Agenda Item No: 6

CAMBRIDGESHIRE GUIDED BUSWAY EXTENSION TO SCIENCE PARK STATION

To:	**Economy and Environment Committee**
Meeting Date:	**27th May 2014**
From:	**Executive Director, Economy, Transport and Environment**
Electoral division(s):	**Milton, East Chesterton, Abbey**
Forward Plan ref:	**Not applicable** ***Key decision:*** **No**
Purpose:	**To consider the form of construction for the extension of the Cambridgeshire Guided Busway from Milton Road to the proposed Cambridge Science Park Station.**
Recommendation:	**The Committee is asked to approve the construction of an unguided tarmac road extension to the Busway from Milton Road to the Science Park station, with a parallel 4m cycleway.**

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1. BACKGROUND

1.1 The Transport and Works Act Order obtained in 2005, for the Cambridgeshire Guided Busway included the provision of a Busway from Milton Road to the proposed new railway station at Chesterton Sidings, with the intention that this would be built at the same time as the station.

1.2 Planning consent was granted for the new station on 18th December 2013 on the basis that the station would be directly served by the Busway.

1.3 In December 2013 the Deputy Prime Minister announced a grant of £6m from government to allow the County Council to deliver all the access works for the station outside the Network Rail Chesterton sidings boundary, including the Busway. This funding is time-limited and must be spent by the end of March 2015.

1.4 Cabinet considered a report in April regarding the delivery of the Cambridge Science Park Station which noted the Council's delivery of the enabling works package in advance of Network Rail delivering the main station construction. That report advised that officers were exploring whether the Busway should be constructed as a concrete guideway, or as a tarmac road limited to guided buses.

1.5 Whatever form of construction is chosen, the Busway will include a 4 metre wide maintenance track/ cycleway and bridleway identical to that provided on the existing Busway. This will be built on the south side of the Busway to give maximum connectivity to adjacent residential areas and form a through route linking the proposed Chisholm Trail to the Science Park, avoiding the new station.

1.6 The initial design and development work is coming to a conclusion and has included site clearance, ground investigations and statutory undertakers work. A draft programme has been produced indicating how the different elements of the scheme would be constructed, with the engagement of the supply chain for the critical activities. This has been integrated with the design programme and indicates that delivery of the Busway, including the demolition and reconstruction of the rail bridge at the Milton Road Busway junction can be achieved within the time constraints.

2. OPTIONS

2.1 Following the announcement of the £6m Government grant, the project team has commissioned design and development work on the Busway and this has considered both a guided and unguided option. This work has been undertaken through an Early Contractor Involvement (ECI) approach using the Council's Major Schemes Framework Contract to ensure that the buildability of potential solutions is considered as part of the process.

2.2 Working with the ECI contractor, it has been identified that should the Busway be guided, the best approach to build such a short stretch would be to use a technique called slip forming, essentially extruding concrete to the desired shape using a machine. When dry, the Busway would be ground down to the correct profile. If unguided, the Busway would be built as a conventional tarmac road with restricted access through initial short sections of guideway.

An alternative would be to use rising bollards but this would be less effective as it would require buses to slow down more.

2.3 Cost estimates have been prepared for the construction of both options. For the guided option, the cost estimate is £4m. For the unguided option it is £3.6m. Both of these are within the overall estimates submitted to the Department for Transport (DfT) when the grant was secured.

2.4 The cost of both options is broadly comparable to that of equivalent recent schemes such as the new link road in Huntingdon and is within the overall funding allowance.

3 Option Appraisal

3.1 The choice between the two options relate to cost and future maintenance, segregation and provision for pedestrians and cyclists, quality, risk and future flexibility.

3.2 In terms of cost, there is little difference between the two options. The initial cost for the guided option is a little more than the unguided one, but maintenance in the 40 year life of the scheme is likely to bring these to very similar overall figures.

3.3 The provision of high quality cycle and pedestrian facilities is important and this can be provided in both options. For the guided option, this would be through a 4m maintenance track similar to the main guideway. In the unguided option, this would be achieved by a separate cycle and pedestrian path of a similar width. The delineation provided by the guideway may avoid any confusion for pedestrians and cyclists in terms of the use of the space, but this is not considered to be a major issue.

3.4 The ride quality of a concrete guideway designed to the same tolerances as the Busway should be higher than a road, and this has had a positive effect on patronage and the attractiveness of the service for the main Busway services. However, the length of route at just 600m, means that the benefits of this improved ride quality will be less than on the main guideway and the tarmac road itself would be built to a high standard.

3.5 The form of construction proposed for the guided option, whilst currently being trialled in Manchester, is new and has not been used for a full Busway construction. Consequently, there is a greater degree of uncertainty about this approach and therefore a greater element of risk when compared with tried and tested conventional road construction.

3.6 In terms of future flexibility, the guided option will limit, without significant expenditure, any future changes to the route, whereas the unguided option would allow different solutions to come forward in the future if needed. The route is in an expanding and changing part of the city and so this flexibility is an important consideration.

3.7 Taking all of these points into account, the lower up front cost, lower construction risk and greater flexibility of the unguided option are considered by officers to outweigh the potential ride quality and segregation benefits of a guided solution. It is therefore recommended that the route be constructed as

a tarmac road with initial guidance at the start of the route to limit use to buses only and with a 4m parallel cycleway.

4. ALIGNMENT WITH CORPORATE PRIORITIES

4.1 Developing the local economy for the benefit of all

The new station will enhance connectivity for the north of the County and, more directly, stimulate further employment growth in the high tech cluster in north Cambridge. The Busway extension is a key part of this project and will deliver a sustainable transport option for passengers and open up the area for pedestrians and cyclists.

4.2 Helping people live healthy and independent lives

The interchange facilities at the station will allow for a greater range of transport linkages to be made by residents and visitors to the north Cambridge area. This will improve employment opportunities and thus promote independence and good health.

4.3 Supporting and protecting vulnerable people

There are no significant implications for this priority. The project will be designed to meet all relevant accessibility criteria.

5 SIGNIFICANT IMPLICATIONS

5.1 Resource Implications

The funding for these works is being provided by the Department for Transport and so there are no direct impacts on the Council, although any cost risk above the £6m provided rests with the Council.

5.2 Statutory, Risk and Legal Implications

There are no significant implications within this category.

5.3 Equality and Diversity Implications

There are no significant implications within this category.

5.4 Engagement and Consultation Implications

The new station and Busway extension have been subject to extensive public consultation and community engagement.

5.5 Localism and Local Member Involvement

A Local Liaison Forum has been set up to act as an informal consultative meeting for stakeholders and local residents to discuss the project during discharge of planning conditions and construction. This is chaired by the local County Councillor and all local members from the county and district councils are invited to attend.

5.6 Public Health Implications

There are no significant implications within this category.

Source Documents	Location
Cabinet Report April 2014	Democratic Services Room 114, Shire Hall, Cambridge