Review of car parking charging options in Tunbridge Wells

A petition has been received requesting the introduction of Pay on Exit (PoE) in town centre car parks instead of the current Pay & Display (P&D) system of operation. This paper compares the merits of each system, both in general terms and on a car park by car park basis. The petition also seeks a free initial 30 minute period, together with free parking on Sundays and Bank Holidays, and these issues are also considered.

(1) Consideration of Pay on Exit

Within Tunbridge Wells town centre there are 5 major public car parks, these being:

- Crescent Road (1,085 spaces)
- Meadow Road (440 spaces)
- Royal Victoria Place (1,230 spaces)
- Torrington (243 + 65 spaces)
- Great Hall (205 spaces)

Each currently operates a Pay & Display system of payment. All except Crescent Road were constructed with that system in mind. Crescent Road previously operated with PoE for approximately 20 years.

Operating systems

There are three main parking control systems in widespread use in charged for car parks. These are: Pay & Display, Pay on Exit and Pay on Foot (PoF). Although the petition seeks a change to Pay on Exit, it seems more likely to be a request for PoF since that is the system in place at Pembury Hospital which has been used for comparison by the petitioner.

Pay & Display – Although the petition describes this as an ‘outdated’ method of control, it is in fact still widely used by many local authorities because of the advantages it offers in terms of simplicity and reliability. Drivers park their vehicle, buy a ticket for a specified period from a machine and leave before that period expires. Non payment and overstaying the paid for period is detected by Civil Enforcement Officers. There are no barriers needed and therefore no danger of a motorist being stuck in the car park. Ticket machines are relatively simple and do not usually give change. Whilst there is a high level of compliance, overstays will not always be detected because of the sheer volume of vehicles involved.

Pay on Exit – No longer in widespread use. The only action necessary is to pay at either a machine or manned booth when exiting the car park. Barriers are usually provided at entry and exit points to ensure payment is made. Staff would be required to be available at all times the system is in operation to deal with mechanical failure.
Pay on Foot – The most complex system, it requires a barrier and ticket dispenser at the entrance, payment machines conveniently close to pedestrian routes and within reasonable distance of exit points plus barriers and ticket readers at vehicular exit points. Motorists only pay when their stay is finished and are given a set time period after payment to pass through the exit barrier. Ticket machines are usually of a more complex nature and generally give change. The major advantage of this system to the motorist is that they do not need to pre-determine their length of stay and only pay for the actual duration within set time bands. For the operator, the most significant advantage is a very high level of compliance since it is very difficult to avoid payment. A potential complication with this system is that it does not easily cater for disabled drivers if, as in Tunbridge Wells, they are allowed to park free of charge in public car parks. It is likely that we would have to require disabled drivers to register in advance and call an operator at the exit barrier.

Key issues

Each of these systems has advantages and disadvantages, and it is generally accepted that the best choice for any car park will depend on a number of factors. (Note: for the purposes of this paper, Pay on Exit is not discussed in detail since the potential delays at exit points would far outweigh any benefit).

The key factors applying to car parks are:

1. Cost of installation – These are detailed later in this report both in general terms and in respect of each car park.
2. Staffing costs – No staff are employed specifically to operate Pay & Display. Cash is collected on a random basis by a private contractor and maintenance is limited and undertaken either by parking staff or a contractor. Additional staff would, however, be needed to ensure that barriers were maintained in working order with a Pay on Foot system otherwise customers can become trapped inside a car park.
3. Reliability of machinery – Pay & Display machines are known to be reliable and long lasting. Pay on Foot machines are more complex and generally considered to be more problematic and can cause more frequent call-outs for specialist repairs.
4. Security – Pay & Display machines usually only accept coins and are less attractive to criminals, who favour banknotes. Pay on Foot machines are more sophisticated and generally give change, so accept banknotes. They therefore have larger quantities of cash within them and, being large and complex, frequently become a target for vandals. Two issues arise as a consequence, with cash collection being higher risk and CCTV often being considered necessary to deter crime.
5. Benefit to customer – It is generally accepted that, in a car park aimed at short term use, the flexibility of payment options often makes Pay on Foot more attractive to users.
Some, however, find the lack of foot patrols in large multi-storey car parks to be unsettling making additional CCTV appropriate. With Pay & Display a customer who overstays their time or does not pay at all can receive a Penalty Charge Notice. This does not happen with Pay on Foot. If disabled drivers find the operating system less convenient than the present arrangements, they may decide to park on-street where they can stop on single or double yellow lines for up to three hours. This could contribute towards congestion.

**Comparative factors**

The petition understandably focuses on perceived advantages to car park users, but there are disadvantages for users too. To enable a fair comparison, the five car parks listed have been compared against the same factors, each of which are important considerations in determining the most appropriate operational system. The factors are:

1. **Entry/Exit arrangements** – Flow is significantly reduced when barriers are installed and tickets have to be processed. The number of entry/exit lanes together with their geometry plays a significant part in determining maximum throughput (widely accepted as being 15 vehicles/minute without barriers and 6 vehicles/minute with barriers). A minimum of two lanes in each direction is generally considered necessary to compensate for slower throughput and risk of mechanical breakdowns.

2. **Proximity to main road and likelihood of queuing on that route** – egress onto a busy main road which experiences queuing can result in customers being unable to get onto the road and causing queuing into the site, possibly beyond the barriers. This then prevents people reaching the barrier in their grace period.

3. **Pedestrian routes to, from and through car park** – multiple access points for pedestrians can make it difficult to locate pay machines where customers will easily find them. Although that issue arises to some extent with Pay & Display the additional problem with Pay on Foot is that a 10/15 minute grace period needs to be allowed between payment and the vehicle leaving the car park. It is more important therefore that customers can readily access a machine within easy reach of their car.

4. **Patterns of use** – Regular users and/or long stay parkers often perceive no benefit from a Pay on Foot facility since they are familiar with charges and have the correct money available. Car parks with concentrated peak entry and exit movements are more likely to see delays because of the slower throughput. This can cause frustration, particularly when a driver unfamiliar with the system is slow to get through the exit or during mechanical breakdowns.
5. *Long term future of facility* – Car park machinery can have a typical lifespan of 20 years or more and must, therefore be considered as a long term investment. Car parks with uncertain futures and/or nearing the end of their lifespan are generally unsuitable for major changes.

**The 5 town centre car parks**

Each car park has been considered against the factors detailed above with the following results:-

1. **Crescent Road**
   - Entry/Exit – Two lane entry and exit but, when operated as pay on exit, significant queuing was experienced at peak periods. Pay & Display was, in part, introduced to address that problem.
   - Proximity to main road – Access direct to Crescent Road, which experiences high levels of traffic flow and frequent congestion in both directions.
   - Pedestrian routes – There are 5 main ground floor points of access to the car park and multiple pay stations would be necessary to make it user friendly.
   - Patterns of Use – A mixture of long stay parking for local workers and commuters and as a short stay option for town centre shoppers.
   - Long term future – By far the oldest of our multi storey car parks, it is now 45 years old.

2. **Royal Victoria Place**
   - Entry/Exit – Two lane entry and exit but each lane split to take traffic to and from one direction only. Immediate internal layout tight and tortuous which causes accessibility problems and delays even without barriers.
   - Proximity to main road – Victoria Road is busy and access/egress can be delayed at busier times.
   - Pedestrian routes – Although an access to Victoria Road exists, the main destination is the shopping centre, onto which there are exits at every level. The majority of pay stations could conveniently be located within RVP itself where they would be less vulnerable.
   - Patterns of Use – Predominantly a shopper’s car park, Pay on Foot would possibly be a preferred option for many users.
   - Long term future – The car park is about 20 years old and should, therefore have sufficient life remaining to justify a change in operating system. The option of Pay on Foot has been examined in the past for this car park and it was considered that it was not possible to implement because of the infrastructure of car park.

3. **Meadow Road**
   - Entry/Exit – Single, tight entry lane and double exit.
• Proximity to main road – Sits in the middle of the gyratory system it has much passing traffic. The single entry makes this a poor prospect for a barriered entry.
• Pedestrian routes – Access is via stairways at two corners.
• Patterns of use – Largely a shopper’s car park, but some long stay parking is expected on a regular basis when the Kent & Sussex development is completed.
• Long term future – Built in conjunction with the Royal Victoria Place development, it is just over 20 years old.

4. **Torrington**
• Entry/Exit – Unusual split arrangement which takes into account the two main uses in connection with railway commuters and Morrisons shoppers. Single exit could cause lengthy delays.
• Proximity to main road – Accessed from Vale Avenue, a cul de sac leading directly off the A26 London Road, queues do form at the main road junction although it is unlikely they would reach back to the car park.
• Pedestrian routes – Generally accessed by stairs and lift to Morrisons’ entrance area, there are stairwells at all four corners of the building.
• Patterns of use – Mostly split between long stay parking for commuters and short stay for the supermarket, which offers vouchers (a potential issue with Pay on Foot system).
• Long term future – Popular with both rail and supermarket users.

5. **Great Hall**
• Entry/Exit – Single entry and exit therefore not ideal for barrier entry/exit.
• Proximity to main road – No likely issues.
• Pedestrian routes – Predominantly to and from Great Hall and Mount Pleasant, although some access will be towards Calverley Grounds.
• Patterns of use – A mix of long and short stay.
• Long term future – Must be regarded as questionable due to poor standard of facility.
Financial implications

An estimated summary of the cost of introducing PoF is shown in the table below:

<table>
<thead>
<tr>
<th></th>
<th>Crescent Road</th>
<th>Royal Victoria Place</th>
<th>Meadow Road</th>
<th>Torrington</th>
<th>Great Hall</th>
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</thead>
<tbody>
<tr>
<td><strong>Capital cost (£)</strong></td>
<td>200,000</td>
<td>200,000</td>
<td>160,000</td>
<td>160,000</td>
<td>120,000</td>
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<tr>
<td><strong>Annual costs (£)</strong></td>
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<td>28,000</td>
<td>28,000</td>
<td>28,000</td>
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<tr>
<td>Security</td>
<td>5,000</td>
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<td>5,000</td>
</tr>
<tr>
<td><strong>TOTAL (£)</strong></td>
<td>241,000</td>
<td>241,000</td>
<td>201,000</td>
<td>201,000</td>
<td>161,000</td>
</tr>
</tbody>
</table>

**Capital costs**

The existing Pay & Display ticket machines (the only element of machinery involved in a P&D system) are relatively cheap to buy and maintain and few breakdowns are reported. A typical Pay & Display unit costs approximately £3,000 and is the only cost specifically related to that operational system.

Pay on Foot arrangements are more complicated with paystations costing around £10,000 - £15,000 depending on type and facilities, plus entry barriers/ticket dispensers and exit barriers with ticket readers. The cost per car park would depend on the number of entry/exit lanes and the number of pay stations required. Windsor & Maidenhead estimated £175,000 for a replacement Pay on Foot system in a 750 space multi-storey in 2008, which only covered the replacement of existing machinery.

Based on the assessments made of each car park (and irrespective of whether they are suitable in other respects) the likely costs for installing Pay on Foot machinery would be as follows:

- Crescent Road - £200,000
- Royal Victoria Place - £200,000
- Meadow Road - £160,000
- Torrington - £160,000
- Great Hall - £120,000

These figures are based on the cost of equipment plus a comparison with what other authorities are known to have spent on equipment. Only a detailed survey and the advice of suppliers would provide accurate estimates.
It is important to bear in mind that, in addition to these set-up costs there would be those for the removal of redundant equipment, provision of any new electrical supply, introduction of any new software for new systems and almost certainly the provision of additional CCTV equipment to ensure that valuable machines and contents are adequately monitored. Physical alterations may also be necessary at entry and exit points to accommodate barriers. These elements could involve substantial costs, which are difficult to estimate without full surveys.

**Annual costs**

Once the system is in place, additional running costs would be involved, and the three main areas of expenditure would be maintenance of equipment, increased levels of staffing and higher levels of security for cash handling.

*Maintenance* - of pay stations can be covered by an annual contract which provide 2 pre-emptive visits per machine per year and reduce the risk of expensive call-outs. The cost per car park is estimated at an average of £3,000 per annum. A further amount should be allowed for call-outs and barrier replacement and repairs to barrier equipment. As a broad guide, it is suggested that £5,000 per car park per annum be allowed for this aspect.

*Staffing* - Pay on Foot requires staff to be on site at all times to ensure that breakdowns are quickly resolved otherwise customers are potentially trapped behind a barrier. Assuming 24 hour operation, three shifts would be required. Whilst there may be associated savings if certain car parks no longer need to be patrolled, it is very unlikely to be of the same order.

It is estimated that an additional member of staff with accommodation would be needed at each car park, to ensure adequate on-site presence at all hours. This may allow a smaller commensurate saving through a reduction in Civil Enforcement Officer numbers, if they no longer need to patrol all town centre car parks. The net increase in staffing costs to the Council would be around £28,000 per car park per year.

*Security* - Another revenue cost would be that required to cover additional money collection and associated increases to security for that function - allow £5,000 per annum.

**The future of car park management**

This paper has been produced in response to a specific request and therefore concerns itself largely with a comparison between the existing system of operation and the one suggested by the petitioners.

There are, however, other methods of operation and ongoing development is likely to bring forward far more efficient and user friendly systems in the coming years. Pay by Phone is beginning to capture an increasing percentage of sales.
Whilst there may well be a limit to the proportion of customers who wish to use that method, it is considered that we are a long way away from that point.

Pay by Phone removes one of the concerns with overstaying a P&D ticket in that extra time can be purchased remotely. This system is already in place in Tunbridge Wells, so addresses one of the petitioners’ requests. Use of this method of payment is steadily increasing, with it currently accounting for about 6.5% of overall sales.

There are no additional costs for the Council with Pay by Phone, since the customer pays a small additional charge per transaction. This charge will reduce with higher use of the system.

The use of Automatic Number Plate Recognition (ANPR) in car park operation is also increasing and, as technology becomes more reliable and efficient, its benefits are increasingly obvious.

The Royal Borough of Windsor & Maidenhead has recently moved to an ANPR based system in one of their central car parks having replaced both Pay on Foot and then Pay & Display in recent years. They are, however, experiencing some initial difficulties with enforcement.

Private operators such as Bedgebury Pinetum have been using ANPR technology for some time for car park management.

Cashless parking is also becoming more common with at least one authority now having no machines which accept cash.

(2) Free parking for 30 minutes

In addition to the requested change in operating system, the petition also seeks an initial free 30 minute parking period.

Since it would be perverse to have free parking in multi-storey car parks and charges applied in surface ones, the following data relates to all car parks where charges apply.

The total value of 2012 ticket sales for the 0–1 hour time period was £840,000 however as our current charging bands are hourly periods it is not possible to accurately predict what effect a free 30 minute period would have on income. If one assumed a worst case scenario, and everybody who currently pays for 1 hour decided that they could complete their task within the free period, that sum would either be lost or require adjustment of other rates to compensate.

(3) Free Sunday & Bank Holiday parking

The petitioners also seek free parking on Sundays and Bank Holidays. Current trading practices mean that these days are very similar to any others, with most retail premises being open for business.
Historically, parking in Tunbridge Wells Borough Council car parks within the town centre was offered free of charge on Sundays because there was little demand for their use, and it was uneconomical to employ supervisory staff on those days.

A typical Sunday produces approximately £7,000 in car park income.

Bank Holiday income is less easy to put into context because there are few of them and the amounts are small in overall terms but vary significantly depending on a number of factors. From the data available, Bank Holidays appear to generate slightly more income than Sundays with three recent ones averaging £7,500.

It is also worth bearing in mind that any changes to operating methods or charging structures require the making of new Parking Places Orders and that these can only be put in place through a statutory process, which is both time consuming and expensive (approximately £2,000 per Order in advertising costs, plus changes to machinery and notice boards).

It is not possible to make experimental Parking Places Orders, so each change needs to be carefully considered and given a lengthy lead in period of about 4/6 months.

**Conclusions**

None of the 5 town centre car parks were designed with Pay on Foot operation in mind. That does not preclude its introduction, but is likely to compromise efficient operation due to the nature of our facilities.

Pay on Foot, as advocated by the petitioners, should be viewed as an alternative to Pay & Display rather than a step forward in car park management. Introducing Pay on Foot would, from an operational and technological point of view, be an expensive sideways move.

If we are to offer a cost effective system which benefits both operator and user, it seems clear that developing technology - such as Pay by Phone - potentially provides a better solution than the Pay on Foot method sought by the petitioners.

In respect of a free initial period, this could be accommodated with any system but would either result in a loss of income or the need to raise other charges to compensate. Similarly, free parking on Sundays is relatively easy to accommodate but there would be a significant loss of income if no compensatory measures were put in place.

The income from car parks is an important resource for the Borough as the money collected is kept locally and is used to support other services provided by the Council such as parks, the Museum and the Assembly Hall Theatre. If there was a reduction in income from car parking, the reduction would have to be managed through a reduction in other services.