# Highways Asset Management System Replacement

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| To: | Highways and Transport Committee |
| Meeting Date: | 13th September 2022 |
| From: | Steve Cox, Executive Director Place and Sustainability |
| Electoral division(s): | All |
| Key decision: | No |
| Forward Plan ref: | N/A |
| Outcome: | The Highways and Transport Committee is being asked to approve going out to tender for the Highways Asset Management System Replacement. The new system will replace the current Insight system, which is on a rolling annual contract.  A fit-for-purpose Highways IT system is critical for continued compliance with statutory duties and obligations for our Highways Services.<br><br>The expected outcome is the procurement and implementation of a new system, or systems, that meet the needs of the Highways Service, Members and Residents, together with the introduction of efficiencies within the Service which will enable staff and resources to be deployed more efficiently. |
| Recommendation: | The Highways and Transport Committee is asked to:<br><br>a) Agree the specification for a new Highways Asset Management system as outlined within the report.<br>b) Recommend to Strategy & Resources committee the approval of going out to tender for the new Highways Asset Management system, the cost of which is going to exceed £500,000 over the lifetime of the contract.<br>c) Recommend to Strategy & Resources Committee that it delegate the decision to award these contract(s) to the Director of Highways and Transport and the Section 151 Officer in consultation with the Chair & Vice Chair of the Highways and Transport Committee. |

Officer contact:
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# 1. Background

1.1 The management and maintenance of the Cambridgeshire Highways Network requires the service to hold, manipulate and use a wide range of information. To efficiently and effectively manage the information a specialist IT system is required. The current system Insight no longer provides the functionality or capability to support the required service delivery.

1.2 The new Highways Asset Management System will enable the service; to effectively manage the day-to-day interactions and transactions that ensure the highway is maintained in a safe condition; respond to public, Town & Parish Council and Member enquiries with relevant and timely information; support the management of works and works programmed through detailed Asset inventory and condition data. The new system will support performance management of the service by enabling in-depth analysis and reporting of data to inform KPIs, and operational and strategic decision making.

1.3 The new Highways Asset Management System will enable mobile working 'in the field' which will support more efficient working practice and use of staff resources. Mobile working reduces the need to come into an office/desk to manage reports from site as they come in, removes the need to make notes and add to the system later, and allows new work to be raised directly from site, improving accuracy, reducing manual operations, reducing the time taken to respond to an issue and reducing travel.

1.4 The new Highways Asset Management system will be capable of directly sharing information and' talking to' other core council and Delivery Partner systems such as our financial system and the Milestone Causeway works management system. This will support efficiencies in works ordering, customer feedback and financial management.

1.5 The new system will be supplier hosted 'in the cloud' removing the need for Council IT staff to directly manage the system. Cloud hosting provides additional business continuity resilience for the service (generally, services are run from two or more data centres, meaning if one is unavailable another will deliver the system) and, as the supplier will manage upgrades, will ensure the council has the latest version at all times.

# 2. Main Issues

2.1 The currently used Insight system is outdated in its architecture which limits its usability and effectiveness as a management tool.
The public facing Report It tool has limited reporting and feedback functionality.
The current system has a mobile working solution, but it doesn't run on common mobile platforms (iOS or Android) requiring us to use more expensive and less intuitive Windows tablets. This results in the mobile solution being less used, further resulting in double handling of information by staff and many paper/email reliant processes that are inefficient and lead to information loss creating delays when responding to issues.
The current system does not provide all of the required activities within the service to meet all service needs. To meet those needs the service uses a number of other systems, such as KarbonTech for drainage.
The current system uses a number of workarounds to help comply with NEC Contract Management.

2.2 The Insight system is locally hosted on the council's own servers. This requires high levels of staff resources to maintain the infrastructure supporting the system and is not in line with the IT Strategy to move most line of business systems to the cloud.

2.3 The software is used under a annual rolling contract with Symology. The contract renewal date is 1st April annually.

# 3. Recommended Approach

3.1 The intention is to go out to tender in October 2022 to appoint a supplier for the new Highways Asset Management system by January 2023. Commencing implementation by April 2023.

3.2 Implementation will be in phases and is likely to take around 1 year to fully complete. Work is currently going on with the Highways Service to redefine processes and procedures to enable us to implement quickly and maximise the benefits of using the new system.

3.3 Resource within IT and the Highways Service is being planned and allocated to ensure implementation is fully supported and progresses as required.

3.4 Work to determine the requirements of the new Highways Asset Management system commenced in 2021. Specification development has involved;

- Highways and internal partner team workshops.
- Informal supplier engagement to understand the market
- Discussion with other Local Highway Authority Clients
- Discussion at Highways Improvement Board
- Inclusion of information from Town and Parish Council, staff and Member consultation as part of the Local Highways Officer Review project.
- Highways and Transportation Committee Member workshop on 21st July 2022 to ensure customer and member requirements are fully understood
- Formal soft market testing exercise.

3.5 The member workshop highlighted a number of key requirements that will be included in the new system;

- The new system should remove the need for entering data more than once.
- The new system needs to integrate with external systems and integrate with our internal systems/suppliers. These integrations need to be live to ensure current data is used by all.
- It should be possible to drill down into the information presented as some users will want more detailed information on reported issues. It is suggested that the information is available on three levels;

  - One for highways team - as day-to-day work.
  - One for residents - resident report a pothole – interaction for residents with more information - avoid potholes being reported numerous times.
  - One for members - where they can self-serve for more information, rather than contacting the officer for details.

- Members and Residents should be able to report issues and obtain updates via a portal. Issues that don't meet the Intervention criteria for an urgent response should be updated with the target date for any necessary repair work or a comment included explaining why no action is planned to be taken.
- Information on planned maintenance and future works should be available via the portal.
- Town and Parish Councils should have access to the system to allow them to report issues on residents' behalf and to obtain updates that they can communicate back.
- County Councillors will be involved in demonstrations of potential systems to ensure any system meets their needs.
- System should integrate with Google Maps, Streetview and 'What Three Words'.

3.6 Soft market testing and market information indicates that there are around 7 specialist highways asset management system providers with 4 main suppliers in the UK market.

3.7 The specification has been written as an outcome specification to enable us to ensure potential suppliers shape and configure their systems to achieve best fit for us.

3.8 The new system(s) will be procured to facilitate information sharing; to remove manual data entry; to improve data quality; and to provide effective electronic communications within the Highways service, with residents and others working in and with Highways Services. The introduction of self-service, automation and the ability to pass work onto others within and across services, will reduce the administrative burden on staff.

3.9 Through the procurement of this system(s), a financial review and cost analysis will be undertaken to ensure accurate costings and spend are reported to Officer Capital Programme Board.

## 4. Design and Cost

4.1 The ambition for the future is to have a system that can provide efficient access to the data required to maintain the counties highways. The new system will provide improved management information reports. The new system will substantially increase our ability to engage and feedback to customers. It is intended that the new system will be provided as a Software as a Service solution. This will remove the need for locally hosted servers, reducing the server footprint in the data centre in line with the IT Strategy, ultimately providing a cost saving and reduction in carbon footprint.

4.2 Overall, the Highways Asset Management Systems replacement project will address the inadequacies and complexities of the current system, improving our ability to efficiently and effectively maintain the County's highways.

4.3 Following a review of all the information flows in the Highways Service there is a strong case to ensure that the IT systems used are not only robust and efficient but integrated to allow sharing of relevant information within the Highways service and with partner organisations.

4.4 Working with colleagues in Procurement and Legal we have identified that full competitive tender is the best approach to ensure regulatory compliance, value for money and a high-quality product for the Local Authority.  A 'soft market test', to identify the ability of the market to meet our needs, confirmed that multiple suppliers exist who can supply a suitable product. Preparatory work has taken place on the business and technical specifications for this award

so we are confident that it can be achieved in the timeframe proposed by the programme.

4.5     The detailed costs and anticipated savings are to be determined, as we have yet to complete the procurement exercise. We have, through investigation of the market, estimated outline costs based on responses from two of the companies that responded to the Soft Market Testing

Implementation costs (Capital)

| Type | Cost |
|---|---|
| Set up and configuration | £200,000 |
| Internal Resource (incl. Data Engineers) | £200,000 |
| New hardware (mobiles/tablets) | £100,000 |
| Total | £500,000 |

Annual costs (Revenue)

| Type | Cost |
|---|---|
| Highways Asset Management Software | £200,000 |
| Customer Portal | £50,000 |
| Total (estimated 7 year term) | £1,750,000 |

Procurement will be by full tender and include presentation of customer facing system to Members.

Provisional timeline
October 2022 – Publish Tender
November – Tender returns
December – Supplier presentations to Members.
December – Tender Evaluations
January 2023 – Award Decision by Director Highways and Transport and s151 Officer in consultation with Chair and Vice Chair H&T Committee
February – Commence implementation
Implementation in 2023/24.

# 5.     Alignment with corporate priorities

5.1     Environment and Sustainability
The following bullet points set out details of implications identified by officers:
- Increased opportunity for self-service through secure on-line portals helping to provide Councillors residents with the ability to report highways issues and obtain information on the reported issues
- Reducing the production of paper

5.2     Health and Care

There are no significant implications for this priority.

5.3     Places and Communities

The following bullet points set out details of implications identified by officers:
- o   Improved ability for Councillors and residents to find the information they need easily and in a format that suits them best
- o   Higher quality data being shared between services that will benefit everyone

5.4                                                                    Children and Young People

There are no significant implications for this priority.

5.5     Transport

There are no significant implications for this priority.

# 6.     Significant Implications

6.1     Resource Implications

The following bullet points set out details of significant implications identified by officers:

- Estimated Capital and revenue costs for Cambridgeshire County Council: shown in Point 4.5 above
- Delivering value for money: Increased efficiency and effectiveness in the delivery of services.  Positive impact on Local Authority performance. Improved compliance with statutory duties.

6.2     Procurement/Contractual/Council Contract Procedure Rules Implications

The following bullet points set out details of significant implications identified by officers:

- Please refer to section 2. All IT systems purchased by the programme have or will go through a full tender process supported by the procurement and legal teams already attending its governance boards to ensure all council procedure and contract rules are followed.
- We will be including Social Value criteria as part of the evaluation process with a weighting to be determined.
- The procurement will not be broken into lots, as we will be looking for a single provider. All businesses will be able to submit a bid as appropriate.

6.3     Statutory, Legal and Risk Implications

The following bullet points set out details of significant implications identified by officers:

- Please refer to section 2. For compliance with statutory duties and regulations it is essential for the authority to share, manage and maintain data and information related to provision of Highways services
- Were the authority to cease to use the current system and fail to replace it, there would be risks of reputational damage.

- There would be risks of GDPR non-compliance and an increased risk of data breaches in the absence of a robust system.
- Without an effective system, there would be an increased risk of staff turnover due to frustration over a lack of accurate information and the requirement to check data multiple times.
- There are risks of financial loss through manual errors in financial data entry were there not to be a well-designed system in place.

6.4     Equality and Diversity Implications

The following bullet points set out details of significant implications identified by officers:

- The aim of the new system(s) is to provide improved access to services by all communities particularly its use of portals enabling people to self-serve and to increase access to specific communities, including but not limited to: disabled people, those with Special Educational Needs, travellers, health partners, parents, carers and young people. The service will, however, retain the option for postal communications and telephone enquiries and reports via the Customer Access Service.

6.5     Engagement and Communications Implications

The following bullet points set out details of significant implications identified by officers:

- The system will provide improved communication with residents and partner organisations involved in the delivery of Highways services. Residents will be able to report issues via a portal, they will also be able to obtain updates on issues they have reported from the portal. Information will be able to be exchanged digitally with partner organisations, this will improve performance and reduce the potential for errors that can occur when information is entered more than once,
- Improved timeliness of information exchanged with partner organisations will improve statutory compliance and help with intervention where this is required.
- Officers will have access to robust and current data when dealing with service planning and enquiries

6.6     Localism and Local Member Involvement

Members of the Highways and Transport Committee have been briefed on the objectives of the project. Members have been consulted on the particular requirements of themselves and their residents. Members will be kept informed of the progress of the project and any decisions made regarding the system to be selected and implemented.

6.7     Public Health Implications

There are no significant implications within this category.

6.8     Environment and Climate Change Implications on Priority Area

All projects within this programme will complete a climate change impact assessment at each stage.

6.8.1   Implication 1: Energy efficient, low carbon buildings.

Positive/neutral/negative Status: Positive
Explanation: Cloud based providers are aiming to be NetZero and therefore if a replacement is cloud based the implication would be positive.

6.8.2   Implication 2: Low carbon transport.
Positive/neutral/negative Status: Neutral
Explanation: No direct impact

6.8.3   Implication 3: Green spaces, peatland, afforestation, habitats and land management.
Positive/neutral/negative Status: Neutral
Explanation: No direct impact

6.8.4   Implication 4: Waste Management and Tackling Plastic Pollution.
Positive/neutral/negative Status: Neutral
Explanation: No direct impact, should the services be moved to a cloud-based solution there won't be any new equipment and therefore there would be no plastic used, generated or wasted.

6.8.5   Implication 5: Water use, availability and management:
Positive/neutral/negative Status: Neutral
Explanation: No direct impact

6.8.6   Implication 6: Air Pollution.
Positive/neutral/negative Status: Neutral
Explanation: No direct impact

6.8.7   Implication 7: Resilience of our services and infrastructure, and supporting vulnerable people to cope with climate change.
Positive/neutral/negative Status: Neutral
Explanation: No direct impact

Have the resource implications been cleared by Finance? Yes
Name of Financial Officer: Sarah Heywood

Have the procurement/contractual/ Council Contract Procedure Rules implications been cleared by the Head of Procurement? Yes
Name of Officer: Clare Ellis

Has the impact on statutory, legal and risk implications been cleared by the Council's Monitoring Officer or LGSS Law? Yes
Name of Legal Officer:  Fiona McMillan

Have the equality and diversity implications been cleared by your Service Contact? Yes
Name of Officer: Elsa Evans

Have any engagement and communication implications been cleared by Communications? Yes
Name of Officer: Sarah Silk

Have any localism and Local Member involvement issues been cleared by your Service Contact?      Yes

Name of Officer:  Jon Munslow

Have any Public Health implications been cleared by Public Health?  Yes
Name of Officer: Iain Green

If a Key decision, have any Environment and Climate Change implications been cleared by the Climate Change Officer?  Yes
Name of Officer: Emily Bolton

# 7.    Source documents guidance

It is a legal requirement for the following to be completed by the report author.

7.1    Source documents

- Appendix 1 - Highways System Requirement Specification v7
- Appendix 2 – Member Workshop Group Minutes
- Appendix 3 - Equality Impact Assessment Form