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March 13, 2019

To: Honorable Mayor and City Council Members  
From: Mark Wilson, Department of Public Works Director

Re: 845 North Pine Street Sewer Credit

On March 11, 2019, Mr. Roger Elkins wrote the attached letter to state he had a burst pipe and would like to inquire about a sewer and water credit. Normally only a sewer credit is given as the water does not go through the sewer and the water is used. His average usage for the month of February over the past three years has been 846 gallons. The total usage recorded for February 2019 was 280,049 gallons.

Also, as the leak was not detected until March 11, 2019 there will be excessive usage for March. The reading for March 11, 2019 revealed a usage of 206,844 gallons from the previous reading taken February 21, 2019. Mr. Elkins has stated there should have been no usage from the previous reading in February through the most recent read because he was not running his water during that time and the house was not occupied. Mr. Elkins also stated the water has been shut off as of March 11<sup>th</sup> until repairs can be made.

As a past practice, the city manager has only granted credits in the amount of \$100 or less. Therefore, I would like to request council permission to apply a sewer credit to Mr. Elkins's February 2019 bill in the amount of \$1993.49 and to his March 2019 bill in the amount of \$1,476.84 because the water did not enter our sewer system. Please see calculations below.

February Credit Calculations

0 (Feb 2016 Usage)  
29 (Feb 2017 Usage)  
2,510 (Feb 2018 Usage)  
846 (Average Usage)  
 $280,049 - 846 = 279,203$  (Above average usage)  
 $279,203 / 1000 = 279.20$   
 $279.20 \times \$7.14 = \$1,993.49$

March Credit Calculations

206,844 (Above average usage)  
 $206,844 / 1000 = 206.84$   
 $206.84 \times 7.14 = \$1,476.84$

TO: City of Evert, Utility Department  
 FROM: Roger Elkins  
 DATE: March 11, 2019  
 RE: Utility Bill

*Roger Elkins*

2619-2510  
 2017-29 = 846.  
 2116-0  
 280,049 = 279.20?  
 \$ 974.24  
 \$ 1993.49

We had been gone from February 21, 2019 to March 8, 2019. Sometime in February I had checked at 845 N. Pine and water was running and not a problem. When we picked up our mail from the post office utility bill was there from the City of Evert. Reading the totals for water and sewer at 845 was a shock to say the least. . The total was just over \$3,000. The water usage shown was for 280,409 gal. That is an average of 9,034 gal per day.

I will pay the charges for 815 N. Pine and the refuge & RTS charges for water & sewer for 845 N. Pine.

A water pipe 0.5" plastic pipe froze and broke in the crawl space. The house has a small basement 12' X 24' under the house. Friday (March 8, there was several inches of standing water in the basement. It appears none of the water entered the sewer.

I question if the meter reading is correct. The table below list water flow and a 0.5" pipe, at high pressure shows 1, 260 gal per day, far short of the 9,034 gal/day average for the bill. In addition I though the radio read meters would give an alert for an unusually high reading. There was no call on our answering machine or notes at either 815 or 845 N. Pine.

I am requesting as a minimum having the sewer usage waived for 845 N. Pine and would request consideration be given to a reduction of the water charge as well. The meter reading was on 2,22,19 and so the next billing will also show an extremely high usage.

Thank you in advance for your consideration.

### How much water can flow through a pipe (GPM/GPH)?

We regularly get asked about the water flow capacity of different pipe sizes, and which is the best roof drain for a specific pipe size. Unfortunately, recommendations aren't that straightforward because you also need to account for water pressure, material friction and more.

That said, we put together the following tables to serve as general guides for estimating a pipe's water flow capacity. If you have questions, please call our Drain Wizard at 800-635-0384.

#### Water Flow (GPM/GPH) based on Pipe Size and Inside/Outside Diameters

Pipe Size (Sch. 40)	I.D. (range)	O.D.	Assume Gravity to Low Pressure. About 6 f/s flow velocity, also suction side of pump		Assume Average Pressure (20-100PSI). About 12 f/s flow velocity		Assume "High Pressure" PEAK flow. About 15 f/s flow velocity	
			GPM (w/ min. PSI loss & noise)	GPH (w/ min. PSI loss & noise)	GPM (w/ min. PSI loss & noise)	GPH (w/ min. PSI loss & noise)	GPM (w/ min. PSI loss & noise)	GPH (w/ min. PSI loss & noise)
1/2"	0.5 - 0.6"	0.85"	7	420	14	840	21	1,260
3/4"	0.75 - 0.85"	1.06"	11	660	23	1,410	36	2,160
1"	1 - 1.03"	1.33"	16	960	37	2,200	58	3,420

*Handwritten notes:*  
 1,260  
 2,160  
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