

**Report To:** Greater Cambridge Partnership Joint Assembly

10<sup>th</sup> September 2020

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**BETTER PUBLIC TRANSPORT - WATERBEACH TO NORTH EAST CAMBRIDGE**

**1. Purpose**

- 1.1 To provide an update on progress with the Waterbeach to North East Cambridge project, including feedback from pre-engagement with stakeholders and outline proposals for a series of integrated packages which will be the subject of consultation and further analysis.
- 1.2 The Joint Assembly is invited to consider the proposals to be presented to the Executive Board and in particular to:
  - (a) Comment on the outcome of stakeholder engagement process.
  - (b) Endorse the Options Appraisal Report (OAR) as the basis to formally consult on the proposed route options for a segregated public transport route.
  - (c) Comment on the list of shorter term interventions that have been identified for further assessment.

**2. Background**

- 2.1 The Waterbeach to North East Cambridge project was considered by the Executive Board at its meeting in February 2020. The Board recognised that the corridor is one of the key radial routes into Cambridge. It suffers considerably from congestion during peak times, particularly at the Cambridge end. There are also sites of planned or potential large development, such as Waterbeach barracks and Science Park expansion that will place considerable additional pressure on the corridor.
- 2.2 A previous Study commissioned by the Greater Cambridge Partnership (GCP) looked at high-level options for improving transport connections along the A10 between Ely and Cambridge. The Cambridgeshire and Peterborough Combined Authority (CPCA) is separately progressing a study focusing on highway improvements along the A10. The GCP work will focus on the requirement to undertake additional work on public transport and Non-Motorised Users (NMUs), including pedestrian, cycle and equestrian connections only.
- 2.3 The corridor has been identified by the GCP's Executive Board, as a priority project for developing public transport, walking and cycling improvements, linked to the development of proposals for a regional rapid mass transit solution. The scheme forms part of GCP's high quality public transport network and Phase One of the Cambridgeshire Autonomous Metro (CAM) as outlined in the Cambridgeshire and Peterborough Local Transport Plan. It is complimentary to planned upgrades of the railway infrastructure and also to the proposals to upgrade the A10 between Ely and Cambridge.

- 2.4 The options appraisal work that has been undertaken so far has identified a number of areas of search within the study area for new public transport and non-motorised links. These areas of search, as presented in the OAR in Appendix 1, formed the basis of a recent public engagement exercise. The feedback from this public engagement has led to a refinement of the options. Subject to approval by the Executive Board, it is planned to formally consult on the refined options, as presented in Appendix 4, in the autumn.

### 3 Key Issues and Considerations

- 3.1 The project is designed to develop measures to ensure that planned housing and employment growth can be accommodated without increasing levels of vehicular traffic on this northern approach to Cambridge by making public transport journeys more reliable and attractive. This is in line with the GCP's objectives, which include reducing congestion and encouraging people to use more sustainable forms of transport.
- 3.2 The Waterbeach to North East Cambridge study area (see Appendix 2) forms part of the wider A10 Ely to Cambridge Corridor, which is one of the key radial routes into Cambridge from the north of the City. Existing congestion poses significant challenges in terms of future development along the corridor, in particular planned development to the north of Waterbeach and at North East Cambridge, located either side of Milton Interchange (see plan in Appendix 2) and as listed below:
- a) **New Town to the north of Waterbeach** will include up to 11,000 new dwellings (based on figures provided by promoters of the site, or 8,000 based on Local Plan guidance) and other associated infrastructure and uses<sup>1</sup>.
  - b) **North East Cambridge** has been identified for significant potential future development, including intensification of development at Cambridge Science Park and development of the land to the east of Milton Road, known as Cambridge Northern Fringe East, where HIF funding has been allocated for relocation of the existing sewage works. Between them these developments could provide up to 17,000 new homes and 14,000 new jobs.
  - c) Alongside these major developments there are also a number of existing employment developments including Cambridge Research Park.
  - d) Cambridge Sport Lakes is planning a major development with rowing lakes and other public amenities. This covers a large area between Milton and Waterbeach.
  - e) Anglian Water is currently considering sites for the relocation of the wastewater treatment works in North East Cambridge. Two of their proposed options fall within our study area.
- 3.3 The options that have been investigated through the Options Appraisal stage include:
- a) Segregated public transport rapid transit options (such as a transit way) with adjacent NMU/cycle/pedestrian track. (route options need to consider cycle and equestrian needs along an adjacent track).
  - b) Integration with CAM.
  - c) On road bus priority options.
  - d) Connections for sustainable modes between Cambridge Northern Fringe East and Cambridge Science Park.
  - e) Cycle and pedestrian links including both strategic and local options (and consideration of other NMUs).

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<sup>1</sup> A Spatial Framework and Infrastructure Delivery Plan (SPD) for the site was adopted by South Cambridgeshire District Council in February 2019.

- f) Measures to physically integrate into other City Deal proposals such as the Waterbeach Greenway and Chisholm Trail.
- 3.4 It is proposed to look at additional or relocated Park and Ride / Travel Hub capacity in a future stage of the project.
- 3.5 The options development has taken into consideration the work that is being undertaken by CPCA on developing options for upgrading the A10 between Ely and Cambridge.

#### **4 Options and Emerging Recommendations**

- 4.1 The Executive Board will be asked to note the findings from the stakeholder engagement process, approve the final OAR as the basis to formally consult on the four proposed route options and note the list of shorter term interventions that have been identified for further assessment.
- 4.2 The options appraisal process is set out in detail in the OAR in Appendix 1 and is the first stage in developing the Strategic Outline Business Case (SOBC) for any transport intervention that is proposed.
- 4.3 As part of the options appraisal work the consultants (Atkins) will also be reassessing the benefits of providing a segregated public transport route in this corridor rather than just enhancing existing on carriageway bus services. This is to confirm (or otherwise) that a segregated route remains the appropriate strategic approach to meeting the public transport challenges in this corridor.
- 4.4 The appraisal process that has been undertaken so far has identified 4 main areas of search for new segregated public transport and non-motorised links between the location of the new town at Waterbeach and North East Cambridge. These areas of search are shown in Appendix 4 and include East, West and Central options, as well as an option that closely follows the alignment of the A10.
- 4.5 In developing the SOBC further work will be undertaken to quantify the advantages and disadvantages of these 4 broad alignment options.
- 4.6 When looking at the 4 alignments it is worth breaking them down into the following sectors:
- Northern Section (approach to the new town).
  - Mid Section (Journey between Waterbeach and the A14).
  - Southern Section (Crossing the A14 and Approach to North East Cambridge).
- 4.7 It is quite feasible that future analysis may lead us to replace a section from a given route option with that of one of the other options where it is shown to be advantageous to do so. The following paragraphs provide a brief summary of each of the 4 identified options and their relative advantages and disadvantages. The options are outlined in the Study Area Map in Appendix 2.

##### *Western Option (green)*

- 4.8 The western option originates adjacent to Cambridge North station and follows the Cambridge Guided Busway route under the A14 before turning north. The route would run roughly parallel to Mere Way and pass to the west of Landbeach before bearing east towards Waterbeach. It would need to cross the A10 before directly entering the New Town north of Waterbeach, terminating at the new railway station.

- 4.9 The southern section of the western option makes use of the existing Guided Busway infrastructure, most importantly, crossing under the A14. This section provides good access to North East Cambridge and Cambridge Science Park.
- 4.10 The section between the A14 and Waterbeach is very direct and is unconstrained but does not provide a good link with existing settlements. The non-motorised provision along this western route would be provided by an upgrade of the Mere Way path which is being planned and delivered by the developer Urban and Civic as part of their planning obligations in relation to the New Town at Waterbeach.
- 4.11 The approach to the New Town is relatively unconstrained although it requires a crossing of the A10 in the vicinity of the new roundabout that is proposed as part of the new town development.

*Central Option (yellow)*

- 4.12 The central option originates adjacent to Cambridge North station and follows the Cambridge Guided Busway route under the A14 before turning north east towards Waterbeach. The route would cross the A10 to the south west of Waterbeach village before bearing north through to Denny End road, entering the new town from the south.
- 4.13 The southern section of this route makes use of the existing Guided Busway infrastructure, most importantly, crossing under the A14. This section provides good access to North East Cambridge and Cambridge Science Park.
- 4.14 The section between the A14 and Waterbeach would need to pass over or around Milton Landfill site. Early engagement with the landfill operators indicates that it is possible to pass over the Landfill but has raised a number of issues that would need to be considered and mitigated. There is potential for the central option to interact with the Milton Park and Ride site, and to pass close to the outskirts of Milton Village, thus improving links with the existing settlement. New cycling and pedestrian infrastructure would need to be considered alongside this route option.
- 4.15 The northern section of this route would cross the A10 near to Car Dyke Road. The route through Waterbeach provides a good link with the existing village and the Denny End industrial area, but the search area is relatively constrained.

*A10 Option (orange)*

- 4.16 The A10 option originates adjacent to Cambridge North station and follows the Cambridge Guided Busway route before turning north towards Cowley Road. The route would need to cross the A14 close to Jane Coston Bridge before turning west and crossing the A10 before bearing north along land to the west of the A10. We have proposed that this option crosses back over the A10 in the vicinity of Ely Road to the north of Milton before heading north to the west of the proposed sports lakes development. The route then reaches Waterbeach at Car Dyke Road to the south west of the village before bearing north through to Denny End Road, entering the new town from the south.
- 4.17 The southern section of this route offers excellent links to the North East Cambridge development and links to Cambridge Science Park. However, it is complex and may require demolition of several existing offices/warehousing as well as new crossings of both the A14 and the A10. There is potential for a more direct routing using a segregated alignment along Milton Road and through Milton Interchange; however, it is assumed that this would only be practical if there were separate proposals for major highway changes in this area and to the Milton interchange. This possibility will be reviewed as the current A10 study progresses.

- 4.18 The mid-section of the route would follow the route of the existing A10 and could be achieved through widening of the existing carriageway to provide space for a segregated route, or where this is not feasible, construction of a new route close to the A10 alignment. The route option would provide good links to both Milton Park and Ride, Milton village and the proposed sports lakes development. New cycling and pedestrian infrastructure would need to be considered alongside this route option.
- 4.19 The route north through Waterbeach provides a link with the existing village and with the Denny End industrial area, but the search area is relatively constrained.

*Eastern Option (purple)*

- 4.20 The eastern option originates at Cambridge North station and bears north through the eastern side of North East Cambridge, crossing the A14 south of Milton Country Park. The route traverses the borders of the Country Park on the eastern side, before heading north either to the east or west of the proposed sport lakes development. The route reaches Waterbeach at Car Dyke Road to the south west of the village before bearing north through to Denny End Road, entering the new town from the south.
- 4.21 The southern section of this route would provide an excellent link to the North East Cambridge development, although would take up part of the valuable development area of the site. This option would require a new crossing of the A1; most likely a new underpass, although it shares this requirement with the proposed Waterbeach to Cambridge Greenway. A downside of this option is that it does not provide a good link with Cambridge Science Park.
- 4.22 The mid-section of the eastern route is very direct, and would enable future links with Milton County Park and the proposed sports lakes development.
- 4.23 The northern section of this route does not need to cross the A10, which is advantageous. The route north through Waterbeach provides a link with the existing village and the Denny End industrial area, but the search area is relatively constrained.

*Public and Stakeholder Engagement*

- 4.24 The engagement with key stakeholders has thus far been very positive with an acceptance that transport interventions are required along this corridor in order to facilitate the required growth. Likewise, the public engagement has been broadly positive and there appears to be a general understanding of the benefits that improving public transport could provide. Another key message that has come out of the public engagement is that it is imperative that we consider the walking and cycling infrastructure alongside any public transport improvements and that we also ensure that whatever is put in place provides good connectivity and interchange facilities.

## **5 Citizen's Assembly**

- 5.1 Citizens' Assembly members developed and prioritised their vision for transport in Greater Cambridge. The range of solutions being considered for Waterbeach to North East Cambridge directly contributes to delivery of 5 of the highest 7 scoring priorities, namely:
- Provide affordable public transport (32).
  - Provide fast and reliable public transport (32).
  - Be environmental and zero carbon (28).
  - Be people centred – prioritising pedestrians and cyclist (26).
  - Enable interconnection (e.g. north/south/east/west/urban/rural) (25).

5.2 In addition, the proposals have the potential to complement delivery of the other highest scoring priorities:

- Restrict the city centre to only clean and electric vehicles (27).
- Be managed as one coordinated system (e.g. Transport for Cambridge) (25).

5.3 The Citizens' Assembly voted on a series of measures to reduce congestion, improve air quality and public transport. Of the measures considered, Assembly members voted most strongly in favour of road closures, followed by a series of road charging options (clean air zone, pollution charge and flexible charge). These will be considered further as packages develop.

## **6 Financial Implications**

6.1 The project budget for 2020/21 is £236,000. This will cover all costs associated with the completion of the SOBC.

6.2 High level costs associated with the future development of the scheme will be developed within the SOBC. However, the total budget for the scheme is currently set at a figure of £52,600,000.

## **7 Next Steps and Milestones**

7.1 This phase of the project culminates in the production of the SOBC for the scheme. The overall programme is shown in Appendix 5.

7.2 The next steps for this stage of the work are as follows:

- Consultation November/December 2020.
- SOBC finalised for consideration at the June 2021 Executive Board.
- OBC would be finalised early 2022.

## **List of Appendices**

Appendix 1	Options Appraisal Report
Appendix 2	Study Area Map
Appendix 3	Public Engagement Report
Appendix 4	Route Options
Appendix 5	Programme