

# **Installation Details** Sewers **Building Sewer**

Install Cleanout at Foundation Install Ells after Cleanouts Use 45° Ells or less for all changes in direction SDR 35 PVC Pipe or better ≥ (UAC § R317-4-13 Table Four) Slope per Foot ≥ **Building and Effluent Sewer** Install Cleanouts at least every: 100 ft

Driving, Parking, or Hardscaped Areas:

o Bed in 12" of inch minus gravel 4" Sch 40 PVC Pipe or better o If Less than 30", Insulate Pipe (≥ 2"x16" Foamboard above pipe)

o Install Traffic Rated Clean Out Access Effluent Sewer

90° Ells Okay after Effluent Filter SDR 35 PVC Pipe or better (UAC § R317-4-13 Table Four) Slope per Foot ≥

### **Primary & Secondary Treatment Tanks Tank Water Tightness Inspection**

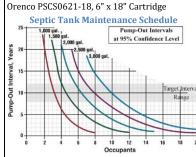
Fill Tanks 24 hours before Inspection Backfill when Approved If Conditions Require Shoring, Contact Regulatory Authority and Photograph Minimize Tank Sidewall Coverage Regulatory Authority May Require Tank

### Septic Tank

Septic Tank Size (gallon) ≥ 2000 Required Cover ≥ 6" Tanks in Series Minimum Volume of First Tank ≥ 1500 Second Tank Size ≥ 1000

Exposure during Inspection

**Effluent Filter - Required** 



### **Tank Risers**

Cast-In or Bolt Down Risers Seal Water-tight Extend all Required Risers to the Surface Diameter ≥

# **Pump Tank**

Required Pump Tank Cover ≥ **Effluent Distribution** 

nstall Distribution Box and Top Manifold or Frazier Tee and Bottom Manifold

### Distribution and Drop Boxes Inspection

Water Level Test Required

Distribution Device Riser

Bring Access Riser to Final Grade

Distribution Method

Install Closed Loop

# **Absorption System**

Estimated Hydraulic Flow Rate 800 gpd  $0.35 \left(\frac{gpd}{ft^2}\right)$ **Hydraulic Loading Rate** 18" **Maximum Trench Depth** 

# **Trenches and Beds**

**Absorption System Placement** ± 10 feet Change from Approved Design

Change from Approved Design will Require Permission of Health Authority

**Absorption System Excavations** 

Install Shallow as Possible Follow Contours on Sloping Sites Excavate Each Trench or Bed Level

Rake Smeared or Compacted Surfaces Protect from Surface Runoff

Trench Spacing ≥

Install Absorption System ASAP **Absorption System Layout** 

May Increase or Decrease Number of Trenches if Add Additional Absorption Area per R317-4-Retain Overall Lm

#### **Observation Ports**

Install Observation Ports on Outside Distal Diameters

Component Access

Install 10" Round Valve Covers for all 4" Pipe

SDR35 PVC or better

# **Standard Trenches**

Drain Media Criteria

UAC §§ R317-4-2.34 3/4 - 21/2" Maximum #10 (or 2 mm) Sieve Drain Media Minimum Depth Under Pine Over Pipe Distribution Pipe per UAC § R317-4-13 Table 4 Five o'clock and seven o'clock rows of 1/2" round holes at ~6" intervals **Barrier Material** 

Use Filter Fabric ≥ 4 oz/yd2 or Fiberglass Insulation ≥ Sizing Criteria

Effective Absorption Area (EAA) =  $\frac{HFR}{HLR}$  = 800 gpd / 0.35  $\left(\frac{gpd}{ft^2}\right)$  = Reduction Factor (Packed Bed Media) 1600 ft<sup>2</sup>

 $E_{AA} \times RF = 2285 \text{ ft}^2 \times 0.7 =$ Width of Media (W<sub>M</sub>) = Length of Media (L<sub>M</sub>) =  $\frac{EAA}{W_M}$ = 1600 ft<sup>2</sup> / 3 ft=

533 ft <mark>ក្ត</mark>្តិការស្ត្របានប្រកាសសម្រេចប្រជាជាក្រុមប្រជាជាក្រុមប្រជាជាក្រុមប្រជាជាក្រុមប្រជាជាក្រុមប្រជាជាក្រុមប្រជាជាក្រុ lacksquare 120' and lpha

### **Chambered Trenches**

Standard Chamber Criteria

Type A IAPMO Standard Chambers Advanced Drainage Systems Arc36 Chambers Infiltrator Systems Inc. Quick4 Standard Chamber Prinsco Pro4 /36 Chamber

**D-Box-Chamber Effluent Inlet** Use Top Port of End Cap or Side Port Coupler Place Gravel or Equivalent below Effluent Inlet



Frazier-Tee-Chamber Effluent Inlet

Chamber Effluent Outlet

Walk-in Soil Cover over Sidewall Louvers

Use **Bottom Port** of End Cap or Side Port Coupler

Use Bottom Port of End Cap or Side Port

Chamber Installation Follow Manufacturer's Recommedations The drawings, plans, models, designs, specifications, reports, photographs, computer

software, surveys, calculations and other data, Verify PDR = Design PDR including computer print-outs, contained in this Plan are the property of the designer. The  $Pump\ On\ Time = DV\ /\ PDR$ Plan is made available for 111 N 3600 West St West Weber. The Plan may not be copied, reproduced, or distributed in any way or for any purpose without the consent of the designer

Sizing Criteria

Trench Cover

**General System Requirements** 

UAC R317-4-7 Construction and Installation

Install System in Accordance with OWS Rule and

Regulatory Authority Special Requirements

Sentic Tank Landscaping

Absorption Area Landscaping

**Special Requirements** 

**Culinary Water Lines** 

Sewer Line in Solvent Welded Sch 40 Pipe at

Use Solvent-Welded Sch 40 PVC Pipe Sewers at

Feasibility and Plan Review

**Plan Review and Permitting** 

Attached

see WMHD

Disclaimer

Due to the variability of: site soils; wastewater;

the personnel that conduct feasibility studies

and review plans: building construction; and

OWS system installation, this design is not

expressed or implied, regarding the future

adequacy, performance, or condition of any

installed system. The designer liability is

limited to the value paid for this plan.

intended to be a guarantee or warranty.

Soil Profile

least Ten Feet beyond the Crossing of any

Sleeve all Culinary Water Lines Crossing any

least Ten Feet beyond the Crossing

Bring all Risers to the Surface per R317-4-

6.14.B.4.h if Oxygen Flow to Absorption

533 ft

2-3"

0-19"

19-64"

120 MPI

64-112"

135 MPI

Reduction Factor (None)

Ton Soil Preferred

**Backfill Slightly Mounded** 

System Is Blocked

Culinary Water Lines

Sandy Loam, granular

Clay Loam, blocky

Silt Loam, massive

Wastewater Type Domestic

Perc Rate

Perc Rate

Water Supply

Soil Pit Location

Application

 $L_M \times RF = 533 \text{ ft } \times 1.0$ 

The designer reserves the right to revise this document and to make changes in content as needed or as required by the local regulatory authority without obligation on the part of the designer to provide notification of such revision or change. The installer shall confirm they have the most current revision of this

The designer is not responsible for the results of any changes to this plan without approval by the designer and the local health department. Any deviations shall be coordinated with the designer and local health department prior to proceeding with the related work concerning the deviation.

This design assumes installer experience or competency with the system shown herein. The designer shall not be held liable for any errors, omissions, or deficiencies in any form by the installer

this plan.

The installer shall read the notes and details in

All third party information provided including any plot plans, site plans, geographic maps, health department requirements and statements, is "as is" without any guarantee, representation, condition or warranty of any kind, either express, implied, or statutory

Any location of utilities shown on this plan are approximate. The installer shall call the Blue Stakes utility locating company, 1-800-662-4111, for field location marking before 6.7.F.1.a if Concrete or Asphault Blocks Access excavating.

## **Design Details**

# **Pump Basin Details**

#### **Pump Basin**

Orenco PB2484+FI 24" Diameter Height Grommets 1.25" Orenco FLD24G-F DuraFiber™ Access Lid 24"

# **Control Panel**

**Building Power Panel** 

Secondary Power Source

Wired for Generator or Equivalent with Appropriate Safety Switches

Location

**Primary Power Source** 

Install Control Panel within Sight of Pump Access Taylor-West Weber Water District Maximum Conduit from Riser 60 ft Place on 12 Gauge Strut Bar or better Separation from Dwelling

**Control Panel Wiring** 

See Control Panel Wiring Diagram **Electrical Conduit** 

Electrical Conduit Length ≤25' Diameter <60' Diameter

Splice Box Wiring

See Float Arrangement Wiring Diagram

### **Control Pane**

Orenco MVP-SSF1 HTSA PTRO DM, Electronic Series Pump

**Pump Junction and Conduit** 

Orenco CLK3-60 ClickTight Splice, Float Switches 6

# **Packed Bed Media**

**AX40 Pod Recirculating Pump Settings** 

Minimum Recirculation Ratio 60 gpm

Override Float Settings

= 26.6 gal / 60 gpm = 27 sec Pump Off Time (225 Hz) 5:57 min @4:1 ratio 1200 gpd

On/Off Float Settings

Certified Service Provider to determine based on Occupancy or Actual HFR. Pump On Time = DV / PDR

20 sec = 20 gal / 60 gpm = Pump Off Time (180 Hz) 7.40 min @4:1 ratio 720 gpd

# **Orenco AX20 Units**

Orenco Warranty

Water softener backwash from a salt-type water softener plumbed into the septic or recirculation tank will void the system's warranty.

**Orenco Installer Certification** 

Orenco distributors will only sell or authorize installations by Orenco certified installers. **Equipment Instructions** 

Follow Orenco AX20 Installation Manual NIM-ATX-AX-1 (3.4)

Install Deadmen and Turnbuckles

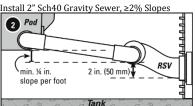
Install 1" Sch40 PVC Nitrogen Return Line from Recirculation Pump to Inlet of Sentic Tank Install 1" Grommet near bottom of Inlet Riser Anti-Siphon on Bottom Ell

**Anti-Flotation Device** 

Nitrogen Return Line

### **Recirculating Stinger Valve**

Install RSV Quick Disconnect in Pump Tank Inlet Orenco VG1000S





### **Orenco AX40 Pod Details**

Hydraulic Flow Rate 800 gpd

AdvanTex Textile Filter Criteria AdvanTex Media  $30\left(\frac{\text{gpd}}{6^2}\right)$ Hydraulic Loading Rate ≤ Effective Application Area 40 ft<sup>2</sup>

### AdvanTex AX20 Textile Filter Pod

 $\geq \frac{HFR}{HLR} = 800 \text{ gpd} / 30 \left(\frac{gpd}{ft^2}\right)$ 

Orifices

Orenco AX20 Series MODE3B-SX Advantex AX20 Textile Filter Treatment Mode MODE3B Pump Discharge, N Reduction Orifice Flow Rate 0.43 gpm

# Filter Pod Anti-Flotation Device

68 (AX20)

Advantex Anti-Flotation Flanges AX20-AF Filter Pod Anti-Flotation Device

Treated Lumbe 4"x6" or Equivalent Anchored with Treated Bolts 1/2"x6 or Equivalent

# Flow Splitter

Orenco RSV30 Recirculating Splitter Valve



### **Pressure Distribution Details**

### Flow Inducer Tower

Orenco UFI-4, Universal Flow Inducer Minimum Height

# **High Head Effluent Pump**

Orenco PF500511-CLK, 50 gpm Pump 0.5 hp, 1Φ, 115 V, 12.1 Amps, 60 Hz Discharge Diameter

