

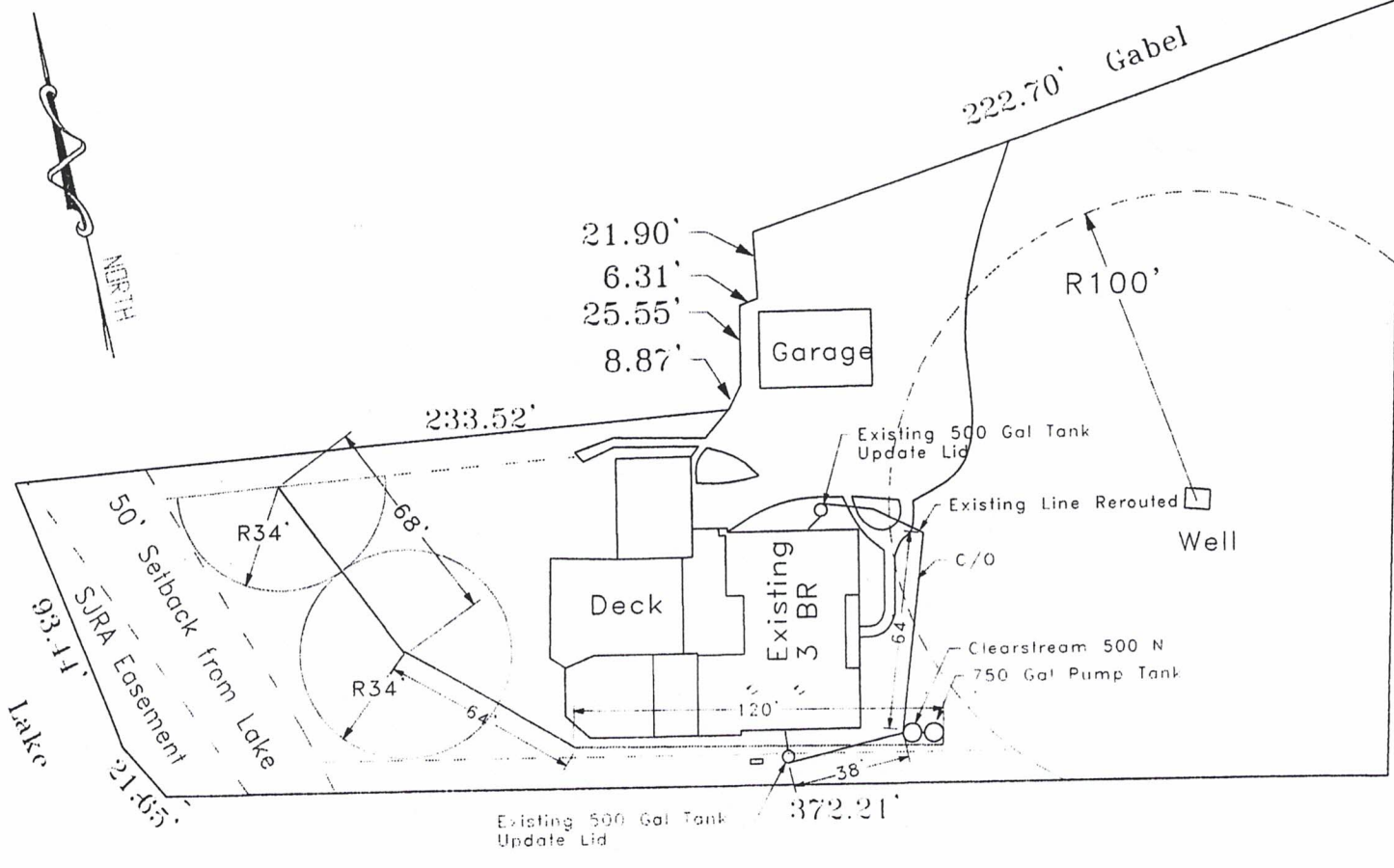
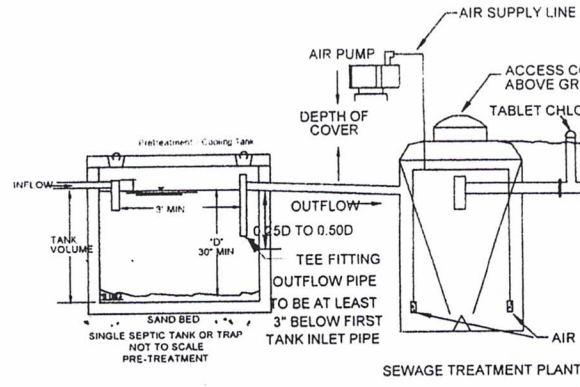
Number of Bedrooms	Daily Flow in Gallons	With Low Flow Devices	Pump Tank Req'd Active Capacity	Loading Rate	Area Required Sq. Ft.
3	300	240	320	0.045	5333

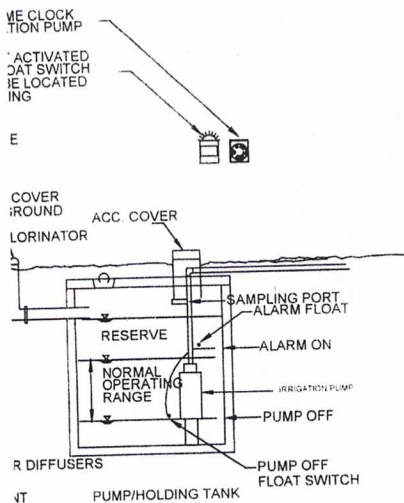
Pump Tank Specs

Height in Inches	Height in Feet	Inside Diameter in Inches	Inside Radius In Feet	Volume in Cubic Ft.	Volume in Gallons
65.5	5.46	59.5	2.48	105.40	788.36
Gallons Per Inch	Pump Off Level in inches	Pump On Level in inches	Dead Space Gallons	High Water Alarm on in Inches	Active Capacity Gallons
12.04	14	20	240.72	39.9	547.64
Required Reserve in Gallons	Actual Reserve in Gallons	Actual Reserve in Inches	Reserve Percent of Daily Flow	Normal Operating Range (Gal)	Normal Operating Range (In)
80.00	308	26	128%	240.0	19.94

Sprinkler Head Number	Radius in Feet	Degree of Spray	Area Sq. Ft. Covered
1	34	360	3632
2	34	180	1816
Sub-Total			5448
Overlap			0
Total			5448

24 HOUR TIME FOR IRRIGATION  
SIGNAL LIGHT BY ALARM FLOW ALARM MAY BE BESIDE BUILDING





**DESIGN SUMMARY**

Effluent from one 500 gallon tank will flow to a Clearstream 500 N aerobic treatment plant, through a Clearstream tablet chlorinator to a 750 gallon pump tank. A Clearstream P20, 1/2 HP pump discharges the "Class I" effluent to the surface through 2 Low angle nozzle heads. Spray area shall be graded and if necessary, swales installed to provide positive drainage away from the spray area to prevent ponding or pooling. The land owner shall be responsible to have the area sodded with St. Augustine or Zoysia grasses unless native grass is established and overseed with a winter Rye grass for periods when other grasses are dormant. The maximum inlet pressure for sprinklers shall be 40 pounds per square inch. Low angle nozzles (15 degrees or less in trajectory) shall be used in the sprinklers to keep the spray stream low and reduce aerosols. Sprinkler operation shall be controlled by commercial irrigation timers set to spray between midnight and 5:00 a.m. Placement of the spray heads shall not be within ten (10) feet of trees in the direction of the spray as to impede the spray area. Equipment specified in this design may be substituted for equipment of equivalent specifications. Reject water from reverse osmosis water treatment systems shall not be discharged into this system. Machinery heavier than residential lawn equipment shall not be operated in the area of this system. After inspection and approval from the licensing authority, no relocation of the sprinkler heads or their water supply lines will be permitted without prior approval of the licensing authority. Prior to any pool installation, approval from the permitting authority shall be required. Installation of a lawn sprinkler system overlapping the on-site surface disposal field will violate the integrity of this design. All Construction methods and materials shall be in accordance with state and local codes.

**SPRAYFIELD CALCULATIONS**

A 3 bedroom residence rated at 300 gallons/day, the flow is reduced by 20% due to the use of low flow devices which lowers the daily flow to 240 gallons/day divided by the sewerage application rate (.045 gallons/foot, squared equals the required area of 5333 sq. ft.). The sprayfield is designed at 5448 sq. ft. Exceeding the maximum daily flow set forth in this document, negates the validity of this design. Grease, cigarette butts, sanitary napkins (personal hygiene products) and other non biodegradable products shall not be disposed of in this system.

**DESIGN PARAMETERS**

- |                         |                      |
|-------------------------|----------------------|
| 1. Estimated Daily Flow | 240 gallons/day      |
| 2. Application Rate     | .045 gal/Sq. Ft./day |
| 3. Area Designed        | 5448 Sq. Ft.         |

**EQUIPMENT SPECIFICATIONS**

- |                      |  |
|----------------------|--|
| 1. Pretreatment Tank | 500 gallon   |
| 2. Aerobic Unit      | Clearstream 500 N                                  |
| 3. Pump Tank         | 750 gallon   |
| 4. Pump              | Clearstream P-20, 1/2 HP                           |
| 5. Chlorinator       | Clearstream P-120                                  |
| 6. Sprinklers        | Low angle nozzles 15 degrees or less in trajectory |
| 7. Timer             | 24 Hr Timer installed W/ Equipment                 |

251.18'



*Jay Churchwell*

<b>CORONADO ENVIRONMENTAL</b>			
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SCALE: 1"=60'	DATE: 02 Aug 2012	DRAWN BY: KC	DRAWING: 12201Gab.Skd
George Anderson 1.6 Ac Elijah Collard Survey A-7			
County or Agency: SJRA		Address: 12201 Gabel Willis, TX 77318	