

Title of meeting: Cabinet Member for Traffic and Transportation Decision Meeting

Date of meeting: 12 July 2018

Subject: Smart City Parking App.

Report by: Tristan Samuels, Director of Regeneration

Wards affected: Various

Key decision: No

Full Council decision: No

1. Purpose of report

- 1.1 To consider a proposal for a two year trial of a smart city parking app to help guide drivers to vacant on street pay and display parking spaces.

2. Recommendations

- 2.1 It is recommended that the Cabinet Member for Traffic and Transportation;

- (1) approves a trial of the AppyParking app to take place in Portsmouth subject to an acceptable commercial agreement being finalised between the supplier and the council,
- (2) delegates authority to the Director of Regeneration in consultation with the Cabinet Member for Traffic and Transportation and City Solicitor to finalise an agreement for the trial,
- (3) and should a trial proceed authorises the commencement of all necessary procedures to vary the current parking designation orders for on-street pay and display parking to allow charging per minute for those using the app subject to a minimum charge.

3. Background

- 3.1 Across the UK a driver spends an average of 44 hours a year searching for a parking space. Reducing this search time will reduce congestion and associated pollution and improve the overall function of the network and the drivers' experience of the city.

- 3.2 Smart city applications can help drivers find a space by providing real time information about the availability of spaces. By highlighting vacant spaces, particularly those which are off the normal search pattern, a better utilisation of space can be achieved. The systems also provide a single point of data showing how spaces are being used and this can help inform future decisions about how parking is managed.
- 3.3 Portsmouth City Council has been approached by AppyParking (Yellow Line Parking Ltd) to act as a demonstrator city for their new app. AppyParking working with VISA are offering the City Council a two year trial of the system with installation costs and running costs paid for as part of the trial.
- How the system works
- 3.4 The AppyParking scheme works by installing sensors every three meters in on street pay and display parking places. A photograph of the sensors is provided in Appendix A. The proposed sensors are the thinnest commercially available and compliant with the Department for Transport's guidelines for road studs.
- 3.5 The sensors detect when a vehicle has parked and send data to a base station receiver. The information is then transmitted from the base station to the main system. A system in Portsmouth is estimated to require around 3,000 sensors and between two to four base stations. A base station is a small receiver which is positioned in a tall building. The estimated cost of the hardware and installation is over £300,000 and this hardware would belong to Portsmouth City Council.
- 3.6 The AppyParking system also includes an innovative "frictionless" payment system. Drivers registered on the app will be able to pay by clicking on the app when they arrive in an on street parking space. The system will know where the vehicle is parked and start charging their account according to the tariff that applies at that location. The system will automatically stop charging them when they drive away. A receipt for the parking will be sent to the driver.
- 3.7 Drivers will be charged for the parking and an additional 30p per transaction to cover the cost of using the app. The 30p transaction charge will go to AppyParking and Portsmouth City Council will keep the full parking charge. The system will be set up so payments are made directly to an account controlled by the City Council and AppyParking will invoice us for the 30p transaction charges every month.
- 3.8 To maximise the benefit of using the app AppyParking require the City Council to agree to change the charging structure for those using the app so they can pay by the minute subject to a minimum charge. This provides a fairer way to pay and is possible because the length of the parking session can be measured exactly using the sensors. With traditional pay and display or pay by phone drivers pay for larger periods of time and often pay for more than they use. There are also some who under pay and hope to drive off before they get a penalty charge. With AppyParking's system everyone would pay for what they use.

- 3.9 It is important to note that drivers will still have the option to use all the existing payment methods, paying by cash at the machines, paying by phone and to use wave and pay at some machines. The AppyParking system will run alongside the current payment methods.
- 3.10 During the proposed trial AppyParking will provide and install all the sensors and the base stations. The system will be supported by AppyParking. There will be a two year warranty on all sensors deployed. If sensors are lost or damaged by street works or other means the council would need to ensure they were replaced. The Council's existing arrangement through the PFI contract for monitoring street works and reinstatement will help ensure the sensors are replaced whenever work is carried out on the road.
- 3.11 In summary as part of the trial AppyParking will:
- provide and install all sensors,
 - provide and install base stations,
 - provide support for the system for two years without charge,
 - cover the running costs of the system for two years,
 - provide access to the dashboard displays and graphical reports showing the usage of the parking bays,
 - provide a stock of replacement sensors,
 - provide training on using and maintaining the system,
 - provide signage agreed by both parties.
 - agree a marketing plan jointly with the City Council
- 3.12 The Council will need to:
- propose a change to the Traffic Regulation Order to allow charging by the minute for those using the app but subject to a minimum purchase
 - assist the installation of the sensors by suspending parking spaces
 - provide two to four locations in the city for base stations with power and internet connections
 - be responsible for any damage caused to the sensors during street works or by other acts
- 3.13 If the recommendations in this report are approved the aim will be to reach agreement with AppyParking by the end of July. The system would then be installed and tested over the next six to nine months before going live.
- 3.14 The two year trial period will give the City Council the opportunity to evaluate the benefits and issues associated with smart city apps. The trial represents good value and is a unique offer so a waiver to the normal procurement rules can be obtained. A decision whether to continue will need to be made after the first year so that there is time to run a procurement exercise to establish a system for a longer period. If a decision is made not to continue the City Council could pay to have the sensors removed or leave them in place.

4. Reasons for recommendations

- 4.1 Smart City Technology is relatively new but has the potential to change the way people act. Reducing the time it takes for drivers to find parking space by providing real time information will improve the drivers experience and reduce congestion and pollution caused by vehicles looking for place.
- 4.2 The “frictionless” payment system provided by the AppyParking with easy payment and charging by the minute will encourage use of the app and help realise the benefits. This is currently a unique feature of the AppyParking system.
- 4.3 AppyParking estimate the system will increase bay occupancy in the pay and display areas by 3 to 6%. The app will help drivers find pay and display parking more quickly and achieve better utilisation of spaces particularly those further from the normal search pattern. AppyParking also estimate the average length of stay for those using the app will increase by 2 to 4% and that it will reduce payment avoidance by 2 to 4%. The trial will enable us to measure the level of benefit the system achieves in Portsmouth with our constrained road network.
- 4.4 Smart City parking technology is developing and similar solutions could in future be applied to residents parking areas. These types of systems will also be important in the development of autonomous vehicles which will need to make decisions about where they can park.
- 4.5 The trial is for two years but progress will be monitored throughout the period. If the results are positive after a year we will need to consider tendering for a longer term solution.
- 4.6 The alternative options are to do nothing and monitor the effect these types of systems have elsewhere or look to purchase a bespoke system. By waiting we will not receive the benefits. Purchasing a bespoke system will cost hundreds of thousands of pounds and the benefits at not quantifiable at this stage. The trial is an opportunity to test a system in Portsmouth and help develop the approach with minimal risk. This is the recommended option.

5. Equality impact assessment

- 5.1 The recommendations do not have a negative impact on any of the protected characteristics as described in the Equality Act 2010. The app provides further flexibility in terms of payment and can help all users find space.

6. Legal implications

- 6.1 Under section 46 of the Road Traffic Regulation Act 1984 the local highway authority may by order impose charges for on-street parking at all times or for specified times only at such parking places as are designated by such order.

The times and amounts of any charges imposed by such designation orders may be subsequently varied under the provisions of section 46A of the Act

- 6.2 Notice has to be given in accordance with the provisions of the Local Authorities Traffic Orders Regulation 2006 of any variation of the charges or to the times that such charges shall apply
- 6.3 Guidelines issued by the government provide that the setting of charges for parking on-street or off-street in designated areas is a matter for the authority. It states that authorities should review charges periodically and take account of their effectiveness in meeting policy objectives.

7. Director of Finance's comments

- 7.1 AppyParking will supply and install all of the equipment involved in the trial to the City Council for free which they value in excess of £300,000. However PCC will need to accept the costs of preparing the TRO's required for installation of that equipment, this is expected to be under £10,000 which includes officer time already funded from the existing budget.
- 7.2 During the two year trial period there will be no revenue cost to the City Council. Users of the AppyParking app will be charged a convenience fee of £0.30 per transaction which will be payable to Appyparking. Although this charge is higher than the current non-cash options, the charging method is not considered to effect the user who will be able to offset the single transaction fee (unlike other phone apps who will charge again to top up) against the saving made through paying only for the minutes actually used.
- 7.3 The purpose of the trial is to measure the effectiveness of the app, particularly in reducing congestion. The trial will also enable us to assess whether the app will generate additional income by encouraging more use of parking in the City by creating a more convenient solution to payment. A full financial evaluation will be carried out towards the end of the trial period before the Council commits to extending the trial period on a permanent basis.
- 7.4 The hardware and equipment used to enable the functionality of the app will be transferred into the Council's ownership at the start of the trial therefore the Council will be responsible for the cost of replacing or fixing any damaged equipment during the trial period. The costs of replacing a sensor on the road could be up to £80, the amount of sensors that are likely to be damaged is likely to be small and possibly in single figures per annum.
- 7.5 The supplier will not be entitled to any payment for service until the end of the trial period, after the trial period ends this method of payment could cost the Council an additional £50,000 per annum. This is however a rough estimate and is subject to negotiation. The Council will consider this cost against the benefits of the app toward the end of the trial period. The Council by accepting this trial are under no obligation to make this a permanent.

- 7.6 At the end of the trial period if we do not wish to continue using the equipment the cost of removing it will be met by the City Council. The cost of this is likely to be under £10,000 and will be funded from the On Street Parking Reserve. The installation of the equipment will take 10 days and the removal is likely to be the same duration.

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Signed by:
Tristan Samuels
Director of Regeneration

Appendices: Appendix A -details of sensors

Background list of documents: Section 100D of the Local Government Act 1972

The following documents disclose facts or matters, which have been relied upon to a material extent by the author in preparing this report:

Title of document	Location

The recommendation(s) set out above were approved/ approved as amended/ deferred/ rejected by on

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Signed by:
Councillor Lynne Stagg
Cabinet Member for Traffic and Transportation

