

CAMBRIDGE STATION TO LEISURE PARK FEASIBILITY STUDY

Note to Members of Cambridge City – East Area Committee

From: Mike Davies, Team Leader - Cycling Projects, Cambridgeshire County Council

Date: 29 October 2015

INTRODUCTION

- 1.0 Approval was given by the County Council's Cabinet on 18th December 2012 to undertake a feasibility study into a new pedestrian bridge linking Cambridge Station to the Leisure Park site. The suggestion to undertake this work was made by both South and East Area Committees (any bridge would span both areas). £25,000 was allocated to undertake the study.
- 1.1 The scope of the study was to look at potential options to improve access and reduce journey time to the Leisure Park for pedestrians, users with impaired mobility and for users with pushchairs.
- 1.2 The brief was to map existing journey times from the Station to the Leisure Park and compare them with the journey times of the options. Options information included estimated cost, distance and time savings.
- 1.3 The Study was completed in February 2015 and can be seen in full at <http://tinyurl.com/o5ro4xl>

CURRENT SITUATION

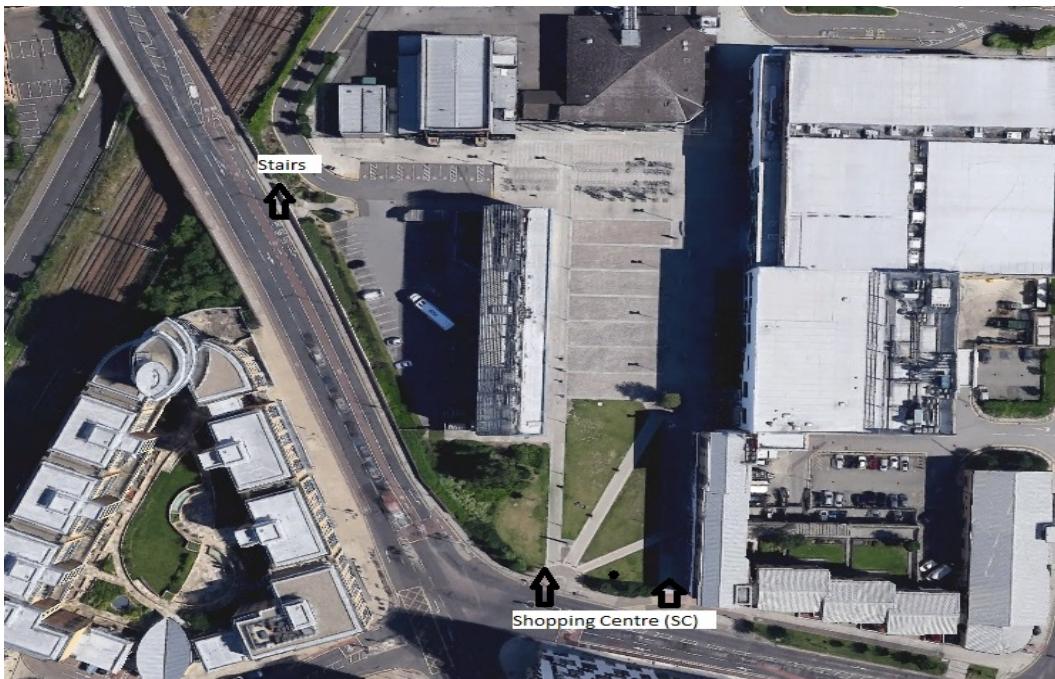
- 1.4 The present route from the station, shown below, would take approximately 12 minutes 40 seconds on foot, at a pace of 4km/h. However, for pedestrians capable of using the existing steps on Hills Road Bridge, journey time would reduce to 11 minutes 7 seconds from the station.

Plan 1 – current walking route (shown in red) or via stairs (shown yellow)



- 1.5 To assess potential usage a traffic count was carried out on Hills Road Bridge over two days, on Saturday 7 March 2015 and Thursday 12 March 2015 for a 12 hour period from 0700-1900. On both days the weather was mild and clear. The pedestrian points measured and data are shown on the Photo and table below.

- 1.6 Each individual in the table number represents a single pedestrian trip up or down the stairs or in or out of the Shopping Centre (SC).



Data for Pedestrian Access via Stairs and Shopping Centre (SC)

Stairs Saturday 7	Stairs Thursday 12	SC Saturday 7	SC Thursday 12
2438 Able Bodied 0 With Disability	3372 Able Bodied 0 With Disability	4388 Able Bodied 0 With Disability	7771 Able Bodied 3 With Disability

OPTIONS CONSIDERED

- 1.7 The following options were considered, and these are shown in **Appendix 1**.
- A new bridge over the railway joining the CB1 development east of the Cambridge Signal Box with the multi-storey car park along Clifton Way (Option 1)
 - A new bridge from Hills Road just north of the Busway underpass to Clifton Way, alongside The Junction nightclub (Option 2);
 - A new ramp from the top of the existing stairs along Hills Road south of the railway bridge, extending over the access to the hotel car park at the end of Clifton Way and heading towards the Leisure Park (Option 3A);
 - A new ramp from the top of the aforementioned stairs, running along the existing Hills Road retaining wall and returning upon itself before finishing near the base of the existing stairs (Option 3B);
 - A new lift provided at the location of the existing stairs, as proposed elsewhere as part of Project Cambridge (Option 3C)
 - A new built-up ramp immediately south of the hotel (Option 4).
 - Do Nothing
- 1.8 Indicative cost estimates have been developed based upon work in other areas. These costs could increase by as much as 30% if certain risks came to fruition through detailed design such as complex utility services that need moving, or if railway 'track possessions' take longer than anticipated.

Option	Description	Cost
1	Bridge between Signal Box to multi-storey car park	£3.3 million
2	Bridge between Hills Road Busway Bridge to The Junction	£3.3 million
3a	Ramp over car park access to Cinema building	£1.6 million
3b	Ramp along Hills Road wall	£1.3 million
3c	Lift access provision at existing steps	£0.5 million
4	Ramp access south of Hotel	£0.1 million
DN	Do Nothing	£0

- 1.9 Travel time difference for each option is identified in the table below. The times in the current travel time cells, cover walking all the way around the route shown in red on **Plan 1** above, or using the stairs, into the Leisure Park from Hills Road bridge, as shown in yellow.

Time Savings

Option	Current travel time	Option Travel time	Time Saving (or increase)
1	12m 40s / 11m 7s	9m 8s	3m 32s / 1m 59s
2	12m 40s / 11m 7s	11m 35s	1m 55s / +28s
3a	12m 40s / 11m 7s	11m 33s	1m 57s / +26s
3b	12m 40s / 11m 7s	11m 56s	44s / +49s
3c	12m 40s / 11m 7s	11m 15s	1m 25s / +8s
4	12m 40s / 11m 7s	12m	40s / + 53s

OPTION ANALYSIS AND MAJOR RISKS

- 1.10 Option 1 – This is a complex solution, the area around CB1 is very restricted in places to develop a bridge on both sides of the rail lines. The lines themselves have overhead equipment that needs to be avoided by a minimum height; this would lead to a bridge similar in height and length to the Carter Bridge. This option has a landing onto the multi-story car park where an external lift would be placed to return pedestrians to ground level. The times stated for journey times could increase significantly if the lift was busy and people needed to wait.

Risks include:

- The area is very busy mainly due to the CB1 development and significant rail and Busway infrastructure, this includes signals and buried services and may significantly increase the cost of this option
- Possessions over the railway access are costly, often complex and time dependant, any delay would incur a significant extra cost and a delay that could lead into many months
- It is probable that Network Rail would insist on a cover such as that on the Carter Bridge further increasing costs and adding to maintenance
- If the lift on the car park breaks down the bridge would be unusable unless stairs were also provided.
- If the lift is available 24 hours then there is an increased risk of vandalism, this could be reduced by camera monitoring at extra cost
- If the Lift is closed during the small hours then the bridge would also need to be closed
- Risk of failure of a remote lift with people in it, particularly on a hot or very cold day or late at night. The lift will have a call button but not being a manned facility, response could be slow.

- 1.11 Option 2 – This is also a complex solution similar to that of option one, but reduces the risk of closure by lift failure. This drops people off utilising a ramp in the area opposite the car park. Due to the height required for the bridge the ramp would be similar in length to that on the east side of the Carter Bridge. Space for this ramp is very limited and it would need to be developed as a tight switchback, this can be difficult for those using wheelchairs and pushchairs.

Risks include:

- Area restrictions as in option 1
- Railway possessions as in option 1 and the potential for significantly increased costs
- A cover may be required by Network rail as in option 1
- More likelihood of this being used by cyclists, as is currently the case on the green Dragon bridge, despite being designed for pedestrians only.
- Putting in place controls to prevent cyclists would also deter other users such as those with pushchairs and wheelchairs.

1.12 Options 3a and 3b - This provides a ramp either into the cinema area option 3a or alongside the Hills Road bridge wall, option 3b. A ramp in this area could visibly detract from the areas open pleasant appeal. The ramp would need to be level and high enough for delivery vehicles to enter and leave creating a long ramp area.

Risks include:

- High risk of impact on buried services. This would significantly increase costs if these needed to be diverted
- Possibility of visual element being seen as a planning issue

1.13 Option 3c - Provides for a public lift, this could benefit those with impaired mobility, wheelchair and those with pushchairs. There would be ongoing maintenance and staff costs to bear. There are very few lifts available in open public spaces; Most are closed during times when facilities are not available.

Risks include:

- In the small hours lift a may be at increased risk from vandalism or other misuse. It could be closed when the cinema and other facilities are closed.
- Personal security may be a risk using a lift late at night, a well-lit glass sided lift could reduce this but that can provide an increased target for vandalism; If glass is broken in a lift it would be out of use until it is replaced.
- Risk of failure of a remote lift with people in it, particularly a risk to users on a hot or very cold day or late at night when response may be slow
- Closure of a facility such as this for extended periods could have an impact on public confidence in our ability to deliver meaningful infrastructure

1.14 Option 4 - provides a ramp at the south of the hotel. This is very close to the actual turning and pedestrian area. However it may be difficult to justify, given its location and proximity to the normal entrance at the shopping centre access to the Leisure Park.

Risks Include:

- Possibility of unmarked buried services that could increase costs

1.15 Option DN – Doing nothing is a real opportunity largely due to the benefits already realised from the development of the CB1 area opening up and reducing the journey to the Leisure Park from the rail station by almost five minutes to its current journey time.

CONCLUSIONS

1.16 Option 1 to option 3b inclusive would not be considered to offer a significant reduction in journey time for pedestrians, nor do they significantly improve the route by providing enough benefit to justify the costs both in construction and ongoing maintenance.

1.17 Option 3c could benefit users with impaired mobility, wheelchair users or users with pushchairs with the installation of a lift alongside the existing stairs on Hills Road Bridge. However as can be seen from the data very few people with disabilities arrive via the pedestrian routes. This option would also have a maintenance cost attached to it and could be closed for extended periods if vandalised or unserviceable for other reasons.

1.18 Option 4 provides very little time saving benefits and could increase in costs substantially if buried services need to be relocated.

1.19 Recent improvements delivered as part of the CB1 development have provided much more convenient access to the Leisure Park. The officer recommendation based upon the consultants' report is that the idea of a new bridge should not be progressed any further. The conclusion is that the 'do nothing' option is seen as the preferred outcome.

APPENDIX 1 – OPTIONS CONSIDERED IN THE STUDY



