
**Decision Session – Executive Member for
Transport and Planning**

15 November 2018

Report of the Corporate Director of Economy and Place

Bridge Management

Summary

1. To update the Executive Member on the management of the council's highway structures and to outline the proposed programme of bridge work to be progressed using the funding provided in the council's capital programme.

Recommendations

2. The Executive Member is asked to:
 - 1) Note the adoption of the new risk based highway structure inspection procedure in order for CYC to comply with the recommendations within the code of practice, Well Managed Highway Structures.

Reason: To enable the continued management of CYC highway structures.

- 2) Approve the proposed programme of bridge works.

Reason: To enable the maintenance of CYC highway structures to continue.

Background

3. There are currently 86 highway bridges with a replacement value of £174 Million within the boundaries of CYC, for which CYC are both the owner and manager of the bridge. Highway bridges are defined as bridges above a span of 1.5m.
4. Historically bridges that are parts of rights of way or within parks have not been part of the ongoing highway bridge management programme. The bridge engineer will work with Parks managers and the Rights of Way team to identify those bridges that require specialist input and add

them to the programme of inspection based upon the risk they pose. This is part of risk managed approach.

5. However not all of the bridges and structures which support or cross the public highway within the boundaries of CYC are owned and managed by CYC. Examples of other bridge owners (and example bridge locations) within the CYC boundaries are;

Network Rail – e.g. Holgate Road Bridge,
Highways England – e.g. A64 bridges,
Sus-trans – e.g. Foss Islands Cycle path bridges,
Environment Agency – e.g. Tang Hall Beck(various)
Private owners – e.g. St Peter’s School footbridge.

6. The scope of this report is focused on CYC highway bridges; however there are a small number of highway retaining walls which come within the remit of highway structures and these are currently managed on a reactive basis. The term highway structures includes a number of other asset categories, however CYC do not currently have assets within these other categories.
7. Maintaining the public highway which includes highway structures is a statutory function. The management of CYC highway structures is currently undertaken within the remit of the Transport Service. CYC highway structures management is a full time role undertaken by a Chartered Civil Engineer within CYC. The management of CYC highway structures role includes current as well as new structures. The role is supported by the use of consultants.
8. Highway bridge inspections are undertaken in order to provide information that enables the management and maintenance of CYC bridges to be planned on a rational basis in a systematic manner. CYC highway bridges are routinely inspected on a rolling cyclic basis. The formal inspection a of highway structure both inform on the current structural condition and identify issues at individual highway structures.
9. In October 2016 a new Code of Practice, Well Managed Highway Infrastructure, was published for the management of local Authority highway infrastructure. The code combines and replaces three previous codes which included highway structures and was commissioned by the Department for Transport. The code of practice is not a statutory document but provides UK Highway Authorities with guidance on highways management. The recommendations within the code should be implemented by October 2018.

10. In line with the recommendations of the current Well Managed Highway Infrastructure code of practice, the type and frequency of individual CYC bridge inspections has now been scheduled using a risk based approach rather than the previous prescriptive fixed time period for all structures. A risk based approach has been developed by the members of the West Yorkshire Combined Authority plus (WYCA+) highway structures group. A risk based approach to highway structure inspection seeks to target inspection resources towards those structures with the greatest need. Using this approach 20 CYC highway structures have been appraised as requiring a regular cyclic principal inspection. CYC highway structure inspections will be periodically reviewed to ensure that the initial risk assessment remains valid. See annex A; List of current CYC owned highway bridges.
11. Inspections can be grouped into three main categories, these being General, Principal and Special inspections. General inspections are undertaken at 2 yearly intervals on all CYC highway bridges. General Inspections provide information on the physical condition of bridges from a visual examination of the bridge from ground level.
12. Principal inspections are more detailed than general inspections and require access to all parts of a bridge in order for a close up examination of all parts to be undertaken. Principal inspections may be undertaken at time intervals ranging between 6 and 12 years after being risk assessed. Currently all CYC principal inspections will be undertaken at 6 year intervals which will override the undertaking of a general inspection.
13. Various types of special inspection are available for bespoke issues and these will be used as and when appropriate eg scour inspections.

Bridge Maintenance Programme

14. Information gained from inspections is used to monitor the changing condition of the various components which make up a highway structure and to identify the requirement for works to be undertaken. The information gained is used to estimate an appropriate time at which to intervene and undertake work on highway structures. Issues are identified and appraised principally for their impact on the ability of a bridge to undertake its intended purpose and the safety of users. Preventative maintenance works are undertaken in order to resolve issues at a stage when undertaking works will prolong the integrity of bridge parts before they affect either user safety; load carrying capacity or result in disproportionate works (cost or disruption).

15. Highway structures are complex assets which are expected to be in use for 120 years. Bridges are subject to many different influences, with a mixture of materials and components which can make the determination of an appropriate time to undertake intervention works subjective for many issues. It is thus necessary to adjust the prioritising of maintenance works if an item of greater structural importance is identified, or if the deteriorating condition of a component changes and to take account of the most recent inspection information.
16. The maintenance, renewal and / or replacement of medium and larger cost items is undertaken using capital funding. For minor maintenance requirements revenue funding is utilised. See annex B: Proposed Work Programme.

Consultation

17. A new risk based approach to undertaking the inspection of CYC highway structures has been developed in consultation and co-operation with the members of the WYCA+ highway structures group. Consultation is undertaken with residents and stakeholders when specific maintenance / inspection work impact on their activities.

Council Plan

18. Bridge management supports the 2015-19 Council Plan and other key change programmes by ensuring the continued use and availability of CYC highway bridges to facilitate the free flow of business, residential and tourist communications throughout the city.

Implications

19.
 - **Financial** - Capital & revenue budgets are allocated to maintain the Council's Bridges. The cost and timing of budget requirements will be dependant upon bridge inspection findings. Budgets in 2018/19, Capital programme £768k, Revenue £108k.
 - **Human Resources (HR)** - no change to current resources
 - **One Planet Council / Equalities** – no implications
 - **Legal** – no implications
 - **Crime and Disorder** - no implications
 - **Information Technology (IT)** – no implications
 - **Property** – no implications
 - **Other** - No other known implications

Risk Management

20. There would be a significant impact on the activity of the city if a bridge had to be closed due to structural issues. The inspection and maintenance of bridges does not guarantee that bridge closures will not occur but significantly reduces the likelihood of this being required.

Contact Details

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Report **Date** 07.11.18
Approved

Specialist Implication Officer:
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Wards Affected: List wards or tick box to indicate all **All**

For further information please contact the author of the report

Background Papers:

Well-Managed Highway Infrastructure: A Code of Practice, October 2016, UK
Roads Liaison Group.

Annexes

Annex A: List of current CYC owned highway bridges
Annex B: Proposed Bridge work programme

Abbreviations

CYC, City of York Council
WYCA+, West Yorkshire Combined Authority plus.