



Oregon

Kate Brown, Governor

Department of Environmental Quality

Western Region Eugene Office

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Eugene, OR 97401

(541) 686-7838

FAX (541) 686-7551

TTY 711

April 5, 2017

Bobby Bowling
Reese Concrete Products
1606 S. Ely St.
Kennewick, WA 99337

RE: Reese Concrete Products 1,500 gallon septic tank
application

Mr. Bowling,

Oregon DEQ staff reviewed plans and specifications and other materials submitted for approval for use in Oregon. You have demonstrated and certified that the tank configuration listed above meets the minimum standards found in Oregon Administrative Rules 340-071 and 073, and are authorized for use in domestic onsite systems.

The plans were stamped by Harvey Lighthouse from Harms Engineering, based in Pasco, Washington. The approved plans, installation manual and riser connection guidance documents are enclosed with this letter. Reese Concrete Products is authorized to manufacture and distribute the above-listed tank configuration in Oregon until further notice, provided the following conditions are met:

1. Reese Concrete Products must manufacture the tanks in compliance with DEQ's rules, plans and design specifications. Any deviation from the approved plans and specifications dated April 4, 2017 are not permitted, unless authorized in writing by DEQ.
2. The tanks shall not be moved from the manufacturing site to the job site until the tank has cured for seven days, or has reached two-thirds of the design strength.
3. Reese Concrete Products must deliver to each purchaser a complete tank, including tees, gaskets, risers and lids.
4. If the tank manufacturer does not fully assemble the tank, as with a two-piece tank, the manufacturer must provide the bonding and sealing agents and an instruction manual for assembling the tank.

5. Reese Concrete Products must manufacture the tank to meet the structural specifications described in the plans and must only be used in locations where top loading will not exceed the engineering design parameters. Tanks proposed for use at other locations require an engineering analysis of the potential top loading and may require preparation of site specific plans and specifications.
6. Minimum soil cover over the top of the tank is one foot and maximum soil cover over the tank is three feet.
7. Your business is responsible to ensure that each tank delivered to a job site is watertight. It is expected that you will test a percentage of tanks at the plant to verify they are watertight.
8. The risers and lids must be constructed of ribbed PVC or concrete rings, as described on the approved plans.
9. Each tank shall be delivered with the installation guide. The guide must be printed on waterproof paper or an equivalent method to keep the guide readable in poor weather conditions.
10. Each tank must be marked on the uppermost tank surface over the outlet with the liquid capacity, date of manufacture, burial depth limits, and business name or assigned number 1540.

This approval is not an endorsement of the product or advertising. DEQ is not responsible for any situation which may result in the improper use of your product. Questions? Please contact Randy Trox, trox.randall@deq.state.or.us, or by phone, 541-687-7338.

Sincerely,

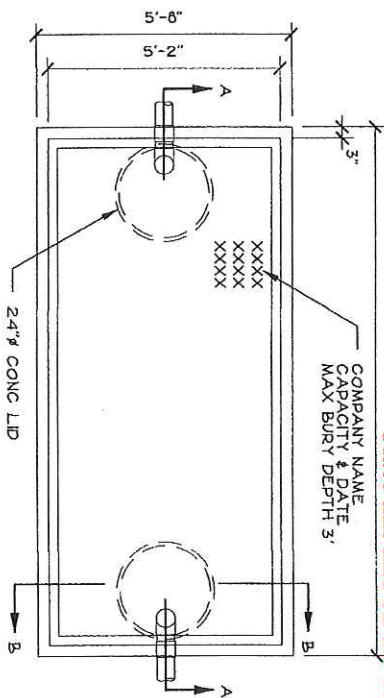
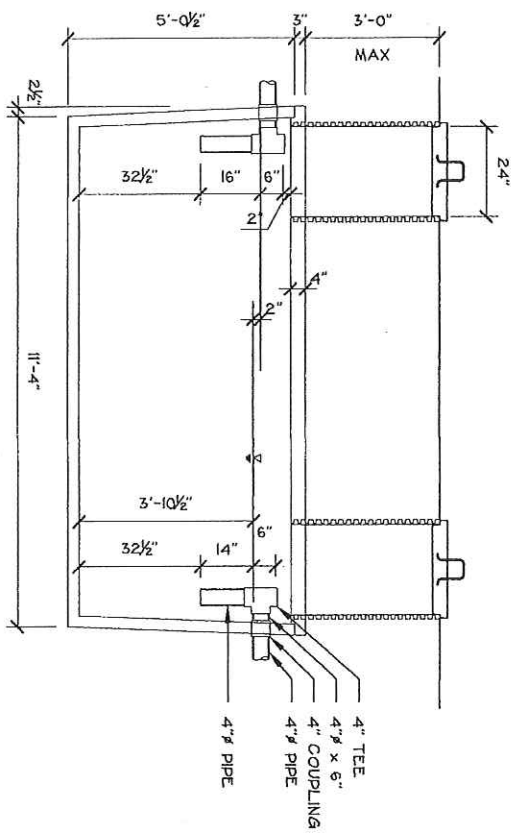


Michael E. Kucinski, Manager
Regional Environmental Solutions

1500 GALLON PRECAST CONCRETE PUMP/HOLDING/TRASH TANK (SINGLE COMPARTMENT)
 REESE CONCRETE PRODUCTS MODEL #RCH500-1P

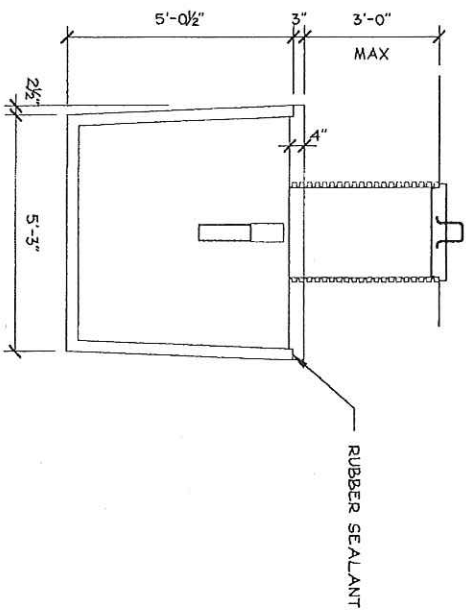
APPROVED
 By Randy Trox at 11:49 am, Apr 04, 2017

Place this info on the outlet side of the tank



SECTION A-A

TOP VIEW



SECTION B-B

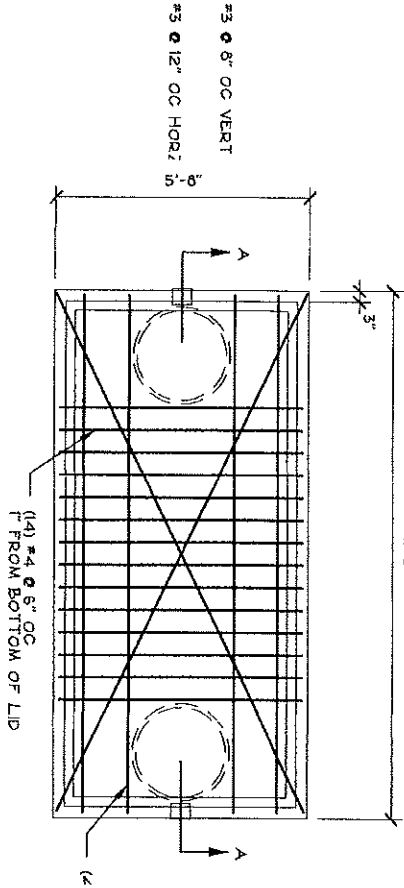
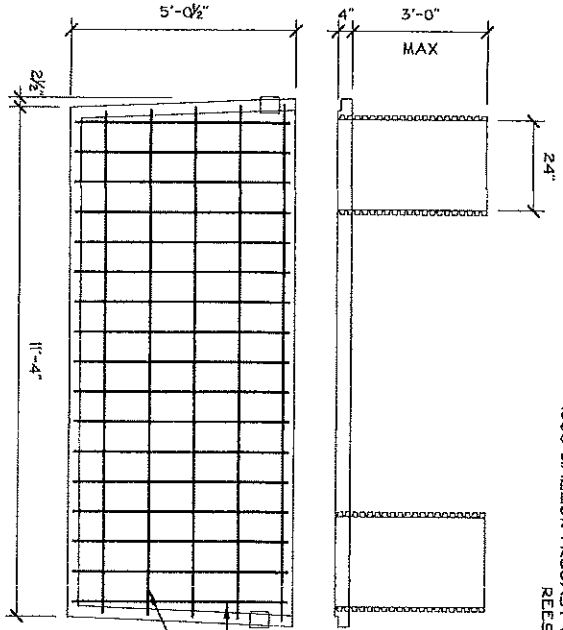
- NOTES:
1. PLAN IS DIMENSIONAL REFERENCE ONLY.
 2. SEE SHEET 2 FOR STRUCTURAL NOTES.
 3. RISER: 24" ADS N-12 CORRUGATED PIPE AND CAST INTO CONCRETE LID
 4. LID: CONCRETE LID WEIGHT: 50-75 LBS
 - 4.1. OTHER LID < 50 LBS: SECURE TO RISER WITH SCREWS TO PREVENT UNAUTHORIZED ENTRY
 5. INSTALLATION:
 - 5.1. EXCAVATION TO BE CONDUCTED SO THAT TOP OF LID WILL BE LOCATED NO MORE THAN 3' BELOW GRADE
 - 5.2. TANK TO BE SET DIRECTLY ON EXCAVATED AREA. DO NOT OVER EXCAVATE
 - 5.3. BACKFILL TO BE COMPACTED TO 90% OF MAX DRY DENSITY. BOUYANCY: INSTALL MINIMUM 1 FT OF SOIL ON TOP TO RESIST BOUYANT FORCE ON EMPTY TANK.
 7. CHECK WATER TIGHTNESS: FILL TANK TO 2" ABOVE POINT OF RISER CONNECTION TO TANK LID. NO MORE THAN 1 GALLON LEAKAGE OVER A 24 HR PERIOD.
 8. INSTALL 4" COUPLER WITHIN THE FORM FOR THE CONCRETE WALLS. PRIME COUPLER AND SPRINKLE WITH FINE GRADE SAND.
 9. USE GLUED FITTINGS BETWEEN THE BUILDING AND EFFLUENT SEWER PIPES.

TANK VOLUME (1500 GAL)	COMP 1	TOTAL
TOTAL GAL	1919	1919
OPERATING GAL	1564	1564
GAL./IN	33.7	



DATE: 1-30-2017 | DRAWN BY: HL | PROJ. NO.: 17-007.1
 1500 GAL SEPTIC TANK
 SINGLE COMPARTMENT
 REESE CONCRETE PRODUCTS | DWG. FILE: SHEET
 1606 S ELY ST. KENNEWICK, WA 98337 | 1500 TANK | 1/2
 (509) 586-3704

1500 GALLON PRECAST CONCRETE PUMP/HOLDING/TRASH TANK (SINGLE COMPARTMENT)
 REESE CONCRETE PRODUCTS MODEL #RCP1500-1P

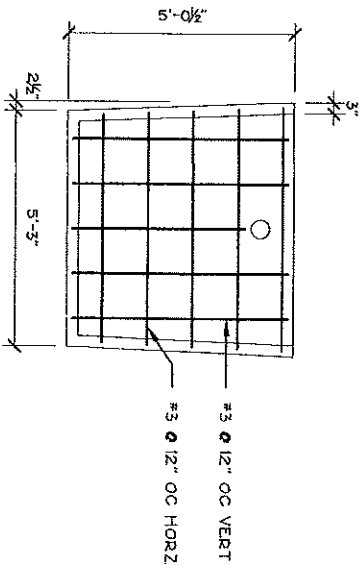


SECTION A-A

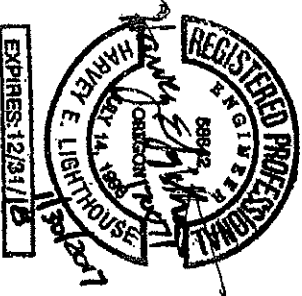
TOP VIEW

STRUCTURAL NOTES:

1. DESIGN CRITERIA:
 - 1.1. MINIMUM COVER: 1 FT
 - 1.2. MAX SOIL LOAD: 300 PSF
 - 1.3. MAX LATERAL LOAD: 62.4 PCF
 - 1.4. MAX POINT LOAD: 2500 LBS ON 24 SQ IN AREA
 - 1.5. LID AND TANK IN NON-TRAFFIC BEARING AREA
 - 1.6. GROUND WATER BELOW TOP OF TANK
2. MATERIALS:
 - 2.1. CONCRETE: 5,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS
 - 2.2. REBAR: ASTM A615, GRADE 60
 - 2.3. RISER: ADS N-12 CORRUGATED PIPE
 - 2.4. PIPING: PVC PIPE SCH 40
 - 2.5. FITTINGS: PVC SCH 40
 - 2.6. SOIL BEARING: COMPACTED SOIL TO FIRM CONDITION



SECTION B-B



DATE: 1-30-2017	DRAWN BY: ME	PROJ. NO.: 17-007.1
1500 GAL SEPTIC TANK SINGLE COMPARTMENT		
RESE CONCRETE PRODUCTS	DWG. FILE:	SHEET
1606 S ELY ST, KENNEWICK, WA 98337	1500 TANK	2/2
(509) 588-3704		



3/24/17
January 12th, 2017

Reese Concrete Products
Septic Tank/Pump Chamber
Installation Manual

Reese Concrete Products
1606 S Ely Street
Kennewick WA 99337
509-586-3704 Office
509-586-3341 Fax
bobby@reeseconcrete.com

Septic Tank/Pump Chamber
Installation Manual
Reese Concrete Products

Water Table

If the water table is more than 3 feet below the surface of the ground, no septic tank may have more than 3 feet of soil cover above the top of tank. If the water table is lower than the bottom of the tank, the tank may have up to 4 feet of cover above the top of tank. For intermediate levels of the water table, the top of the tank must not be lower than the water table.

Excavation

The rough excavation shall have its bottom 1 foot below the intended base of the tank, and 2 feet wider than the base dimensions of the tank on all sides to allow workman access if required. The sides of the excavation must be laid back at a minimum fatness of 1.5 horizontal to 1 foot vertical for safety against cave-in.

After rough excavation is complete, including trenches for inlet and outlet pipes, bed all pipes with a minimum of 6 inch's of select native backfill, sand or 3/8" minus graver. Bed the tank with 1 foot of select native backfill, sand or 3/8" minus gravel. Level the tank bedding uniformly.

Installation

Lower the tank into the excavation area using the precast lift points and spreader bars in the lifting sling to prevent damage to the sidewalls of the tank. Position the tank in alignment with the inlet and outlet pipes, preparatory to receiving the lid of the tank. IF the water table is higher than the base of the tank, temporary pumping of the groundwater may be required to prevent tank flotation.

When the tank is in position, apply the butyl joint sealant around the edge of the tank and lower the lid of the tank into position. Insure that the sealant full fills the voids between the lid and the tank. When the lid has been fully seated to the tank, make the pipe connections to the tank. Apply glue to pipe, and install firmly into the pipe adapter provided into tank.

To prevent tank flotation, prepare sandbags filled with local native earth in such a quantity that when laid in a single layer on the top of the tank, the average height of the sandbagged layer is 12 inches.

Backfill against the tank using select native (no rocks over 1 inch) material for a minimum distance of 6 inches away from the tank. At greater distances than 6 inches from the tank, native excavation material may be used for backfill. Deposit backfill without compacting except for limited areas under the inlet and outlet pipes, If sandbags are in use to prevent flotation, the backfill on the top of the tank may be added as the sandbags are removed. Bring finish grade to match surrounding grade.

**Septic Tank/Pump Chamber
Installation Manual
Reese Concrete Products**

Installation Cont...

Once tank has been set into to hole, verify that tank has been set level and not high or low on either end of tank. If tank is to be set ground level prior to installation, it is recommended by the manufacturer to keep the tank out of direct sunlight as a counter measure to avoid heat from drying and cracking tank. Waterproof paper, tarping, burlap bags or a sprinkler set to keep tank moist are options that are recommended.

Riser Installation

Tank risers are cast into to the lid at the time of production by the manufacturer. To seal the tapered concrete lid to the riser, run a small bead of caulking around the inside of the riser and install lid, The taper of the lid will wedge itself into the riser providing a sealed connection. The use of to much sealer may prevent the lid from being easily removed and cause possible damage in future removal for pumping and/or inspection.

Riser Penetration

Penetrations through the riser wall for the transport line and/or electrical shall be through an opening 1/16 inch larger than the OD of the pipe. Contractor to cut/core drill out hole and install rubber grommet so that the hole has a smooth edge to prevent damage to the wires that are routed through the riser wall.

Watertightness

After installation, all tanks shall be watertight. Each tank shall be water tested by stopping the inlet and outlet pipes with inflatable stoppers, and filling the tank to a point at least 2 inches above the point of riser connection to the top of the tank. During the test there shall be no more than 1 gallon leakage over a 24 hour period. This requirement shall be ascertained by measuring the water level from a known point on the riser at the start of the test. At the end of the 24 hour period, make-up water is then added and the water level noted. If the water level risers to or above the previous level, the tank has passed the test. If 1 gallon of make-up water does not bring the water level back to the initial level, the tank fails the test and remedial measures must be taken.

Screens

If the pump chamber discharges to a pressurized distribution system or if the effluent pump used will not pass at least 3/4 inches sphere then an 1/8inch noncorrosive plastic screen is required and the screen must extend above the maximum liquid depth including the "alarm" float setting.