

LIGHTING THE GUIDED BUSWAY MAINTENANCE TRACK

To: **Economy and Environment Committee**

Meeting Date: **21st October 2014**

From: **Executive Director, Economy, Transport and Environment**

Electoral division(s): **Milton, Orchard Park, Trumpington, Queen Edith's**

Forward Plan ref: **Not applicable** *Key decision:* **No**

Purpose: **To consider the allocation of Section 106 funding for the installation and operating costs of lighting columns along sections of the Busway maintenance track, in consultation with the Cambridge South Area Committee.**

Recommendation: **The Committee is asked to approve an additional £275k (£225k capital cost and £50k commuted payment for maintenance over 10 years) for the lighting of the unlit urban sections of the Busway maintenance track from developer contributions in the Cambridge Area Transport Corridor Funds.**

<i>Officer contact:</i>	
Name:	Bob Menzies
Post:	Director, Strategy and Development
Email:	Bob.menzies@cambridgeshire.gov.uk
Tel:	01223 728368

1. BACKGROUND

- 1.1 The Busway cycle path provides important links for people who choose to cycle to work and back. In particular, it provides useful and direct off road routes on both the northern and southern fringes of Cambridge. In the north it links Orchard Park, Cambridge Regional College, the Science Park and other business parks. In the south it links the Station, Long Road Sixth Form College, Addenbrooke's Hospital and Trumpington.
- 1.2 Since the Busway opened, there have been requests from cyclists for lighting. These requests are particularly strong in the winter months when it is dark during normal commuting times. Many users are concerned about both road safety and personal safety. Sections of both paths are remote from existing streets and any overspill lighting. Council policies require a significant modal shift to walking and cycling from the residential and employment developments in both areas. This is essential if growth is to be managed sustainably and worsening congestion is to be avoided. In consequence contributions from these developments have been secured for sustainable transport initiatives such as improving walking and cycling routes.
- 1.3 In December 2012 Cabinet approved the provision of lighting on the Busway maintenance track in these areas for the benefit of pedestrians and cyclists to be funded from contributions from developers. An indicative sum of £100,000 was allocated for the southern section of the Busway and £100,000 for the northern section of the Busway.
- 1.4 In Cambridge contributions have been obtained over a number of years on an area basis from developers towards transport infrastructure to mitigate the impacts of their developments. To facilitate this, the City is split into four corridors, north, south, east and west, with the contributions allocated to the corridor in which the development takes place. As the bulk of development to date has been in the southern and northern corridor, this is where the bulk of funds have accrued. In parallel with this report, Committee will be asked to consider the allocation of the currently available funds in all corridors.
- 1.5 The maintenance track adjacent to the Busway is used by a considerable number of pedestrians and cyclists at all times of the year. Apart from some lighting at the bus stops and junctions, and solar studs on the northern section, the Busway route is currently unlit, in accordance with the original Transport and Works Act consent. Table 1.1 below shows the increasing numbers of pedestrians and cyclists using the maintenance track.

Table 1.1 - 12 Hour Automatic Traffic Counts of Cyclists and Pedestrians Using the CGB Maintenance Track*			
Year	2011	2013	% Change 2011-2013
Northern Section (A14 Bridge)			
Pedestrians	139	209	50.4%
Cyclists	724	1091	50.7%
<i>Total</i>	<i>863</i>	<i>1300</i>	<i>50.6%</i>
Southern Section (south of Addenbrookes spur)			
Pedestrians	163	187	14.7%
Cyclists	454	815	79.5%
<i>Total</i>	<i>617</i>	<i>1002</i>	<i>62.4%</i>

* 12 hour (7am – 7pm) two-way total cycle and pedestrian flow.

- 1.6 Lighting the route in the urban areas would increase perceptions of safety, thereby further encouraging the use of this pedestrian and cycle facility, and active travel modes, in and around Cambridge. Lighting along the new Chesterton section is being provided as part of the implementation of the Busway extension.
- 1.7 This item was presented to the Economy and Environment Committee on 8th July 2014. At this meeting while local members spoke in support of the scheme, noting that the track was already well used, but that lighting it would increase participation in cycling, other members were concerned about the proposal. These concerns included the increase in costs, the ongoing maintenance and energy costs, introducing new lighting when consideration as being given to turning off street lighting elsewhere, and that other parts of the County might also benefit from better lighting of cycle routes. Members voted to defer the item so that further information about the proposals could be considered.

2. MAIN ISSUES

- 2.1 Following the concerns raised by members about the cost increase of the southern section, the scheme has been reviewed to identify the scope for cost reduction. The southern section consists of a main line running from the railway station to Trumpington Park and Ride with a link that branches off the main line and crosses the railway to Addenbrooke's hospital. There has been considerable development next to the Busway at Addenbrooke's with the MRC building and more is to come with Papworth and Astra Zeneca. There is therefore more ambient light on this link than on the main line, which has some quite secluded sections. It is therefore proposed to omit the Addenbrooke's Link from the proposals. This will reduce the cost of the southern section from £300,000 to £225,000.
- 2.2 A further option would be to reduce the number of lighting columns and increase the spacing. Reducing the number of columns by 25% has been considered and this would reduce the cost of the scheme by a further £25,000. This is not proportional to the reduction in lighting columns as a significant amount of the cost of the scheme is in the cabling which is the same irrespective of the number of columns. This reduction in the number of columns would undoubtedly reduce the level of lighting on the track, and officers views are that Members would need to consider this carefully against the reduced levels of lighting that would result.
- 2.3 It is acknowledged that even with the reduction in length proposed the cost for the southern section is higher than the initial cost estimate that was presented to and approved by Cabinet in December 2012. The initial costing was carried out at a very early stage before full investigation into the possible lighting solutions for the Busway had been carried out. This was a preliminary costing and unfortunately it seriously underestimated the costs of the southern section lighting. A full costing exercise has now been undertaken which gives a clear outline of the costs for the purchase and installation of the system and the annual costs of running and maintaining the lighting columns.
- 2.4 The northern section that is to be lit is approximately 1.6km in length and

includes some existing lit areas. The southern section is approximately 3.4km in length and is completely unlit at present. The main reason for the increased funding required is simply a consequence of the additional length of lighting required in the southern section. The revised cost of lighting the southern section is therefore in proportion with lighting the northern section.

- 2.5 The lighting scheme for the northern and southern section incorporates a modern and efficient column and lantern design. It proposes 6m tall columns with Light Emitting Diode (LED) lanterns that will effectively direct the light downwards to illuminate the width of the maintenance track with very little light spill onto the surrounding environment. This is an important consideration to ensure that the lighting will have minimal impact on the identified bat corridor on the southern section of the Busway, and also on adjacent properties.
- 2.6 The lighting system has been designed to S5 standard which is suitable for Local Footpaths and Cycle Tracks. This is the lowest level of lighting in the classification hierarchy of the Cambridgeshire County Council Street Lighting specification. The light output will be dimmed by 40% between the hours of 22.00 and 06.00 which is in line with the current dimming regime at other locations in the county. It has been designed as a flexible system where the dimming arrangements can be adjusted in the future should conditions change, such as cycling or pedestrian levels or changes in funding pressures.
- 2.7 Alternative means of lighting such as solar studs provide no more than waymarking and do not meet the fundamental objective of the project of improving perceptions of safety that deter some cyclists in the winter months.
- 2.8 Changing the design to reduce the capital costs of the scheme has also been explored. LED lanterns cost slightly more than standard lanterns, however approximately 15% more columns would be required if LED lanterns were not used, and there would be a significant increase in maintenance costs. .
- 2.9 LED lanterns are more energy efficient than standard non-LED lanterns and would require less ongoing maintenance and revenue costs. The annual energy usage of standard lanterns is more than double the running cost of an LED lantern. LED lanterns potentially need no maintenance other than a visit every six years for an electrical inspection, and are found to be almost fault free during the 20-25 year life span of the fittings. Standard lanterns will need additional visits for a lamp change every few years and they have far more failures of components over the same period of time which will have associated repair costs. During the design process it was considered preferable to reduce ongoing revenue costs and future liabilities.
- 2.10 The annual energy and maintenance cost is estimated to be £5,000. It is proposed to meet this cost through allocating a commuted sum equivalent to ten years maintenance from the Area Corridor Transport Plans.
- 2.11 As part of the programme to replace and renew street lighting throughout the County the number of street lighting columns in residential areas has been reduced and in many areas the lights have been dimmed to save energy costs. Additional proposals are being considered as part of the business plan to further dim lights in residential areas and switch them off completely between midnight and 6 am.

- 2.12 This is a matter of concern for many residents but it should be noted that all streets that currently have lighting will continue to be lit, albeit at a reduced level, up to midnight and from 6am. Lighting levels on main routes are being maintained at current levels. Given the importance of cycle commuting in Cambridge, areas such as the Busway are in effect main routes, but are currently unlit. The lighting proposed is therefore consistent with the current policy of providing the minimum necessary level of lighting.
- 2.13 Questions have also been raised about the potential to use the funding proposed for the Busway lighting for other projects. The Area Transport Plan funds can only be used within the area in which they have been collected, e.g. the southern area corridor of Cambridge in this case, and for the purposes specified, which is provision of sustainable transport. Therefore, should this funding not be allocated to the lighting, it could still only be used in the southern corridor of Cambridge and not elsewhere. The Area Committee and the Local Members support the use of these funds for the provision of lighting and have recommended that the funding be used for that purpose.
- 2.14 As members are aware it is a central plank of both the City and County Council transport and planning policies to encourage cycling and walking for as many journeys as possible, but especially commuting. We have had considerable success with this policy in recent years. These routes are key cycling and walking commuter routes but feedback from users and local members is that many are deterred from using the routes during the autumn and winter months as it is dark at normal commuting times. They are instead using longer and less safe on road routes or reverting to car use. It is reported that some are deterred from walking or cycling altogether.
- 2.15 The relatively small investment proposed will therefore support a further increase in walking and cycling commuting, bringing benefits to the individuals themselves and to other road users through reducing traffic. The funds to be used have been specifically provided by developers to support sustainable transport infrastructure such as this proposal and thus minimise the impact of their developments.

3. ALIGNMENT WITH CORPORATE PRIORITIES

3.1 Developing the local economy for the benefit of all

This project aligns with the Council's objective of developing the local economy for the benefit of all by encouraging journeys that are currently undertaken by car to be undertaken by foot or bicycle, thereby reducing the congestion problems that are experienced in and around Cambridge and which constrain the local economy. This should help to make doing business in and around Cambridge easier and more attractive by enhancing key links, e.g. to Cambridge Science Park and Cambridge Station.

3.2 Helping people live healthy and independent lives

This project aligns with the Council's objective of helping people to live independent and healthy lives in their communities by making active travel (by foot and bicycle) easier, safer and more attractive for communities around the Busway route. Lighting these sections of the route will increase perceptions of safety, thereby encouraging the use of the route to access key services and

employment. This allows a reduction in the dependence on driving for this access. It also contributes to helping people live healthy lives by encouraging active travel, which reduces rates of obesity and heart problems.

3.3 Supporting and protecting vulnerable people

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

4. SIGNIFICANT IMPLICATIONS

4.1 Resource Implications

The funding for these works can be met by the currently unallocated developer contributions in the Southern Area Corridor Transport Plan budget.

4.2 Statutory, Risk and Legal Implications

There are no significant implications within this category.

4.3 Equality and Diversity Implications

It is considered that the lack of lighting may be more likely to discourage women and others who may feel more vulnerable from cycling at night. Providing lighting would correct this imbalance.

4.4 Engagement and Consultation Implications

The design of the lighting of the Busway maintenance track is being considered by the Planning authority and Stakeholders.

4.5 Localism and Local Member Involvement

Local members have been engaged with during the design phase of this lighting project and strongly support the proposal.

4.6 Public Health Implications

There are health benefits of cycling. This proposal encourages year round commuting.

Source Documents	Location
Cabinet Report December 2012 Agenda and Minutes 8 th July 2014	Democratic Services Room 114, Shire Hall, Cambridge .