

**North Yorkshire County Council**

**Business and Environmental Services**

**Executive Members**

**23 April 2021**

**Harrogate Smart Parking – Update and Procurement**

**Report of the Assistant Director – Highways and Transportation**

**1.0 Purpose Of Report**

- 1.1 The purpose of this report is:  
to provide a final update on the performance of the Smart Parking trial;  
to outline core elements of the Business Case (pended as supplemental information) reviewed and agreed by BES Management Team on 08 March and to seek approval to continue smart parking services in the Harrogate area, and for HBC to commence a procurement process on behalf of NYCC and HBC.

**2.0 Background**

- 2.1 On 20 April 2018, the Corporate Director of Business and Environmental Services (BES) in consultation with BES Executive Members approved an 18-month pilot of smart parking in Harrogate Town in partnership with Harrogate Borough Council (HBC).
- 2.2 The 18-month pilot went live on 28 January 2019, at which Harrogate was the first town/city in the UK to have an end-to-end smart parking system (encompassing bay occupancy identification/navigation and 'one click' payments).
- 2.3 In February 2020, a proposal was brought forward to the Corporate Director of BES and BES Executive Members requesting a 12-month extension to the trial (to 28 July 2021).
- 2.4 The extension aimed to provide the local authorities with the opportunity to fully develop/evaluate a business case for a longer term smart parking solution in the District. This extension also provided additional time to undertake a meaningful trial of the delayed barrier solution for Jubilee/Victoria Multi Story Car Parks and imminent product developments. Whilst the barrier solution is not an on-street matter it was recognised that the improved off-street offer could have positive traffic management benefits in accordance with the strategic approach to parking management.
- 2.5 The extension was agreed and in September 2020, a Project Manager was allocated to the project with a range of objectives including:
- To determine the success of the pilot by maximising the use of the data to capture the full benefit of having the solution in place.
  - To capture all of the benefits for both Councils.
  - To capture and understand (Mitigating where necessary.) the risks of keeping and ceasing use of the solution.
  - To provide key stakeholders in both NYCC and HBC, including Elected Members with sufficient detail in terms of benefits to enable a decision to be taken on how to proceed.

- To agree the next steps in terms of continuation with a SMART Parking solution, whether to consider other options with a possible countywide solution.
- To identify and agree sufficient resource capacity is available from both Council's to achieve a successful outcome to this project.
- To deliver the project before the current pilot extension expires (July 2021).

2.6 A joint project team was established with Officers from NYCC (Technology & Change and Highways and Transportation Services) and HBC (from Parking Services & Economic Development Teams) to undertake an analysis of the parking trial and support the delivery of the project's objectives.

2.7 This project team reported to the Smart Harrogate Board, which has joint senior officer membership across both NYCC and HBC.

### 3.0 Smart Parking Trial

3.1 The Smart Parking Pilot provided the opportunity to gather data and insight across both on-street (using the App and on-street sensors) and off-street parking (using the sensors, the integrated barrier solution and payments via app).

3.2 Over 2,200 sensors were deployed across on-street and off-street parking locations with over 14,500 users of the solution to the end of August 2020 (146k parking sessions).

3.3 The table below outlines a selection of supporting KPIs captured over the life of the pilot to the end of August 2020 (date of analysis).

| KPI  | Performance  |
|--|--|
| Average spend for on-street smart parking sessions compared to Pay & Display sessions      | 12.8% or £0.25 higher spend on average per session |
| Average spend for off-street smart parking sessions compared to Pay & Display sessions     | 19.8% or £0.50 higher spend on average per session |
| Duration of average on-street smart parking stays compared to Pay & Display average stays  | 7.2 mins longer on average per session             |
| Duration of average off-street smart parking stays compared to Pay & Display average stays | 49.2 mins longer on average per session            |
| % of respondents who prefer smart parking to Pay & Display                                 | 93%  |
| % of respondents who say smart parking saved them time                                     | 83%  |
| % of respondents who say smart parking reduced stress levels                               | 83%  |

3.4 The parking pilot was also recognised by the British Parking Association and the Department for Transport and has won two National Awards.

3.5 Using information gathered during the smart parking pilot, a detailed review of the data generated, feedback and response to the solution and its impact on service delivery was undertaken. The Smart Harrogate Project Team proposed that the pilot to be a success, and that work to explore a continued smart parking solution was recommended.

- 3.6 The Smart Harrogate Board endorsed the success of the trial and agreed a 9-month plan of work which included:
- A Request For Information (RFI) soft market testing exercise to understand the “art of the possible” in smart parking technology in the market
  - Development of a business case including pertinent risk assessments and other considerations
  - All to be delivered to ensure (if applicable) to ensure the continuity of smart parking solution is maintained

#### 4.0 Continuation of Smart Parking

- 4.1 Building on the benefits outlined above, the Business Case outlined three measurable primary benefits that demonstrated the viability for the continuation of Smart Parking provision (outlined below):

| No. | Benefit Description  | Benefit Measure  | Baseline Actual Measure  | Actions Required to Achieve Measures   | Planned Benefit Delivery Date |
|-----|--|--|--|--|-------------------------------|
| 1   | Additional User spend anticipated from parking sessions paid for through App | Average spend through smart parking app vs pay & display machines (targeting 7.5% utilisation)   | 25p on average greater spend through app   | Marketing and engagement activity will accompany the renewal of the contract   | Ongoing                       |
| 2   | Reduced transaction costs to the authority                                   | An increase in the number of parking sessions paid for by the App vs Pay & Display machines (increased utilisation) as this will demonstrate a reduction in Council costs associated with P&D machines | 8.1% on-street transactions  | Marketing and engagement activity will accompany the renewal of the contract   | Ongoing                       |
| 3   | Improved customer experience   | Increasing levels of customer satisfaction for visitors to Harrogate Town Centre across a range of metrics   | A baseline of 84.75% satisfaction (against 4 questions outlined in FBC) was captured during the pilot. A new baseline may be required. | An increase in utilisation of the app should lead to increased levels of satisfaction and a greater sample size to use to demonstrate the achievement of this benefit. | Ongoing                       |

- 4.3 During the smart parking trial, the average utilisation of the app was 8.1% for on-street parking transactions and 5.4% for off-street parking transactions.

#### 5.0 Market Engagement & Procurement

- 5.1 Although the solution provided by supplier A was seen as being innovative when first put in place in early 2019, it was important to ensure the project team explored other solutions currently available in the sector.
- 5.2 A RFI (Request For Information) was published on YORtender for a three-week period and notifications were placed through the British Parking Association (BPA) to ensure there were a range representative set of response submissions. The aim was to understand “the art of the possible” in terms of what solutions (and indicative costs) were available in the market to meet a set of benefits associated with having a

smart parking solution. The exercise would support the development of the Council's requirements for procurement.

- 5.3 16 responses were received, from which six suppliers were identified as proposing solutions that could meet the outcomes outlined in the RFI and were invited to present to the joint HBC/NYCC project team.
- 5.4 Key findings from engagement with the market:
- Most solutions presented were predicated on hardware (i.e. sensors/camera)
  - Hardware was the largest element of cost for any of the proposed solutions (based on information provided in the RFI responses)
  - Sector has developed since initial pilot proposal but is still in its' infancy
  - Many suppliers were still in development / pilot phases with other local authorities and were not fully tested, market ready solutions.
  - Machine learning / AI "predictive availability" early in development
  - Many suppliers were either Software or Hardware based and required partnerships with other suppliers to enable the delivery of a complete solution.
  - Hardware was required to meet the requirement for actual/live parking availability
  - There did not seem to be any significant benefits from moving to a new hardware solution at this time.

## **6.0 Recommended Option**

- 6.1 The existing sensors (secured at no charge to the Councils as part of the smart parking trial) installed have an estimated life expectancy of 10 years, meaning that if the sensors were to be removed, there would be a loss of potential benefit to be derived from an insitu asset.
- 6.2 There is also a long-term ambition to explore the potential for a scalable solution, which could be utilised more widely than the existing geographical area. The Local Government Review (LGR) process causes uncertainty over the long-term geographical requirements for a long-term solution.
- 6.3 Following an options appraisal, the project team considered the best value approach to extending smart parking provision was to appoint a software supplier that can utilise the existing hardware on a short-term basis so as to take advantage of remaining sensor lifespan. This would also allow for any larger-scale review, procurement and deployment following LGR.
- 6.4 Options for appointing a supplier included a bid process, the Spark Dynamic Purchasing System or the G-Cloud 12 Framework. A desk-based evaluation of the G-Cloud framework identified a single supplier that was able to meet the LAs requirements for a Software as a Service (SaaS) based license utilising the existing hardware at relatively low cost.
- 6.5 This option delivers the project objectives whilst also:
- Securing a new short term (2 + 1 + 1 Year contract) that will utilise existing hardware.
  - Providing best value through utilisation of existing hardware for the duration of the estimated lifespan
  - Enabling HBC/NYCC to continue gathering data from smart parking provision to continue to inform parking, transport and traffic management strategy

- Managing reputational risk of not continuing the provisions of a smart parking solution
- Providing time for the smart parking industry to further develop both hardware and software solutions
- Buying time to conclude the outcome of LGR. This will ensure that any long-term solution with a wider geographical coverage is chosen based on the outcome of LGR.

## **7.0 Contracting Arrangements**

7.1 HBC currently manage on-street parking (including the contracting for on-street pay and display machines) on behalf of NYCC. As the G-Cloud framework does not facilitate a tripartite approach to contracting (a tripartite contract was utilised for the trial period), it was decided that HBC would be the Contracting Authority for the procurement process and enter into the agreement with the new supplier and a Collaborative agreement would be put into place between HBC and NYCC. This would mirror the existing parking management relationship in place between both organisations.

7.2 Performance indicators and targets will be established for the smart parking solution, however initial efforts will focus on increasing uptake as people return to Harrogate Town in 2021. Other applications HBC have identified to be explored include deployment in mobility hubs and retailer/BID involvement.

## **8.0 Governance**

8.1 A Final Business Case was taken to BES Management Team on 08 March, providing authorisation:

- To split the costs associated with the smart parking solution with HBC
- For HBC to be the contracting authority

8.2 HBC Cabinet are considering a report on 28 April requesting authorisation to enter into the arrangements outlined above.

## **9.0 Conclusions**

9.1 Smart parking is more convenient for the customer, increases dwell time in Harrogate Town Centre and enhances its offer. Furthermore, the data/insight supports strategic and operational decision-making.

9.2 The analysis outlined above and within the Business Case demonstrates the benefits to both the Councils (HBC and NYCC), and those choosing to park in Harrogate Town Centre.

9.3 The recommended option to put in place a smart parking provision on a medium-term basis (2-4 years) maintains delivery of the identified benefits and enables planning for a longer-term, scalable solution when uncertainty relating to LGR is removed.

## **10.0 Equalities Implications**

10.1 An Equality Impact Assessment was undertaken with no negative impacts identified the assessment is included as Appendix A to this report.

## **11.0 Climate Change Implications**

- 11.1 The impact assessment identified that there are a number of positive environmental, resident/visitor and economic impacts of maintaining and building upon the smart parking solution within the Harrogate Town Centre.
- 11.2 These include:
- A reduction in carbon emissions and improved air quality due to less time and distance travelled searching for a parking space
  - Provides a foundation for future “smart” solutions that could evolve to include things like improved public transport, air quality monitoring etc...
  - With the growth in Electric Vehicle infrastructure (e.g. charging points), a smart parking solution provides a foundation to potentially include future developments such as charger maps and navigation, booking and payment via an app.
  - The solution will provide valuable data to NYCC to support the development of traffic management strategies and decision-making, aiming to reduce congestion in the Harrogate area.
- 11.3 This smart parking solution may provide a foundation to build upon in future that could reap further environmental benefits, which support the Council’s ambition to become Carbon neutral by 2030 the assessment is included as Appendix B to this report.

## **12.0 Data Protection Implications**

- 12.1 A full DPIA was undertaken using information relating to the smart parking provider by NYCC. A full Privacy Impact Assessment has also been undertaken by HBC, and HBC have obtained a Cyber Essentials certificate of assurance.

## **13.0 Financial Implications**

- 13.1 The financial impact of implementing the recommended option is an annual cost of £18k, year 1 costs to be met from the CPE annual surplus. Costs for subsequent years to be borne by HBC and recouped from costs of managing on-street parking on behalf of NYCC under the existing Service Level Agreement (SLA).

## **14.0 Legal Implications**

- 14.1 The Traffic Regulation Order providing for charges in the Pay and Display zone(s) (“the TRO”) was previously varied by the (HARROGATE, KNARESBOROUGH, PANNAL AND BURN BRIDGE)(PARKING AND WAITING)(NO 33) MINOR ORDER 2018 to cover the trial period of 18 months and subsequently to cover the 12 month extension. A Traffic Regulation Order (TRO) under the Road Traffic Regulation Act 1984 will be required to facilitate the future delivery of the scheme in Harrogate.
- 14.2 HBC will carry out a procurement process on behalf of HBC and NYCC to appoint the contractor via a compliant procurement route: G Cloud Framework.
- 14.3 A Collaboration Agreement will be drafted and put into place between HBC and NYCC to define the relationship between both parties in relation to smart parking provision.

## **15.0 Recommendations**

15.1 It is recommended that the Corporate Director, in consultation with BES Executive Members:

Note the success of the Smart Parking Trial; Authorise NYCC to continue with smart parking provision in Harrogate, with HBC leading the project

BARRIE MASON  
Assistant Director – Highways and Transportation

Author of report: Jon Savage

Background Documents: None

|   |   |           |                                     |
|---|---|-----------|-------------------------------------|
| <b>Initial equality impact assessment screening form</b><br>(As of October 2015 this form replaces 'Record of decision not to carry out an EIA')  |   |           |                                     |
| <b>This form records an equality screening process to determine the relevance of equality to a proposal, and a decision whether or not a full EIA would be appropriate or proportionate.</b>  |   |           |                                     |
| <b>Directorate</b>  | Business and Environmental Services   |           |                                     |
| <b>Service area</b>   | Highways and Transportation   |           |                                     |
| <b>Proposal being screened</b>  | Smart Parking Solution Harrogate  |           |                                     |
| <b>Officer(s) carrying out screening</b>  | Jon Savage  |           |                                     |
| <b>What are you proposing to do?</b>  | Update on the performance of the smart parking trial in Harrogate.  |           |                                     |
| <b>Why are you proposing this?<br/>What are the desired outcomes?</b>   | To request endorsement for the recommended continuation of smart parking services in the Harrogate area.                            |           |                                     |
| <b>Does the proposal involve a significant commitment or removal of resources? Please give details.</b>   | <b>Proposal of a two-year contract for both on and off street parking £72k (£36 PA) cost shared equally between NYCC &amp; HBC.</b> |           |                                     |
| <b>Impact on people with any of the following protected characteristics as defined by the Equality Act 2010, or NYCC's additional agreed characteristic</b><br>As part of this assessment, please consider the following questions:   |   |           |                                     |
| <ul style="list-style-type: none"> <li>To what extent is this service used by particular groups of people with protected characteristics?</li> <li>Does the proposal relate to functions that previous consultation has identified as important?</li> <li>Do different groups have different needs or experiences in the area the proposal relates to?</li> </ul> |   |           |                                     |
| <b>If for any characteristic it is considered that there is likely to be a significant adverse impact or you have ticked 'Don't know/no info available', then a full EIA should be carried out where this is proportionate. You are advised to speak to your <a href="#">Equality rep</a> for advice if you are in any doubt.</b>                                 |   |           |                                     |
| <b>Protected characteristic</b>   | <b>Yes</b>  | <b>No</b> | <b>Don't know/No info available</b> |
| Age   |   | No        |                                     |
| Disability  |   | No        |                                     |
| Sex (Gender)  |   | No        |                                     |
| Race  |   | No        |                                     |
| Sexual orientation  |   | No        |                                     |
| Gender reassignment   |   | No        |                                     |
| Religion or belief  |   | No        |                                     |
| Pregnancy or maternity  |   | No        |                                     |
| Marriage or civil partnership   |   | No        |                                     |
| <b>NYCC additional characteristic</b>   |   |           |                                     |
| People in rural areas   |   | No        |                                     |

|  |  |    |                       |
|--|--|----|-----------------------|
| People on a low income   |  | No |                       |
| Carer (unpaid family or friend)  |  | No |                       |
| <b>Does the proposal relate to an area where there are known inequalities/probable impacts</b> (e.g. disabled people's access to public transport)? Please give details.   | No.  |    |                       |
| <b>Will the proposal have a significant effect on how other organisations operate?</b> (e.g. partners, funding criteria, etc.). <b>Do any of these organisations support people with protected characteristics?</b> Please explain why you have reached this conclusion. | No   |    |                       |
| <b>Decision (Please tick one option)</b>   | EIA not relevant or proportionate:   | X  | Continue to full EIA: |
| <b>Reason for decision</b>   | To request endorsement for the recommended continuation of smart parking services in the Harrogate area. |    |                       |
| <b>Signed (Assistant Director or equivalent)</b>   | Barrie Mason   |    |                       |
| <b>Date</b>  | 14 April 2021  |    |                       |



### Climate change impact assessment

The purpose of this assessment is to help us understand the likely impacts of our decisions on the environment of North Yorkshire and on our aspiration to achieve net carbon neutrality by 2030, or as close to that date as possible. The intention is to mitigate negative effects and identify projects which will have positive effects.

This document should be completed in consultation with the supporting guidance. The final document will be published as part of the decision making process and should be written in Plain English.

If you have any additional queries which are not covered by the guidance please email [climatechange@northyorks.gov.uk](mailto:climatechange@northyorks.gov.uk)

**Please note: You may not need to undertake this assessment if your proposal will be subject to any of the following:**

Planning Permission  
Environmental Impact Assessment  
Strategic Environmental Assessment

However, you will still need to summarise your findings in in the summary section of the form below.

Please contact [climatechange@northyorks.gov.uk](mailto:climatechange@northyorks.gov.uk) for advice.

|   |   |
|---|---|
| <b>Title of proposal</b>  | <b>Harrogate Smart Parking</b>                        |
| <b>Brief description of proposal</b>  | <b>Harrogate Smart Parking – Post Trial Provision</b> |
| <b>Directorate</b>  | <b>BES</b>  |
| <b>Service area</b>   | <b>Traffic Engineering</b>                            |
| <b>Lead officer</b>   | <b>Jon Savage</b>                                     |
| <b>Names and roles of other people involved in carrying out the impact assessment</b> | <b>Andrew Clare</b>                                   |
| <b>Date impact assessment started</b>   | <b>12.4.21</b>  |

**Options appraisal**

Were any other options considered in trying to achieve the aim of this project? If so, please give brief details and explain why alternative options were not progressed.

**None**

**What impact will this proposal have on council budgets? Will it be cost neutral, have increased cost or reduce costs?**

Please explain briefly why this will be the result, detailing estimated savings or costs where this is possible.

**Two year contract for both on and off street parking £72 (£36 PA) costs shared between NYCC & HBC.**

APPENDIX B

| <p>How will this proposal impact on the environment?</p> <p><b>N.B.</b> There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.</p> | <p><b>Positive impact</b><br/>(Place a X in the box below where</p> | <p><b>No impact</b><br/>(Place a X in the box below where</p> | <p><b>Negative impact</b><br/>(Place a X in the box below where</p> | <p>Explain why will it have this effect and over what timescale?</p> <p>Where possible/relevant please include:</p> <ul style="list-style-type: none"> <li>• Changes over and above business as usual</li> <li>• Evidence or measurement of effect</li> <li>• Figures for CO<sub>2</sub>e</li> <li>• Links to relevant documents</li> </ul> | <p>Explain how you plan to mitigate any negative impacts.</p> | <p>Explain how you plan to improve any positive outcomes as far as possible.</p> |  |
|--|---|---|---|---|---|--|--|
| <p>Minimise <b>greenhouse gas emissions</b> e.g. reducing emissions from travel, increasing energy efficiencies etc.</p>   | <p>Emissions from travel</p>  | <p>X</p>  |   |   |   |  |  |
|  | <p>Emissions from construction</p>                                  |   | <p>X</p>  |   |   |  |  |
|  | <p>Emissions from running of buildings</p>                          |   | <p>X</p>  |   |   |  |  |
|  | <p>Other</p>  |   | <p>X</p>  |   |   |  |  |
| <p>Minimise <b>waste</b>: Reduce, reuse, recycle and compost e.g. reducing use of single use plastic</p>   |   | <p>X</p>  |   |   |   |  |  |
| <p>Reduce <b>water</b> consumption</p>   |   | <p>X</p>  |   |   |   |  |  |

**APPENDIX B**

| <p><b>How will this proposal impact on the environment?</b></p> <p><b>N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.</b></p> | <p><b>Positive impact</b><br/>(Place a X in the box below where</p> | <p><b>No impact</b><br/>(Place a X in the box below where</p> | <p><b>Negative impact</b><br/>(Place a X in the box below where</p> | <p><b>Explain why will it have this effect and over what timescale?</b></p> <p><b>Where possible/relevant please include:</b></p> <ul style="list-style-type: none"> <li>Changes over and above business as usual</li> <li>Evidence or measurement of effect</li> <li>Figures for CO<sub>2</sub>e</li> <li>Links to relevant documents</li> </ul> | <p><b>Explain how you plan to mitigate any negative impacts.</b></p> | <p><b>Explain how you plan to improve any positive outcomes as far as possible.</b></p> |
|---|---|---|---|---|--|---|
| <p>Minimise <b>pollution</b> (including air, land, water, light and noise)</p>  | <p><b>X</b></p>   |   |   |   |  |   |
| <p>Ensure <b>resilience</b> to the effects of climate change e.g. reducing flood risk, mitigating effects of drier, hotter summers</p>  |   | <p><b>X</b></p>   |   |   |  |   |
| <p>Enhance <b>conservation</b> and wildlife</p>   |   | <p><b>X</b></p>   |   |   |  |   |
| <p>Safeguard the distinctive characteristics, features and special qualities of <b>North Yorkshire's landscape</b></p>  |   | <p><b>X</b></p>   |   |   |  |   |
| <p>Other (please state below)</p>   |   | <p><b>X</b></p>   |   |   |  |   |

**Are there any recognised good practice environmental standards in relation to this proposal?** If so, please detail how this proposal meets those standards.

**None**

**Summary** Summarise the findings of your impact assessment, including impacts, the recommendation in relation to addressing impacts, including any legal advice, and next steps. This summary should be used as part of the report to the decision maker.

A reduction in carbon emissions and improved air quality due to less time and distance travelled searching for a parking space. Provides a foundation for future 'Smart' solutions that could evolve to include improved public transport, air quality monitoring etc. With growth in electric vehicle infrastructure, a smart parking solution provides the foundation to potentially include future developments such as EV charger maps and navigation, booking and payment via an app.

**Sign off section**

This climate change impact assessment was completed by:

|                        |  |
|------------------------|--|
| <b>Name</b>            | <b>David Kirkpatrick</b>               |
| <b>Job title</b>       | <b>Traffic Engineering Team Leader</b> |
| <b>Service area</b>    | <b>Traffic Engineering</b>             |
| <b>Directorate</b>     | <b>BES</b>                             |
| <b>Signature</b>       | <i>David Kirkpatrick</i>               |
| <b>Completion date</b> | <b>12.4.21</b>                         |

**Authorised by relevant Assistant Director (signature):** Barrie Mason

**Date:**