

**R317-4 OWS PLAN DESIGN
PBM - TRENCH**

MONSON RESIDENCE
Address: 111 N 3600 West St West Weber
E2 Sec9 T6N R2W SLBM
System Design #: WC-15-028-0054_1.84 ac
Design Date: 2023 Jan 7

Est Hydraulic Flow Rate
Residential Use 800 gpd
six bedrooms,
finished basement, bonus room
toilet room in shop (pumped to primary
septic tank)
fourteen people maximum sustained use

Scale
Preferred Plan Print Size 22"x34"
(Engineer's D paper)

Site Plan
Plan Dimensions Take Precedence over the Scale
shown on Plans

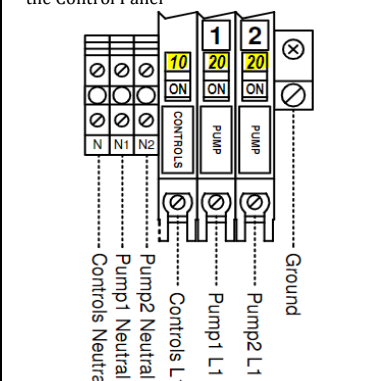
Take **Depth** Measurements **Down Slope**
Take All Pipe Measurements at **Invert**
(**Flowline**)

General Contractor Notes
Maximum Building Sewer Depth
Maximum Sewer Flowline (Invert)
at Foundation Finish Grade **36"**

Plumbing
Main Level Should Gravity Flow to Septic Tank
Basement May Need a Lift Pump
Shop Will Need a Lift Pump

Service Power
Licensed Electrician Connect Service Power to
the Control Panel

Water Softener Backwash
Divert Salt-Type Water Softener Backwash to an
Appropriate Underground Absorption Area
It May Go Directly to the Absorption System



Standard Trenches
Minimum Length of Trenches **533 ft**

Chambered Trenches
Minimum Length of Trenches **533 ft**

Tank	All measurements in inches											Gallons		
	L	W	H	Hii	Hil	Hoi	Hol	Drop	D	Wall	Floor	Lid	gpi	ES
Orengo - DCPD - Sutherlin Oregon														
M1000G	96	96	61	51.3	10	48	13	3.3	61	0.3	0.3	0.3	20.0	220
M1500G	105	105	72	61.0	11	59	13	2.0	72	0.3	0.3	0.3	25.0	288
Oldcastle - Concrete - Ogden Utah														
1000 gallon	139	67	53	41	12	38	15	3	61	4	5	5	32.6	326
1250 gallon	139	67	61	49	12	46	15	3	51	4	5	5	32.6	326
1500 gallon	139	67	67	55	12	52	15	3	57	4	5	5	32.6	326
2000 gallon	164	68	72	58.5	13.5	56	16	2.5	60	4	6	6	45.1	451
1800 gallon	108	84	86	71	15	66	20	5	72	6	7	7	33.3	433
3000 gallon	156	84	98	76	22	73	25	3	84	6	7	7	50.0	900
Roth - RMT - HDPE - Syracuse New York														
1000 gallon	118	62	51	43	8	40	11	3.0	51	0.5	0.5	0.5	25.0	190
1250 gallon	148	62	51	43	8	40	11	3.0	51	0.5	0.5	0.5	31.3	210
1500 gallon	177	62	51	43	8	40	11	3.0	51	0.5	0.5	0.5	37.5	231
Norwesco - Low Profile - HDPE - Tooele Utah														
1000 gallon	127	60	51	43	8	40.0	11.0	3.0	51	0.3	0.3	0.3	21.3	149
1250 gallon	157	60	51	43	8	40.0	11.0	3.0	51	0.3	0.3	0.3	26.0	182
1500 gallon	157	69	51	43	8	40.0	11.0	3.0	51	0.3	0.3	0.3	31.9	223
Duracrete - Concrete - Salt Lake City Utah														
1000 gallon	112	56	70	55	15	51.5	18.5	3.5	61	3	4	5	22.9	309
1250 gallon	126	60	70	55	15	52.5	17.5	2.5	61	3	4	5	28.1	351
1500 gallon	130	68	68	55	13	51.5	16.5	3.5	59	3	4	5	33.3	383
1750 gallon	127	66	75.5	63.5	12	61	14.5	2.5	66.5	3	4	5	31.4	298
2500 gallon	151	80	82	68	14	65.5	16.5	2.5	72	4	5	5	44.6	513

System Requirements

Inspections
Health Authority May Inspect All Components in
Elevation Schedule before Backfilling

Minimum Setbacks
Field Verify all Setback Distances, Field
Dimensions, and Existing Conditions

Tanks

- Foundation 5'
- Absorption System 5'
- Private Wells 50'
- Open Water 25'
- Swimming Pool 10'
- Property Line 5'

Absorption System

- Foundation 5'
- Groundwater Sources 50'
- Open Water 50'
- Swimming Pool 12.5'
- Property Line 5'

Building Sewer

- SDR 35 PVC Pipe or better ≥ 4"
- Slope per Foot ≥ 1/4"

Septic Tank

- Septic Tank Size (gallons) ≥ 2000
- Maximum Cover Depth 36"

Effluent Sewer

- SDR 35 PVC Pipe or better ≥ 4"
- Slope per Foot ≥ 1/4"

Pump Tank

- Pump Tank Size (gallons) ≥ 1500

Control Panel

- Orengo MVP-SSF1 HTSA PTRO DM, Electronic
Series Pump

Number of Pumps 2
Number of Floats 6

Packed Bed Media

- Orengo Advantex Textile Filter AX40

Pump Basin

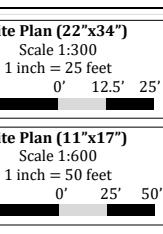
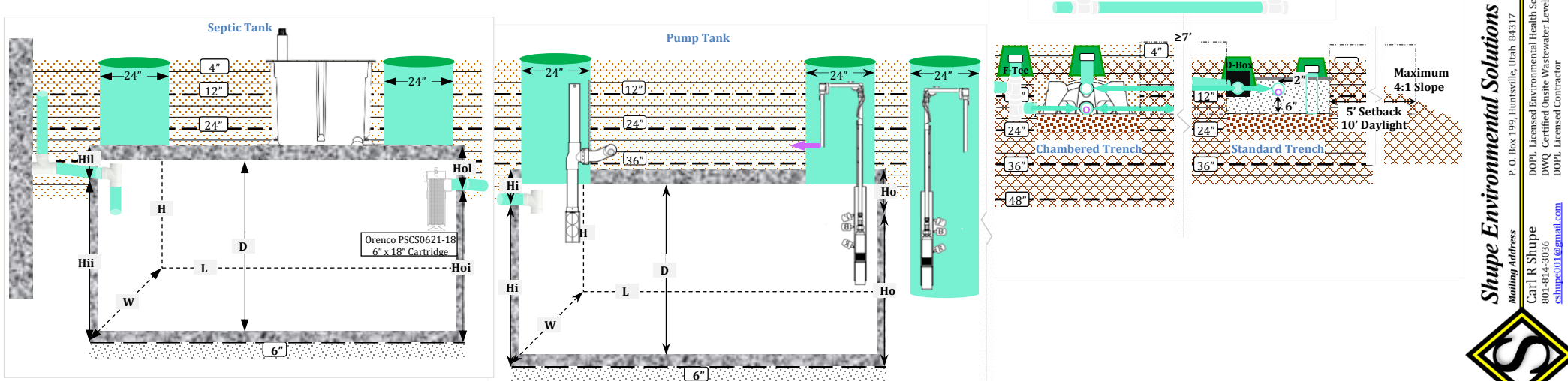
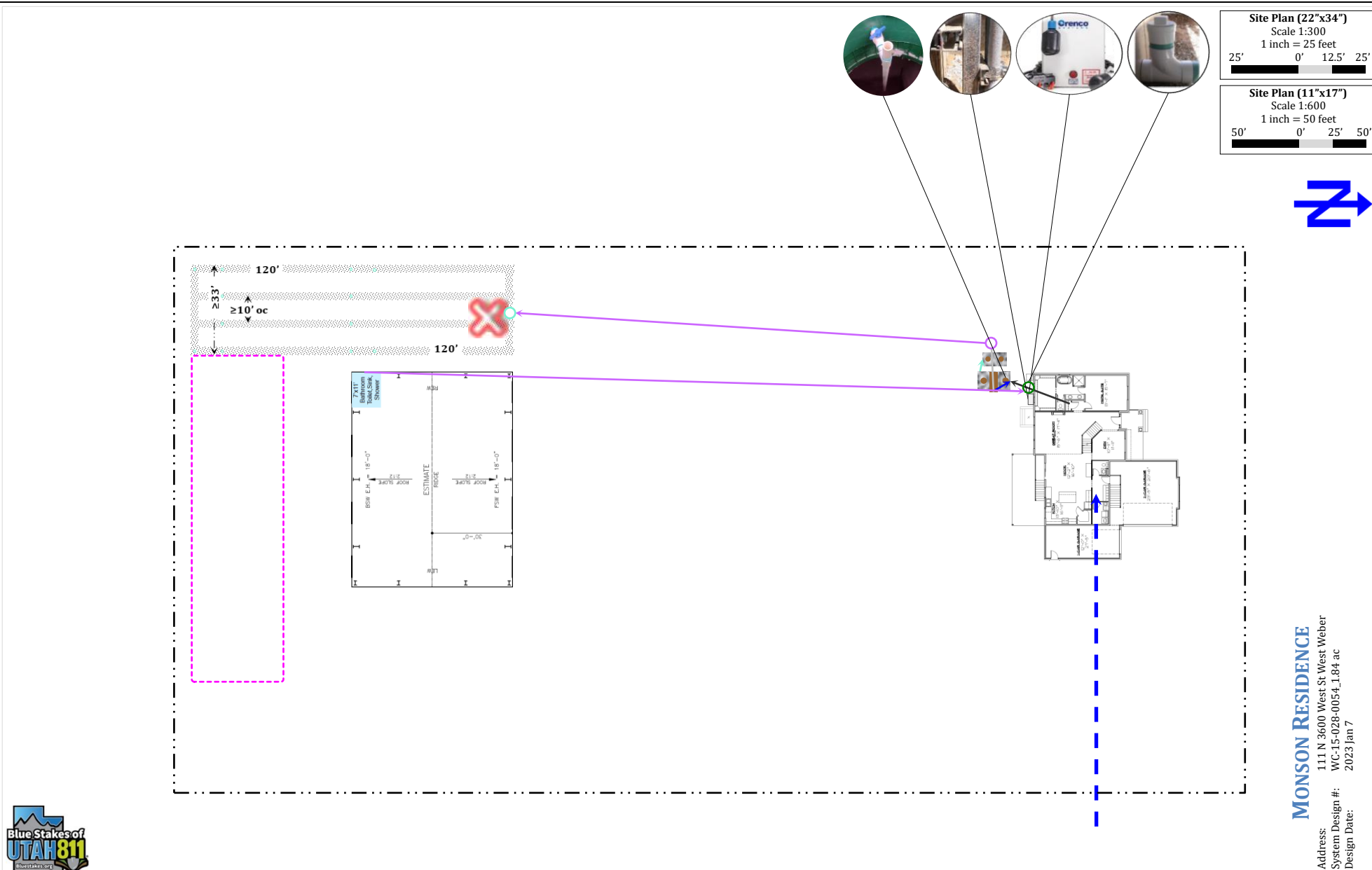
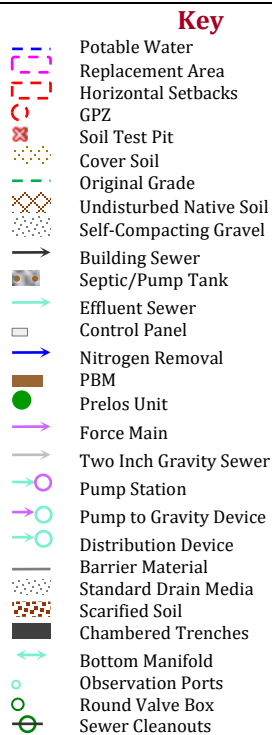
- Pump Basin Diameter 24"
- Pump Basin Height 84"
- Non-Pressurized Distribution

Absorption System

- Estimated Hydraulic Flow Rate **800 gpd**
- Hydraulic Loading Rate **0.35 (gpd/ft²)**
- Maximum Trench Depth **18"**
- Estimated Ground Slope ≤ **1%**
- Design Groundwater ≥ **60"**
per WMHD

Standard Trenches
Minimum Length of Trenches **533 ft**

Chambered Trenches
Minimum Length of Trenches **533 ft**



MONSON RESIDENCE
Address: 111 N 3600 West St West Weber
System Design #: WC-15-028-0054_1.84 ac
Design Date: 2023 Jan 7

Shupe Environmental Solutions Inc
P. O. Box 199, Huntsville, Utah 84317
5630685-2001
00464-05P-3
12011279-5501

DOTL Licensed Environmental Health Scientist
DWO Certified Onsite Wastewater Level 3
DOPL Licensed Contractor

Carl R Shupe
801-914-3036
cshupe01@gmail.com

