

Stone Luxary Living Lift Station  
Sewage Lift Station  
Lift Station Capacity

**Pump Design Flowrate**                      **75 gpm**                      **Per Holloway As-builts**

**Estimate Average Flowrate**

# of Sewer Customers =                      54  
Equivalent Population =                      135 People  
Estimated Average Flow =                      13500 gpd  
Estimated Average Flow =                      9.38 gpm  
Calculated Peaking Factor =                      4.21 gpm  
Peak Flow =                      39.43 gpm  
I & I allowance                      0 gpm  
Design Flowrate =                      39.43

**Say Average Flowrate =                      10 gpm**  
**Say Design Flowrate =                      75 gpm**

Average Flowrate =                      10.00 gpm

Wetwell Diameter =                      6 feet  
Pump On Level =                      338.4 feet  
Pump Off Level =                      336.85 feet  
Volume to Pump Start =                      328 gallons

**Filling Time for Average Flow =                      32.79 min**

**Calculate Min Pump Cycle Time - Tmin**

P =                      75 gpm                      (Pump Design Flowrate)

Minimum cycle time will be reached when sewage flow rate is half of the pumping rate.

$T_{min} = 2V/P$   
V =                      328 gallons                      (Volume to Pump Start)  
Tmin =                      8.74 minutes

Alternating Pumps are used, so Tmin per pump = 2\* Tmin

Tmin per Pump =                      17.49 minutes