

**ATTN: JERRY**

$$450 \text{ gpd} / 0.29 \text{ g/ft}^2/\text{day} = 1551.72 \text{ ft}^2$$

This design will use 1551.72 ft<sup>2</sup> - 30% for use of the supplemental Presby unit =  
**Minimum sand basal area 1086.21 ft<sup>2</sup>**

**A minimum sand basal area of 18.73 feet wide by 58 feet long will be designed to meet LLR and Shasta County basal area requirements.**

The sand basal area suggested by Presby Environmental was not used as Shasta County does not approve of the Presby application rates listed in the Presby manual. The application rate used was from Shasta County Technical Guidance Manual.

The Presby pipe loading rates per Presby Design Manual was used for determining the amount of Presby AES pipe required for this site. For design purposes three 50 foot long Presby rows will be used to meet the required 150 foot length prescribed by Presby for this application. See the enclosed leach bed diagram for clarity.

$$\text{Presby pipe loading rate} = 3 \text{ GPD/ft}$$

$$450 \text{ gpd} / 3 \text{ gpd/ft}^2 = 150 \text{ feet of Presby pipe length}$$

#### **SAND SPECIFICATIONS**

The Presby AES pipes are to be installed in a sand bed. The sand shall meet Presby sand specifications with no more than 3% passing the #200 sieve. A Presby Environmental Inc. representative has reviewed some local sand suppliers and determined that Westside Aggregate (concrete sand) and Crystal Creek Aggregate (bedding sand) in Shasta County had testing completed that met the Presby requirements for sand. Presby Environmental describes the ideal sand as coarse to very coarse, clean, granular sand, free of organic matter. The contractor shall contact the designer if other sources of sand are to be requested. If other sand sources are to be used, sieve analysis reports must be submitted to Cramer Consulting for review.

#### **TANKS**

A minimum of 1100 gallon concrete septic tank is required to be installed with the Presby treatment unit. Tanks shall be watertight and all tank penetrations shall be sealed and made watertight. The septic tank must have at-grade access with watertight lids and risers. The outlet "T" of the septic tank shall be fitted with an effluent filter.

A 500 gallon concrete single compartment pump tank shall be installed for housing the pump unit. The pump will force effluent to the distribution box (D-box). From the D-box effluent will gravity flow into the first Presby pipe. The pump unit shall be fitted with floats so that On-Demand pumping will be completed. Pumping will be designed by