

# Reach into the Future of Parking Lot Management

By Dan Medlin

In a city where commuters travel several dozen miles to the office, often spending a great deal of time in bumper-to-bumper traffic, they arrive at their destination with one goal in mind: to confidently leave their vehicle at a safe, affordable and convenient location. The managers of these parking areas are tasked with meeting commuters' expectations, satisfying tenants' parking needs and, not least of all, ensuring that the building owner's parking revenues are properly collected. Too often these managers find unaccounted spaces, misplaced tickets, disorganized paperwork and poor utilization of the area.

As is so often quoted, necessity is the mother of invention, and in this case, necessity bore an invention that will certainly contribute to Houston's growth. Innovations and technological advances are placing parking managers' headaches well into the past as parking lot owners step into the future of profitable parking lot management and stay ahead of the traffic flow with such machines as Pay on Foot (POF). This lucrative technology removes the visitor parking transaction from the drive lane – and in some cases eliminates the cashier from the process.

In fact, Houston boasts one of Texas' first fully-automated POF machines at the Galleria, which was also one of the first POF machines in the nation to be utilized in retail centers. Since then, more and more self-park areas have implemented automated parking and revenue control systems. While parking lot owners

and managers continue to learn the machine's capabilities, they are successfully reaping the rewards POF provides.

## Taking the Transactions Out of the Drive Lane

POF is best described as a payment process that removes the parking payment from the drive lane, usually conducted in a lobby or at a centrally-located console en route to the parking garage and before the parker reaches the vehicle. Transactions may be carried out with a machine the size of a soda

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vending machine or with a person using a fee computer. The POF machine is capable of accepting and issuing currency that completes the parking transaction without the use of an attendant making the transaction fully automated.

Here's how it works: When a car pulls into a parking lot, the parker takes a time-stamped ticket generated by a ticket dispenser. Several hours later, the customer, en route to their vehicle, enters the ticket into the machine. The total amount due is calculated by computer, which accepts payment in cash,

credit card or validation coupons, and then issues a machine-readable exit voucher. The parker proceeds to their vehicle within a reasonable amount of time, drives to the exit lane and enters the exit voucher into the exit lane reader. The computer tells the gate to lift, allowing the vehicle to exit the garage.

Central cashiering incorporates the concept of conducting the parking payment process out of the drive lane, but varies drastically to the POF description above in that it incorporates a cashier as the term implies. The cashier simply uses a machine-readable fee computer to process the transaction out of the drive lane, accepts payment and makes change.

Regardless of whether a POF machine or a central cashier and fee computer are used, the system needs to be online with a Central Processing Unit (CPU) receiving and sending information to all devices, including the ticket dispenser, POF station, exit verifier and gates.

Sound complicated? Property owners who have already implemented the machine can assure you it is not. Both Pay on Foot and Central Cashiering have the additional common advantages of: preventing delays at the parking lot or garage exit by taking the transactions out of the drive lane; reducing the number of full-time employees; and allowing for smaller equipment islands at the exit by eliminating the cashier booth. ADA requirements such as cashier booth size, employee route to and from the booth have made this advantage more pronounced.

## Before You Buy ...

Unfortunately, not all the cashier savings goes straight to the bottom line. First, consider who will be using the parking facility before deciding on a fully automated Pay on Foot machine or Central Cashiering. For instance, central cashiering works best when there is a need to remove the transaction process from the exit lane, but the “technology-shy” customers need the human interface.

In other words, POF may not necessarily eliminate labor and speed up the payback on investment. A fully-automated system eliminates cashier payroll if it is installed in the right environment such as office buildings where the users are more tuned into automation. However, POF systems installed at hospitals and retail centers may have a higher number of technology-shy visitors requiring cashiers to standby and offer assistance. They are referred to as ambassadors, facilitators or attendants. Also, POF machines may have much higher maintenance costs due to higher technician labor rates and parts associated with accepting and dispensing currency.

Another misconception is that POF machines eliminate theft in this predominately cash business. True, it prevents the common types of theft associated with parking cashiering, but it is still susceptible to other types of fraud. Be aware that the opportunity for fraud is most prevalent in a POF system when loading and unloading the cash into the currency change cassettes and collection cassettes. In addition, the ability to manipulate validations is no less diminished. Good management, audit trail, audit and follow-up are crucial.

Some tips to make the POF machines and central cashiering successful: First and foremost consider the customers that

will be using the POF and the environment it will be used in. It is not a good idea for an unprotected surface lot.

Install signage that makes it clear to the parkers to take their ticket with them and pay before they return to the vehicle. The message should be reinforced along the path of travel.

Incorporate an intercom with two-way video feed from the exit verifier to an attendant or security console allowing for quicker resolution to traffic lane problems.

Incorporate a “bailout lane” between the exit verifier and the exit gate. The bailout lane allows a vehicle to turn back into the garage should a problem arise. A bailout lane can be difficult to incorporate into many garage designs and almost impossible to retrofit in existing structures. Other



technologies may be incorporated to compensate for this.

Install a credit card acceptor at the exit verifier. This redundancy is an absolute must if a bailout lane is not used. If a parker did not stop at the central cashier or POF, the credit card reader will allow them to read the ticket and the credit card in lane to satisfy the parking charge. Most systems will use the

same reader to read the ticket and the credit card.

Other technologies to consider would include credit card in and credit card out for a paperless, cashierless and cash free environment.

Finally, use a consultant. Simply said, using the equipment vendor as a consultant is like asking your barber if you need a haircut.

### Reaching Tomorrow – Today

Parking systems in the States have come a long way since those first cashierless POF stations were imported from parts of Europe and Asia. The first POF machines installed at the Houston Galleria were German imports costing upwards of \$90,000 and did not even incorporate bill dispensers. Because the German Mark included

coinage with values much higher than American currency, the German machines relied much less on currency. Therefore, the machines were not capable of

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dispensing multiple denominations of currency. Change for a \$20 bill could send parkers back to the

car with two or three pounds of quarters. Now, the prices are closer to \$50,000 and come with multiple currency dispensers. Cost of the machines decreased and they became more culturally accepted.

As technology continues to progress, it will become commonplace to see more do-it-yourself cashiering stations at everyday locations such as grocery stores and hardware supply stores. With help from POF machines, as well as other improvements, parking managers and owners will be well-prepared to accommodate the parking needs of Houston’s growing population. **N**

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