



Shupe Environmental Solutions Inc

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EQUIPMENT REVIEW FOR VARIANCE REQUEST

Weber-Morgan Health Department
Attn: Summer Day
477 23rd St
Ogden Utah 84401

Dear Ms. Day,

This is a review of proposed materials for an Onsite Wastewater System (OWS) that will meet or exceed the standards of both Utah Administrative Code (UAC) R317-4 Onsite Wastewater Systems in order to obtain a variance to the placement of a new system into a Groundwater Protection Zone (GPZ) Two.

System Reference #WC-21-091-0001-0.95

A proposed OWS Design is attached as part of this Variance Report. The proposed design is for a five bedroom residence. If a home of larger size is desired, additional treatment technology may be required, including Packed Bed Media technology as currently approved in Utah and allowed by the Weber-Morgan Health Department (WMHD) Onsite Wastewater Treatment Systems Regulation.

Existing System in Groundwater Protection Zone Two

Currently the Green Hills Water and Sewer District maintains a conventional Large Underground Wastewater Disposal System (LUWDS) within the same well GPZ Two. They continue to add residences to the system. We approached them. They are willing to consider allowing this property to connect to their sewer system. The correspondence is attached.

Building and Effluent Sewer

While UAC R317-4 allows pipe of lower standards, including the common "sewer pipe" or green pipe that is a much thinner walled SDR 35 Polyvinyl Chloride (PVC) pipe, we are proposing Schedule 40 PVC pipe, solvent welded at all joints as the minimum standard for this project. This pipe meets the American Society for Testing and Materials (ASTM) D-1785 standard for water distribution and irrigation systems. This is a heavy walled pipe designed for pressure that will meet or exceed all requirements for a gravity sewer.

Septic Tank

The septic tank shall be a Prefabricated Septic Tank certified under the International Association of Plumbing and Mechanical Officials (IAPMO)/American National Standards Institute (ANSI) Z1000-2007 standard. It shall be water-tight, tested after installation before burial.

The sewer pipes shall be sealed using a material or method compatible with both the pipe and tank fittings water-tight at the sewer-septic tank junctions.

Septic Tank Risers

Septic tank risers shall be sealed using materials appropriate for both the septic tank and riser materials water-tight at the tank-riser interface.

IAPMO Type A Chambers

The chambers used in the chambered trenches shall meet IAPMO Standard PS 63-2005. They shall be Type A Chambers in accordance with UAC R317-4.6.14 Absorption Systems.

Other Materials

Other materials used in the absorption system at an elevation above the bottom of the trench excavations shall meet UAC R317-4 OWS and WMHD Onsite Wastewater Treatment Systems Regulation standards.

Sincerely,



Carl R Shupe

Enclosures (2)

2021 03 06 OWS Trench Plan_Panushka
2021 01 28 Email to Green Hills Water and Sewer District
ASTM D1785 document
IAPMO/ANSI Z1000-2007 standard preview
Roth RMT-1500 Gallon Septic Tank Specification Sheet
IAPMO PS 63-2005 Standard Preview
Infiltrator Specification Sheet

cc: Owner