



CITY OF CAMBRIDGE
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MEMORANDUM

To: Richard Rossi, City Manager

From: Monica R. Lamboy, Interim Director 

Date: January 26, 2015

Re: Awaiting Order 14-138, Pay by Phone at Parking Meters, Council Order #6 (12-15-14), Pay-by-Plate at Smart Parking Meters, and Pay by App

This memo is a response to Awaiting Order 14-138 related to pay-by-phone parking meters, Council Order #6 on December 14, 2014 regarding piloting a pay-by-plate system as has been done in Pittsburgh, and various inquiries about using pay-by-app for parking tickets.

How Pay-by-Phone, Pay-by-Plate, and Pay by App work

A **pay-by-phone program** allows people to pay for a parking space by using an app on their smartphones, or by voice or text on other cell phones as an alternative to having to carry and use coins to pay for parking at meters. People who participate in this program pay for their parking with their credit card through the services of a vendor procured by each municipality. The vendor then receives a fee for each parking payment made. A meter that accepts credit cards is not required. A pay-by-phone program can be implemented together with any type parking equipment (i.e., parking meter or parking station) since it does not require any infrastructure other than signage. What is needed is a unique identifier, either the vehicle license plate or the number of the space or meter where it is parked, and then information about what telephone number to call.

In a **pay-by-plate system**, vehicle operators input their license plate numbers into a parking meter pay station when they wish to pay for a parking space. The license plate number is used in lieu of a space/meter number or a receipt that must be placed on the dashboard. The station then communicates the plate numbers to Parking Control Officers' (PCOs) handheld ticket writing machines so that they know the license plates of the vehicles for which parking has been paid. People can use credit cards or coins at the pay station.

What is commonly called **pay-by-app** refers to an app that can be used to pay for parking violations (note that pay-by-phone parking also offers an app to facilitate payment). In the **pay-by-app** program, users download an app onto their phones and when they receive a ticket, they can scan the ticket number into the phone. They can then use a credit card to make payment. Currently, Cambridge accepts ticket payment by a number of methods including: by mail using the envelope provided with the ticket, in person at 344

Broadway, over the phone through an automated system (617-491-7277), and via the City's website (<http://www.cambridgema.gov/parkingtickets>). In addition, an app called "PayTix" is currently operational on iPhones, but its existence has not been widely publicized. Development is ongoing to expand the app to other types of phones; once the improvements are complete, TP&T was planning to announce the apps existence broadly. One of the challenges with all the apps is ensuring they are compatible with the City's parking violation system.

Information about the Pittsburgh Pay-by-Plate Program

TP&T's Deputy Director spoke with the Executive Director of the Pittsburgh Parking Authority about the program and learned that Pittsburgh implemented the pay-by-license plate program in conjunction with the purchase and implementation of multi-space pay stations. As a result, Pittsburgh replaced most of its on-street coin only parking meters with multi-space pay stations that accept credit cards and coins.

Parkers pay for parking at the pay stations and enter their license plate number. The pay stations then forward this information via cellular communication to a central station from which it is forwarded, also by cellular communication, to Pittsburgh's parking enforcement officers' handheld ticket writing machines. As the officers patrol, they enter the license plate number of each car they walk by into their handheld machines, which then tell the officers if the driver of the vehicle with that license plate has paid for parking.

Pittsburgh is also in the process of enhancing enforcement through the use of license plate reading cameras installed on several Chevrolet Cobalt vehicles. These vehicles each have a computer to which pay-by-license plate payment information is downloaded. As the officers drive along the street on their routes, the cameras quickly read the license plates of cars they pass and alert the officers if a driver has not purchased time for parking -- in which case the officer will issue a parking ticket.

Pittsburgh was able to realize increased revenue for several reasons including:

- The coin only parking meters were old and approximately 20% were not functioning correctly at any one time. The new pay stations are online and working at least 98% of the time;
- Pittsburgh had a standard of 22 feet for the length of its metered parking spaces, longer than many cars. With the removal of parking meters, people with smaller cars now use less space. As a result, more cars often fit into the same amount of curb space; and,
- 60% of Pittsburgh's on-street parking transactions are now paid for by credit card. People generally buy more parking time with credit cards to ensure they are not ticketed and since they are not limited by the number of quarters they have with them.

Massachusetts Collective Procurement

After having installed payment machines at Cambridge municipal lots, the Traffic, Parking and Transportation Department (TP&T) is looking into ways to facilitate payment at street meters. To this end, staff is currently participating on the proposal evaluation committee for a statewide collective procurement being conducted by the Metropolitan Area Planning Council (MAPC). This procurement will result in contracts with vendors for: a) the provision of pay-by-phone services; b) the purchase of single space smart meters; and, c) the purchase of multi-space pay stations. The cost of maintenance services for the meters and stations is also included. Once these contracts have been awarded, any city or town in Massachusetts can use them; no additional procurement process is required.

Benefits and Costs of Smart Parking Programs

There are clear benefits to updating the methods by which street parking can be paid including:

- simplifying the parking process for those who do not have coins readily available;
- reducing the amount of coins City staff have to collect at parking meters;
- increasing the speed with which the City learns of meters in need of repair; and,
- providing occupancy data to help analyze and better plan for the demand for and use of parking spaces in the City.

However, there will also be added costs with any alternative selected including:

- the monthly operating costs charged by pay station vendors and/or the per transaction fee charged by vendors providing pay-by-phone services and supporting single-space smart parking meters;
- credit card fees that will be absorbed by the City because certain TP&T revenue types are not eligible for convenience fees; and,
- cellular communication costs that the City would incur so that information is communicated to Parking Enforcement Officers handheld ticket writing machines and meter problems are communicated to City meter maintenance staff (estimated at \$15,000 per year).

If a pay station approach was selected, then the City would need to fund the cost of removing existing street meters and installing pay stations sufficient to cover all meter locations. If a system was selected that maintained the existing meter posts, then the City would need to replace the meter heads to incorporate the new technology.

Conclusion and Next Steps

At present, the City cannot implement a pilot on-street pay-by-license program similar to Pittsburgh's because pay stations have not been installed on most streets and the existing handhelds do not have real time communication. Department staff are awaiting the completion of the MAPC contract process so that detailed program and cost information will be available so that all options can be considered thoroughly.

Now that MAPC has announced the results of its procurement effort (see MAPC press release dated January 15, 2015), the City can determine the capital costs for purchasing single space smart meters and pay stations and the ongoing operating costs for this equipment and pay-by-phone services. TP&T and the Finance Department will prepare an analysis for the City Manager that reviews the short and long term benefits and costs of replacing some of the City's coin only parking meters with smart meters or pay stations, and will do the same for the pay-by-phone and pay-by-license programs, so decisions can be made about these services and products. It is anticipated that updated information will be provided to the City Council in upcoming months.