The purpose of this product information sheet is to provide specific design and installation information pertinent for the use of Infiltrator Quick4 chambers and EZflow in Illinois. Infiltrator products must be used in conjunction with the standards described in the Illinois State Department of Public Health. This document provides a brief description of chamber and bundle sizing and specifications.

For more detailed design information, please contact Infiltrator Water Technologies at 1-800-221-4436
INTRODUCTION

Quick4 EQ36 Chambers
The Quick4 Equalizer 36 chamber can be installed in a 24-inch-wide or 30-inch-wide trench. There are a variety of system inletting options to choose from, with and without a distribution box.

Quick4 Equalizer 36 Nominal Chamber Dimensions
Size: 22"W x 48"L x 12"H
Chamber Rating: 4 sf/lf
Invert Elevation: 6"

Quick4 Plus EQ36LP Chambers
The Quick4 Plus Equalizer 36 Low Profile (LP) chamber can be installed in a 24-inch-wide trench. This chamber is 4-inches shorter than other Equalizer 36 models allowing for shallower installation where a shallow groundwater table, impervious conditions, or other restrictions limit vertical separation distance.

Quick4 Plus Equalizer 36 LP Nominal Chamber Dimensions
Size: 22"W x 48"L x 8"H
Chamber Rating: 4 sf/lf
Invert Elevation: 3.3" and 9"

Quick4 Plus Standard LP Chambers
The Quick4 Plus Equalizer 36 Low Profile (LP) chamber can be installed into a 36-inch-wide trench. This chamber is 4-inches shorter than other Equalizer 36 models allowing for shallower installation where a shallow groundwater table, impervious conditions, or other restrictions limit vertical separation distance.

Quick4 Plus Standard LP Nominal Chamber Dimensions
Size: 34"W x 48"L x 8"H
Chamber Rating: 5 sf/lf
Invert Elevation: 3.3", 9.6"

EZflow Leachfield System
EZflow has been approved for use as a conventional pipe and gravel substitute for a variety of aggregate depths. This product comes in easy-to-contour 5- and 10-foot lengths.

EZflow 1202H GEO Dimensions
Sizing: 12"W x 10"L x 12"H
Rating: 4 sf/lf
Nominal Inlet Invert Height: 6"

EZflow 1203H GEO Dimensions
Sizing: 12"W x 10"L x 12"H
Rating: 5 sf/lf
Nominal Inlet Invert Height: 6"
PRODUCTS – CHAMBERS

Quick4 Equalizer 36 Chamber
SIDE AND END VIEWS (not to scale)

Quick4 Equalizer 36 Multiport Endcap
END VIEW (not to scale)

Quick4 Plus Equalizer 36 Low Profile (LP) Chambers
SIDE AND END VIEWS (not to scale)

Contact Infiltrator Water Technologies 1-800-221-4436 for additional technical and product information.
Quick4 Plus Standard LP Chamber
SIDE AND END VIEWS (not to scale)

Quick4 Plus 8 Endcap
SIDE AND END VIEWS (not to scale)

Quick4 Plus All-in-One 8 Endcap
SIDE AND END VIEWS (not to scale)

Quick4 Plus All-in-One 8 Periscopep
SIDE AND END VIEWS (not to scale)

PRODUCTS – EZFLOW

EZflow 1202H-GEO
## SYSTEM SIZING – QUICK4 EQUALIZER 36 AND QUICK4 EQUALIZER 36 LP

Sizing of Quick4 Equalizer 36 and Quick4 Plus Equalizer 36 LP Chamber Systems for Residential Use

### Table 1: Subsurface Seepage System Size Determination Using Infiltrator Quick4 Equalizer 36 and Quick4 Equalizer 36 LP chambers

<table>
<thead>
<tr>
<th>Time (minutes)</th>
<th>Required Absorption Area (ft²/bedroom) rate</th>
<th>Quick4 Equalizer 36 &amp; Quick4 Plus Equalizer 36 LP Chambers/Bedroom</th>
<th>FOR INSTITUTIONAL OR COMMERCIAL USE Allowable application rate (GPD/ft²)*</th>
<th>Recommended depth from bottom of the trench to the limiting layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–60</td>
<td>200</td>
<td>12.5</td>
<td>1.0</td>
<td>3 feet</td>
</tr>
<tr>
<td>90</td>
<td>210</td>
<td>13.1</td>
<td>.95</td>
<td>3 feet</td>
</tr>
<tr>
<td>120</td>
<td>235</td>
<td>14.7</td>
<td>.85</td>
<td>3 feet</td>
</tr>
<tr>
<td>150</td>
<td>265</td>
<td>16.6</td>
<td>.75</td>
<td>3 feet</td>
</tr>
<tr>
<td>180</td>
<td>290</td>
<td>18.1</td>
<td>.69</td>
<td>3 feet</td>
</tr>
<tr>
<td>240</td>
<td>320</td>
<td>20.0</td>
<td>.62</td>
<td>2 feet</td>
</tr>
<tr>
<td>300</td>
<td>350</td>
<td>21.9</td>
<td>.57</td>
<td>2 feet</td>
</tr>
<tr>
<td>360</td>
<td>385</td>
<td>24.1</td>
<td>.52</td>
<td>2 feet</td>
</tr>
</tbody>
</table>

Notes:
1. Multiply number of bedrooms by the required number chambers/bedroom. Round up total to whole number of chambers required.
   Example: A 3 bedroom system in 360 minute soil requires 73 Quick4 EQ36 chambers (3 bedrooms x 24.1 chambers/bedroom = 72.3 chambers).
2. Absorption area for chambers is calculated based on equivalent absorption area per linear foot. 4.0 sf/lf for Quick4 Equalizer 36 (16 square feet for each 4.0' long chamber).
3. Seepage Beds require 1.5 times the seepage field absorption area specified.
4. Over 360 is unsuitable for subsurface seepage systems. Under 18 is unsuitable for subsurface seepage systems.

### Table 2: Soil Suitability for Onsite Sewage Design using Infiltrator Quick4 Plus Equalizer 36 Chambers

<table>
<thead>
<tr>
<th>Design Group</th>
<th>Soil Group (Most Limiting Layer)</th>
<th>Minimum Separation to Limiting Layer</th>
<th>Permeability Range</th>
<th>Size of System</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1A</td>
<td>N/A</td>
<td>Very Rapid</td>
<td>RESIDENTIAL Req. Absorption (ft²/bedroom)</td>
</tr>
<tr>
<td>II</td>
<td>2A; 2B; 2K</td>
<td>3 feet</td>
<td>Rapid</td>
<td>200</td>
</tr>
<tr>
<td>III</td>
<td>3B; 3K</td>
<td>3 feet</td>
<td>High, Moderately Rapid</td>
<td>220</td>
</tr>
<tr>
<td>IV</td>
<td>3A; 3C; 3L; 4B; 4K</td>
<td>3 feet</td>
<td>Low, Moderately Rapid</td>
<td>240</td>
</tr>
<tr>
<td>V</td>
<td>4A; 4C; 4D; 4L; 5B; 5D</td>
<td>3 feet</td>
<td>Very High, Moderate</td>
<td>265</td>
</tr>
<tr>
<td>VI</td>
<td>5C; 5E; 5K; 6F</td>
<td>3 feet</td>
<td>High, Moderate</td>
<td>290</td>
</tr>
<tr>
<td>VII</td>
<td>5A; 5H; 6D</td>
<td>2 feet</td>
<td>Moderate</td>
<td>325</td>
</tr>
<tr>
<td>VIII</td>
<td>4N; 5I; 5L; 6A; 6E; 6G; 6K</td>
<td>2 feet</td>
<td>Low, Moderate</td>
<td>385</td>
</tr>
<tr>
<td>IX</td>
<td>5J; 5M; 6C; 6H; 6L; 7A; 7D; 7F</td>
<td>2 feet</td>
<td>High, Moderately Slow</td>
<td>445</td>
</tr>
<tr>
<td>X</td>
<td>6I; 7E; 7G; 8A</td>
<td>2 feet</td>
<td>Low, Moderately Slow</td>
<td>500</td>
</tr>
<tr>
<td>XI</td>
<td>5N; 6J; 6M; 7I; 7K</td>
<td>2 feet</td>
<td>Slow</td>
<td>740</td>
</tr>
<tr>
<td>XII</td>
<td>7J; 7L; 8I</td>
<td>2 feet</td>
<td>Very Slow</td>
<td>1000</td>
</tr>
<tr>
<td>XIII</td>
<td>6N; 7M; 7N; 8J; 8N</td>
<td>2 feet</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes for Design Groups:
- I: Very Rapid
- III: High, Moderately Rapid
- IV: Low, Moderately Rapid
- V: Very High, Moderate
- VI: High, Moderate
- VII: Moderate
- VIII: Low, Moderate
- IX: High, Moderately Slow
- X: Low, Moderately Slow
- XI: Slow
- XII: Very Slow
- XIII: N/A

Contact Infiltrator Water Technologies 1-800-221-4436 for additional technical and product information.
### Table 1: Subsurface Seepage System Size Determination Using Infiltrator Quick4 Standard and Quick4 Standard LP Chambers

<table>
<thead>
<tr>
<th>Time (minutes) required for last 6 inches of water to fall</th>
<th>FOR RESIDENTIAL USE Required Absorption Area (ft²/bedroom) rate</th>
<th>Quick4 Standard and Standard LP Chambers/Bedroom</th>
<th>FOR INSTITUTIONAL OR COMMERCIAL USE Allowable application rate (GPD/ft²)*</th>
<th>Recommended depth from bottom of the trench to the limiting layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–60</td>
<td>200</td>
<td>10.0</td>
<td>1.0</td>
<td>3 feet</td>
</tr>
<tr>
<td>90</td>
<td>210</td>
<td>10.5</td>
<td>.95</td>
<td>3 feet</td>
</tr>
<tr>
<td>120</td>
<td>235</td>
<td>11.8</td>
<td>.85</td>
<td>3 feet</td>
</tr>
<tr>
<td>150</td>
<td>265</td>
<td>13.3</td>
<td>.75</td>
<td>3 feet</td>
</tr>
<tr>
<td>180</td>
<td>290</td>
<td>14.5</td>
<td>.69</td>
<td>3 feet</td>
</tr>
<tr>
<td>240</td>
<td>320</td>
<td>16.0</td>
<td>.62</td>
<td>2 feet</td>
</tr>
<tr>
<td>300</td>
<td>350</td>
<td>17.5</td>
<td>.57</td>
<td>2 feet</td>
</tr>
<tr>
<td>360</td>
<td>385</td>
<td>19.3</td>
<td>.52</td>
<td>2 feet</td>
</tr>
</tbody>
</table>

Notes:
1. Multiply number of bedrooms by the required number chambers/bedroom. Round up total to whole number of chambers required.
2. Absorption area for chambers is calculated based on equivalent absorption area per linear foot, 5.0 sf/lf for Quick4 Standard and Quick4 Standard LP (20 square feet for each 4.0’ long chamber).
3. Seepage Beds require 1.5 times the seepage field absorption area specified.
4. Over 360 is unsuitable for subsurface seepage systems. Under 18 is unsuitable for subsurface seepage systems.

*Divide the required total gallons per day by this number to get the number of square feet required. Divide the square feet required by 20.0 square feet per chamber for the Quick4 Standard and Quick4 Standard LP.

### Table 2: Soil Suitability for Onsite Sewage Design using Infiltrator Quick4 Standard and Quick4 Standard LP Chambers

<table>
<thead>
<tr>
<th>Design Group</th>
<th>Soil Group (Most Limiting Layer)</th>
<th>Minimum Separation to Limiting Layer</th>
<th>Permeability Range</th>
<th>Size of System</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1A</td>
<td>N/A</td>
<td>Very Rapid</td>
<td>N/A</td>
</tr>
<tr>
<td>II</td>
<td>2A; 2B; 2K</td>
<td>3 feet</td>
<td>Rapid</td>
<td>200</td>
</tr>
<tr>
<td>III</td>
<td>3B; 3K</td>
<td>3 feet</td>
<td>High, Moderately Rapid</td>
<td>220</td>
</tr>
<tr>
<td>IV</td>
<td>3A; 3C; 4B; 4K</td>
<td>3 feet</td>
<td>Low, Moderately Rapid</td>
<td>240</td>
</tr>
<tr>
<td>V</td>
<td>4A; 4C; 4D; 4L; 5B; 5D</td>
<td>3 feet</td>
<td>Very High, Moderate</td>
<td>265</td>
</tr>
<tr>
<td>VI</td>
<td>5C; 5E; 5K; 6F</td>
<td>3 feet</td>
<td>High, Moderate</td>
<td>290</td>
</tr>
<tr>
<td>VII</td>
<td>5A; 5H; 6D</td>
<td>2 feet</td>
<td>Moderate</td>
<td>325</td>
</tr>
<tr>
<td>VIII</td>
<td>4N; 5I; 6A; 6E; 6G; 6K</td>
<td>2 feet</td>
<td>Low, Moderate</td>
<td>385</td>
</tr>
<tr>
<td>IX</td>
<td>5J; 5M; 6C; 6H; 7A; 7D; 7F</td>
<td>2 feet</td>
<td>High, Moderately Slow</td>
<td>445</td>
</tr>
<tr>
<td>X</td>
<td>6I; 7E; 7G; 8A</td>
<td>2 feet</td>
<td>Low, Moderately Slow</td>
<td>500</td>
</tr>
<tr>
<td>XI</td>
<td>5N; 6J; 6M; 7I; 7K</td>
<td>2 feet</td>
<td>Slow</td>
<td>740</td>
</tr>
<tr>
<td>XII</td>
<td>7J; 7L; 8I</td>
<td>2 feet</td>
<td>Very Slow</td>
<td>1000</td>
</tr>
<tr>
<td>XIII</td>
<td>6N; 7M; 7N; 8J; 8N</td>
<td>2 feet</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>XIII</td>
<td>9</td>
<td>SUBSURFACE DISPOSAL NOT RECOMMENDED</td>
<td></td>
<td>0.00</td>
</tr>
</tbody>
</table>

Notes:
1. Multiply number of bedrooms by the required number chambers/bedroom. Round up total to whole number of chambers required.
2. Example: A 3 bedroom system in design group VIII requires 73 Quick4 Standard and Quick4 Standard LP chambers (3 bedrooms x 24.1 chambers/bedroom = 73.0 chambers).

For institutional/commercial systems - divide system size (area in square feet) by 20.0 square feet per chamber for Quick4 Standard and Quick4 Standard LP chambers approved at 5.0 sq/ft.
### Table 1: Subsurface Seepage System Size Determination Using Infiltrator EZflow 1202-GEO and EZflow 1203-GEO

<table>
<thead>
<tr>
<th>Time (minutes) required for last 6 inches of water to fall</th>
<th>FOR RESIDENTIAL USE Required Absorption Area (ft²/bedroom) rate</th>
<th>EZflow 1202-GEO and EZflow 1203-GEO Feet/Bedroom</th>
<th>FOR INSTITUTIONAL OR COMMERCIAL USE Allowable application rate (GPD/ft²)*</th>
<th>Recommended depth from bottom of the trench to the limiting layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–60</td>
<td>200</td>
<td>50.0</td>
<td>1.00</td>
<td>3 feet</td>
</tr>
<tr>
<td>90</td>
<td>210</td>
<td>52.5</td>
<td>.95</td>
<td>3 feet</td>
</tr>
<tr>
<td>120</td>
<td>235</td>
<td>58.8</td>
<td>.85</td>
<td>3 feet</td>
</tr>
<tr>
<td>150</td>
<td>265</td>
<td>66.3</td>
<td>.75</td>
<td>3 feet</td>
</tr>
<tr>
<td>180</td>
<td>290</td>
<td>72.5</td>
<td>.69</td>
<td>3 feet</td>
</tr>
<tr>
<td>240</td>
<td>320</td>
<td>80.0</td>
<td>.62</td>
<td>2 feet</td>
</tr>
<tr>
<td>300</td>
<td>350</td>
<td>87.5</td>
<td>.57</td>
<td>2 feet</td>
</tr>
<tr>
<td>360</td>
<td>385</td>
<td>96.3</td>
<td>.52</td>
<td>2 feet</td>
</tr>
</tbody>
</table>

Notes:
1. Multiply number of bedrooms by the required number chambers/bedroom. Round up total to whole number of chambers required.
2. Absorption area for EZflow is calculated based on equivalent absorption area per linear foot. 4.0 sf/lf for EZflow 1202-GEO (40 square feet for each 10-ft bundle; EZflow 1202-GEO is a two bundle configuration).
3. Seepage Beds require 1.5 times the seepage field absorption area specified.
4. Over 360 is unsuitable for subsurface seepage systems. Under 18 is unsuitable for subsurface seepage systems.

* For institutional/commercial systems - divide system size (area in square feet) by 40.0 per bundle of 1202-GEO

### Table 2: Soil Suitability for Onsite Sewage Design using Infiltrator EZflow 1202-GEO

<table>
<thead>
<tr>
<th>Design Group</th>
<th>Soil Group (Most Limiting Layer)</th>
<th>Minimum Separation to Limiting Layer</th>
<th>Permeability Range</th>
<th>Size of System</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1A</td>
<td>N/A</td>
<td>Very Rapid</td>
<td>N/A</td>
</tr>
<tr>
<td>II</td>
<td>2A; 2B; 2K</td>
<td>3 feet</td>
<td>Rapid</td>
<td>200</td>
</tr>
<tr>
<td>III</td>
<td>3B; 3K</td>
<td>3 feet</td>
<td>High, Moderately Rapid</td>
<td>220</td>
</tr>
<tr>
<td>IV</td>
<td>3A; 3C; 3L; 4B; 4K</td>
<td>3 feet</td>
<td>Low, Moderately Rapid</td>
<td>240</td>
</tr>
<tr>
<td>V</td>
<td>4A; 4C; 4D; 4L; 4M; 5B; 5D</td>
<td>3 feet</td>
<td>Very High, Moderate</td>
<td>265</td>
</tr>
<tr>
<td>VI</td>
<td>5C; 5E; 5K; 6F</td>
<td>3 feet</td>
<td>High, Moderate</td>
<td>290</td>
</tr>
<tr>
<td>VII</td>
<td>5A; 5H; 6D</td>
<td>2 feet</td>
<td>Moderate</td>
<td>325</td>
</tr>
<tr>
<td>VIII</td>
<td>4N; 5L; 6A; 6E; 6G; 6K</td>
<td>2 feet</td>
<td>Low, Moderate</td>
<td>385</td>
</tr>
<tr>
<td>IX</td>
<td>5J; 5M; 6C; 6H; 7A; 7D; 7F</td>
<td>2 feet</td>
<td>High, Moderately Slow</td>
<td>445</td>
</tr>
<tr>
<td>X</td>
<td>6I; 7E; 7G; 8A</td>
<td>2 feet</td>
<td>Low, Moderately Slow</td>
<td>500</td>
</tr>
<tr>
<td>XI</td>
<td>5N; 6J; 6M; 7I; 7K</td>
<td>2 feet</td>
<td>Slow</td>
<td>740</td>
</tr>
<tr>
<td>XII</td>
<td>7J; 7L; 8I</td>
<td>2 feet</td>
<td>Very Slow</td>
<td>1000</td>
</tr>
<tr>
<td>XIII</td>
<td>6N; 7M; 7N; 8J; 8N</td>
<td>2 feet</td>
<td>N/A</td>
<td>1850</td>
</tr>
</tbody>
</table>

Notes:
1. Multiply number of bedrooms by the required number EZflow/bedroom. Round up total to whole number of bundles required.
2. EZflow 1202 Rating is 4.0 sf/lf or 40.0 sf per 10-ft bundle.
3. Please note the 1201P-GEO is approved for use and sized at 3.0 sf/lf or 30 sq/ft per 10-ft bundle.

Contact Infiltrator Water Technologies 1-800-221-4436 for additional technical and product information.
CHAMBER CONFIGURATIONS – TRENCH

Quick4 Equalizer 36, Quick4 Equalizer 36 LP & Quick4 Plus Standard LP
Trench Configurations

TYPICAL CROSS SECTION (not to scale)

Note: The Quick4 EQ36 chamber is 22” wide and can be installed in a 24” trench.

TYPICAL SIDE VIEW (not to scale)
CHAMBER CONFIGURATIONS – SERIAL DISTRIBUTION

Quick4 Equalizer 36, Quick4 Equalizer 36 LP & Quick4 Plus Standard LP
Serial Distribution Approved System Designs

Chambers using gravity-fed serial distribution methods may be laid out with the same-end inlet, center inlet or alternate-end inlet. The figures below illustrate some of these typical design options.

SERIAL DISTRIBUTION SAME-END INLET (not to scale)

SERIAL DISTRIBUTION CENTER INLET (not to scale)

SERIAL DISTRIBUTION ALTERNATE-END INLET (not to scale)
Quick4 Equalizer 36, Quick4 Equalizer 36 LP & Quick4 Plus Standard LP Serial Distribution
Using the Same-End and Center Inlet Serial Drop Box Method, create a 4.25-inch diameter hole in the end cap at a 3.25-inch invert. Place drop box so header pipe is level.

SAME-END AND CENTER INLET SERIAL DROP BOX (not to scale)

INSPECTION PORT INLET CROSS SECTION (not to scale)

SAME-END SERIAL DISTRIBUTION LOW INLET / HIGH OVERFLOW CROSS SECTION (not to scale)
CHAMBER CONFIGURATIONS – EQUAL DISTRIBUTION

Quick4 Equalizer 36, Quick4 Equalizer 36 LP & Quick4 Plus Standard LP

Equal Distribution
The Quick4 Equalizer 36 Chamber Systems may also be designed using equal distribution methods. These require a distribution box or must be pressure dosed.

EQUAL DISTRIBUTION METHOD (not to scale)

Inspection Port Detail

OPTION A: RISER TO GRADE (not to scale)

OPTION B: INSTALLATION WITH VALVE BOX (not to scale)

Note: All Infiltrator chamber models may be designed for this application.
EZFLOW CONFIGURATIONS – EQUAL DISTRIBUTION

EZflow 1202H-GEO
Equal Distribution (not to scale)

EZflow 1203H-GEO
Equal Distribution (not to scale)
EZFLOW CONFIGURATIONS – SERIAL

EZflow 1202H-GEO
Serial Distribution (not to scale)

EZflow 1203H-GEO
Serial Distribution (not to scale)
These installation instructions are for Quick4 Plus Standard LP and Quick4 Plus Equalizer 36 LP chambers. These chambers may only be installed according to state and/or local regulations. If unsure of the installation requirements for a site, contact Infiltrator Water Technologies. The soil and site conditions must be approved for installation. Be sure that a thorough site evaluation is conducted to determine the proper size and location of the system before proceeding with the installation.

NOTE: Please contact Infiltrator Water Technologies for other chamber specific installation instructions.

Materials and Equipment Needed

- Quick4 Plus Standard Low Profile (LP) chambers
- Quick4 Plus Equalizer 36 Low Profile (LP) chambers
- Quick4 Plus 8 Endcaps
- Quick4 Plus All-in-One 8 Endcaps
- PVC pipe and couplings
- Backhoe
- Laser, transit or level
- Tape measure
- Shovel and rake
- Utility knife
- 1 1/4-inch drywall screws*
- Drill
- Hole saw
- Screw gun*
- Small valve-cover box*
- 4-inch cap for Inspection port
- * Optional

*Optional

These guidelines for construction machinery must be followed during installation:

- Avoid direct contact with chambers when using construction equipment. Chambers require a 12-inch minimum of compacted cover to support a wheel load rating of 16,000 lbs/axle or equivalent to an AASHTO H-10 load rating.
- When installing in sandy soil conditions, wheeled construction equipment is prohibited over top of system. Tracked equipment can be used over top of system with a minimum of 6" of soil cover.
- Avoid stones larger than 3 inches in diameter in backfill. Remove stones this size or larger that are in contact with chambers.

Excavating and Preparing the Site

Note: As is the case with gravel and pipe systems, do not install systems in wet conditions or in overly moist soils, as this causes machinery to smear the soil.

1. Stake out location of all trenches and lines. Set elevations of tank, pipe, and trench bottom.
2. Install sedimentation and erosion control measures. Temporary drainage swales/berms may be installed to protect site during rainfall.
3. Excavate and level trenches with proper width and center-to-center separation. Verify that trenches are level or have the prescribed slope.

Note: Over excavate in areas where you are planning to contour.

4. Rake bottom and sides if smearing has occurred while excavating. Remove any large stones and other debris. Do not use bucket teeth to rake trench bottom.

Note: Raking to eliminate smearing is not necessary in sandy soils. In fine textured soils (silt and clays), avoid walking in the trench to prevent compaction and loss of soil structure.

Preparing the Endcap

Note: Quick4 Plus 8 and Quick4 Plus All-in-One 8 Endcaps are available for use with the Quick4 Plus Standard LP and Equalizer 36 LP chambers on either end of the trench, depending upon the installer’s preference and configuration requirements.

1. With a hole saw drill an opening appropriate for pipe diameter being used (normally 3 - 4 inches) on front or side of endcap using center point marking (see illustration) as a guide.
2. Snap off the molded splash plate located on the bottom front of the endcap.
3. Install splash plate into the appropriate slots below the inlet to prevent trench bottom erosion.

Installing the System

1. Check the header pipe to be sure it is level or has the prescribed slope.
2. Set the invert height as specified in the design from the bottom of the inlet.
3. Place the first chamber in the trench.
4. Place the back edge of the endcap over the inlet end of the first chamber. Be sure to line up the locking pins on the top of both the chamber and endcap.

Optional: Fasten the endcap to the chamber with a screw at the top of the endcap.
5. Insert the inlet pipe 2.5 inches into the opening on the front of the endcap. Insert fully to the internal pipe stop.
INSTALLATION INSTRUCTIONS – EZFLOW

Illinois Department of Health granted approval per the Private Sewage Disposal Licensing Act and Code, for use of Infiltrator Water Technologies EZflow brand 1202H-GEO and 1203H-GEO. The EZflow 1202H-GEO is approved at the specified sizing:

1202H-GEO     4 SF/FT  
1203H-GEO     5 SF/LF

Any site where EZflow products are installed must meet the same site, soil, soil evaluation, repair area, construction, and all other requirements imposed for a standard gravel drainfield.

MATERIALS & EQUIPMENT NEEDED
• EZflow Bundles
• EZflow Internal Pipe Couplers
• Pipe for Header and Inlet
• Laser, Transit or Level
• Shovel & Rake

INSTALLATION INSTRUCTIONS
The instructions for EZflow products are given below. This product must be installed in accordance with the appropriate state regulations and codes.

In cases where linear footage required is not in multiples of 10, the installer may (a) reduce the product to needed length and refasten netting to the pipe or, (b) use an additional 5 or 10 feet of product to exceed the required trench length.

1. After the local health department has issued a permit, stake or mark the location of the trenches and lines. Then, set the tank, invert pipe, headerline/distribution box, and trench elevations. Care should be taken to maintain the required vertical separation of at least 24-inches to the seasonal groundwater table.

2. To prevent smearing or compaction of soil, drainfields are not to be installed in soils with textures finer than sand, loamy sand or sandy loam, or where the soil moisture content is above the point at which the soil changes from semi-solid to plastic. If smearing or glazing of trench sidewalls and bottom has occurred in clay soils, it is recommended that these soil surfaces be raked or scarified.

3. The center to center spacing shall be 6’.

4. Remove the plastic stretch wrap from the EZflow bundles prior to placing them in the trench(es). Remove any stretch wrap in the trench or bed before the system is covered.

5. Place the EZflow bundle(s) in the approved configuration. The bundle containing pipe is joined end to end with an internal pipe coupler. The aggregate-only bundle should be butted against the other aggregate-only bundles and do not require any type of connection.

6. The top of each GEO cylinder contains a pre-manufactured filter fabric between the netting and aggregate. The installer shall ensure that the fabric is on top and is in contact with the fabric contained in the adjacent cylinder before backfilling. The span of fabric at each sidewall shall not exceed 180 degree reach (i.e. 9 o’clock to 3 o’clock).

7. Verify that trenches are level or have the prescribed slope.

8. EZflow EPS bundles are flexible and can fit in curved trenches, as needed, to avoid trees or other obstacles.

9. Soil material excavated from trenches, if suitable per code, should be used in backfilling and should be left mounded over the trenches until initial settling has taken place. Soil within 6” of the EPS bundles shall be loosely placed and not compacted.

INSPECTION
Before covering the system, it shall be inspected by the department. The area of the disposal field shall not be used for vehicular traffic, parking, or underground utilities (i.e. water lines). Dozers, trucks, and other heavy vehicles shall not be allowed to run over the septic tank, drainfield or other parts of the system.
July 17, 2018

Mr. David Lentz
Infiltrator Systems Inc.
P.O. Box 768
Old Saybrook, CT 06475

Dear Mr. Lentz:

The Department has reviewed the materials submitted for the proposed alternative seepage trench spacing for chambers and Ezflow products in lieu of the spacing requirements established in Private Sewage Disposal Code and original product approval given by the Department. Within Section 225 ILCS 225/8 of the Private Sewage Disposal Licensing Act, the Department has been given the ability to approve technology and components that have been approved by other states or government entity. The Department has reviewed the materials provided on approvals given by other state agencies for the use of the alternative spacing below, and having no less than 2 feet of undisturbed soil between trenches:

<table>
<thead>
<tr>
<th>Subsurface Seepage Trench</th>
<th>Center to Center Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 inch wide Ezflow in a 12 inch wide trench</td>
<td>4.0 feet</td>
</tr>
<tr>
<td>16 inch wide chamber in an 18 inch wide trench</td>
<td>5.0 feet</td>
</tr>
<tr>
<td>24 inch wide Ezflow in a 24 inch wide trench</td>
<td>5.0 feet</td>
</tr>
<tr>
<td>22 inch wide chambers in a 24 inch wide trench</td>
<td>5.0 feet</td>
</tr>
<tr>
<td>36 inch wide Ezflow in a 36 inch wide trench</td>
<td>5.0 feet</td>
</tr>
<tr>
<td>34 inch wide chambers in a 36 inch wide trench</td>
<td>5.0 feet</td>
</tr>
</tbody>
</table>

The Department will accept the installation of chambers and Ezflow product at the center to center spacing in the chart above based upon compliance with the following conditions:

1. The installation and design of chambers and Ezflow products shall comply with all other aspects of the Private Sewage Disposal Code.

2. There shall be no less than 2 feet of undisturbed soil between each trench.

3. The local health department and/or municipality must be contacted prior to the installation of any private sewage disposal system.
4. This approval does not waive or alter the responsibility of the applicant from obtaining or paying local fees associated with an application by the Department, agent or an ordinance-based local authority associated with an installation or construction approval.

5. Approval of the above by the Illinois Department of Public Health is limited to design and is in no way intended to guarantee the proper function of the system.

If you have any questions, contact me at (217) 524-4137 or chad.moorman@illinois.gov.

Sincerely,

Chad Moorman, LEHP
Program Manager
Private Sewage Disposal Program
Division of Environmental Health

cc: Regional Offices
Memorandum

TO: Directors of Environmental Health, Local Health Departments

Regional Engineers/Supervisors

Units of Local Government

FROM: Chad Moorman, LEHP, Program Manager, Private Sewage Disposal Program

DATE: January 13, 2016

SUBJECT: Chamber Sizing Update

This updates the February 21, 2013 memorandum regarding the sizing of chamber systems.

**Design criteria for the installation of subsurface seepage chamber systems:**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Chamber System</th>
<th>Average Inside Bottom Dimension</th>
<th>Absorption Area Sq. Ft./Ln. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infiltrator</td>
<td>BioDiffuser Bio 2 (Bio 2)</td>
<td>1.00 ft.</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>ARC 24</td>
<td>1.60 ft.</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>BioDiffuser Bio 3 (Bio 3)</td>
<td>1.60 ft.</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>BioDiffuser Arc 36 (ARC 36)</td>
<td>2.43 ft.</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>BioDiffuser Arc 36 LP (ARC 36 LP)</td>
<td>2.43 ft.</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Equalizer 24 (EQ 24)</td>
<td>1.00 ft.</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Equalizer 36 (EQ 36)</td>
<td>1.60 ft.</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Quick 4 Equalizer 24 (Quick4 EQ 24)</td>
<td>1.09 ft.</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>Quick 4 Equalizer 36 (Quick4 EQ 36)</td>
<td>1.60 ft.</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Quick 4 Equalizer 36 StraightLock (Quick4 EQ 36 SL)</td>
<td>1.60 ft.</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Quick 4 Plus Equalizer 36 Low Profile (LP)</td>
<td>1.61 ft.</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Quick 4 Plus Standard LP (Q4+STD LP)</td>
<td>2.44 ft.</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Quick 4 Standard (Q4STD)</td>
<td>2.44 ft.</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Quick 4 Standard+ (Q4+STD)</td>
<td>2.44 ft.</td>
<td>5.0</td>
</tr>
</tbody>
</table>

The above mention company has provided the Department with the requested data to achieve the above standards. The Department will continue to evaluate other chamber systems as they are presented to the Department requesting approval.

Please make this information available to contractors operating within your jurisdiction.

If you have any questions you may contact the office at (217) 782-5830.
INFILTRATOR WATER TECHNOLOGIES, LLC (“INFILTRATOR”)
Infiltrator Water Technologies, LLC STANDARD LIMITED Drainfield WARRANTY

(a) The structural integrity of each chamber, endcap, EZflow expanded polystyrene and/or other accessory manufactured by Infiltrator (“Units”), when installed and operated in a leachfield of an onsite septic system in accordance with Infiltrator’s instructions, is warranted to the original purchaser (“Holder”) against defective materials and workmanship for one year from the date that the septic permit is issued for the septic system containing the Units; provided, however, that if a septic permit is not required by applicable law, the warranty period will begin upon the date that installation of the septic system commences. To exercise its warranty rights, Holder must notify Infiltrator in writing at its Corporate Headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect. Infiltrator will supply replacement Units for Units determined by Infiltrator to be covered by this Limited Warranty. Infiltrator’s liability specifically excludes the cost of removal and/or installation of the Units.

(b) THE LIMITED WARRANTY AND REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

(c) This Limited Warranty shall be void if any part of the chamber system is manufactured by anyone other than Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the Holder or any third party. Specifically excluded from Limited Warranty coverage are damage to the Units due to ordinary wear and tear, alteration, accident, misuse, abuse or neglect of the Units; the Units being subjected to vehicle traffic or other conditions which are not permitted by the installation instructions; failure to maintain the minimum ground covers set forth in the installation instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper siting or improper sizing, excessive water usage, improper grease disposal, or improper operation; or any other event not caused by Infiltrator. This Limited Warranty shall be void if the Holder fails to comply with all of the terms set forth in this Limited Warranty. Further, in no event shall Infiltrator be responsible for any loss or damage to the Holder, the Units, or any third party resulting from installation or shipment, or from any product liability claims of Holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and Infiltrator’s installation instructions.

(d) No representative of Infiltrator has the authority to change or extend this Limited Warranty. No warranty applies to any party other than the original Holder.

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

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