

**On-Site Sewage Design  
Aerobic Surface Application**

**For**

**Barbara A Stewart  
PO Box 95  
Johnson City, TX 78636**

**1743 Althaus Ranch Road  
Abstract 340  
29.83 acres  
“Towhead Valley Estates”  
Lot 9**

**Dwayn C. Boos R. S. #3651  
3610 Morris Ranch Road  
Fredericksburg, Texas 78624**

## **Design Criteria for a Licensed Sewage Facility**

Owner: Barbara Stewart

PO Box 95, Johnson City TX 78636  
1743 Althaus Ranch Road

Phone: 512/295-4432      512/731-5561

Location: 1743 Althaus Ranch Road

Installer: Paul Hartcraft III

### **Comments to Design:**

1. This on-site design system will be designed for a two-bedroom, less than 2500 square feet of living area, the structure will be sized for 240 gallons per day.
2. Water saving devices will be installed on this structure. There will be no water softener discharge into system.
3. The property in the area of the on-site system has a 5% slope.
4. There is no floodplain in the area of the on-site system.
5. Water is being provided by a private water supply.
6. An aerobic spray application system will be utilized for the effluent disposal, with final disinfection utilizing chlorination.
7. Sch 40 one-inch line (purple) will be the supply line from pump tank to spray heads.
8. Additional landscaping will not be required because the native grasses do cover the area well. If any ground within the proposed surface application area does not have vegetation, that bare area shall be seeded or covered with sod before system start-up.
9. Two (2) sprinkler heads will be utilized, both with a 26-foot radius and both with a 360-degree setting. Low angle nozzles (13 degrees or less in trajectory) will be used. Maximum inlet pressure shall be 40 pounds per square inch.
10. The system design is in compliance with Chapter 285- On-Site Sewage Facilities, TCEQ Rules and Blanco County Rules as required by Blanco County.
11. The Installer of this system is required to install the system in accordance with the Blanco County and the TCEQ regulations.

## Design Specifications

1. Four inch (or three-inch) Sch 40 pipe from home to tank with a two-way cleanout at every 90 degree bend and 50-feet between cleanouts.
2. A four-inch cushion of sand, sandy loam, clay loam, or pea gravel under tanks. Backfill around tanks shall consist of similar material or material recommended by the manufacture of the aerobic unit. No rocks larger than one-half inch in diameter.
3. Install a AquaSafe aerobic (AS 500 4 PLUS 75)  
This unit has a 400-gallon trash tank, followed by a 500-gpd aerobic unit that is followed by a 750-gallon pump tank. The chlorinator is of a drop tube type located in the pump tank.
4. One-inch, Sch 40 supply line to spray heads (purple pipe and spray heads are required).
5. Since the setback from property line is 20 feet or greater a commercial timer is not required.
6. Area:

$$\text{Area} = Q/Ra$$

$$Q = 240 \text{ gallons per day}$$

$$Ra = 0.064 \text{ gallons/square foot/day}$$

$$240\text{gpd}/0.064 \text{ gal. Per sq. ft. per day} = 3750 \text{ sq. ft. required}$$

$$26' \times 26' \times 3.14 \times 360/360 = 2122 \text{ sq. ft. per spray head}$$

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$$4244 \text{ sq. ft. total spray area}$$

7. Electrical wiring. All electrical wiring shall conform to the requirements of the National Electric Code (1999) or under any other standards approved by the executive director.





SCALE 30 FT / INCH

CB003  
DWG 4/28/08

