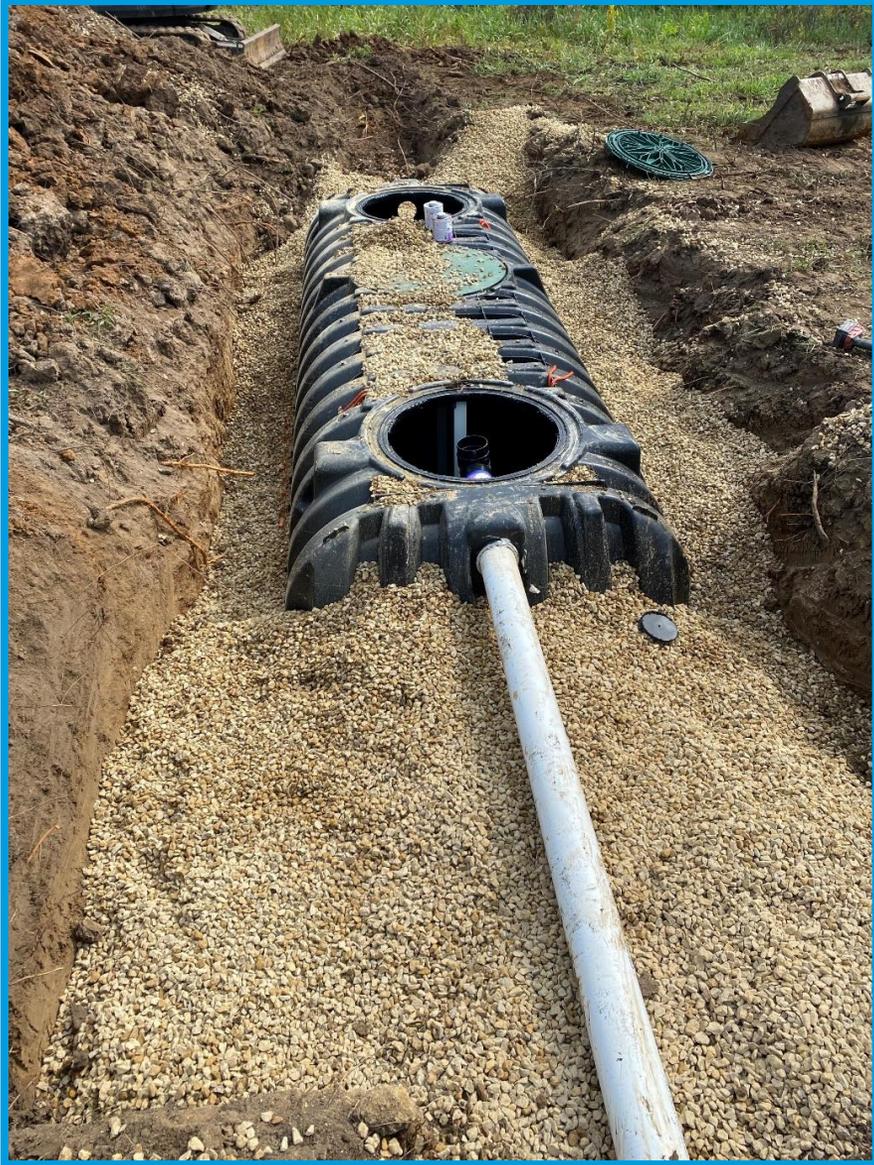
Excavating the Hole Too Tight?



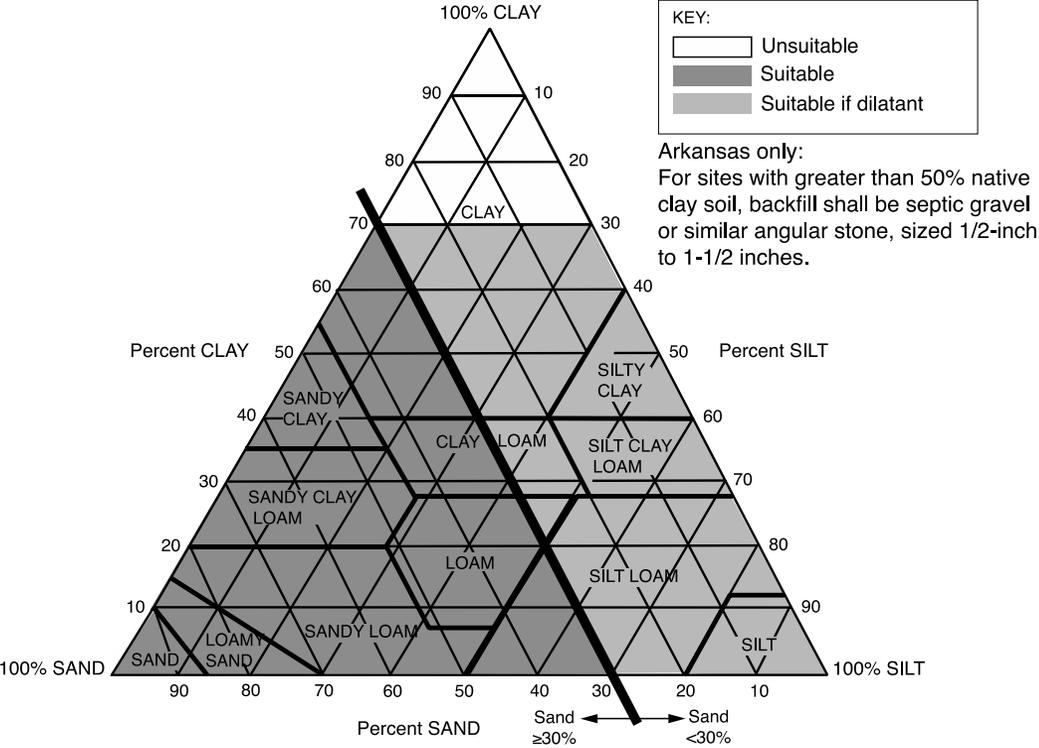
18" Minimum Around All Sides of Tank

Excavation and Backfill

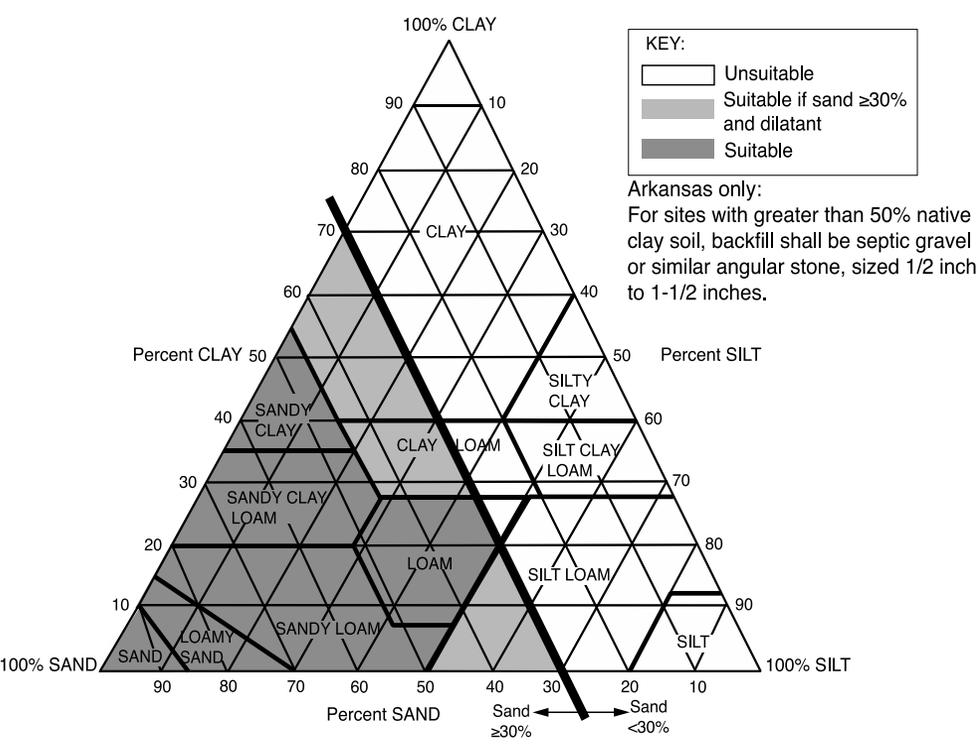




Soil Type



For a tank soil cover depth of 0.5 to 2.0 feet



For a tank soil cover depth of 2.0 to 4.0 feet

Proper Backfill

Native soil within specification - flowable



Nothing in excess of 3" in diameter (point loads)



No pea gravel or rounded stone – use angular / road base material



12" Lifts & fill in haunches –min 18" excavation to sidewall – “walk-in” backfill



Account for settling



**Place Final Cover:
Minimum of 6 Inches & Grade Surface to Drain**

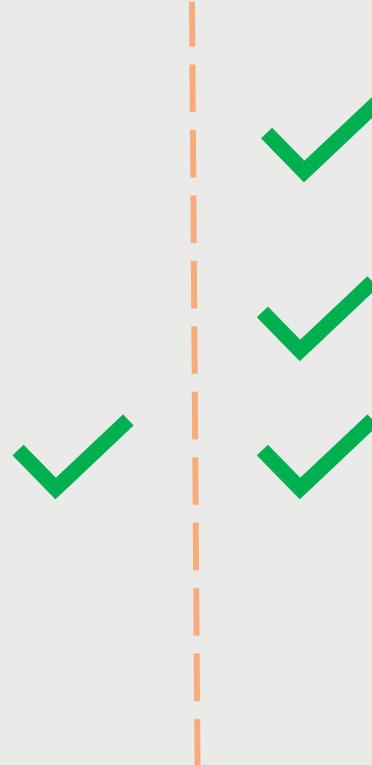
Safety Devices

Safety Star

Compatibility	EZsnap
Access	Limited, 4" Center Hole
Weight Rating	300 lbs



PERFORMANCE METRICS



GUARDIAN

Compatibility	EZsnap, EZset, 24-inch Dual Wall Corrugated, 24-inch Ultra Rib
Access	Ample, 22-inch Access
Weight Rating	300 lbs



Pennsylvania Drainfield Solutions



Quick4[®]



Quick5[®]

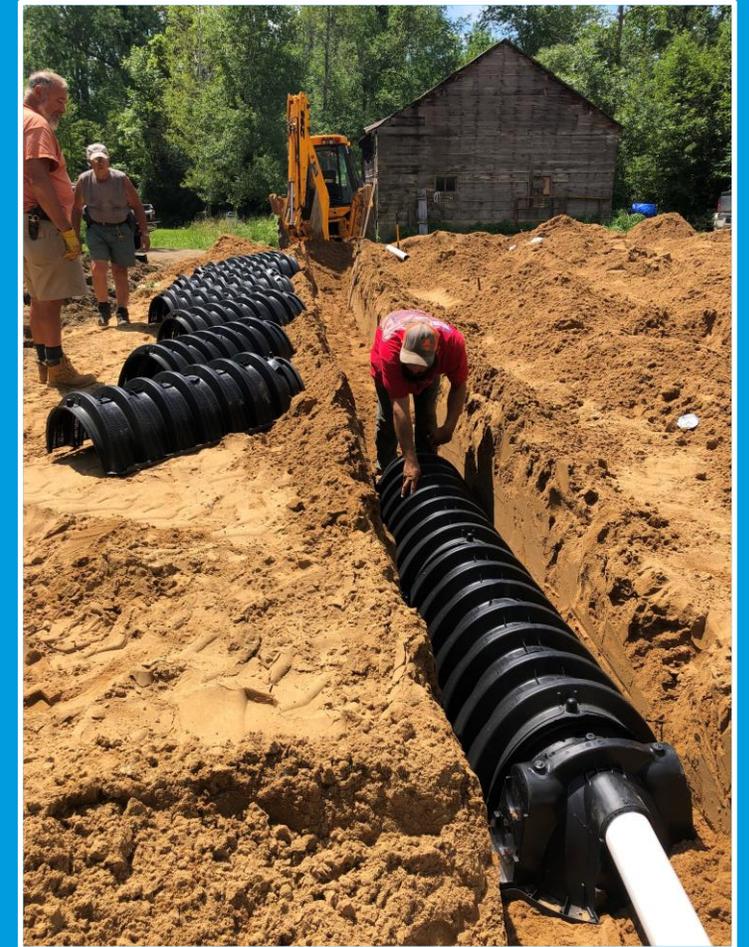


Quick5 Standard with MultiPort EndCap

Chamber Installation

- Level bed or trench
- Level header
- Insert 4" pipe into end cap, install end cap under end of first chamber
- Chambers overlap and secure with locking tab
- Compact sidewall area by walking along side of the chamber
- Minimum 6" cover; 12" will provide H-10 load rating (for backfill process!)
- Maximum 4' cover in bed, Maximum 8' in trench
- Inspection port boss located on top of chamber

Fast, Efficient & Cost-Effective



Fast, Efficient & Cost-Effective



CASE STUDY

Quick4 Chambers Used in System for YMCA Facility Expansion

Wernersville, PA

SYSTEM SPECIFICATIONS

8,500 GPD Wastewater Treatment System

INSTALLATION DATE

Winter 2015

PRODUCTS

Quick4® Standard Chambers

ENGINEER

All County Associates, Pottstown, PA

INSTALLER

Jim Mack Excavating, Hereford, PA

DESCRIPTION

South Mountain YMCA wanted to expand the size of the campus to add cabins, double the size of the dining hall, and increase bathroom facilities from 2 to 18 toilets. The existing septic system was unable to handle the daily flow increase to 8,500 GPD. Director of Facilities, Dale Kuntzman, engaged engineer Roger Lehmann of All County Associates to design a solution that would meet budget constraints, a tight construction schedule, and regulatory restrictions.

The obvious site for a new septic drainfield was the central playing field used for baseball and soccer games. Concerns about compaction due to the 300 plus children using the playing field coupled with typically large rainfall and wet soils in the area complicated the system design.

The system design includes 12 tanks (one grease trap, seven septic tanks, and four pump tanks). The absorption area is divided into two beds. Each bed being dosed by a separate pump allowing one bed to be turned off for O&M, while the other bed can support the total flow. Each bed is center-fed with 28 laterals per bed (14 laterals per side) and five ¼-inch holes per lateral. The first hole is five feet off the manifold, then spacing changes to eight feet.

The septic field has a total of 580 Quick4 Standard Chambers with 112 Multiport Endcaps. Venting the system allows air to enter the bed through the open air space on the top of the chamber dome. Air movement is an important because the compacted soil restricts oxygen diffusion. Roger Lehmann chose Infiltrator chambers because of their ability to handle pressurized systems and allow more air movement through the bed.

To provide additional strength to support the weight of the children, the system was designed with 12 inches of cover. The depth of installation was unrestricted because the seasonal high groundwater table is 72 inches deep.



After installing 580 Infiltrator chambers in two beds, with 2,408 LF of SCH40 PVC pipe in less than six hours, Jim Mack Excavating was impressed with their ease of installation, speed of installation, and transportability. The engineer was pleased with Infiltrator chambers ability to handle pressure distribution and allow air movement, while still having strength.

IWTCS-CHAMBERS-602016



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South Mountain YMCA



Inspection and Observation Ports



Maintenance





Thank You!

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[EZflow](#) Information

Infiltrator [Tank](#) Information

[EZsnap](#) Riser Information

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