

**ABBEY-CHESTERTON BRIDGE – APPROVAL TO PROGRESS DETAILED
DESIGN AND PLANNING APPLICATION**

To: Economy and Environment Committee

Meeting Date: 17th November 2015

From: Graham Hughes, Executive Director – Economy, Transport and Environment

Electoral divisions: Abbey and East Chesterton

Forward Plan ref: 2015/022 **Key decision:** Yes

Purpose: To seek approval of a preferred option to progress to detailed design, submit a planning application, and commence procurement for the Abbey – Chesterton bridge

Recommendation: Committee is asked to:

- a) note the further engagement work undertaken;
- b) approve the development and submission of a planning application based on a ‘hybrid’ design of Option One and Option Two, placed as close to the existing rail bridge as possible on the east side;
- c) approve the use of Compulsory Purchase powers if required;
- d) approve the use of a Bridge Navigation Order;
- e) endorse procurement through the Eastern Highways Alliance contract;
- f) note the programme; and,
- g) support the establishment of a Local Liaison Forum to meet quarterly.

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1. BACKGROUND

- 1.1 The Chesterton-Abbey Bridge forms an important part of The Chisholm Trail project that seeks to provide a high quality strategic foot and cycle link between the existing and new railway stations in Cambridge, and a link at each end of the Busway cycle route. A bridge would also support a strategic link between the Science and Business Parks to the north of the river Cam, and link to retail areas and business hubs to the south, and residential areas to the east. The location of the proposed bridge and The Chisholm Trail are shown on **Plan 1**.
- 1.2 As part of the Section 106 agreement relating to the new station, the County Council was required to produce a feasibility study report into the possible construction of a foot and cycle bridge over the River Cam at Chesterton. The study was completed in March 2014.
- 1.3 Initial user modelling undertaken by consultants suggests that around 3,000 trips a day could be expected from a bridge in this location. The siting of a bridge here would make for reduced journey lengths across the city for certain trips, and hence would make walking and cycling more attractive than car travel.
- 1.4 With a station in place and without a new bridge, pedestrians and cyclists accessing the station could use Green Dragon bridge, which is off the direct desire line for many trips. This is a relatively narrow bridge for which cyclists are asked to dismount. Currently the bridge is crowded at peak times, and this situation will worsen as further developments take place and the station opens.

2. LOCATION

- 2.1 The feasibility study report was reviewed by County Council engineers and bridge specialists, who concluded that two locations to the east of the rail bridge over the Cam could be considered.
- 2.2 In addition, a public engagement exercise carried out at the start of the feasibility study in October 2013 suggested that a bridge that blended in with the current rail bridge was preferable to a modern high impact design, such as Riverside Bridge. Many comments were made suggesting that the new bridge be connected to the existing rail bridge. This has been explored with Network Rail, and is not feasible from a construction, management and maintenance point of view.
- 2.3 Locating the bridge and its ramps to the west of the existing rail bridge would have a big impact on residential properties in Chesterton fronting the river, whereas to the east there is only one nearby property. The proposed route for The Chisholm Trail approaching the bridge from Newmarket Road follows Coldhams Brook and would skirt the edge of Ditton Meadows following the rail embankment closely on the east side.
- 2.4 Following the production of the feasibility study, analysis of comments made at public consultation, discussions with Network Rail, and extensive engagement with stakeholders and interest groups, locating the bridge on the east side, but sited very close to the existing bridge is the best option and

recommended as a way forward. Subject to detailed design, craning methodology and final agreement with Network Rail a bridge will be sited 10 metres from the existing rail bridge.

3. STRATEGIC CASE

- 3.1 In March 2014, Cambridgeshire County Council adopted the Transport Strategy for Cambridge and South Cambridgeshire (TSCSC). TSCSC sits under Cambridgeshire's Third Local Transport Plan (LTP3) and alongside the Cambridgeshire Long Term Transport Strategy (LTTS). A refreshed LTP3 and the LTTS were both adopted in November 2014. Together, these set out the vision, high level principles, policies and strategy approach for transport in Cambridgeshire.
- 3.2 All of these overarching documents, particularly TSCSC, make reference to the need to invest further in expanding and improving the cycling network, and thus the new linkage created by the proposed Abbey-Chesterton bridge has a strong policy basis.
- 3.3 The TSCSC makes reference to cycling strategy, and specifically refers to:
- Using the opportunity that the new developments in and around the city present to create a step-change in the level and quality of walking and cycling facilities that are provided, which can in turn be plugged into the wider network.
 - Provision of additional links on the existing network to join up key destinations that are already partially served by the network (for example The Chisholm Trail).
 - As part of the wider corridor treatment, seek to widen existing cycle and pedestrian paths and introduce new segregated paths where appropriate.

More details at this link: <http://tinyurl.com/qxjv5bd>

- 3.4 The Transport Strategy for Cambridge and South Cambridgeshire was prepared in parallel with the Cambridge and South Cambridgeshire Local Plans that were submitted for examination in March 2014. The submitted Cambridge and South Cambridgeshire Local Plans are planning for 33,000 new homes and 44,000 new jobs by 2031. The growth proposed in these plans will only be deliverable and supported if suitable transport measures and investment are led, coordinated and delivered. The Plans include policies requiring sustainable transport modes including cycling.
- 3.5 A new bridge would provide a direct, convenient link between employment, residential and educational establishments on each side of the river. On the north and west side:
- Cambridge Science Park
 - Cambridge Business Park and St John's Innovation Park
 - Cambridge Northern Fringe East Development Area (11,000-27,000 future jobs depending on the adopted scenario)
 - The new Cambridge North station
 - Cambridge Regional College
 - The Cambridge to St Ives Guided Busway link to St Ives and villages north of Cambridge

- Kings Hedges, Arbury, East Chesterton, Milton, Histon and Impington

On the south and east side:

- Retail Parks on Newmarket Road
- Marshalls
- Abbey, Romsey and Fen Ditton
- Onward journeys to Addenbrooke's, the Biomedical Campus and educational establishments including VI Form colleges, the University Technical College and private schools.

- 3.6 Potentially more people walking and cycling between these key trip generators would reduce journeys by car, and hence reduce traffic congestion and improved bus journey times on routes such as Newmarket Road and Milton Road, as well as contributing to improved air quality, and independence for young people accessing education.
- 3.7 The Abbey-Chesterton bridge would be an important link in the cycling and walking network for shorter trips across the city, as well as longer commutes linking up with the northern section of the Busway cycle route.
- 3.8 In terms of public health, the city wards of East Chesterton and Abbey are amongst those with the lowest levels of physical activity. A new bridge would help people to build exercise into their daily lives, for instance by walking or cycling to work.

4. CONSULTATION

- 4.1 An initial round of public engagement was undertaken in July 2014 which comprised a period of consultation, a number of public events and a pre-consultation meeting with a stakeholder group.
- 4.2 The full results of the consultation can be found at: <http://tinyurl.com/oyesgmw>
- 4.3 The Economy and Environment Committee discussed the project on 21 October 2014. The Committee agreed that *“further consultation be conducted with all stakeholders with regard to the bridge's role in the Strategic Transport Plan and the detail of its design, siting, approaches and construction, in recognition of the significant level of opposition to it and by doing so, ensure that the option that is submitted as a planning application meets the needs of the widest range of stakeholders”*. The further engagement activity is shown in **Appendix 1**.
- 4.4 The Project Team have engaged widely and are confident that the main issues of concern have been captured, and as much as possible these have been addressed in the emerging bridge option designs, the approach ramps and paths.
- 4.5 However as the project progresses and in the light of the more recent challenges by local groups and stakeholders to the scheme, it is felt that the formation of a Local Liaison Group would be beneficial to continue the engagement process, and to ensure the success of the scheme.

5. PROJECT PROGRESS

5.1 Since October 2014 the project team have been undertaking the following tasks:

- Developing the route of The Chisholm Trail, and how this interacts with the bridge ramps.
- Working with Knight Architects to develop options for the bridge.
- Continuing to discuss land issues with the two landowners: Network Rail and Gonville & Caius College, as well as County Council staff from Legal and Property teams.
- Discussing with planning officers to understand the requirements in regard to design, landscape, flood and environmental issues, and the appointment of a planning specialist.

6. BRIDGE OPTIONS

6.1 Knight Architects have developed three outline bridge options to meet a brief, and to fall within the available budget. The options are all relatively simple steel structures, but all have architectural input to make them unique compared to an 'off the peg' bridge design. The foundations would be piled, and the approach ramps would be solid earth. It is hoped that the bridge can be designed in such a way as to maximize off site fabrication. In summary the bridge options are:

- Option One, a 4m wide 'half through structure' with lattice effect on the outside and with relatively enclosed, solid parapets.
- Option Two, a 'spine beam' with a deck segregated by central seating giving a width of 2.7-3.4m on each side of the seating, and relatively open, light parapets.
- Option Three, a 4m wide 'arched truss' with a solid arched parapet on one side and a more open, light parapet on the other side.

More details and a number of images can be seen at this link:

<http://tinyurl.com/o5d8ezs>

6.2 The options were presented at a meeting on 7 September 2015 of invited stakeholders, and also open to the public. An exit poll revealed the following:

OPTION	Number of people preferring this option	%	COMMENTS
ONE	21	54	Felt to be 'attractive' by many.
TWO	9	23	Seating and segregation popular
THREE	6	15	Liked screening from rail bridge

A number of people commented that a combination of the attractiveness of Option One, with the segregation and seating of Option Two would be a good idea.

6.3 The Cambridge News ran a vote on the options, with the following results:

OPTION	Number of people preferring this option	%
ONE	124	27
TWO	215	47
THREE	122	26

- 6.4 Discussions with cycling groups reveal good support for Option Two as it segregates users, and there is a general feeling that the bridge should be as wide as possible. Currently the seating segregates users so that there is a minimum of 2.7m width each for pedestrians and cyclists, widening to 3.4m at the mid-point of the bridge span.
- 6.5 Initial discussions with disability groups at the Cambridge City Cycling and Walking Liaison Group revealed good support for Option Two. This option was favoured because it segregates users, which improves safety and a perception of safety for vulnerable users, and it offers seating, which is an important consideration for elderly and disabled users who might benefit from such a facility so as to break journeys on foot, which they might otherwise not consider undertaking.
- 6.6 Work has commenced by bridge engineers in discussion with fabricators to assess the designs, and to compare them in terms of buildability, deliverability, construction costs, potential for off site fabrication and future proofing in limiting ongoing maintenance. The early thoughts are that Option Three would be the highest cost design, and is likely to have the highest ongoing costs.
- 6.7 In addition, in the original concept designs they have expressed concern about the buildability aspects of Option Two, given that it is wider than the other options there are likely to be difficulties with transport to the site and fabrication. Option One by contrast could be more easily transported to site and fabricated with minimal disruption.
- 6.8 The aspects of Option Two that people like include seating and segregation while Option One is preferred for its attractive design, look and feel.
- 6.9 Therefore having had further discussions with the architects, engineers and fabricators it is considered that the optimum way forward is a 'hybrid' design incorporating the segregation and seating of Option Two, but based more on the visual design of Option One. Outline concept plans will be available at the meeting on 17 November. This option is recommended to the committee for approval.

7. PROGRAMME AND PROCUREMENT

- 7.1 The most appropriate procurement route is the Eastern Highways Alliance framework contract which is currently being tendered. This contract is intended for works on this scale and avoids the costs and timescales of separately tendering projects. Within this contract a mini tendering process

can be undertaken between four contractors. This process considers both cost and quality to arrive at a preferred contractor.

- 7.2 On the basis of Committee approval, it is expected that following further design development a planning application will be submitted in summer 2016. Should the scheme gain planning consent then construction could commence, subject to final Committee approval, in autumn 2017, and the bridge would open in autumn 2018. It is proposed that Spokes and local Members be kept informed as this process proceeds.
- 7.3 The project is likely to cost around £4.5 million to deliver due to the complexities of working near to a live rail line, on a flood plain, and at a location that is difficult to access. A £4.5m budget is currently in place for the bridge project. This comprises £2.7m of Department for Transport Cycle City Ambition grant with the remaining funds from S106 contributions and residual capital funding.

8. PROJECT RISKS

- 8.1 Land acquisition is a high risk. Negotiations with landowners are ongoing. While we will seek to acquire land by negotiation, it is recommended that Committee approval be sought for Compulsory Purchase Order (CPO) powers for the plot of land on the Abbey side owned by Gonville and Caius, and if necessary the land on the Chesterton side owned by Network Rail. CPO powers are very rarely used to obtain Network Rail land.
- 8.2 Access for plant and equipment for construction is very challenging because of limited space. Subject to engagement with our preferred contractor, construction would require a temporary haul road to be built across Ditton Meadows. This option is the most economical and practical. Discussions are underway regarding establishing a site compound area at the back of the Ditton Walk (Beadle) Business Park, which would be preferable on environmental grounds to a compound sited on Ditton Meadows.
- 8.3 A Bridge Navigation Order would also be required to build a bridge at this location. Committee approval is sought for this, and the process can commence once the exact location of the bridge is finalized and the exact form of the bridge completed.

9. CONCLUSION

- 9.1 A new bridge at this location would bring many benefits, and would link up with the new station and employment sites, providing an important link strategically and for the Chisholm Trail. Consultation has revealed strong general support, but some local opposition to the idea.
- 9.2 Clearly the attractive and historic setting of Stourbridge Common and Ditton Meadows is cherished by many people. Officers are confident that having engaged widely to explore local concerns a sensitive design for a bridge can be developed that minimizes aesthetic concerns whilst still providing good quality transport infrastructure.
- 9.3 Officers propose to continue negotiations to secure the necessary land either by purchase, lease, permissive access or CPO. This could take some time,

particularly where Network Rail are concerned. No land purchases will be completed until the planning process has been completed. Dialogue will continue regarding construction access with local landowners.

- 9.4 Discussions will continue with the County Planning Team as to requirements for a planning application, and more modelling and detailed analysis of usage levels will be undertaken in readiness for this, along with completion of surveys and environmental assessments. Objections raised to the bridge in respect of its visual and environmental impact will be tested through the planning process.
- 9.5 Approval to proceed to planning is sought based on a 'hybrid' bridge design featuring the look of Option One and the seating and segregation offered by Option Two, located as close to the existing rail bridge as possible.

10. ALIGNMENT WITH CORPORATE PRIORITIES

10.1 Developing the local economy for the benefit of all

More people cycling and walking contributes to a more active population, improved productivity, reduced traffic congestion, reliability of journey times and adds capacity into an already constrained road network, all of which contributes to economic wellbeing. A new bridge would link large residential areas to large employment sites and give improved access to the new station at Chesterton.

10.2 Helping people live healthy and independent lives

Currently many people feel unsafe cycling, although cycling is potentially a form of economic, reliable transport that allows them to access employment or training and hence have independence, and the opportunity to incorporate active travel into their lives. A new bridge at this location would improve accessibility to the new station and a large area of employment.

10.3 Supporting and protecting vulnerable people

The new bridge would link the communities of Chesterton and Abbey, making for convenient journeys by foot and cycle and would give a means of access for wheelchair users. The bridge would be fully accessible in terms of approach paths and ramps. It could include seating which might be welcomed by less mobile people.

11. SIGNIFICANT IMPLICATIONS

11.1 Resource Implications

The scheme will be capital funded from Department for Transport Cycle City Ambition grant and Section 106 contributions. The bridge would be designed to ensure minimal maintenance and ongoing revenue costs.

11.2 Statutory, Risk and Legal Implications

A new bridge would be subject to a planning application. If there is a high level of opposition it is possible that a planning inquiry would be needed. The key risks are set out in section 9 above.

11.3 Equality and Diversity Implications

A new bridge would be available for everyone in the community to use.

11.4 Engagement and Consultation Implications

A thorough and extensive period of consultation and engagement has been undertaken. A Local Liaison Forum with invited stakeholders, and open to the public will be held on a quarterly basis.

11.5 Public Health Implications

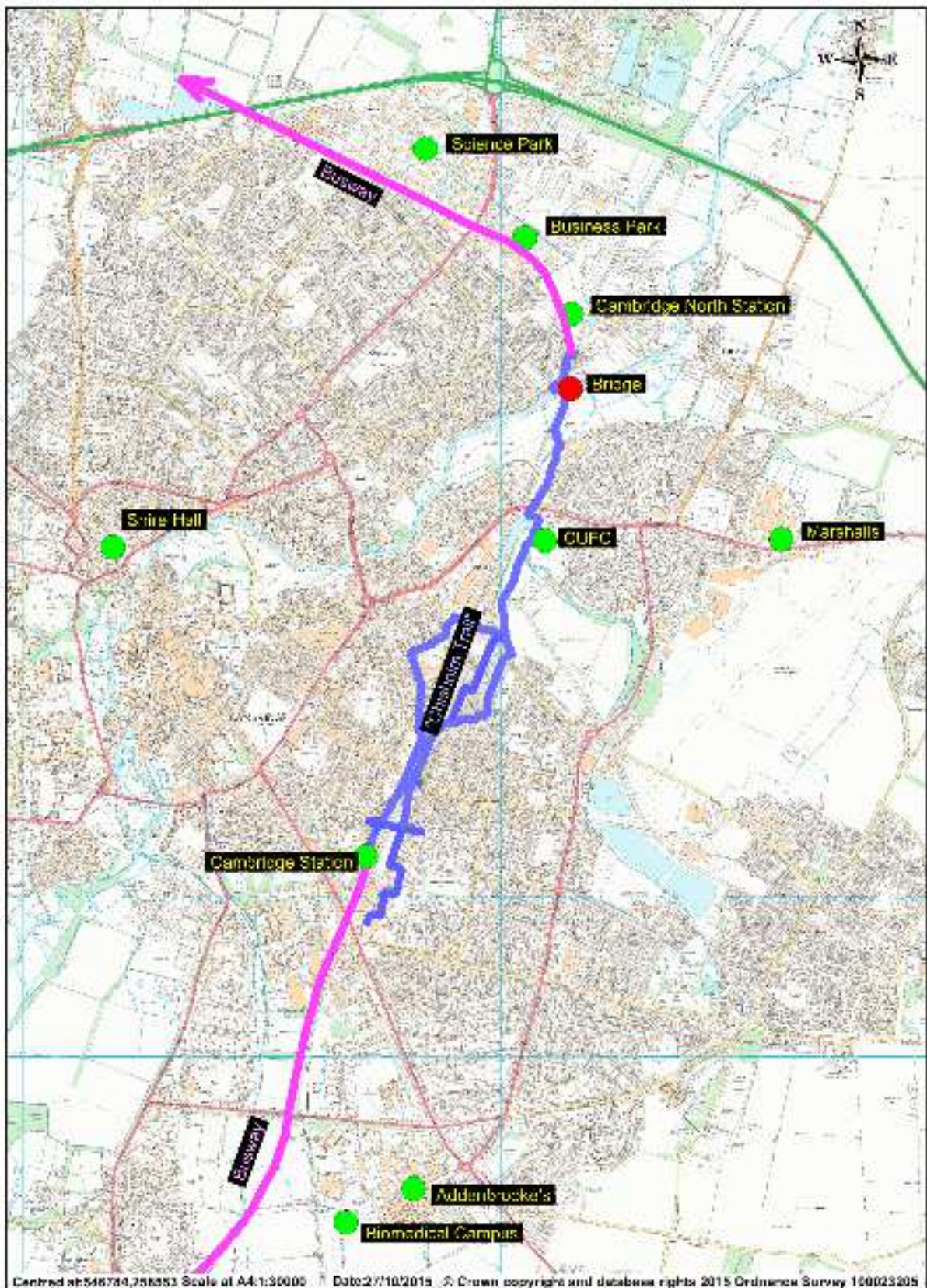
More people cycling and walking undoubtedly contributes to improved public health. A new bridge would enable more people to incorporate exercise into their daily lives including commuting by foot or cycle, as well as for leisure activities such as running and dog walking.

11.6 Localism and local member engagement

There has been extensive public and stakeholder consultation. The Project Team have engaged with, and updated local members throughout.

Source Documents	Location
Consultation responses Bridge feasibility report Bridge options developed	Room 310 Shire Hall

PLAN 1 - Map showing location of proposed Abbey-Chesterton Bridge in Cambridge (including the proposed route of The Chisholm Trail)



APPENDIX 1 – Further engagement activity carried out

- 28th November 2014 – Meeting held with Fen Ditton Parish Council Bridge Working Group.
- 9 December 2014 - A stakeholder meeting was held in East Chesterton, with around 30 people attending.
- 21 January 2015 – Attendance at Friends of Ditton Meadows meeting.
- 25 February 2015 - A Stakeholder/Public Meeting was held in Abbey with over 100 people attending. Q & A's arising from this event were sent out to attendees.
- 3 March 2015 - Attendance at a meeting of Fen Ditton Parish Council.
- 5 May 2015 - Attendance at Abbey Community Group's meeting.
- 1 September 2015 - Presentation given at Cambridge Cycling Campaign monthly meeting.
- 5 September 2015 - Project Team had a stall at Stourbridge Fair, held at the Leper Chapel.
- 7 September 2015 - A Stakeholder/Public Meeting was held in Chesterton with over 80 people attending. The architect presented bridge options.
- 21 September 2015 - Bridge options tabled and discussed at Cycling Stakeholder Group.
- 2 October 2015 – Bridge options tabled and discussed at County Council and City Council Walking and Cycling Liaison Group meeting.
- 5 October 2015 - Bridge options tabled and discussed at Cambridge City South Area Committee.
- 29 October 2015 - Bridge options presented and discussed at Cambridge City East Area Committee.