



Department of Public Works

Jeffrey J. Mantes
Commissioner of Public Works

James P. Purko
Director of Operations

February 8, 2008

To the Finance and Personnel Committee

Dear Committee Members:

On January 31, 2008 at the Finance and Personnel Committee hearing, several questions were raised regarding the performance of the new multi-space parking meters in cold weather. The following includes our response to your questions.

It is my understanding this question stems from the weather conditions experienced in Milwaukee on January 29, 2008. On that day the temperature dropped from a high of 46° F to a low of -4° F in a 24 hour period. In addition, the weather conditions went from rain, to freezing rain to snow with wind gusts of over 50 miles per hour.

The Request for Proposals to purchase and install multi-space parking meters included a criterion for weather conditions. The RFP states "Unit shall be able to operate in a temperature range from -20° F to +140° F and 100% non-condensing humidity. Unit shall remain fully functional under harsh weather conditions that may include: snow and salt, fine grain sand, grime, wind driven rain, high levels of prolonged humidity, normal vibrations and minor levels of vandalism." While several of the finalists indicated they were compliant (although none provided proof), only Digital Payment Technologies (DPT), the meter manufacturer, indicated that the LUKE meters had been laboratory tested between -13° F to +104° F with 95% relative humidity. The LUKE units have been installed in many locations in Canada as well as Alaska and have performed well in these locations. Last winter as part of a performance test, one LUKE unit was installed on North Broadway and tested during January and February. The meter performed well under very cold temperatures. Consequently, we believed as a result of the testing and performance record, the LUKE units would perform adequately.

The LUKE meters do operate on two 12 volt batteries. A power connection was installed from the light poles to the meters to ensure the meters would recharge at night and continue to operate in extremely cold weather. In fact, all the batteries did maintain a charge during this cold period. On the other hand, many of the 9 volt batteries installed in the Duncan single-spaced meters either failed or malfunctioned during the same period of time. This typically occurs in very cold temperatures.

Due to the rain, freezing rain and snow compounded by high winds, there were other problems that occurred with the LUKE meters. The receipt window, coin receptor and keypad iced up on some of the meters. However, after some use and the sun melting the ice, all the meters became usable throughout the day. An analysis of the number of transactions that occurred on Wednesday, January 30 compared to the previous Wednesday, January 23 shows that there were 248 less transactions for the day of which 196, or 79% occurred before 12:00 PM. After that time, the number of transactions was very comparable. The decline in transactions could be caused by a number of different factors including the meter components icing up, less people paying for parking, or less people parking due to the inclement weather.

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We have not experienced the receipt window, coin receptor or the keypad icing up prior to this storm. We believe it will occur very infrequently. It is important to note that DPT indicated that in cold environments a Piezo style keypad (flat keypad panel) has been used. When the meters were purchased, we selected to use the keypad that is currently installed on the meter (with individual buttons) because we believed the public would prefer this type of keypad, which our contractor concurred. If the keypad continues to cause problems, our contractor will replace the keypads at no additional cost.

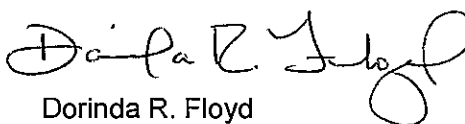
It is important to note that this is the first winter for the LUKE meters in Milwaukee. As staff learns more about the functionality of the meters, we will become more knowledgeable in responding to some of these issues. For example, we have learned that the receipt paper, which worked fine in the warmer months, tends to be more problematic in the colder months. We are currently experimenting with thicker paper in some of the meters and the results have been positive.

Because many of the single-spaced meters failed or malfunctioned and some of the LUKE meters iced up, no parking meters were enforced on January 30th. Early Wednesday morning, we received a number of calls that the single-spaced meters on North Avenue, Prospect Avenue and Farewell Avenue were malfunctioning. Although we did not publicize it, we believed not enforcing the meters was the best course of action due to the extensive nature of the failures and the poor weather conditions.

Although we have had some challenges this winter, we are very pleased with the performance of the LUKE units. We have experienced a high of 21,000 transactions per week and over 40% of the revenue generated from credit cards.

I appreciate the opportunity to respond. I hope you find this information helpful. If you have any other questions or concerns, please let me know.

Very truly yours,



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Administrative Services Director

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