

A605 KINGS DYKE LEVEL CROSSING CLOSURE -AWARD OF CONTRACT FOR DESIGN AND CONSTRUCTION

To: Economy and Environment Committee

Meeting Date: 10th August 2017

From: Executive Director, Economy and Environment.

Electoral division(s): Whittlesey North & Whittlesey South

Forward Plan ref: 2017/004 **Key decision:** Yes

Purpose: To inform the Committee of the outcome of the procurement process for the Design and Construction contract for the Kings Dyke level crossing bypass, to seek Committee's approval to award the contract to the preferred bidder, and to update committee on the land acquisition process.

Recommendation: The Economy and Environment Committee is recommended to:

- a) Note the procurement process and the revised scheme cost.
- b) Approve the award of the Design and Construction contract to the preferred bidder as detailed in Section 2 of this report.
- c) Delegate the decision to commence the second stage of the contract (construction) to the Executive Director of Economy, Transport and Environment in consultation with the Chair and Vice Chair of the Economy and Environment Committee as detailed in Section 2.
- d) Note the need to conclude some land acquisition in advance of the stage 2 contract award and the associated risks; and
- e) Note that approval from the General Purposes Committee for an increased budget for the project may be required following Stage 1 (Design) of the contract.

<i>Officer contact:</i>		<i>Member contacts:</i>	
Name:	Brian Stinton	Names:	Cllr Ian Bates / Cllr Tim Wotherspoon
Post:	Team Leader, Major Infrastructure Delivery,(Highways)	Post:	Chair / Vice Chair
Email:	Brian.stinton@cambridgeshire.gov.uk	Email:	ian.bates@cambridgeshire.gov.uk tim.wotherspoon@cambridgeshire.gov.uk
Tel:	01223 728330	Tel:	01223 706398

1. BACKGROUND

- 1.1 The A605 between Whittlesey and Peterborough carries over 12,000 vehicles per day and there are some 120 daily train movements across the level crossing. The resulting closure of the King's Dyke level crossing barrier causes significant delay to traffic. Future plans by the rail industry to increase the number of trains along the route would further increase delays.
- 1.2 The situation is exacerbated in wetter periods, when local flooding closes North Bank, an alternative route to Peterborough, for long periods of time. The additional 5,000 vehicles a day using the level crossing doubles the average delay per vehicle.
- 1.3 The delays have an impact on local businesses and commuters travelling between Whittlesey and Peterborough. Addressing these problems is vital for the local economy.
- 1.4 When this scheme was developed, a number of options were evaluated. The Benefit Cost Ratio (BCR) of each option was calculated. The BCR takes into account the benefits, assessed in monetary terms, of implementation of a project against the cost of delivery. A higher BCR is indicative of a better investment. The monetary benefit takes into account a range of factors including journey time savings, reliability benefits, vehicle operating costs and indirect tax benefits relating to spend on fuel. The Department for Transport uses the following Value for Money (VfM) categories in relation to Benefit Cost Ratios:
 - Low value for money if BCR = 1.0 to 1.5
 - Medium value for money if BCR = 1.5 to 2.0
 - High value for money if BCR = 2.0 to 4.0.
- 1.5 Early scheme cost estimates indicated a scheme cost of £13.6m, however it was subsequently reported at E&E Committee that the cost for the scheme could increase to £16.9m based upon a revised figure for Optimism Bias which effectively covers the risk of schemes costing more than initially expected. It was noted therefore that additional funding may be required.
- 1.6 The preferred option demonstrated a BCR of 2.43 at a cost of £16.9m. The higher forecast cost was used as this would demonstrate the lowest potential BCR value. This was presented to Committee on the 3rd February 2015 and so it is clear that the scheme falls into the high value for money category according to the Department for Transport. Framework.
- 1.7 At its meeting on 19th April 2016 the Economy and Environment Committee approved the use of the competitive process within the Eastern Highways Framework Contract (EHF2) for the detailed design and construction through an Early Contractor Involvement (ECI), two-stage Design and Construct contract. The procurement has been completed with the outcome detailed in section 2 of this report.
- 1.8 Significant work has been undertaken to secure the land for the scheme and informal agreement has now been reached with all the landowners for the purchase of the land. The legal conveyancing is ongoing but will be completed before the project goes to the construction stage. Further detail is within section 3.

- 1.9 The total scheme costs have been reviewed with the use of the preferred bidder's tendered price for the scheme, and land prices agreed with land owners. Further detail is within section 4.

2. PROCUREMENT

- 2.1 The ECI two stage Design and Construct contract brings the contractor into the project team early, with the team working together through the design and construction phases. This provides benefits of ensuring that the contractor can use his experience in the design phase to reduce overall project risk and ensure buildability.
- 2.2 Whilst an ECI contract is awarded for design and construction, the process is divided into two parts, the first stage will be under a NEC Professional Services Contract (PSC) covering the developed design, detailed design and consents process, with construction as a second stage awarded under a NEC Engineering and Construction Contract (ECC). Currently, a target cost has been given by the contractors for stage 2 based on the outline planning stage design, which will be revised at the end of stage 1 once the detailed engineering design has been carried out.
- 2.3 The Invitation to Tender (ITT) was issued on 11th April as a mini-competition to the 6 contractors on the EHF2 framework under Lot 2. The contractors were given a 10 week tender period which was extended following requests from tenderers for a further 2 weeks and so the tender period closed on 30th June. All six contractors submitted a tender.
- 2.4 The tender required a quality submission to demonstrate how the contractors proposed to build a high quality product to meet the requirements of the County Council, along with separate target costs for the design and construction. The tenders were submitted on the LGSS Procurement e-tendering system and the cost and quality submissions were evaluated separately. No cost information was shared until the quality evaluation had been completed. The scores for each component were then combined to give an overall score. (The quality score is a mix of framework scores and project specific tender scores). The overall score was calculated on a ratio 60% quality to 40% price. The evaluation was undertaken by CCC officers and consultants and independently moderated by LGSS Procurement Officers.
- 2.5 At this stage in the procurement process information on the bidders and details of the tendered prices are confidential. The overall result of the evaluation is set out in **Table1** below.

Table 1

Bidder	Quality score (Max 60%)	Financial score (Max 40%)	Total score (Max 100%)
Bidder 1	41.48	40	81.48
Bidder 2	42.83	35.67	78.5
Bidder 3	48.6	28.73	77.33

Bidder 4	44.85	31.96	76.81
Bidder 5	35.33	30.97	66.29
Bidder 6	38.03	24.6	62.62

From the table it can be seen that Bidder 1 has provided the most economically advantageous tender. It is therefore recommended that the contract for the design and construction of Kings Dyke bypass is awarded to Bidder 1. Details of the bidders' tendered prices are shown in the **Confidential Appendix 1** that will be circulated to committee members.

- 2.6 There is a presumption that the scheme will be delivered as a single package, but there is no guarantee to the contractor that they will be allowed to move directly from detailed design to construction. This would be conditional on satisfactory performance and agreement of a construction target price based on the detailed design.
- 2.7 Given the aspiration to deliver the scheme as quickly as possible, it is proposed that the agreement of the construction Target Price and commencement of construction is delegated to the Executive Director of Economy Transport and Environment, in consultation with the Chairman and Vice Chairman of the Economy and Environment Committee if the cost remains within the currently allocated budget. If the post-design Target Price is significantly higher than the tender stage construction price and/or the scheme cost exceeds scheme budget allocation the decision to trigger construction and seek additional funding will be referred back to Committee.
- 2.8 Tenderers have identified some areas where costs are likely to be higher than initially anticipated, particularly around the ground stabilisation requirements where the route runs close to the disused clay extraction pit. Prices are also heavily influenced by the availability of fill materials for the embankments, construction difficulties posed by ground conditions, the interface with Network Rail and statutory undertakers but these risks will be assessed and managed collaboratively with the contractor throughout the contract to seek to minimise any adverse impact on the budget.

3 LAND ACQUISITION

- 3.1 Recent Government advice on the use of Compulsory Purchase indicates that these powers should only be used as a last resort when acquiring land and that an acquiring authority should make its best endeavours to negotiate land acquisition. The County Council has therefore sought to acquire the land required by agreement with each of the landowners rather than use Compulsory Purchase Order (CPO) powers. Negotiating land acquisition also prevents a lengthy CPO process, which would delay the project with an underlying risk that the CPO might not be successful at Public Inquiry.
- 3.2 As land negotiations have continued, informal agreements on land values and the impact of the scheme on retained land has been reached. The values are greater than the initial estimates as the owners have demonstrated greater value for potential development than Land Agents initially anticipated. The land negotiations are still in the final stages of negotiation, therefore the cost is still confidential at this point. It is likely that some land will need to be acquired prior to the award of the stage 2 contract and this does present some

risks to the County Council should the scheme not subsequently go ahead. However, to not proceed with acquisition when terms have been agreed also carries risk. The Officers' view is therefore that land should be acquired as soon as it is possible to do so.

4 COSTS AND FUNDING.

- 4.1 The current agreed funding for the project of £13.6m consists of £5m from the Growth Deal Funding, £3m from the Local Transport Body, £3.5m from residual unallocated capital funds, and £2.1m from County Council borrowing. Using the costs from the tender return and land cost following negotiations, there is now a much greater certainty on the overall cost for the scheme.
- 4.2 These costs, together with the estimates of third party costs (e.g. Network Rail and statutory undertakers), management, supervision and optimism bias at 15%, indicate that the forecast scheme cost is likely to exceed the current Business Plan allocation of £13.6m and could be close to the £16.9m that was previously reported to Committee.
- 4.3 The post-design construction Target Price will vary from the current construction Target Price estimate submitted as part of the tender, as a result of development of the engineering detail, the clarification of construction methods and material costs. Award of Stage 2 of the contract will be dependent on this cost. The proposed process for award is outlined in Section 2.7.
- 4.4 Stage 1 of the contract can be awarded within the agreed funding in the current Business Plan and it is recommended that Stage 1 is awarded at this meeting. Stage 1 of the contract will be used to undertake further site investigations and surveys, to liaise with third parties (Network Rail and Statutory Undertakers) to inform the detailed design and refine scheme costs. During this stage officers will work with the contractor, his designer and third parties to undertake value engineering exercises to reduce costs where possible, and to manage and mitigate risks associated with the project. Completion of stage 1 will provide a still greater level of cost certainty and further reduce optimism bias.
- 4.5 If the funding requirement following stage 1 increases over the current Business Plan allocation, additional funding will be sought from the Economy, Transport and Environment Committee and will be required to be approved by GPC before stage 2 of the contract can be awarded.
- 4.6 The County Council will continue to look for further funding from other sources for example, Network Rail but there is no guarantee this funding will become available.

5 PROGRAMME

- 5.1 The contractor's tender stage programme for construction is longer than anticipated at the preliminary design stage. If approval is given at this committee to appoint the preferred contractor, then the potential programme will be:

September 2017	Appoint contractor; Start stage 1 design
March 2018	Stage 1 design complete; Review Target cost

April 2018	Start stage 2 Construction (Subject to additional funding)
Summer/Autumn 2019	Construction complete; Scheme opens

However, following Stage 1, an agreed construction programme will be included in the Stage 2 contract. Once the Contractor is appointed in Stage1, the project team will work with the contractor to review the construction and third party requirements to see whether the suggested programme can be reduced.

- 5.2 It should be noted that the construction programme will depend on the method of construction chosen by the contractor, the requirement to secure possessions from Network Rail to work over and close to the railway and statutory undertakers' work to divert or protect services. These elements of work will require liaison and detailed approvals based on the design detail, construction methods and programme. In order to minimise programme risks so far as practicable at the stage, discussions with Network Rail and statutory undertakers have been held. The contractor will be brought into these discussions at the earliest opportunity following award of contract.

6. ALIGNMENT WITH CORPORATE PRIORITIES

6.1 Developing the local economy for the benefit of all

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

- The current layout at the level crossing causes significant congestion, which makes the area unattractive for development. The scheme will support plans for improvements to the area.

6.2 Helping people live healthy and independent lives

There are no significant implications for this priority.

6.3 Supporting and protecting vulnerable people

There are no significant implications for this priority.

7. SIGNIFICANT IMPLICATIONS

7.1 Resource Implications

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

- The overall cost for the scheme is likely to be greater than the previously reported amounts owing to the increased cost to acquire the land and potential increase in construction cost from the previous estimate. As noted above, officers will work with the contractor to reduce this where possible.

- See section 4 for details of available funding. The County Council will continue to look for further funding from other sources, for example Network Rail.
- The current scheme estimate includes a rate of Optimism Bias of 15% to reflect the increase of cost certainty based on the contractor's tendered price. With further development of the design there will be a reduction in optimism bias and potential opportunity to reduce overall costs and programme by undertaking value engineering exercises with the contractor.
- Significant efforts have been made to ensure that the scheme is delivered competitively by the most appropriate contractor. The tender process has tested bidders' understanding of the scheme and key risks in its delivery.
- As a Target Cost Contract, actual costs will be paid. In construction projects where a number of factors are unknown, costs will almost certainly vary from the agreed Target Prices.

7.2 Procurement/Contractual/Council Contract Procedure Rules Implications

The report above sets out details of significant implications in section 2.

7.3 Statutory, Legal and Risk Implications

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

- The key risks are detailed in a scheme Risk Register which has been considered by bidders as part of their tender submission. Updating this is a key activity and will commence collaboratively soon after appointment of the contractor. Identified key risks include coordinating work with Network Rail and statutory undertakers, dealing with poor ground conditions, and cost control. The risk register will be reviewed and updated throughout the project and mitigation actions agreed.
- Health and Safety on the scheme will be managed in accordance with all relevant legislation, including the Construction Design and Management Regulations 2015.
- There is ongoing legal conveyancing work that needs to be completed for the land acquisitions. The timescales for this can vary but we anticipate it will be completed well in advance of the construction stage. However, completing this process and making payments on land in advance of the agreement of the construction target cost presents a risk to the County Council, if for any reason the County Council should decide not to proceed with the construction.
- Stage 1 can be carried out within the current funding allocated within the business plan. Additional funding may be required before the project can go to stage 2. Stage 1 of the contract could be awarded within the current funding. However, additional funding will need to be approved before Stage 2 can commence.

7.4 Equality and Diversity Implications

There are no significant implications within this category

7.5 Engagement and Communications Implications

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

- Public consultation has been a key factor in the identifying a recommendation for a preferred option.
- Further public consultation and community engagement has been undertaken as part of the planning process.
- Updates for stakeholders and the public will be provided during the next stages of the scheme.
- The Project Board draws upon local members both for steering the project and local knowledge of issues.

7.6 Localism and Local Member Involvement

There are no significant implications within this category.

7.7 Public Health Implications

There are no significant implications within this category

Implications	Officer Clearance
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 Finance?	Yes Name of Procurement Officer: Linda Baxter
Has the impact on statutory, legal and risk implications been cleared by 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: Tamar Oviatt-Ham
Have any engagement and communication implications been cleared by Communications?	Yes Name of Officer: Eleanor Bell
Have any localism and Local Member involvement issues been cleared by your Service Contact?	Yes Name of Officer: Tamar Oviatt-Ham

Have any Public Health implications been cleared by Public Health	Yes Name of Officer: Tess Campbell
--	---------------------------------------

Source Documents	Location
<p>Planning Committee, Economy and Environment Committee Report 19th April 2016 Major Schemes Business Case-V2 March 2017 Tender evaluation summary</p>	<p>Room Box 1311 Shire Hall, Cambridge</p>