

Replacement of car parking control equipment at Grafton East, West and Queen Anne Terrace multi-storey car parks.

A1. Project Brief - Purpose

To replace the current aging parking operating system and equipment at Grafton East, West and Queen Anne Terrace multi-storey car parks.

The new system will include pay on foot technology to control access to and facilitate payment for parking across the three multi-storey car parks, and enable the Council to explore other payment options such as web-based and cashless payment systems. This new equipment will also allow the introduction of pre-booking facilities and mobile wallets.

With the exception of Park Street car park where it is not proposed to install new equipment at this stage, the new parking equipment will be the same as already installed at the Grand Arcade car park. This will give us one centralised, standardised and seamless operating system from the Grand Arcade and across the whole parking portfolio. From 2020 the council will need to comply with new payment card industry regulations for the processing of cashless and card parking payments. The card payment industry is closely regulated and controlled to ensure that all cardholder's details are kept secure and that fraudulent transactions are kept to a minimum. As card payments are completed by an automatic machine without the supervision of an attendant, there are strict security requirements for this "unattended" payment equipment. These requirements have increased significantly over the past 2-3 years. This means that older machines must be phased out by the mid 2017 at the latest,

The new parking system will also need to be capable of meeting the demand for services that can sustain both the revenue and reputation of the council, including new ways of payment. The proposed system will improve access to the car park, and facilitate customer-focused initiatives and promotions that can influence parking behaviour.

A2. Project Background

Car parks are key gateways for visitors and customers into the city centre and provide an important source of income which contributes to the provision of essential council services.

The current life cycle of modern parking equipment has reduced to around 5 years. The council's main management system (Parkeon) will be 8 years old by June 2016.

The car parking equipment at Grafton East, West and Queen Anne Terrace multi-storey car parks therefore needs to be replaced to sustain and protect the council's income stream and reputation.

A decision needs to be made to commit the capital expenditure to replace this old equipment with more modern equipment that addresses and meets customer needs and expectations.

We are experiencing a decline in the performance of the Parkeon system and maintenance costs of the ageing equipment are increasing. Recent evidence of this is:

- 16 serious service interruptions since April 2015
- 2 catastrophic Parkeon server system failures since April 2016. These were over busy Bank Holiday weekends and had a significant impact on car park operations, putting the council's revenue and reputation at risk
- Experience of response times has been unsatisfactory, with replacement parts taking up to a year to be delivered, one of these being an important server replacement
- On-going maintenance fees & engineer call outs due to replacement of ageing parts and system failures is increasing operating costs

Disruption as a result of inoperative equipment and service failures has a direct impact on queuing and congestion within the city centre, the operations of the car parks and the risk of loss of revenue and overall reputation of the Council.

The current Parkeon system is not web based. This means that the reporting facilities are limited to 2 computers that are currently located at Mill Road Depot and the Grand Arcade operations room. This causes significant operational and administrative challenges. With the evolution of shared centralised support services there is an expectation that access to web based operating report systems is readily available and can meet the business critical elements of delivery of such services.

The Parkeon system is very limited in its ability to deliver against our own and

our customers' expectations and demands. This is also compounded by the high costs presented to us when any new parking technologies or initiatives are discussed in order to enhance the way we deliver our services.

Park Street

Park Street car park is due to be redeveloped during 2017/18. There will be additional pressures on the remaining city centre car parks to provide efficient and resilient parking services to mitigate the temporary loss of these facilities and to maintain revenue streams whilst Park Street car park is being redeveloped. Therefore, it is critical that we have a modern and resilient system that a) meet customers' demands and b) goes some way in reducing the impact of having one of the councils car parks off line for approximately 2 years.

Public demand for cashless parking and innovative payment solutions has grown in recent years. Card payment facilities were introduced into car parks in 2007. Since that time card payments, as a proportion of all payments, have grown steadily. In the first six months of 2015 they accounted for 37% of all payments. As the average card payment is £6.20 (compared to the average cash payment of £4.61), 47% of total revenue is received through card payments equating to approx. £5m.

With the added speed and convenience of contactless payment, it is expected that card payments will continue to grow as a proportion of overall payments. If current trends continue in the car parks then 1.5 million payments (66% of all transactions) will be made by card by 2020. Card payments are therefore central to the Council's strategy for managing car parks.

One consequence of this trend is the reduction in cash payments through pay machines. As part of this project we are looking to reduce the number of full cash payment machines, and to replace some of them with credit card only machines at a reduced cost.

With the widespread availability of new technology, including contactless payment, mobile phone payment technology (e.g. Wave and Pay, Apple & Pay, PayPal) there is an expectation and demand from customers and businesses that these kinds of modern and convenient, cashless technologies should also be available alongside the more usual payment choices to pay for car parking.

Security Standards for card systems (known as PCI) have been significantly increased in recent years. This has resulted in older equipment, such as those installed in the Grafton East, West and Queen Anne Terrace car parks, becoming obsolete and having card payment equipment (pin pads) that are deemed unsuitable for continued use.

The card equipment suppliers intend to withdraw support for existing units, and banks have placed restrictions on the length of time that they can be used. Theoretically older products can be used until 2020, however, in practice they will need to be replaced by mid-2017 at the latest.

In general, payment service providers and acquirers are unwilling to take on new card processing contracts where card payments have been taken by old payment devices. This would also affect our ability to take advantage of the favourable European interchange rates for card payment processing which would be available if new equipment is installed at these car parks.

We have been informed that new card readers, PIN pads, contactless readers and associated equipment could be purchased and retro fitted into the existing Parkeon pay machines. However, the indicative cost for providing this is approx. £80000 which would be of limited economic benefit, given the age of the equipment (the pay stations will already be 8 years old by June 2016). To maintain the existing pay stations beyond this time would be increasingly expensive, run the risk of high maintenance costs and could cause difficulties in managing operational and service demands.

The new car parking equipment will be more reliable than the old equipment and will include the latest Pay on Foot technology to control access to and facilitate payment for parking across one or more multi-storey car parks. This will also enable web-based and cashless payment options.

The new equipment will allow for the same automated Blue Badge management system that is in operation at the Grand Arcade car park to be introduced. This allows for the scanning of Blue Badge bar codes which then provide 3 hours parking discount to the holder. This would create a unified system across the car park infrastructure and help protect the Blue Badge system from abuse. The introduction of self-service for ticket validation by Blue Badge holders will also reduce the number of intercom calls into the Grand Arcade control room, freeing up staff to carry out other duties.

A3. Objectives

- To replace the car park management system and equipment at Grafton East, West and Queen Anne Terrace with a single, more efficient, more resilient, more flexible and future-proofed system that can standardise the operation of car parks across the city centre
- To install pay stations which include the latest payment card industry

standards (PCI) accreditation PIN pads. This also allows for contactless card payments to be taken

- To procure a new payment services provider (PSP) to obtain an exemption to appoint an acquiring bank who can work with the new PSP
- To take advantage of more favourable European card handling rates
- To reduce cash handling costs
- To reduce the number of full cash machines to credit card only (significant saving on original anticipated costs)
- Extend self-service of Blue Badge scheme to all participating car parks
- To have new and resilient equipment that can efficiently handle the increased demand of other car parks and that will support business and local economies in Park Street and Bridge Street areas during the development of Park Street car park.

A4. Benefits

- To have a single modern operating system for the management of the car parks as opposed to two
- Ease of use for staff and customers and less impact on current resources
- Web based operating system which gives better resilience allowing for any car park to be operated from any one location
- The new equipment will incur lower maintenance costs particularly in year one and two of the contract
- Web based operating report systems available from multiple locations
- To have the ability to continue to take credit card payments and reduce card handling costs and allow for contactless payments at reduced costs
- To take advantage of lower European card handling fees
- To reduce cash handling costs
- To extend choice of payments to include the potential to introduce pre booking, electronic mobile wallets (account based payments), Wave and Pay and PayPal, with the associated potential for cross-selling of other services with parking
- Improve security of system through centralised internet controls
- Standardised customer experience across all car parks

- Automated and consistent Blue Badge management system
- To support local businesses and the economy as a result of the loss of Park Street car park

B1. Capital Costs and Funding

B1. Capital Project Appraisal - Capital costs & funding – Profiling

Capital costs per car park: Inclusive of installations, hardware, supporting elements and IT infrastructures.

Queen Anne Terrace - £156.857
Grafton West - £149.493
Grafton East - £264.162

Total £570,513 (bidding for £570k)

Note: We will look into the opportunities of being able to sell the Parkeon equipment (we will need to ascertain what, if any income there is for this. However, we cannot do this until a decision has been made to replace the equipment because of the commercial sensitivities around this). Any monies raised will be offset against the capital costs.

B1a. VAT implications

Standard VAT will apply.

Total Capital Costs	£ 570,000
Total Capital Funding Requirements	£ 570,000

B2. Revenue Costs and Funding

Savings on maintenance costs for first 2 years only due to warranty periods.

Appendix A

	2015/16 £s	2016/17 £s	2017/18 £s	2018/19 £	Annual ongoing
Total Annual Revenue costs					
Revenue funding requirements	(16000)	(16000)			Savings on maintenance costs for first 2 years only due to warranty periods

B4. Procurement Strategy

Is there a framework contract? Yes – The Council ran an OJEU compliant procurement exercise in 2013 for the replacement of the equipment at the Grand Arcade. That procurement exercise recognised the aspiration of the Council to standardise its parking equipment in the future and we therefore built options into the procurement exercise and the contract that would allow us to call off such additional equipment in the future without having to go back to the market. We now wish to exercise those options.

Target Dates for major procurement elements of the project (where appropriate):

Start of procurement	Oct 2013
Award of Contract	New contract April 2016
Start of project delivery	Sept 16
Completion of project	Oct 17
Date that project output is expected to become operational (if not same as above)	Summer 2016

B5. Staffing and external contractor resources

Appendix A

Skill/level/person	Estimated number of hours	Estimated Duration	
		Start date	Finish date
Project Manager	175	Aug 2015	
Parking Project and Commercial Team	160	Aug 2015	
Parking Operations Team	110	May 2016	
Contractors	270	Aug 2015	
Legal	20	Oct 2015	
Business Support	25	May 2016	
Finance	15	Oct 2015	
Procurement	20	Jan 2016	
Audit	55	Aug 2015	

B6. Wider staff implications

Project Manager

To prepare and present reports for capital programme board. To gain all necessary authorities and funds prior to procurement. To manage the smooth operation of the parking portfolio whilst works are being undertaken. To manage the contract, resources and overall implementation of the project when ensuring specification requirements are being met.

Parking Services.

To support the project manager in preparing reports for capital programme board. To gain all necessary authorities and funds prior to procurement. To manage the smooth operation of the parking portfolio whilst works are being undertaken. Assist in the management of the project including approvals and sign off at each stage. To record and assist in management the project budget. Communications to all stakeholders

Procurement – General procurement advice

Legal – Contractual and legal support

Audit – critical friend and support throughout and after the project delivery

B7. Outline your approach to consultation

There is no formal consultation. However, we have and will be engaging with stakeholders, as identified below, as and when the project progresses.

- Grafton Centre Management team – February to September 2016 at point of installation phase
- Cambridge BID – January 2016 and ongoing
- Kelsey Kerridge – September/October 2016 at point of approved installation phase
- Parkside Pool - September/October 2016 at point of approved installation phase
- Grand Arcade parking operations room - January to October 2016
- Councillors - January 2016
- City Council Communications team – September/October 2016 at point of installation phase
- Finance – January to April 2016
- Audit – September 2015 ongoing
- Procurement – January 2016
- Legal – August 2015

B8. Equalities Impact (EQIA)

There are no negative impacts as a result of this project. Replacement of the existing equipment with APT Skidata will allow a much improved system giving more flexibility to customer's payment options and accessibility to Cambridge multi-storey car parks. This will also allow for a consistent approach in the management of Blue Badge users allowing enhancement of self service and independence throughout the transaction/payment/discount processes. The new system also protects the Blue Badge scheme from fraudulent usage and abuse.

B9. Environmental Impact

Noise – We anticipate there may be some noise as a result of removal of the old equipment. As such, these works will be conducted to cause minimum impact.

Climate change rating is Nil.

This section is supported by the Environmental Impact Assessment documentation

Appendix A

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B11. Risk assessment

- Failure of equipment – Replace with modern and robust equipment
- Loss of reputation – Replace ageing system and equipment allowing resilience and ability to deal with increasing demands
- Loss of revenue - Replace ageing system and equipment allowing resilience and ability to deal with increasing demands. Appoint payment service provider and acquiring bank that can manage and handle demands of card and other cashless payment options
- Inability to take cashless and card payments – Replace ageing system and equipment allowing resilience and ability to deal the increasing demands. Appoint payment service provider and acquiring bank that can manage and handle demands of card and other cashless payment options
- Reduced quality of customer service - Replace ageing system and equipment allowing resilience and ability to deal with increasing demands. Appoint payment service provider and acquiring bank that can manage and handle demands of card and other cashless payment options
- Increased maintenance costs - Replace ageing system and equipment allowing resilience and ability to deal with the ever increasing demands. This will also give lower maintenance costs in first 2 years of contract that what we are paying now
- Environmental impact on traffic infrastructure (congestion) - Replace ageing system and equipment allowing resilience and ability to deal with increasing demands. New equipment will also allow for incentives to park at low peak periods and to work with the evening economy to assist in change of shopping habits
- The current card handling contract which is also inclusive of the acquiring bank element is due to expire in September 2016. Inability to appoint a new payment service provider and acquiring bank by the time the new equipment is installed would result in that inability to accept card payments which could result in loss of revenue and reputation of the council
- Non-compliance with payment legislation - Replace ageing system and equipment allowing resilience and ability to deal with increasing demands. Appoint payment service provider and acquiring bank that can manage and handle demands of card and other cashless payment options in conjunction with new pin pads that will meet payment

legislation

- Inconsistent Blue Badge management system leaving the scheme administratively heavy and open to abuse - Replace ageing system and equipment allowing resilience and consistency across the whole parking portfolio when dealing with Blue Badge holders and reducing the impact of fraudulent use of the scheme
- Inconsistent service delivery from having two separate car park operating systems with different levels of ability - Replace ageing system and equipment allowing resilience and ability to deal with increasing demands. Allows a uniformed approach in the way that services and payment options are offered across the whole parking portfolio
- Failure to support local businesses and economy to mitigate the impact of the loss of Park Street car park in 2017/18 - To provide efficient and resilient parking services to mitigate the temporary loss of these facilities. To maintain revenue streams and protect the reputation of the council. Therefore, it is important we have a modern and resilient operating system that a) meet customers' demands and b) goes some way in reducing the impact of having one of the councils car parks off line for approximately 2 years.

B12. Anticipated approach and timetable

Interdependencies:

The card handling equipment/pin pads that will be installed in the new pay stations will require new payment service provider and acquiring bank contracts. These will both need to be in place prior to the new equipment being installed.

Due to the requirements of the banking system approval processes only certain payment service providers can work with the APT Ski-Data equipment and pin pads. This unfortunately does not include our current payment service provider. If the replacement of car parking equipment is approved for Queen Anne Terrace, Grafton East & Grafton West multi-storey car parks then we will immediately need to tender for a new payment service provider and then seek an exemption to enter into contract with an acquiring bank. These contracts will need to be in place prior to new equipment being installed.

PROVIDE TIMELINE OF KEY PROJECT DATES

Stage/Milestone	Outcome/Deliverable	Date of Completion
Capital programme board	Approved	27.10.15
ESC	Approved	Jan 2016
<i>Note: Card handling report to go to ESC for approval to appoint a new payment service provider and acquiring bank</i>	<i>Approved</i>	<i>Jan 2016</i>
Project team kick off meeting	Agreed tasks and plan	Jan 2016
Variation to existing contract (Legal)	Completed and fully signed by both parties	Jan/Feb 2016
Commission works	Purchase order issued	April 2016
Project team installation planning meeting	Agreed Microsoft project GANT chart delivered and approved	April 2016
APT Ski-data equipment build time	Equipment built	May 2016
Sign off of equipment	Meets specification requirements	May 2016
Grafton East delivery of equipment and installation	Installed	June/July 2016
Grafton West delivery of equipment and installation	Installed	July/Aug 2016

Appendix A

Queen Anne Terrace car park delivery of equipment and installation	Installed	Aug/Sept 2016
Completion and sign off of project	All elements of specification requirements met and installation completed	Oct 2016
Post project review	Lessons learnt and ongoing contractual management for duration of contract	Jan 2017

Appendix A

Project Control Document - Capital costs & funding - Profiling						Appendix A
	2015/16	2016/17	2017/18	2018/19	2019/20	Comments
	£	£	£	£	£	
Capital Costs						
Building contractor / works						
Purchase of vehicles, plant & equipment (including IT infrastructure & costs)		570,000				This includes all installation, IT , softwasre and hardware
Professional / Consultants fees						
Other capital expenditure:						
<i>insert rows as needed</i>						
Total Capital cost	0	570,000	0	0	0	
Capital Income / Funding						
Government Grant						
Developer Contributions						
R&R funding (if applicable)						(State cost centre/s)
Earmarked Funds						(State cost centre/s)
Existing capital programme funding						(Programme ref.)
Revenue contributions						(State cost centre/s)
Total Income	0	0	0	0	0	
Net Capital Bid	0	570,000	0	0	0	Must agree to B1 (see PCD - Part B)

Appendix A

Project Control Document - Revenue Costs					Appendix B
	Update financial years as necessary				
	Yr1	Yr 2	Yr 3	Yr4	Comments
	£	£	£	£	
Maintenance	(16,000)	(16,000)			Savings on maintenance due to warranty period for first 2 years only
Insurance					
Operating costs					
Staff (savings)/costs					
Energy (savings)/costs					
Other (savings)/costs					
<i>insert rows as needed</i>					
	(16,000)	(16,000)	0	0	
Existing budget provision					
Net Revenue Implications	(16,000)	(16,000)	0	0	Savings on maintenance due to warranty period for first 2 years only