

# M. A. Day Engineering, PC

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November 15, 2008

Mr. Lee Felshin, PE  
Dutchess County Health Department  
387 Main Street  
Poughkeepsie, New York 12601

Re: Summit Woods Subdivision  
175-Lot Cluster Subdivision  
Town of East Fishkill

Mr. Felshin,

I am writing this letter as a formal request for a "Flow Confirmation Letter" from your office for the above referenced project. I offer the following demand calculations for the project:

## **Water Demand Data:**

The proposed water supply system will serve 175 single-family residential subdivisions. The system shall be designed to serve 487.5 gallons per day of domestic flow per residence. This is based on 130 gallons per day for a mix of homes having an average bedroom count of 3.75 bedrooms per house.

## **Average Daily Demand:**

Average Daily Demand =  $175 \text{ units} \times 487.5 \text{ GPD/house} \approx 85,300 \text{ gpd} \approx 59.2 \text{ gpm}$

## **Maximum Daily Demand:**

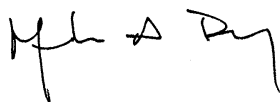
Maximum Daily Demand =  $2 \times 85,300 \text{ gpd} = 170,600 \text{ gpd} \approx 118.5 \text{ gpm}$ .

## **Peak Hourly Demand:**

Peak Hourly Demand =  $85,300 \text{ gpd} \times 6 \text{ (peaking factor)} = 511,800 \text{ gpd} \approx 355 \text{ gpm}$

Please feel free to contact me if you need any further information on this matter.

Very truly yours,



Mark A. Day, PE