

Cambourne to Cambridge Better Public Transport Project: Independent Audit

Cambridge Parish Council

Written representation on the Statement of Assumptions and Constraints:

Part 1 Tabulated Responses

This document comprises **Part 1** of Coton Parish Council's (CPC's) written representation on the auditor's Statement of Assumptions and Constraints, dated 25th March 2021, relating to the ***Cambourne to Cambridge Better Public Transport Project (C2C)***

For ease of reference, the material is presented in the same tabular format used in the auditor's Statement. In order to minimise the length of the tables, we have provided a summary of the evidence to support our response to the various statements, with references given to specific sections of the following reports for further details:

- Coton Parish Council's first submission to the auditor made on 22 February 2021. This is included as Annex A to this representation;
- i-Transport's independent report, comprising Part 2 of this representation.

The i-Transport report covers both:

- their own independent review of the auditor's Statement of Assumptions and Constraints, largely addressed in Section 4 of their report.
- other potential limitations in elements of the C2C scheme development and audit process to date, that cannot readily be covered through the tabulated structure adopted in the original Statement. These are documented in Sections 5 – 7 of their report.

Part 2 thus forms an essential part of Coton Parish Council submission and should be read alongside this document.

Table A: Policy Context

	Assumptions	Constraints	Reference	CPC Comment
	A. Policy Context			
A.1	Greater Cambridge Partnership: Created in 2014 to implement City Deal agreed with government to deliver growth aspirations in support of regional and national economic policies.	The C2C corridor has been identified by the GCP's Executive Board as a priority project for development in the first five years of the GCP's Transport programme.	<i>Greater Cambridge City Deal. GCP2014</i>	
A.2	Local Plan policies for the strategic developments of sites along the C2C corridor require HighQuality Public Transport (HQPT) to link newhomes to employment and services in and around Cambridge.	Local Plans prepared by Cambridge City & South Cambridgeshire Councils: Confirm targets for housing and employment growth and allocate sites in West Cambourne, Bourn Airfield and other sites along the A428 corridor for development as well as at West Cambridge and North West Cambridge.	<i>Greater Cambridge Local Plan. Transport Evidence Report. Cambridgeshire County Council Transport Strategy and FundingTeam, November 2020.</i>	
A.3	Policy within the TSCSC requires a range of infrastructure interventions on the St Neots andC2C corridor as a key part of the integrated landuse and transport strategy responding to levels of planned growth.	The Transport Strategy for Cambridge and South Cambridgeshire (TSCSC) was prepared in parallel with the development of the Local Plans and was agreed in March 2014. The strategy provides a plan to manage the rising population and increasing demand on the travel network by shifting people from cars to other means of travel including public transport, walking and cycling.	<i>Transport Strategy for Cambridge and South Cambridgeshire, March 2014</i>	

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	Assumptions	Constraints	Reference	CPC Comment
A.4	<p>Cambridgeshire County Council are working with Greater Cambridge Shared Planning (GCSP) comprising Cambridge City and South Cambridgeshire, to provide a transport evidence base to support the preparation and examination of the Greater Cambridge Local Plan (GCLP) that runs to 2041.</p>	<p>Three growth level options being tested through the local plan are:</p> <ul style="list-style-type: none"> • Minimum – Standard Method homes-led • Medium – central scenario employment-led • Maximum – higher employment-led <p>The GCP City Deal constrained to deliver 44,000 jobs and 33,500 homes by 2031 and is consistent with the Minimum growth projection. Higher growth forecasts imply additional infrastructure and development sites beyond 2031.</p>	<p><i>Greater Cambridge Local Plan.</i> <i>Transport Evidence Report.</i> <i>Cambridgeshire County Council Transport Strategy and Funding Team, November 2020.</i></p>	
A.5	<p>The Cambridgeshire and Peterborough Combined Authority is responsible for transport infrastructure improvement and the Local Transport Plan. Drawing on the CPIER the goals of the CPLTP published in 2020 are to deliver a transport system that delivers economic growth and opportunities, provides an accessible transport system and protects and enhances the environment to tackle climate change together.</p>	<p>The CPCA established the Cambridgeshire and Peterborough Independent Economic Review (CPIER). The review provides a robust and independent assessment of the Cambridgeshire and Peterborough economy and the potential for growth. The CPIER confirmed the growth targets established in the City Deal and the need for a package of transport and other infrastructure projects to alleviate the growing pains of Greater Cambridge including HQPT scheme from Cambridge to Cambourne.</p>	<p><i>CPIER - Cambridgeshire and Peterborough Independent Economic Review, CPCA, September 2018</i></p>	<p>The Auditor should refer to Section 4.2 of the i-Transport report comprising Part 2 of CPCs submission.</p> <p>Compliance with Transport Authority Plan Since, as stated in Assumption A.5, CPCA are the transport authority for Cambridge and Peterborough, the C2C proposals must accord with policies as set out within their LTP. This exercise does not appear to have been undertaken but is required to enable a decision relating to robustness of assumptions and constraints against the background of strategic frameworks. It is noted that the CPCA have also expressed concerns that such policy compliance would not be achieved by the C2C schemes as currently proposed¹</p> <p>Constraint A.5 should be modified to include the statements that:</p> <ul style="list-style-type: none"> • C2C is required to accord with the policies as set out within the LTP; and • The CPC have identified several areas where this would not be

¹ [Mayor reiterates his opposition to the Cambourne to Cambridge Busway](#)

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	Assumptions	Constraints	Reference	CPC Comment
				achieved by the current proposals for C2C.
A.6	In April 2020 the CPCA published a draft Sub-Strategy to the Local Transport Plan specifically dealing with CAM. The route along the A1303/A428 from Cambridge City centre towards Cambourne, St Neots and Bedford has been highlighted as a strategic project to help make travel by foot, bicycle and public transport more attractive than private car journeys, alleviating congestion and supporting the region's growth issues.	The C2C proposals have been assessed against the policies in the Sub-Strategy and it is concluded that the scheme is compliant, although further review of the eastern end of this Scheme (City Access) has been undertaken and a review of the western end will be required once there is clarity with regards to proposals for EWR and a station in the Cambourne area.	<i>Cambourne to Cambridge Better Public Transport Project, Report to GCP Executive Board, 10 December 2020</i>	<p>The Auditor should refer to Section 4.2 of the i-Transport report comprising Part 2 of CPCs submission.</p> <p>CAM Compliance As outlined in Section 3.1.1 of CPC's first submission to the Auditor (included as Annex A to this document) a review of the preferred C2C alignment against CAM objectives and sub-objectives² contained in the LTP sub-strategy for CAM³, undertaken in June 2020, concluded that it was not CAM compliant. This review identified 12 areas where CAM sub-objectives were not met, as well as several areas of non-compliance relating to the main CAM objectives.</p> <p>The two potential Coton routes (pink and blue) were identified as having different issues relating, amongst others, to:</p> <ul style="list-style-type: none"> • Proximity to properties on Cambridge Road; • Visibility and impact on Green Belt as determined by height in the landscape and alignment with existing field boundaries; • Impact on Cambridge Historical Entities entries; • Stakeholder objections; and • Impacts on Coton Orchard. <p>The report therefore recommended that additional options continued to be examined along with potential routes north of the A1303. It is for this reason (as well as concerns regarding lack of accord with the LTP and correspondence from residents notably at Hardwick and Coton)⁴ that the CPCA introduced consideration of new alignments in late 2020 (as identified under Constraint E.2 below).</p> <p>Constraint A.6 should be updated to state:</p> <ul style="list-style-type: none"> • the preferred C2C scheme has been assessed against the policies in the Sub-Strategy, which concluded that the scheme is non-

² [June 2020, Jacobs Review of C2C against CAM Objectives](#)

³ [March 2020 Cambridgeshire and Peterborough Local Transport Plan: Cambridgeshire Autonomous Metro \(CAM\) sub-strategy](#)

⁴ [Mayor reiterates his opposition to the Cambourne to Cambridge Busway](#)

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	Assumptions	Constraints	Reference	CPC Comment
				<p>compliant in certain respects</p> <p>Reliance on secondary documentation As also expressed in their first submission (Section 3.1) to the auditor, CPC have concerns that the briefings provided to the GCP Executive regarding CAM compliance, notably those prepared ahead of the meeting on 10th December 2020⁵, continued to refer incorrectly to the preferred C2C alignment being CAM compliant. These relied on the October 2018 Arup report, which did not take account of the sub strategy, nor the later Jacobs report of June 2020 that assessed the scheme against that sub strategy one of June 2020.</p> <p>Then reliance on such briefings, that were informed on preliminary studies and out of date information may therefore have misinformed decision-making regarding the C2C scheme by the Executive, as well as the determination of assumptions and constraints by the auditor, if these secondary sources rather, than primary documentation, have been used .</p> <p>The references should include amongst others:</p> <ul style="list-style-type: none"> • The Jacobs review of CAM compliance. which is not referred to in the Report to the GCP Executive cited in Statement A.6; and • The LTP sub strategy relating to CAM which formed the basis of the appraisal documented in the Jacobs report <p>EWR Rail As outlined in (Section 4.2 of) i-Transport’s report this constraint has, in part, been addressed through the latest public consultation opened up by EWR, since it relates to how a potential EWR preferred station location north of Cambourne could tie in with the C2C proposals, and how patronage, interchange and concurrent routing might be affected. It is important that there is a consistent policy context against which all interventions are assessed. Comments on this aspect are provided under Responses E.3 and E.4</p>

⁵ [December 2020 Agenda Item 8 Report to GCP Executive Board dated 10 December 2020 , submitted by Peter Blake](#)

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	Assumptions	Constraints	Reference	CPC Comment
A.7	National Infrastructure Commission: The NIC has identified the Cambridge – Milton Keynes – Oxford arc as a national priority stating that its world-class research, innovation and technology can help the UK prosper in a changing global economy.	NIC has proposed the development of EWR. Integrating mass rapid transit with this scheme will enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects.	<i>NIC Report, November 2020.</i> https://nic.org.uk/studies-reports/national-infrastructure-assessment/	
A.8	Highways England. Dualling of A428 Black Cat to Caxton Gibbet included in RIS2 programme, 2020-2025. HE has no other major road schemes planned for the GCP area having recently completed the upgrade to the A14 and Girton interchange with the M11.	DCO submitted in February 2021 for this Nationally Significant Infrastructure Project connecting the A1 to the A14. Preparatory works are underway. Scheduled for completion by 2023-24?	<i>Highways England. Route Investment Strategy. Road projects in the Eastern Region.</i> https://highwaysengland.co.uk/our-work/east/#roadprojectform	It is noted that the upgrade of Girton Interchange, a strategically important junction (the main junction of four regionally and nationally important roads, the M11, A14, A428 and A1307 Huntingdon Road) has been signalled as under consideration for the next RIS programme. Constraint A.7 should be modified to note that: <ul style="list-style-type: none"> a routing of C2C close to the GI would provide for a future direct link into that strategically important interchange, which has been signalled for upgrade.
A.9	East West Railway Company formed to create a new railway connection between Oxford and Cambridge. Consultation is anticipated on the preferred route alignment which includes stations at Cambourne and in the Sandy/St. Neots area.	The Bedford to Cambridge section is the third stage of the project and construction is not expected to start before 2025 with the train service beginning later this decade at the earliest.	<i>Connecting Communities: The Preferred Route Option between Bedford and Cambridge Executive Summary. EWR, 2019</i>	As outlined in our comment on Statement A.6 above, Statement A.9 can similarly be updated to reflect the latest EWR public consultation. Constraint A.9 should be modified to state that: <ul style="list-style-type: none"> the consultation on EWR commenced in March 2021 and will continue until June 2021. <p>The reference should be updated to include the recent EWR consultation documentation. Further details are provided in Section 7 of i-Transport's report</p>

Table B: Scheme Objectives

	Assumptions	Constraints	Reference	CPC Comment
	B. Scheme Objectives:			
B.1	<ul style="list-style-type: none"> ● Achieve improved accessibility to support the economic growth of Greater Cambridge ● Deliver a sustainable transport network/system that connects areas between Cambourne and Cambridge along the A428/A1303 ● Contribute to enhanced quality of life by relieving congestion and improving air quality within the surrounding areas along the A428/A1303 and within Cambridge city centre 	<ul style="list-style-type: none"> • Existing car mode share and car ownership within the A428/A1303 corridor is high, and future growth is expected to generate additional demand for car use in this area. • Traffic data shows that AM peak hour traffic speeds are 75% slower than night time average speeds on the route between the Madingley Mulch Roundabout and M11 Junction. • Planned growth, between 2011 and 2031, along the A428/A1303 corridor eastbound car trips are forecast to increase by 14% in the AM Peak hour, 82% in the Inter-peak period and, 37% in the PM Peak period. Without intervention this could lead to a further deterioration in traffic speeds and reliability of journey times. • Travel to work data for key origins along the C2C corridor also illustrate the high level of car use along the route, with the car mode share for residents of 	<p><i>C2C Outline Business Case, Strategic Case GCP January 2020.</i></p>	<p>The auditor should refer to Section 4.3 of the i-Transport report comprising Part 2 of CPCs submission.</p> <p>As outlined in (Section 4.3) of i-Transport’s Report the auditor sets the scheme objectives against relatively limited, but individually very detailed, constraints and does not cite wider policy when doing so, save for the reference to planned growth, between 2011 and 2031, along the A428/A1303 corridor. Yet the purpose of the audit is to test the robustness of assumptions and constraints and determine whether they remain appropriate in the context of the current strategic frameworks. The strategic frameworks are policy driven and so this area must be considered in the wider policy context to enable sufficient examination of these issues in subsequent stages of the audit.</p> <p>Assumption B.1 should be modified to include the assumptions regarding additional houses and jobs that will drive the increase in traffic.</p>

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	Assumptions	Constraints	Reference	CPC Comment
		<p>Cambourne being particularly high (65%).</p> <ul style="list-style-type: none"> Residents of Cambourne and surrounding villages currently have limited options to use public transport due to the low level of service and current unreliability. In the absence of substantial bus priority in the corridor, congestion and delays mean journeys of around 10 miles can take over an hour during peak times. Buses therefore offer no competitive advantage over private cars in terms of journey times and reliability. 		
B.2	Supporting development through the busway corridor: The scheme is assumed to promote growth in the area and increase investment. It is designed to be the first in a series of steps to push forward growth.	Longer-term plans for the CAM network and EWR need to be taken into account.	'C2C Outline Business Case, Strategic Case GCP January 2020.	<p>The auditor should refer to Sections 4.3, 5 and 7 of the i-Transport report comprising Part 2 of CPCs submission.</p> <p>As outlined in (Section 4.3) of i-Transport's Report, the assumptions and constraints fail to reference the latest information available for EWR which must be considered.</p> <p>Comments on this aspect are provided under Responses E.3 and E.4</p>
B.3	Support for the labour market: Through the wider effects of the scheme it is assumed that there will be an increase in accessibility to jobs, education and training. This has the potential to give easier access into both Cambourne and Cambridge and thereby expand the labour market.	Constraints in this are linked to ticketing and frequency of service. If this is an expensive service, then some may still be priced out. There is no information on ticketing and service schedules have yet to be confirmed.	'C2C Outline Business Case, Strategic Case GCP January 2020.	

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	Assumptions	Constraints	Reference	CPC Comment
B.4	<p>The scheme will create a congestion free, high quality public transport corridor: The OBC assumes that the scheme will be able to create this corridor as a segregated busway.</p>	<p>There are still several pinch points and interactions with general traffic that could create congestion and delay along the route.</p> <ul style="list-style-type: none"> Scotland Farm P&R access The section of the scheme which runs through Bourn Airfield must comply with the SPD for the site and complement the development Masterplan. The section of the scheme which runs through West Cambridge must complement the development Masterplan. Consideration must be given to vibration and EMI impacts on sensitive receptors such as the Department of Materials Science and Metallurgy. 	<p>'C2C Outline Business Case, Strategic Case GCP January 2020.</p>	<p>Congestion free corridor</p> <p>As per the response to Statement B.5 below, and as outlined in (Sections 4.3 and 6.3 of) i-Transport's Report in the context of uncertainty over significant sections of the route notably within the city design the identified benefits should be viewed cautiously. Alternatives should therefore also remain under consideration.</p> <p>Constraint B.4 should include bullet points as follows:</p> <ul style="list-style-type: none"> The section of the scheme which runs between Grange Road and the city Centre need to be accommodated within the historic and highly constrained city centre streetscape, that currently limits connectivity, capacity and reliability; Similar constraints apply to the, as yet undefined, links to north Cambridge and the Biomedical Campus; and Ahead of a definition of the C2C scheme in these areas, there are uncertainties regarding the ability to achieve the intended benefits of a congestion free, high quality public transport corridor.
B.5	<p>In the City Centre, GCP's City Access project is proposing measures to reduce reliance on car travel and free up the city centre's congested road space, to run better public transport services.</p> <ul style="list-style-type: none"> The objectives of the City Access scheme complement 	<p>Bus services across the city centre incur substantial delays due to traffic congestion and the layout of city streets. Significant reallocation of road space to active travel and buses alongside on-street parking management measures will be required to improve bus journey times.</p>	<p>Report to GCP Executive Board, 18 March 2021</p>	<p>Journey Times to city centre</p> <p>As outlined in (Section 2.1 of) CPC's first submission to the auditor no definition is provided in the OBC of the project's components (routes, road layout, traffic controls, etc.) or operational parameters between Grange Road and the city centre, north Cambridge and the Biomedical Campus. Yet the scheme's <i>physical and operational aspects</i>⁶ in these locations may be significant e.g. lack of segregation (and resulting risks to journey time and reliable journeys), impacts on historic townscape, road user amenity etc., and thus have a substantial influence on journey time and the OBC. The CPC therefore believes that their omission from the appraisal process raises significant</p>

⁶ Identified in [DfT 2018 Transport Analysis Guidance, The Transport Appraisal Process](#)

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	Assumptions	Constraints	Reference	CPC Comment
	<p>the C2C project by seeking to improve conditions for sustainable transport within the City Centre, thereby benefitting users of the C2C scheme either through improved journey times for public transport or better connectivity to pedestrians and cyclists.</p> <ul style="list-style-type: none"> City Access will also complement C2C by providing an alternative to car journeys for trips from new developments served by the scheme. 			<p>doubts regarding the degree of confidence that can be placed in the OBC.</p> <p>Constraint B.5 should be modified to include:</p> <ul style="list-style-type: none"> “the last mile” scheme definition is as yet incomplete, and reliant on other projects which have not yet been developed and are therefore uncertain to be delivered. This uncertainty should be reflected in the OBC.
B.6	<p>On 31st October 2018 the CPCA Board agreed that the C2C scheme should be progressed by the GCP as an essential first phase of developing proposals for the CAM.</p> <p>They accepted the independent review of alignment between the C2C scheme and the CPCA plans for a CAM, undertaken by consultants Arup and commissioned by the CPCA in 2018.</p>	<p>Arup has undertaken a high-level review of route options and concluded that:</p> <ul style="list-style-type: none"> The process undertaken to date to determine the route is robust and the optimal solution for the corridor is confirmed; The route is reclassified as a CAM route to serve the wider network, and not an independent guided busway corridor; The vehicle operating along the A428 corridor will comply with the principles of the CAM; The route will continue to 	<p>Cambridgeshire and Peterborough Combined Authority CAM Expert Advice A428 Report. Arup, October 2018</p>	<p>The auditor should refer to Sections 4.3 and 6.2 of the i-Transport report comprising Part 2 of CPCs submission.</p> <p>CAM compliance</p> <p>The referenced Arup Report⁷ is a short document (three pages) and with a stated purpose to review the A428 corridor “in relation to the wider delivery of CAM... to provide confidence in progressing that corridor” i.e. to establish the broad compatibility of CAM with the C2C corridor, rather than with a specific C2C alignment, as stated in Assumption B.6. It concludes that the “corridor has a strong case”.</p> <p>While it also identifies that the southern route is likely to be the most attractive it</p> <ul style="list-style-type: none"> bases this on very “<i>initial findings</i>” limited criteria and analysis, notably relating to meeting demand and journey times of wider CAM criteria; states that this is subject to being able to address certain areas of concern, details of which have yet to be determined; and does not state that the on-road options are incompatible with CAM. <p>It thus demonstrates that the C2C corridor is in general compatible with CAM rather</p>

⁷ [Arup, 2018a CPCA CAM Expert Advice A428 Report](#)

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	Assumptions	Constraints	Reference	CPC Comment
		<p>be designed to align and integrate with the overarching CAM network, comprising one of the phases of the CAM network;and</p> <ul style="list-style-type: none"> Options for mitigating the impact of the scheme at West Fields and Coton will be incorporated into scheme design for the SOBC. 		<p>than rejecting any specific alignments. It should not therefore be relied on to justify the selection or rejection of any route option within the corridor prior to their optimisation, and more rigorous evaluation against the CPCA requirement for CAM.</p> <p>CPC therefore considers assumption B.6, as it currently stands, to be incorrect.</p> <p>More importantly Statement B.6 omits to reference several key documents relating to CAM compatibility that supersede the one cited, notably:</p> <ul style="list-style-type: none"> Arup, November 2018 Position paper on CAM and A428 Commissioned by CPCA which aims to support the conclusion of the earlier routes note based on a “<i>high level</i>” appraisal against six criteria; Jacobs June 2020 Review of C2C against CAM Objectives Commissioned by CPCA, which concluded that there were several areas of non-compliance; undated CPCA/Jacobs’ Review of Cambourne to Cambridge, commissioned by GCP that challenged the conclusion for the Jacobs report; and the SOBC for CAM that outlined key CAM operational parameters. <p>CPC and other stakeholders have expressed concerns over the criteria used, and hence ranking of the various scheme alignments, in the November 2018 Arup Report and therefore also on the subsequent reliance by GCP on what is acknowledged by them to be a “<i>high level</i>” appraisal to justify the selected alignment. This concern is underscored by a review of the Arup reports by i-Transport, the key findings of which are included (in Section 4.3) of their report. This concluded that:</p> <ul style="list-style-type: none"> in the context of the scheme objectives it has not been sufficiently demonstrated by the Arup reports that C2C is compatible with CAM and the conclusions of the Jacobs report (and other reports that postdate the Arup 2018 reports) should rather be considered by the Auditor in this respect; the appraisal of the three principal alignments against six broad criteria is a subjective appraisal open to interpretation; the auditor should not rely solely upon the contents of this report in considering whether the scheme is CAM compliant or in supporting a decision regarding its optimal alignment. <p>It is noted that the GCPs’ latest report rejecting the findings of Jacobs has not been accepted by CPCA and refers to the earlier this Arup (to which the i-Transport review relates) to support its conclusions. This process of decision making reinforces CPC</p>

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	Assumptions	Constraints	Reference	CPC Comment
				<p>concern (as noted in Response A.5 above and Section 6.2 of i-Transport’s report) regarding the GCP Executive Board’s reliance on secondary sources for decision making</p> <p>Assumption B.6 should be altered to state that:</p> <ul style="list-style-type: none"> • they accepted the independent review of compatibility between the C2C corridor and theCPCA plans for a CAM, undertaken by consultants Arup in October 2018.” <p>The following should be added to Constraint B.6:</p> <ul style="list-style-type: none"> • these conclusions are based on “the initial findings” of a “high level” review to establish that the corridor was not inconsistent with CAM principles and were therefore subject to further work to confirm compliance and relative performance of specific alignments;. • a subsequent review of C2C against CAM Objectives commissioned by CPCA, concluded that there were indeed several areas of non-compliance. While such conclusions have subsequently been rejected by GCP that rejection relies upon the earlier “high level” appraisal which has been identified by an independent transport consultant as not suitable for this purpose;. • until these differences of opinion can be resolved, there therefore remains a significant degree of uncertainty as to whether or not C2C, as proposed, is CAM compliant. <p>The references should be updated to include the documents identified above.</p>

Table C: Project Deliverables

	Assumptions	Constraints	Reference	CPC comments
	C. Project Deliverables:			
C.1	<p>The project is made up of three key elements:</p> <ul style="list-style-type: none"> • a public transport link between Cambourne and Cambridge, • a new Park and Ride facility off the A428/A1303 to supplement the existing Madingley Road Park and Ride, and • new cycling and walking facilities. 	<p>The C2C scheme will need to deliver on the following elements:</p> <ul style="list-style-type: none"> • A HQPT system using rapid transit technology on dedicated routes. • High frequency, reliable services delivering maximum connectivity. • Continued modal shift away from car usage to public transport. • Capacity provided for growth, supporting transit-oriented development. • State of the art environmental technology, with easily accessible, environmentally friendly, low emission vehicles such as electric/hybrids or similar. • A fully integrated solution, including ticketing and linkages with the wider public transport network to maximise travel opportunities. <p>Achieving these may be constrained by factors outside of the GCP's control.</p>	<p>'C2C Outline Business Case, Strategic Case GCP January 2020.</p>	<p>Ability to deliver CAM and last mile elements</p> <p>Constraint C.1 is incomplete as it does not identify constraints on project deliverables resulting from:</p> <ul style="list-style-type: none"> • GCP's commitment for C2C to be <i>an essential first phase of developing proposals for the CAM</i> as stated in Assumption B.6 above, i.e. CAM compatible; and • the absence of a "last mile" scheme description, and hence its omission from options appraisal as part of the OBC development (as identified above under CPC comments on constraint B.5) <p>Constraint C.1 should be modified to include the following bullet points:</p> <ul style="list-style-type: none"> • the need for CAM compatibility as identified in the proposed changes to constraint B.6; • CPCA have identified a lack of C2C compliance with CAM Objectives and Sub objectives as set out in the LTP sub strategy relating to CAM⁸ which has been adopted by GCP; • compliance with key CAM operational parameters as outlined in its SOBC⁹; and. • lack of definition of last mile project component (to enable their inclusion in the scheme appraisal and OBC. <p>The relevant additional references should also be cited including:</p> <ul style="list-style-type: none"> • 2020 LTP Sub objectives relating to CAM; and • SOBC for CAM .

⁸ [2020 LTP Sub objectives relating to CAM](#)

⁹ [Steer 2018. Mass Transit Options Appraisal. Report commissioned by the GCP and Combined Authority](#)

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	Assumptions	Constraints	Reference	CPC comments
C.2	<p>Scotland Farm site chosen as preferred location for Park & Ride site with a capacity for up to 2000 cars. It will also provide a travel hub with potential for cycle storage as well as waiting rooms/information point and retail outlet.</p>	<p>Scotland Farm is attractive location for commuters from areas to the west of Cambridge along the A428 corridor but less so for car users from the south exiting at jnc 13 of the M11. The success as a travel hub will depend on the number of car users and cyclists attracted to the site.</p> <ul style="list-style-type: none"> Any new Park & Ride service will need to be to a standard similar to that currently operating for Cambridge's Park & Ride services as set out in the current Access Agreement, which states that the Bus Operator will operate the Park & Ride Bus Services in accordance with the established minimum requirements. Provide appropriate traffic calming and management proposals to mitigate rat-running to Park & Ride sites. The alternative P&R site at Madingly Road may be redeveloped for other use when the lease expires later this decade. 	<p>'C2C Outline Business Case, Strategic Case GCP January 2020.</p>	
C.3	<p>Increase active travel through improved infrastructure for cycling and walking:</p> <ul style="list-style-type: none"> Comberton Greenway will complement the C2C project as it develops improved pedestrian and cyclist routes with a segregated path continuing beyond the 	<p>The scheme must provide a segregated route for non-motorised users, as a minimum to include cyclists and walkers, but where appropriate equestrians, and to ensure that all pedestrian facilities are accessible for all.</p> <p>The existing cycling network between Cambourne and Cambridge has sections of segregated links of uneven quality but is discontinuous and does not in total provide a high-quality segregated route</p>	<p>'C2C Outline Business Case, Strategic Case GCP January 2020.</p>	<p>As outlined in (Section 4.4) of i-Transport's Report, clarity is needed on the scheme in terms of NMU provision and a joined-up approach to provision of NMU infrastructure in the area more generally (particularly in the vicinity of Coton where there are three potential new elements of cycle infrastructure proposed within approximately 100m of one another. The approach to provision of NMU routes generally can also aid decisions regarding accommodation of bus lanes.</p> <p>Constraint C.3 should therefore include reference to:</p> <ul style="list-style-type: none"> the requirement to contribute to a joined-up approach to NMU provision which is currently fragmented, particularly in the vicinity of Coton.1

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	Assumptions	Constraints	Reference	CPC comments
	<p>proposed bus route.</p> <ul style="list-style-type: none"> • Madingly Road cycling improvements enabled by reallocation of road space that complements C2C scheme 	<p>which would cater for the potential increased modal share of cyclists along the corridor.</p> <p>Madingly Road potential bus lane/priority measures reallocated to cycling infrastructure.</p>		

Table D: Strategic Fit

	Assumptions	Constraints	Reference	CPC Comments
	D. Strategic Fit:			
D.1	A substantial level of housing and employment development is planned, or is already under development, along the C2C corridor include Cambourne West, Bourn Airfield, West Cambridge and North West Cambridge (Eddington).	Based on current plans, both those within the current Local Plan or well established through planning applications or known to be emerging, there are around 11,700 additional houses planned and around 13,400 additional jobs along the C2C corridor. Around 50% of all housing planned (c. 6,000 houses) would be directly linked to Cambridge City centre and other key employment locations via the C2C project.	'C2C Outline Business Case, Strategic Case GCP January 2020.	As outlined in (Section 4.5) of i-Transport's report, there is a two-way direct linkage between development and transport infrastructure. New development can require additional transport infrastructure and services. Equally, new transport infrastructure can facilitate development. However, in respect of C2C, this is of importance in a strategic sense as all the route options considered for C2C (and some not yet considered) would enable development along the A428 corridor. This is shown in the INSET option appraisals in the C2C Strategic OBC (Tables 18 and 23) where all options score equally in economic growth. The appraisal will require review in the context of EWR which would impact on passenger demand on C2C (further information on this is included in Section 7 of the i-Transport report)
D.2	The C2C project has been recognised in the Local Plans and local transport strategy as a key project to help address these infrastructure constraints on growth by linking Cambridge to growth areas to the west. The provision of a HQPT service supporting journeys to key employment sites presents a viable alternative to car use/purchase for residents in new developments.	Two significant new planned developments (Cambourne West and Bourn Airfield) are, in housing terms, judged to be fully dependent upon the C2C project given the clear policy position within the adopted Local Plan and supported by Section 106 commitments and ongoing negotiations.	'C2C Outline Business Case, Strategic Case GCP January 2020.	Constraint D.2 should be updated to state that: <ul style="list-style-type: none"> the two new developments are linked to the availability of public transport links, notably C2C and EWR.
D.3	Supporting increased development density of the corridor: The assumption is that the added capacity of the scheme will support the densification in the areas	The growth depends on the scheme providing enough capacity to meet anticipated demands.	'C2C Outline Business Case, Strategic Case	

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	Assumptions	Constraints	Reference	CPC Comments
	easily accessible to the busway.		GCP January 2020.	
D.4	The scheme offers further capacity and therefore underpins growth. Whilst there is a wealth of supporting evidence for this assertion, it is hard to establish how much effect on relieving the capacity this scheme will have and how much growth that this scheme in isolation will enable. The scheme is assumed to be the launch point for further connections and shift away from private vehicles.	Existing network cannot increase travel capacity much further. A major constraint is whether this scheme can successfully create the conditions for modal shift? Are other measures required to achieve the 30% modal shift targeted in the GCP transport strategy?	'C2C Outline Business Case, Strategic Case GCP January 2020.	As identified under CPC's comment on Statement B.5, a major constraint in the ability of C2C to meet needs of the majority of traveller using it, will be the ability to increase capacity in "the last mile" city centre, rather than capacity along the corridor. Constraint D.4 should be updated to include reference to: <ul style="list-style-type: none"> a significant constraint is associated with congestion and lack of capacity in city centre areas.

Table E: Connections to CAM and EWR

	Assumptions	Constraints	Reference	CPC Comment
	E. Connections to CAM and EWR			
E.1	<p>The CAM project proposes an expansive metro network that seamlessly connects Cambridge City Centre, key rail stations (Cambridge, Cambridge North and the future Cambridge South), major City fringe employment sites and key 'satellite' growth areas, both within Cambridge and the wider region.</p>	<p>The GCP routes will form the first phase of the Combined Authority's CAM project.</p> <p>This scheme is still at the planning stage (SOBC) and the preferred alignment, scheme costs and appraisal has yet to be confirmed in an Outline Business Case. There is uncertainty regarding the timeline for CAM implementation; the SOBC indicated a construction period between 2024 - 2030 but the timeline for the preparation of the OBC has already slipped so this appears to be optimistic.</p>	<p><i>Cambridgeshire Autonomous Metro Strategic Outline Business Case, CPCA, February 2019</i></p>	<p>Constraints associated with CAM Compliance</p> <p>Constraint E.1 does not include the specific commitments made by GCP relating to accommodation of CAM. Nor does it refer to constraints potentially resulting from the operational parameter of CAM as specified in its SOBC¹⁰. As outlined in Section 2.2 of CPC's first submission the assumed operating scenario relates only to the scheme's use by bus, but not its likely longer-term use for CAM metro, which has different operational parameters, notably frequency and speed of movements.</p> <p>Constraint E.1 and the associated references should be updated to include:</p> <ul style="list-style-type: none"> • GCP's commitment made on 8th February 2018 for C2C¹¹ to be capable of future conversion to accommodate CAM; • GCP's statement that the "inbuilt flexibility of our [GCP's] current [C2C] plans can accommodate CAM"¹²; • requirements of C2C to comply with CAM objectives as included in the draft Sub-Strategy to the Local Transport Plan specifically dealing with CAM (See item A.6); and • Lack of consideration of CAM operational parameters e.g. the increased number of movements compared to C2C. <p>The following should be removed from Constraint E.1:</p> <ul style="list-style-type: none"> • references to the early planning stage or uncertainty regarding the costs or timing of CAM as these do not constrain the ability for C2C to be capable of CAM compatibility. Further, these factors are not identified as such in the reference provided to support this statement¹³; and • uncertainty regarding CAM alignment since, as outlined in CPC's response to Constraint F.1 below, CAM alignment between Cambourne and the portal west of Cambridge will follow that adopted by C2C. The constraint is rather on C2C to ensure its alignment and design can accommodate a future CAM as defined by the parameters outlined in its SOBC¹⁴ and meet the objectives set out in the sub-strategy to the LTP relating to CAM¹⁵.

¹⁰ Steer 2018. Mass Transit Options Appraisal. Report commissioned by the GCP and Combined Authority

¹¹ [GCP February 2018 Agenda Item Mass Rapid Strategic Options Appraisal](#)

¹² [GCP June 2020, Open Letter from GCP Executive Board](#)

¹³ [CAM SOBC, 2019](#)

¹⁴ [CAM SOBC, 2019](#)

¹⁵ March 2020 Cambridgeshire and Peterborough Local Transport Plan: Cambridgeshire Autonomous Metro (CAM) sub-strategy

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	Assumptions	Constraints	Reference	CPC Comment
E.2	CAM SOBC assumes the portal connecting the city centre underground section to the C2C route will be in West Cambridge at the southern edge of the proposed development area. The CAM station will be at ground level in this vicinity.	<p>Alternative route options for the CAM are still being explored. So far, these rule out any alignment going via the Girton Interchange.</p> <p>A northern route corridor option(s) has been proposed. These would follow an alignment to the north of the A1303 and American Cemetery and connecting to the north side of the A428 and proceeding to Scotland Farm P&R and then crossing over to Bourn Airfield development. An alternative option to extend the CAM tunnel to the west of the M11 on the northern side of A1303 has also been explored. A preliminary evaluation of these route options indicates that they would be higher cost alignments for the busway/CAM and would have environmental impacts on the American Cemetery, 800 Wood, Madingley village and White Pits Plantation, incur longer journey times compared to the preferred busway option and would not attract as many bus</p>	<p><i>CAM Indicative Northern Route Corridor Options Map, CPCA, October 2020.</i></p>	<p>The auditor should refer to Sections 5.2, 5.4 and 6.3 of the i-Transport report comprising Part 2 of CPCs submission.</p> <p>Alternative CAM Alignments As identified in CPC’s comment on Statement A.6, the reason why alternative northern routes for CAM are still being explored is due to the findings, in mid-2020, that the preferred C2C option did not meet several of the CAM objectives and sub-objectives¹⁶ and the level of public objection to the preferred C2C alignment, rather than a delay in the CAM process as implied in the stated constraint.</p> <p>Girton Interchange While current CAM northern route options do not include an alignment through the Girton Interchange (GI) the CPC are not aware of any reports by the Combined Authority that have ruled “out any alignment going via the Girton Interchange”.</p> <p>The first paragraph of Constraint E.2 should therefore either be removed, or a reference to supporting evidence be provided.</p> <p>As outlined in both Section 3.1 of CPC’s first submission to the auditor and their response (Item 1) to Constraint F.2 below, the level of consideration given by GCP to a route along the A428 between the Madingley Mulch Roundabout (MMR) and the M11 from Girton Interchange to High Cross, either with or without integration into the Girton Interchange, has been very limited and cannot be relied on to support its rejection for consideration for either CAM or C2C.</p> <p>This is supported by i-Tansport’s review (summarised in Sections 5.2, 5.4 and 6.3 of the i-Transport report), which concludes that such an option is potentially viable and could perform as well as or better than the currently preferred one, either as standalone solution or as part of a phased implementation of C2C. They therefore also conclude that it warrants further consideration.</p> <p>The first paragraph of Constraint E.2 should be replaced by:</p> <ul style="list-style-type: none"> • due to a lack of compliance of the preferred route with CAM objectives and the level of public opposition to it, alternative route options for the CAM are being explored; and • a northern route that is coaligned with the A428, running via a location close to the Girton Interchange has been identified as potentially feasible, but has not as yet been considered.

¹⁶ [Jacobs 2020a, Review of C2C against CAM Objectives](#)

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	Assumptions	Constraints	Reference	CPC Comment
		riders.		
E.3	<p>CAM: As a segregated route, the preferred option for the C2C is aligned with the CAM project, at least on the section between West Cambridge and Bourn Airfield. CAM connections through/around Cambourne will depend on the EWR station location. Connections to rest of the CAM network will be via a tunnel through the City Centre.</p>	<p>C2C travel hubs at Scotland Farm P&R site and in Cambourne may require the CAM to follow a different alignment to the C2C busway in these sections in order to access these facilities depending on the vehicle technology chosen.</p>	<p>'C2C Outline Business Case, Strategic Case GCP January 2020.</p>	<p>The auditor should refer to Sections 5.4, 6.3 and 7 of the i-Transport report comprising Part 2 of CPCs submission.</p> <p>One of the purposes of the independent audit, set out in the original Terms of Reference, is the need to test the validity of assumptions and constraints in respect of EWR.</p> <p>As outlined in (Sections 5.4 and 6.3 of), any proposal for a public transport route between Cambourne and Cambridge must be taken forward in tandem with any wider proposals for both CAM and EWR. Notably any such route will need to compliment the planned EWR strategic offering i.e. a single travel corridor should come forward that can accommodate any local public transport service in tandem with the strategic provision, including an interchange, whilst also being cognisant that a strategic service still has the potential to affect forecast ridership of a local service if station stops are in the same vicinity i.e. at Cambourne. If C2C comes forward earlier, it must be compatible with, and facilitate later delivery of EWR and CAM. It must therefore build passenger forecasts and thus the economic business case accordingly.</p> <p>As outlined in Section 7 of i-Transport’s report, it is not unusual that infrastructure schemes, or indeed development opportunities, are required to take account of planned transport infrastructure long before that infrastructure has consent. For example housing and employment allocation has been required for some time to take account of the proposed Cambridge- Oxford Expressway, despite it being at an early stage in its panning.</p> <p>Constraint E.4 should be updated to include the statement that:</p> <ul style="list-style-type: none"> The development of C2C must be taken forward in tandem with and cognisant of the latest proposal for CAM and EWR .

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	Assumptions	Constraints	Reference	CPC Comment
				The reference should include the latest information available on EWR identified in Section 7 of i-Transport's report.
E.4	EWR: The C2C full business case will also need to include a sensitivity test to assess the impact of EWR Rail once there is clarity with regards to the proposals. It is unlikely that EWR will have an impact of the core business case for C2C given that it is unlikely that any EWR proposals will have achieved consent during the C2C assessment period.	EWR focuses substantially on longer term growth beyond the Local Plan period and not the immediate and worsening issues of congestion and lack of connectivity for expanding communities west of Cambridge. Once a preferred alignment has been agreed for EWR and confirmation of the location of a Cambourne station there will need to be a programme to ensure integration between EWR, C2C and the wider CAM network.	'C2C Outline Business Case, Strategic Case GCP January 2020.	<p>As outlined in (Section 6.3 of) i-Transport's report the assumption that it is <i>unlikely that EWR will have an impact on the core business case for C2C</i> is questioned since even if the two projects are running to slightly different timelines, patronage for C2C will be affected by EWR and interchange is important. Government and public funds for provision of a new high quality public transport network should be focussed on a scheme which can come forward in tandem with wider strategic transport infrastructure, whichever comes forward first.</p> <p>The assumptions should be replaced by:</p> <ul style="list-style-type: none"> As patronage for C2C will be affected by EWR, ahead of progressing to full business case, sensitivity analyses should be undertaken against the likely scenarios for EWR. <p>The following should be added at the end of the current constraints:</p> <ul style="list-style-type: none"> In the interim, however, measures should be implemented to ensure that decisions are based on available (or imminently available) knowledge regarding EWR and that the two schemes are developed in tandem. <p>The reference should include the latest EWR consultation information.</p>

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	Assumptions	Constraints	Reference	CPC comment
	F. C2C Options Selection			
F.1	Options Sifting: The scheme options were developed in two phases. In total 34 options were considered which were sifted through a multi-criteria assessment framework to derive 6 options (3 phase 1 & 3 phase 2) including the P&R site options. These were then combined into 5 options for both phases including a scheme comparator which was eventually selected as the preferred option. The pioneering process reviewed a wide range of options suggested by stakeholders and following consultation. The assessment criteria followed DfT appraisal guidelines and covered a broad range of issues from policy goodness-of fit to local environmental impacts.	<p>The MCAF criteria is a qualitative exercise that measures the performance of each option against a wide range of factors grouped into 6 themes. The option scoring is justified on the available evidence but by its nature is subjective. The results indicated that the best performing option was the segregated off- road option with Park & Ride at Scotland Farm but only by a small margin.</p> <p>The preferred option would create a new busway crossing designated Green Belt in West Fields, Coton Orchards and National Trust lands.</p> <p>Options following alignments for the CAM</p>	<p><i>C2C Outline Business Case, Options Appraisal Reports 1, 2 & 3, GCP January 2020.</i></p>	<p>The auditor should refer to Sections 4.6 and 5.1 of the i-Transport report comprising Part 2 of CPCs submission.</p> <p>Option Sifting and MCAF criteria As outlined in Section 2.2 of the CPC’s first response to the auditor:</p> <ol style="list-style-type: none"> 1. Although undertaken after February 2018, when CAM compliance became a condition of C2C, the MCAF criteria did not incorporate the implications of such conditions. As identified by CPC’s legal Advisor¹⁷ Despite the high appraisal score of the preferred option against the “future proofing” criteria, the OBC provides no evidence of a future CAM scenario being assessed. In the absence of consideration of such a future CAM scenario, the reliability of the “future proofing” score, and hence the ability of the preferred option to accommodate CAM, is therefore questionable; 2. OARs 2 and 3 were based on appraisals of the GCP C2C busway design and operations i.e. did not take account of any differences associated with CAM (e.g. increased service frequency as stated in the CAM SOBC); 3. As CAM compliance only became a condition of the scheme after Stage 1, subsequent appraisals (OAR1-3) were limited to the three shortlisted options for Phase 1 remaining at that time. Long term use of the route for a CAM scheme was therefore not considered during the sifting, longlisting, shortlisting or optioneering exercises, nor was this revisited to determine if this condition may have altered their outcomes. It is therefore not known whether other options may perform better than the one proposed by GCP in meeting the project assumptions and constraints had those relating to CAM been included;. 4. As outlined in Constraint J.2 the selected route has consistently been opposed by a substantial majority of stakeholders (residents, their representatives, environmental organisations and others); <p>Options suggested by Stakeholders – A103</p> <ol style="list-style-type: none"> 1. Despite their identification by consultees, various alternatives, notably an on road A1303 option and a route passing close to the Girton Interchange have been rejected without

¹⁷ Letter from Richard Buxton Environmental and Public Law to GCP dated 19 September 2017 (included as Appendix 1 to CPC’s first submission to the auditor)

		<p>and EWR were not evaluated as these are not confirmed, nor are they committed schemes.</p>		<p>consideration of their optimisation potential.</p> <p>2. Only one option suggested by consultees has been considered beyond a cursory review i.e. a central tidal flow lane, based on the understanding that two way bus lanes were not feasible. ;</p> <p>As outlined in (Sections 4.6 and 5.1) of i-Transport’s report:</p> <ol style="list-style-type: none"> 1. The option selection process for Stage 2 (OBC) of Phase 1 was effectively limited to two options one on-road, on the A1303, and one off-road, i.e the preferred southern route. 2. For the A1303, limited low-cost options to create new bus priority measures along the A1303 have been investigated but rejected by the GCP. i-Transport’s view (as document in Section 5.3 of their report) is that such rejection has been undertaken ahead of proper assessment of optimisation options to: <ul style="list-style-type: none"> ➤ overcome the single pinch point close to the Cemetery and SSSI ;and, ➤ explore a full two-way bus priority or, indeed, a segregated or partially segregated route option. <p>In coming to this view i-Transport refer, amongst others, to Mott MacDonald’s Madingley Road ‘Quick-Win’ Options Outline Report of May 2019¹⁸, which noted that a bus lane in both directions could be achieved with minimal land take solely on the southern side of the A1303 thus not affecting either the American Cemetery or SSSI.</p> 3 The consideration of only limited improvements along the A1303, which do not reflect the full potential of that alignment, have contributed to its performance in the appraisal process and hence led to it being discounted. This is in contrast to the preferred option, which was subject to substantial optimisation ahead of appraisal. 4 A re-evaluation of optimisation potential along the A1303 would provide the opportunity to develop an option that reflects the current and emerging transport situation, whilst also providing immediate, and much needed, short term benefits. <p>Options suggested by Stakeholders –running close to the Girton Interchange</p> <p>Section 5.2 of i-Transport’s report also outlines the conclusion of their independent review of the likely feasibility of a route that is coaligned with the A428, running via a location close to the Girton Interchange (a route alignment is presented at Appendix A of the i-Transport report). It concludes that while it would (as with any alignment) present some engineering challenges it is a <i>viable option worthy of further consideration....delivering benefits in comparison to the current preferred option....and would perform better in the context of the INSET appraisal used by GCP for C2C</i></p>
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¹⁸ [Mott MacDonald May 2019, Madingley Road Quick Wins Options Outline](#)

				<p>Assumption F.1 should be altered to:</p> <ul style="list-style-type: none"> remove the statement that the process reviewed a wide range of options suggested by stakeholders and following consultation. <p>Constraint F.1 should include statements to the effect that:</p> <ul style="list-style-type: none"> the MCAF did not include specific criteria relating to CAM compatibility;. only two alternative alignment were considered at OBC stage;. the degree of optimisation applied ahead of appraisal was different for the two alternatives, resulting in a bias in the appraisal used for their comparison;. only one alternative option suggested by consultee has been subject to (limited) optimisation and appraisal; and. a review by an independent consultant has identified two options, that have been rejected but could with optimisation comprise viable options that meet C2C objectives and perform well against their appraisal criteria. <p>Appraisal bias</p> <p>As outlined in Section 5 of the CPC’s first response to the auditor, concerns regarding the appraisal methodologies and criteria selected, as well as over the transparency and robustness in their application have been raised on various occasions, including in the letters from the CPC legal advisor¹⁹ and from the National Trust²⁰ to the GCP. These have both identified specific examples of inconsistent and biased approaches and highlighted that many more exist. The CPC concur with their legal advisor’s view that the GCP’s assessment method has utilised specific criteria that “ensure that Option 3a [i.e. the southern off-road alignment] emerges as the strongest candidate”.</p> <p>Constraint F.1 should include statements to the effect that:</p> <ul style="list-style-type: none"> the robustness of appraisal method and its application have been challenged by various stakeholders.
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¹⁹ Letter from Richard Buxton Environmental and Public Law to GCP dated 19 September 2017 (Appendix 1 to the CPC first submission to the auditor)

²⁰ National Trust, Letter from Paul Forecast to GCP, of 13 February 2020 (Appendix 6 to the CPC first submission to the auditor)

				<p>Green Belt</p> <p>The extent of Green Belt crossed by the preferred option is not restricted to West Fields as stated by Constraint F.1. All the land crossed by the preferred option from Hardwick to the city cuts through Green Belt.</p> <p>Constraint F.1 should be modified to state that:</p> <ul style="list-style-type: none"> • The preferred option would create a new busway crossing Coton Orchard and National Trust land near Coton, and designated Green Belt along its length from Hardwick to the edge of Cambridge City. <p>Evaluation of options following CAM and EWR Alignments</p> <p>There is no requirement to evaluate options following an alignment determined by CAM and it is unclear where this is defined in the stated reference. The need is rather for the selected C2C alignment to be capable of future accommodation of CAM as committed to by GCP in 2018, and as defined by its key parameters documented in its SOBC and its objectives as outlined in the sub-strategy to the LTP.</p> <p>As outlined in Sections 5.4, 6 and 7 of the i-Transport report, the potential for C2C to co-exist within the same travel corridor as EWR must also be considered as a viable route option. While the EWR route corridor is not fully committed in light of the most recent information released by EWR, the emerging preference for a new station north of Cambourne and a route that runs parallel with the A428 west from Cambourne as far as the A428/Scotland Road junction cannot be ignored.</p> <p>Notably, the two emerging preferences for follow a broadly similar alignment to the C2C OBC between Cambourne and the A428/ Scotland Road junction. With such close mirroring of the two routes needs to be very joined up working between the GCP and EWR. And it does not make sense to move forward with the C2C scheme until it can be demonstrated that EWR (and CAM) have been appropriately considered within the C2C OBC including consideration of patronage, interchange complementarity and potentially the use of the same infrastructure corridor has been undertaken</p> <p>As outlined in Section 7 of i-I Transport’s report such a n approach is not unusual and precedents exist for it adoption</p> <p>The last paragraph of constraint F.1 that refers to these two elements should therefore be deleted and replaced by</p>
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				<ul style="list-style-type: none"> The selected options process must take account of C2C’s ability to accommodate its future use by CAM; and Based on the emerging preferred routes for EWR, this should be taken account of in the C2C scheme development to ensure they are developed in tandem to complement each other including potentially co-existing within the same travel corridor.
F.2	<p>Alternative alignments to avoid Coton and Hardwick were evaluated as part of the options development process. These were not found to be suitable and performed worse than the preferred option and no better than the other options assessed.</p>	<p>Alternative northern route options via Girton interchange are not deliverable within the time horizons for the project and not compatible with CAM route corridor options.</p> <p>Other northern route options to the north of the American Cemetery are constrained by environmentally sensitive areas and heritage assets. The Cambridge American Cemetery and the American Battle Monuments Commission is regarded as a unique national memorial which honours the American military personnel killed in the second world war. They would oppose any on-road or off-road scheme which impacted the setting of the</p>	<p><i>C2C Outline Business Case, Options Appraisal Reports 1, 2 & 3, GCP January 2020. Madingley Road ‘Quick-Win’ Options Outline. Technical Note. Mott Macdonald. May 2019.</i></p>	<p>The auditor should refer to Sections 4.6, 5.1, 5.2, 5.3 and 6.3 of the i-Transport report comprising Part 2 of CPCs submission.</p> <p>CAM compatibility of Girton Interchange CPC is not aware of any study or statement to the effect that option via the GI are not compatible with CAM ”</p> <p>As outlined in Section 3.1 of CPC’s first submission to the auditor, and additional studies undertaken by i Transport since that submission (summarised in response F.1) the following shortfalls in consideration of alternatives have been identified, that are worthy of consideration. .</p> <p>1. Option running close to the Girton Interchange No consideration was given (even at longlisting stage) to an off-road alignment that follow the existing transport corridor along the A428 between the Madingley Mulch Roundabout (MMR) and the M11 from GI to High Cross, either with or without integration to the GI despite substantial local support for this option^{21,22}. Following a request to reconsider this, the GCP reaffirmed its earlier rejection from the C2C sifting process due to several constraints²³ including lack of deliverability within time horizon, but gave no consideration to the ability to overcome these constraints.</p> <p>The CPC has, however, identified an approach that could potentially overcome such constraints, as outlined in Section 3.1.3 of their first submission to the auditor, and therefore requested that GCP therefore reconsider such a route.</p> <p>A separate review of such an option by i-Transport (See response F.1) has confirmed that this proposal is a viable options worthy of further consideration</p>

²¹ Letter to Secretary of State for Transport and Highways, dated 1 May 2019 (included as Appendix 5 to CPC’s first submission to the auditor)

²² E.g., [Public Questions to GCP of 10 December, 2020 Question 5](#)

²² [Smarter Cambridge Transport A14 Girton Interchange – a critical link](#) and [Cambridge Past, Present and Future](#)

²³ ²³ [Mott MacDonald, Technical Memo dated 4 May 2018, subject: the Northern Route](#)

		<p>cemetery including removing the verges along the A1303 and the uninterrupted views to the north.</p> <p>On-road options for bus lanes/bus tidal flows are also constrained by impact on SSSI and American Cemetery along the A1303 as well as impacts on properties along the route.</p>		<p>The first paragraph of Constraint F.2 should be reworded to state that:</p> <ul style="list-style-type: none"> Although initially considered undeliverable within the time horizon the potential to adopt a route running along A428 between the Madingley Mulch Roundabout) and the M11 from Girton Interchange to High Cross, either with or without integration to the GI has been shown to be a viable option worthy of further considerations. Notably it could deliver benefits in comparison to the current preferred option, and perform well in the context of the INSET appraisal <p>2. A1303 On-road options</p> <p>As outlined in Section 5.3 of i-Transport’s report (and summarised in the response to F.1 above) on-road alignments along the A1303 were rejected prior to a full consideration of the ability to overcome their identified environmental constraints through design modifications and mitigation, which may have altered their appraisal scores and ranking compared to the preferred option.</p>
				<p>Notably, no effort appears to have been given to avoid land take at the American Cemetery and Madingley Wood SSSI, the key reasons for rejection of this route, despite statements from Historic England²⁴ that mitigation measures should be further considered, and from Natural England²⁵ that further detail was needed to make judgements on any of the three proposed (on and off road) options. The Cemetery has expressed a preference for a routes along the A428, and it is understood may be open to a route along the A1303 providing there is no land take from the Cemetery and urbanisation is avoided in its vicinity. They are also supportive of a speed limit reduction on the A1303 in the immediate vicinity of the Cemetery, which could be incorporated into a well-designed on-road bus scheme.</p> <p>As further elaborated in Secion 5.3 of i-Transports report the on road A1303 options were discounted on the basis of a limited scheme of improvements which do not reflect the full potential of the corridor. Notably the Madingley Road ‘Quick-Win’ Options Outline (May 2019) report noted that a bus lane in both directions could be achieved with minimal land take without affecting the cemetery or SSSI. i -Tansport have therefore recommended that this option should re-evaluated.</p> <p>The following should be added at the end of the third paragraph of Constraint F.2</p> <ul style="list-style-type: none"> Options that could avoid such impacts have been identified and should therefore be further explored.

²⁴ Stakeholder Statement of 28 February 2018 from Historic England to GCP (Appendix 4 to CPC’s first submission to the Auditor)

²⁵ Post consultation Statement from Natural England dated 21 January 2018 (Appendix 8 to CPC’s first submission to the Auditor)

				<p>3. Process for comparison/rejection of alternatives</p> <p>CPC note several shortfalls in the process adopted for comparison and rejection of alternatives:</p> <ul style="list-style-type: none"> • optimised southern alignments through Coton were evaluated against alternatives that had not been subject to the same level of optimisation, resulting in a potentially skewed comparison; • the longlisting and optioneering undertaken between 2014-2018 was not reviewed after CAM compliance was recognised as a necessity in 2018. Hence, it is uncertain if the same shortlist of options would have resulted from such an exercise; and • briefings to the GCP Executive failed to refer to a report that highlighted C2C as being non-compliant with CAM, which may have influenced their choice of which option to support (See CPC comment on Statement A.6). • <p>Constraint F.2 should therefore be altered to reflect the above limitations :</p> <p>4. Alternative Phasing</p> <p>As outlined in (section 3.2 of CPC’s first Statement to the auditor, no consideration has been given by GCP to alternatives other than those relating to its alignment. Notably no consideration has been given to a staged delivery Yet this could overcome many of the constraints associated with other alternatives and capture opportunities associated with time constraints. This has been highlighted in the context of accepted guidance relating to the EIA process²⁶ which recognises, amongst others, that</p> <ul style="list-style-type: none"> • “the identification and consideration of alternatives should not be treated as a mere formality”; • “the public concerned have local knowledge, which should be utilised” in identifying alternatives; • alternatives can provide a concrete opportunity to adjust the Project’s design in order to minimise environmental impacts; and • alternatives considered should include those relating to “timeframes for construction or the lifespan of the Project”. <p>This is particularly relevant in the context of the concern that has been expressed by several parties regarding the choreography, process and timeframe for taking forward the proposals^{27, 28}, with the</p>
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²⁶ [Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report](#)

²⁷ [Report to GCP Executive Board dated 6 December 2018, submitted by Peter Blake](#)

²⁸ National Trust, Letter from Paul Forecast to GCP, of 13 February 2020 (Appendix 6 to the CPC’s first submission to the Auditor)

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				<p>request that an interim lower cost alternative is considered which could meet needs over the next few years while a long term optimal alignment is developed. This would enable optimisation of a route that both better accommodates CAM and implications of EWR, and better aligns with stakeholder preferences. CPC considers that one such scenario comprises an optimised on-road busway on the A1303 between MMR and High Cross, followed in the medium term by one running close to, or linked into, the Girton Interchange and thence to High Cross.</p> <p>Such a phased approach has been considered in Section 5.3 of the i-Transport report which confirmed that, as well as aligning with the principal C2C objectives of providing for growth, improving the transport network and relieving congestion it would also fit well in the context of transport policy and wider strategic frameworks. It would similarly perform well in the context of the environmental measures and deliverability. It would also fit particularly well with policy by enabling integration and flexibility to adapt to emerging strategic schemes (both transport and development) whilst also providing immediate, and much needed, short term benefits.</p> <p>A new Constraint should be added to stating that:</p> <ul style="list-style-type: none"> Alternative phasing for project delivery that could overcome many of the constraints associated with other alternatives considered to date and capture opportunities associated with time constraints have not been considered in scheme development.
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Table G: Economic Case

	Assumptions	Constraints	Reference	CPC Comment
	G. Economic Case			

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	Assumptions	Constraints	Reference	CPC Comment
G.1	Options Appraisal: The preferred route from Cambourne to Grange Road has been analysed for its economic benefits and costs. Benefits were assessed at 3 levels following Transport Appraisal Guidelines: level 1 measures the transport user benefits to bus riders and decongestion benefits for car users; level 2 estimates the wider economic benefits assumed to accrue from the scheme from agglomeration; and level 3 estimates the wider economic benefits from land use changes at national and local level, including Gross Value Added through jobs created and the land value uplift from the scheme. These level 3 additionality benefits are what justify the scheme producing a BCR of 1.47 (increased to 3.48 with Greater Cambridge additionality benefits) compared with just 0.43 for the level 1 benefits and 0.48 for the adjusted level 2 benefits.	The scheme has been presented as creating 975 new jobs and increasing housing by around 6,000 which are dependent on the scheme. There is an increase in GVA of £102.8m per annum attributed to the scheme. Over a 30-year period this delivers a significant benefit of £676.1m plus £458m from land value uplift, giving a total benefit of £1.13bn. What constrains this assumption is that if the scheme does not support the housing and jobs growth as expected then there is a danger of reduced economic growth.	<i>C2C Outline Business Case, Economic Case GCP January 2020.</i>	

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	Assumptions	Constraints	Reference	CPC Comment
G.2	Segregated busway: Comparison of wider economic impact assessment of the off-road (preferred option) and the on-road option estimates that the on-road option has a slightly positive BCR when local WEI are included whereas the off-road option has a much higher BCR.	The traffic growth generated by the developments along the corridor would increase congestion and impact on the journey times and reliability of an on-road scheme along the A1303 even with bus priority measures such as bus lanes or a tidal bus way.	<i>C2C Outline Business Case, Economic Case GCP January 2020.</i> <i>'C2C Outline Business Case, Options Appraisal Reports 1, 2 & 3, GCP January 2020.</i>	The auditor should refer to Section 4.7 of the i-Transport report comprising Part 2 of CPCs submission. As outlined in Section 4.7 of i-Transport's report, while Statement G.2 notes that the preferred off road has a higher BCR, compared to an on-road options, it more importantly, fails to highlight that all options perform poorly in the appraisal, offering poor Value for Money with BCR of considerably less than 1. Assumption G.2 should be modified to include the VfM values for all option, to allow a more transparent comparison s.
G.3	Journey Times, Reliability and Ridership: The traffic modelling for the preferred option estimates a 167% increase in bus ridership when the scheme opens and 233% by 2036 when all the housing and employment in the corridor is assumed to be built. This amount of mode shifting, mainly from private car, is predicated on the C2C delivering significant journey time savings to users from Cambourne, Bourn village and the Scotland Farm P&R. For instance, C2C passengers from Cambourne to Cambridge city centre are predicted to have 23 minutes lower journey time in the morning peak hour	Despite the forecast increase in bus ridership, there will still be a lot of traffic generated by the developments in the corridor so traffic congestion will remain a problem. The predicted mode shift only increases the bus mode share east of the Scotland Farm P&R site from 4% to 6% of travel demand. Off peak C2C journey times are slightly longer due to the diversion from the busway to the Scotland Farm P&R site.	<i>'C2C Outline Business Case, Economic Case GCP January 2020.</i>	

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	Assumptions	Constraints	Reference	CPC Comment
	<p>compared to a do minimum scenario. Alternative on-road options do not offer anywhere near this journey time saving or reliability.</p>			
G.4	<p>Sensitivity Tests: A series of sensitivity test were performed to assess the robustness of the scheme against varying levels of growth. This supports the economic case for the scheme in that where costs may increase the VfM of the scheme remain unchanged, and that if a greater level of growth does materialise then the VfM of the scheme will increase.</p>	<p>The scheme is judged to have medium VfM but is sensitive to changes in land value uplift and GVA generated by additional jobs. If these are less than expected, then the VfM would be poor.</p>	<p>'C2C Outline Business Case, Economic Case GCP January 2020.</p>	<p>The auditor should refer to Sections 4.7 of the i-Transport report comprising Part 2 of CPCs submission.</p> <p>As outlined in 4.7 of i-Transport's report even though sensitivity tests demonstrate an improvement in initial BCR and VfM could be achieved based on changes in land value uplift and jobs generated, the VfM remained low for the preferred scheme.</p> <p>Constraint G.4 should include:</p> <ul style="list-style-type: none"> the requirement to generate a BCR of at least 1 to represent an acceptable level of Value for Money, particularly in light of the use of Government and public funds.
G.5	<p>Environmental Impact: Overall it is assumed that environmental factors are very limited in terms of the schemes impact on the proposed route. Noise, Air quality and emissions are all very limited. It is assumed they will have minor benefits or be neutral.</p>	<p>The scheme must achieve a 20% net biodiversity gain.</p> <p>The segregated busway alignment has been designed to minimise the impacts on the environment. Nevertheless, it will require mitigation measures</p>	<p>C2C Outline Business Case, Economic Case GCP January 2020.</p>	<p>The assumption that noise and air quality impacts are positive or neutral is incorrect. There may be some extremely small reductions in noise levels for those close to existing roads. However, owing to the small decrease in vehicle movements involved, and the logarithmic nature of noise, these will be marginal and likely beneath levels that would result in discernible changes in the noise environment. By contrast the introduction of vehicle movement into locations that currently have limited other sources of noise, will however result in much more marked increases in noise levels and hence more likely to result in noise related disturbance to those living or using the areas close to the new</p>

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	Assumptions	Constraints	Reference	CPC Comment
	<p>Similarly, for the landscape impact it is neutral for the proposed route. There is a slightly higher impact on biodiversity, however there are mitigation opportunities for the scheme to reduce impact.</p>	<p>to lessen its impact on the landscape especially where it crosses the Green Belt and National Trust land.</p> <p>There is also the limitation that if the targets for modal shift are not reached then there will be reduced benefit to the environmental factors such as emissions and air quality.</p>		<p>alignment, e.g. for recreational purposes.</p> <p>The statement that impacts on landscape are neutral is also incorrect as the introduction of new infrastructure into a rural landscape will, even with mitigation, change its character.</p> <p>The assumption that mitigation can be relied upon to address negative impacts fails to recognise the requirement to follow the sequential mitigation hierarchy: <i>avoid, minimise and reinstate</i>, with compensation (including net gain) only being applied as a last resort once the other mitigation options higher up the hierarchy have been exhausted. As identified in Sections 5.2 and 5.3 of the i-Transport report there are potentially alternative well performing options that would allow such avoidance or minimisation of impact and largely avoid the need for the reinstatement and compensation proposed for the preferred option.</p> <p>The demonstration of a 10% biodiversity net gain, compared to a pre-development baseline, will be necessary for all developments, following the enactment of the Environment Bill, expected in 2021. The source of the 20% gain requirement is unclear.</p> <p>The Assumption fails to recognise that there will be some environmental impacts that cannot be fully mitigated or offset through net gain, notably loss and fragmentation of Green Belt, covenanted land and the historic orchard as well as impacts on landscape and views, and on amenity values of those that use these areas for recreational purposes.</p> <p>Assumption G.5 should be altered to reflect the fact that:</p> <ul style="list-style-type: none"> • There will be several negative environmental impacts as a result of the project which, depending on their nature, may be addressed to varying degrees by mitigation measures. None the less even with mitigation, some residual impacts will remain ; <p>Constraint G.5 should be altered to reflect the fact that:</p> <ul style="list-style-type: none"> • Any proposal to address impacts must follow the mitigation hierarchy: <i>avoid,</i>

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	Assumptions	Constraints	Reference	CPC Comment
				<p><i>minimise and reinstate, with compensation (including net gain) only being applied as a last resort once the other mitigation options higher up the hierarchy (including adoption of alternative alignments) have been exhausted;</i></p> <ul style="list-style-type: none"> • <i>Not all impacts can be mitigated or compensated for, so that even with mitigation in place there will be residual impact, notably those resulting from loss and severance of Green Belt and other designated land parcels.</i>
G.6	<p>Green Belt: Whilst it is always preferable to avoid any impacts on the Green Belt, in the case of C2C, impact is inevitable. The National Planning Policy Framework establishes that “certain other forms of development are also not inappropriate in the Green Belt provided they preserve its openness and do not conflict with the purposes of including land within it. These include local transport infrastructure which can demonstrate a requirement for a Green Belt location.”</p>	<p>The C2C scheme has been developed to provide linkage from new settlements located outside the Green Belt to the City of Cambridge. Given the need to connect development outside the Green Belt to the city, some degree of impact on the Green Belt is inevitable.</p>	<p><i>A428 Cambourne to Cambridge Segregated Bus Route Consideration of Green Belt Issues, LDA Design, August 2017</i></p> <p><i>C2C: Report to GCP Executive Board, 10 December 2020</i></p> <p><i>Interim Addendum Report to Planning Appraisal 2017: Cambourne to Cambridge public transport route (C2C) – Phase 1, Strutt</i></p>	<p>As outlined in Section 4.7 of i-Transport’s report, Statement G.6, omits to refer to overarching national policy, to maximise use of previously developed land and protect the character of the Green Belt which, in turn, also accords with Local Plan policy S/4, and Cambridge South Fringe Area Action Plan Policy CSF/5. Thus, for policy compliance it must be demonstrated that there is a requirement for C2C to route through the Green Belt. To do so, it must be shown there is no suitable alternative which affords greater protection to the Green Belt. There is insufficient evidence to date to confirm that suitable alternatives have been assessed to the degree that one can conclude that they do not afford greater protection to the Green Belt.</p> <p>Both the on-road A1303 alignment and a route coaligned with the A428 between Madingley Mulch roundabout and the Girton interchange have been identified as viable options in Sections 5.2 and 5.3 of the i-Transport Report. Both would require much less land take from, and no severance or fragmentation of, the Green Belt compared to the preferred option, and would therefore afford it greater protection. The lack of their full consideration in the appraisal thus conflicts with policy requirements.</p> <p>Assumption G.6 should be modified to include the statement that:</p> <ul style="list-style-type: none"> • Any proposal to include transport infrastructure within the Green Belt must be supported by sufficient evidence that suitable alternatives have been assessed, to a degree that one can conclude that they do not afford greater protection to the Green Belt than the preferred option. <p>Constraint G.6 should be modified to include reference to the fact that:</p> <ul style="list-style-type: none"> • Potentially viable reasonable alternatives to the currently preferred option for C2C have been identified that afford greater protection to the Green Belt.

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	Assumptions	Constraints	Reference	CPC Comment
			<i>and Parker, September 2019</i>	
G.7	Mitigation measures will be firmed up following the Environmental Impact Statement and in consultation with local landowners and the communities affected.	<p>There are specific concerns about the impact on the Green Belt, West Fields, the Orchards near Coton as well as the alignment close to Coton conservation area, and the busway section between St. Neots Road and the A428 at Hardwick.</p> <ul style="list-style-type: none"> • Coton Conservation Area including Grade 1 listed Church. • Land parcels owned by Cambridge Past, Present and Future, which are protected by National Trust Covenants. • Fitting within available space in areas where the alignment passes relatively close to properties. For example, along some parts of the St Neots Road. Where necessary noise barriers will need to be explored as an option to ensure that traffic noise experienced by residents reduces. 	<i>C2C: Report to GCP Executive Board, 10 December 2020</i>	<p>Not all detailed mitigation should be delayed to the EIA Stage, Rather where mitigation may influence the relative ranking of options this should be defined when identifying reasonable alternatives. This is necessary to ensure that options with the potential (with reasonable mitigation) to perform better than others, are not discarded too early in the optioneering process before the potential to overcome identified constraints is given due consideration. Similarly it avoids overreliance on as yet undefined mitigation which may provide to be unviable at the EIA stage. This approach is confirmed in Section 4.7 of i-Transport's report and noting that "to exclude this work from the assessment of options presented now will potentially risk credibility later under the scrutiny afforded by the TWAO process"</p> <p>In the Case of C2C this applies amongst other to:</p> <ul style="list-style-type: none"> • the single pinch point on the A1303 close to the Cemetery and SSSI which was the key reason for its rejection, ahead of consideration of the potential to overcome this constraint. Yet previous reports²⁹ and that produced by i-Transport (Section 5.3) indicate that such constraints could be overcome; • a potential alternative route coaligned with the A428 from Madingley Mulch to a location close to the Girton Interchange. This was also rejected largely on the basis of complexities, time and costs associated with upgrading that junction. Yet, as indicated in Section 5.2 of the i-Transport report, the viability of this alignment is not dependent on such an upgrade, without which it would still perform better in the option Appraisal (INSET) used by GCP for C2C, as well as being a good fit with policy; • the fact that that both these alternative options would avoid all the constraints identified in Statement G.7; and • the assumption that it will be possible, at EIA stage to fully mitigate the impact arising from constraints identified in Statement G.7 As outlined in response to Statements G.5 and G.6 this is unlikely to be the case particularly for the Green Belt. Hence waiting until the EIA stage to determine mitigation may result in

²⁹ [Mott MacDonald May 2019 , Madingley Road Quick Wins Options Outline](#)

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	Assumptions	Constraints	Reference	CPC Comment
		<ul style="list-style-type: none"> Minimising the impact on the Coton Orchard and a City Wildlife Site, to the west and east of the M11 respectively which are bisected by the alignment for the preferred option 		<p>abortive work in progressing an options that perform than worse than those that are more capable of optimisation</p> <p>Assumption G.7 should include:</p> <ul style="list-style-type: none"> Consideration of mitigation potential should be undertaken at the alternative appraisal stage where this may alter their ranking. This will ensure options with the potential (with reasonable mitigation) to perform better than others, are not discarded too early in the appraisal process. <p>Constraint G.7 should include:</p> <ul style="list-style-type: none"> The exclusion of consideration of mitigation prior to discounting of alternatives may potentially risk subsequent credibility under the scrutiny afforded by the TWAO process. Similarly the reliance on the potential to satisfactorily mitigate certain impacts at the EIA stage may present a risk to the TWAO process notably where they relate to Green Belt
G.8	<p>Social Impact: Overall the scheme is assumed to benefit a range of social areas. Reduced accidents due to lower private vehicle use. Providing access to services, which are affordable is also assumed. Creating a more secure and easy to use bus service will attract a broader cohort of users.</p>	<p>Cost and accessibility is an issue for people on low incomes. High fares will reduce demand. The transport scheme needs to be financially sustainable and too many services with low patronage will drive costs up threatening service levels which in turn could reduce demand.</p>	<p>'C2C Outline Business Case, Economic Case GCP January 2020.</p>	

Table H: Financial Case

	Assumptions	Constraints	Reference	CPC Comment
	H. Financial Case			

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	Assumptions	Constraints	Reference	CPC Comment
H.1	The current estimated capital cost of the off-road option is £160.5m, of which £37.7m is anticipated from Section 106 contributions from other third parties such as the developers of the Bourn Airfield site and West Cambridge.	The estimated developer contributions are dependent upon ongoing assessments and negotiations and so are indicative at this stage. However, it is currently anticipated that between 20% and 25% of the scheme costs can be attributed to development and contributions secured accordingly. Any lower contributions would increase the financial risk of the scheme to the GCP.	<i>C2C Outline Business Case, Financial Case GCP January 2020.</i>	
H.2	The estimated high-level scheme costs at this stage of the project's development are based on a range of assumptions and exclusions, which are detailed within OBC Appendix Q. These will be revisited and updated in the Full Business Case stage.	The financial case does not include Optimism Bias (currently 44%), which is used within the economic appraisal, but does include a risk allowance of 25%.	<i>C2C Outline Business Case, Financial Case GCP January 2020.</i>	

Table I: Commercial Case

	Assumptions	Constraints	Reference	CPC Comment
	I. Commercial Case			
I.1	In the SOBC it was concluded that the commercial factors related to the delivery did not significantly differentiate between the options.	As part of the current stage of scheme development and the OBC, a design and build procurement has been selected as the preferred procurement strategy. However, this is subject to further review as part of the next stage of work in developing the scheme and informing the Full Business Case	<i>C2C Outline Business Case, Commercial Case GCP January 2020.</i>	

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	Assumptions	Constraints	Reference	CPC Comment
1.2	The design and build model will provide GCP with more opportunity to drive value for money and more opportunity to transfer delay risk and interface risks to the contractor.	Adopting a design and build approach puts the responsibility for design, including integration, with the contractor and it would be the responsibility of GCP to define its requirements.	<i>C2C Outline Business Case, Commercial Case GCP January 2020.</i>	
1.3	The operation of the current bus services along the C2C corridor is largely on a commercial basis. With regard to the new HQPT services which are expected to operate along the C2C infrastructure, it is not the intention of GCP to be directly involved in their procurement and control as that is not within GCP's powers.	<p>The potential public transport operating models currently available for the C2C project have been identified and the following issues and key questions considered:</p> <ul style="list-style-type: none"> ● Available operating models for providing services; ● Appetite in the market to engage with those models; ● Impact and influence on fares and patronage; ● Risks; and, ● Commercial implications of objectives for clean high- quality transport such as high frequency services operated by high quality electric vehicles. 	<i>C2C Outline Business Case, Commercial Case GCP January 2020.</i>	
	<p>The proposed Bus Network Strategy is based around three direct express services as follows:</p> <ul style="list-style-type: none"> ● Cambourne to Cambridge City Centre at 10- minute interval service (6 buses per hour) ● Cambourne to Biomedical Campus at 30- minute interval service (2 buses per hour) 	<p>The routes and schedule are based on anticipated demand and are proposed routes only and have not been agreed with the existing route operators.</p> <ul style="list-style-type: none"> • Any new Park & Ride service will need to be to a standard similar to that currently operating for Cambridge's Park & Ride services in 		

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	Assumptions	Constraints	Reference	CPC Comment
	<ul style="list-style-type: none"> ● A428 Park and Ride site to Biomedical Campus at 30-minute interval service (2 buses per hour during peak periods) <p>In addition, passengers from Cambourne to Cambridge corridor services would also be able to interchange with the Universal service at West Cambridge which would serve Cambridge North Station and the Cambridge Science Park.</p> <ul style="list-style-type: none"> ● Biomedical Campus to Eddington at 15-minute interval service (4 buses per hour) ● Biomedical Campus to Cambridge North Station & Cambridge Science Park 30-minute interval service (2 buses per hour) 	<p>accordance with the established minimum requirements.</p> <ul style="list-style-type: none"> ● Communities along the corridor are served by the Citi4 Bus Service, amongst others. This is a stopping service which could provide a feeder for the busway. Whilst the decision as to future Bus Services lies with bus operators, the provision of the Busway should not prevent the provision of existing services. ● All buses are now required to be accessible for all including wheelchair users. ● The scheme must be capable of eventual upgrade to form part of the CAM network. 		
1.4	The Local Transport Authority (LTA) that has the relevant powers is the Cambridgeshire & Peterborough Combined Authority (CPCA).	The CPCA Mayor's recently commissioned Strategic Bus Review concluded that further work was required including procurement and completion of a business case to assess different delivery model options. Following completion of this latter piece of work, the CPCA Mayor is expected to make a decision on the future preferred option for delivering bus services in early 2021.	<i>Strategic Bus Review Report, CPCA 2020</i>	
1.5	There are several options for the Busway maintenance which will be reviewed further at FBC.	The busway maintenance option decided upon will depend to an extent on the arrangement used for the Operation of the	<i>C2C Outline Business Case, Commercial</i>	It is noted that maintenance has proved to be a major issue that was not foreseen for the Cambridge Guided busway.

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	Assumptions	Constraints	Reference	CPC Comment
		bus service, which is yet to be determined, as noted above.	<i>Case GCP January2020.</i>	<p>Constraint I.5 should include:</p> <ul style="list-style-type: none"> The maintenance options should draw on lessons learnt from the Cambridge Guided busway.

Table J: Management Case

	Assumptions	Constraints	Reference	CPC Comment
	J. Management Case			
J.1	<p>The management case also identifies the key risks and mitigations for the project. The management case does not differentiate in terms of the options under consideration.</p>	<p>The success and financial viability of the C2C project will be dependent on several factors. Scheme design and delivery will therefore need to consider the following dependencies outlined in the OBC:</p> <ul style="list-style-type: none"> • Delivery of housing and employment sites allocated within the South Cambridgeshire Local Plan • Emerging CPCA Policy specified in the Local Transport Plan. Also need to consider Cambridgeshire Transport Delivery Plan (TDP) for transport capital schemes on the local network to be delivered on a three year time frame and the Transport Investment Plan (TIP) that includes the C2C scheme, developed alongside the TDP to identify schemes to support growth • Monitor how development of CAM progresses as the C2C project aims to deliver the first phase of 	<p><i>C2C Outline Business Case, Management Case GCP January 2020.</i></p>	<p>As outlined in Section 4.8 of i-Transport’s report, the constraints identified in Statement J.1 place significant risks on project delivery. This arises from a range of uncertainties relating to the scheme’s reliance on uncertain housing delivery, its integration with uncertain future strategic transport projects and dependence on local transport schemes. These all cast doubt on the ability of the project to deliver the modest benefits currently estimated. It is therefore questionable whether such large amounts of public money should be allocated for limited benefits which are uncertain.</p> <p>As highlighted elsewhere in this document further uncertainties, and hence risks to delivery, arise from further as yet undefined elements on which the scheme is dependent, for example the incomplete definition of last mile proposals within the city centre, risk of extended time for the pre-consent process and/or legal challenge due to high levels of opposition.</p> <p>Section 4.8 of i-Transport’s report also notes that the majority of the benefits will accrue from Phase 2 of the scheme with Phase 1 delivering a BCR close to zero with Phase 2 being most reliant on the project dependencies. It would therefore seem appropriate to investigate further an on-road scheme which has a lower cost and could be delivered in the absence of Phase 2. This would provide flexibility as described in Section 5.3 of i-Transport’s report, to develop Phase 2 to respond to the project dependencies as they become more certain.</p> <p>Constraint J.1 should be updated to include:</p> <ul style="list-style-type: none"> • the ability to justify allocation of large amounts of public money in the context of such uncertainties. • recognition that the majority of the benefits will arise from Phase 2.

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	Assumptions	Constraints	Reference	CPC Comment
		<p>infrastructure for the larger CAM network</p> <ul style="list-style-type: none"> • City Access Strategy which aims to improve congestion on routes into the City Centre which will be key to reducing the journey times for buses and therefore making the Park & Ride attractive and successful • Oxford-Cambridge Arc. Both the Expressway and EW Railway will impact on the C2C route and whilst the scheme is not dependent directly upon these proposals, they may have a significant influence • Emerging Technologies. The final specification of C2C will be driven by technology advances and the range of solutions available at the procurement stage. 		
J.2	<p>The Management Case reviews the process of public consultation and engagement. A communication plan sets out how this process is managed, identifying key</p>	<p>Public and stakeholder consultation is essential to ensure that the various aspirations of the general public and key stakeholders are taken into account throughout development and delivery of</p>	<p><i>C2C Outline Business Case, Management Case GCP January 2020.</i></p>	<p>The C2C scheme has attracted considerable attention and comment from local communities, charities and land-owners as well as statutory bodies. As outlined in Section 4 of the CPC's first Statement to the Auditor:</p> <ol style="list-style-type: none"> 1. Consultation has shown that east of the Madingley Mulch Roundabout (i.e. for Phase 1) there is strong preference among the public and charities for an alignment running on or adjacent to existing transport routes, rather than creating a new route across open countryside and Green Belt, and consistent opposition by a substantial majority of such

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	Assumptions	Constraints	Reference	CPC Comment
	<p>stakeholders and how engagement is managed including the facilitation of a project specific Local Liaison Forum.</p>	<p>the projectand to manage the communication and flow of information relating to the project.</p>		<p>stakeholders to the southern offline route. Notably :</p> <ul style="list-style-type: none"> • in 2015, 67% of the public supported the on-road route with strong opposition (65.5%) to the southern off-road route ³⁰; • in 2017, 58% of the public supported an on-road bus lane compared to 33% for the southern off-road option ³¹ (a northern off-road option via the A428 alignment was not presented for consideration); • Natural England noted that, based on the level of detail available at consultation, they were “unable to make any judgement regarding likely impact of [any of the three] proposed options”³²;and • both the National Trust^{33 34} and CPRE³⁵ have objected to the southern route which crosses Green Belt and covenanted land with the former requiring that further alternatives that avoided such land be fully explored. GCP have however persisted in promoting the southern route against this strong community opposition. <p>There is thus likely to be substantial and ongoing strong opposition to the preferred option with risks of delays during the pre-application phase and of challenges to decisions that are made on the basis the currently adopted assumptions and constraints.</p> <ol style="list-style-type: none"> 2. There is evidence showing that the responses of statutory consultees were misrepresented in GCP consultation literature, giving a misleading impression of their views regarding the claimed lack of acceptability of an on-road route. 3. There is evidence to suggest that not all relevant communications from consultees were circulated to decision makers on the Joint Assembly and Executive Board e.g. the National Trust’s correspondence of 13 February was not circulated prior to their June 2020 meetings at which decisions were taken on the route options; and 4. As public consultation for Phase 1 was undertaken in 2015 and late 2017/early 2018 (i.e., before adoption of the principle of CAM compliance), there has been no opportunity for

³⁰ [Cambourne To Cambridge: Better Bus Journeys Consultation Report](#)

³¹ [CRG, Summary Report of Consultation Findings](#)

³² Post consultation response from Natural England dated 21 January 2018 (Appendix 8 to CPC’s first submission to the auditor)

³³ National Trust Letter from Paul Forecast of 1 August 2017 (Appendix 7 to CPC’s first submission to the auditor)

³⁴ National Trust, Letter from Paul Forecast to GCP, of 13 February 2020 (Appendix 6 to CPC’s first submission to the auditor)

³⁵ Email from CPRE to GCP (Appendix 3) to CPC’s first submission to the auditor

	Assumptions	Constraints	Reference	CPC Comment
				<p>the public to comment on a scheme running on a CAM operational scenario.</p> <p>Section 4.8 of i-Transport’s report notes that:</p> <ul style="list-style-type: none"> the project development has extended over a considerable time period during which there have been changes to behaviour, some of which have been accelerated by the Covid-19 pandemic (Auditor Statement L.1 refers to Covid-19 directly); a northern option for Phase 1 has not been consulted on since 2015 and some six years have elapsed during which time there have been significant moves in Policy and Planning generally; it is worth noting that at the time of the 2015 consultation, only an on-road option for Phase 1 had majority support; it is recommended that there is further public consultation which reflects the uncertainties and provides the opportunity for the public to confirm their preferences against an updated and revised route options such as those outlined in Section 5 of their report: _ <p>Constraint J.2 should therefore include statements that:</p> <ul style="list-style-type: none"> consultation has identified strong opposition to the preferred scheme alignment from the public, statutory bodies, charities and landowners; concerns have been raised over the robustness of the consultation process, and hence the validity of the assessment process and decisions regarding public expenditure informed by it; and Based on the above there is a strong risk of mobilisation of stakeholders to mount a challenge to the project.

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Table K: Full Business Case

	Assumptions	Constraints	Reference	CPC Comment
	K. Full Business Case			
K.1	The Full Business Case will develop the detailed design for the preferred scheme and update the appraisal for the economic case. Consultation and engagement with stakeholders and partners will continue through this stage. The risk register will identify outstanding issues that need remedial actions or mitigation measures.	Additional information for the financial, commercial and management cases will be provided together with recommendations on the necessary actions to proceed with the scheme.	<i>The Green Book: appraisal and evaluation in Central Government. HM Treasury 2020.</i>	
K.2	Prepare an application for statutory consent anticipated in 2021 with a determination period estimated of around 18 months – completed in 2023.	Authority to construct the scheme is likely to come from a Transport and Works Act Order which would be determined by the Secretary of State for Transport. This process is likely to include a Public Inquiry directed by an independent Inspector	<i>C2C: Report to GCP Executive Board, 10 December 2020</i>	
K.3	Prepare Environmental Impact Assessment and Environmental Statement	Work to be undertaken will include Environmental Impact Assessment as well as Transport Assessment, Road Safety Audit etc. This will	<i>Report to GCP Executive Board, 10 December 2020</i>	As noted in Section 3 of CPC's first submission to the auditor, the Environmental Impact Assessment will need to demonstrate that <i>reasonable alternatives</i> have been considered. As outlined in that submission, and highlighted in CPC's comments in Table F above, CPC consider that not all reasonable alternatives for alignments or phasing of the scheme

C2C Independent Audit

	Assumptions	Constraints	Reference	CPC Comment
		draw on further work to be done on scheme design including mitigation measures and further stakeholder engagement.		<p>elements have been considered by GCP, and that there is a high probability that plausible alternatives would be raised by interested parties during the pre-application process. Indeed as identified in the i-Transport report (Section 5) two such alternatives have been identified as potentially viable, and that could perform as well as or better than the preferred option, that and are therefore worth worthy of reconsideration as reasonable alternatives .</p> <p>In order to avoid potentially abortive work on the further design development and EIA of the currently preferred C2C scheme these alternatives ,should be adequately considered prior to progressing to the next steps, not least to enable GCP to demonstrate “the main reasons for his choice [of the preferred option], taking into account the environmental effects”³⁶.</p> <p>Constraint K.3 should include a recognition that:</p> <ul style="list-style-type: none"> • Since additional reasonable alternatives Have been identified that are likely to perform as well or better than the preferred option, but have not been fully considered by the GCP , it is possible that the EIA process may not meet the requirements of the relevant legislation with respect to consideration of alternatives. This could present a risk to receiving consent for the project .
K.4	Seek authority to construct project in 2023 depending on statutory powers process	Following the completion of the statutory permissions stage, the GCP Board will be presented with the Final Business Case for approval. This will trigger the construction of the project.	<i>Report to GCP Executive Board, 10 December 2020</i>	
K.5	Opening of the scheme to operational services in 2025	Bus services schedule and routes will be determined in discussion with operators. Phasing in of services in response 4.8 planned growth and ridership demand	<i>Report to GCP Executive Board, 10 December 2020</i>	

³⁶ As required under EIA [Directive](#) Article 5

C2C Independent Audit

Table L: Covid-19 Impacts

	Assumptions	Constraints	Reference	CPC Comment
	L. Covid-19 Impacts			
L.1	The implications of the global pandemic remain unknown. While there has been a short-term impact on the use of public transport, the longer-term impact is uncertain. The C2C scheme is consistent with the government's agenda for innovative public transport solutions and mode switching from private car use in support of climate change goals and net-zero carbon by 2050. So, the prospects for the scheme are considered good in the long-term.	This matter will remain under review. Scheme appraisal will be revisited at Full Business Cases stage with sensitivity tests of varying levels of demand and wider economic impacts.	<i>Transport use during the covid pandemic. Transport use by mode: Great Britain, since 1st March 2020. Department for Transport.</i> https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic	The cited reference relates to national statistics for traffic levels. No reference is made to DfT's own guidance ³⁷ for updating TAG to address uncertainties including those resulting from COVID-19. The C2C development has been undertaken over a considerable time period during which there have been changes to behaviour, some of which have been accelerated by the Covid-19 pandemic which could influence demand for public transport. The reference could be updated to include: <ul style="list-style-type: none"> DfT Route map for updating TAG during uncertain times

³⁷ [DfT July 2020. Appraisal and Modelling Strategy A route map for updating TAG during uncertain times'](#)

Cambourne to Cambridge Better Public Transport Project: Independent Audit

Cambridge Parish Council

Written representation on the Statement of Assumptions and Constraints:

Part 2: i-Transport Response prepared for Coton Parish Council

This document forms **Part 2** of Coton Parish Council's (CPC's) written representation on the auditor's Statement of Assumptions and Constraints, dated 25th March 2021, relating to the ***Cambourne to Cambridge Better Public Transport Project (C2C)***

It comprises i-Transport's independent response to the Statement of Assumptions and Constraints and their application during the scheme development process. The i-Transport report covers both:

- their own independent review of the auditor's Statement of Assumptions and Constraints, largely addressed in Section 4 of their report.
- other potential limitations in elements of the C2C scheme development and audit process to date, that cannot readily be covered through the tabulated structure adopted in the original Statement. These are documented in Sections 5 – 7 of their report.

It thus form an essential part of Coton Parish Council's submission and should be read alongside Part1.



Cambourne to Cambridge (C2C)

C2C Audit Response

Client: Coton Parish Council

i-Transport Ref: PH/VP/ITL16745-R01

Date: 23 April 2021

Cambourne to Cambridge (C2C)

C2C Audit Response

Client: Coton Parish Council

i-Transport Ref: PH/VP/ITL16745-R01

Date: 23 April 2021

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Quality Management

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SECTION 1 Introduction

1.1.1 The Greater Cambridge Partnership (GCP) has appointed an independent party to undertake an audit of the Cambourne to Cambridge Better Public Transport Project (C2C). The C2C scheme has been considered by the GCP for a number of years and is described by the GCP as ‘a priority project for the Greater Cambridge Partnership (GCP) and a first phase of Cambridgeshire and Peterborough Combined Authority’s plans for a Cambridgeshire Autonomous Metro (CAM)’¹.

1.1.2 The focus of the audit commissioned by the GCP is on the assumptions and constraints which underpin the Outline Business Case (OBC) for the C2C scheme. The terms of reference for the independent audit are defined as follows:

‘The audit will focus on the assumptions and constraints that underpinned the analysis that led to the selection of the preferred route and the elimination of alternative options, including the northern options. The objective is to test the robustness of those assumptions and constraints and determine whether they remain appropriate in the context of the current strategic frameworks and the East West Rail plans’

<https://www.greatercambridge.org.uk/asset-library/c2c-audit-tor-final1.pdf>

1.1.3 This note is prepared as a stand-alone response to the independent auditor’s invitation to respond in respect of their Statement of Assumptions and Constraints² published on 25th March 2021, and as further written representations, submitted on behalf of Coton Parish Council (CPC) to the independent audit process.

1.1.4 CPC has already made representations to the independent audit process (dated 21st February 2021), prior to publication of the auditor’s Statement of Assumptions and Constraints and the Parish Council again submit a response as part of this latest request for representations. This report should be read alongside the Parish Council’s most recent submission.

¹[https://www.greatercambridge.org.uk/transport/transport-projects/cambourne-to-cambridge#:~:text=The%20Cambourne%20to%20Cambridge%20Public,Cambridgeshire%20Autonomous%20Metro%20\(CAM\).](https://www.greatercambridge.org.uk/transport/transport-projects/cambourne-to-cambridge#:~:text=The%20Cambourne%20to%20Cambridge%20Public,Cambridgeshire%20Autonomous%20Metro%20(CAM).)

² <https://www.greatercambridge.org.uk/asset-library/assumptions-constraints-statement-final.pdf>

1.1.5 This report provides our independent direct response to the auditor's Statement of Assumptions and Constraints dated 25th March 2021, identifying concerns related specifically to those assumptions and constraints as well as drawing on a number of points already raised by CPC in their first submission.

1.2 Structure

1.2.1 This report is formed of eight sections, of which this first section forms the introduction. The remaining sections of this report are structured as follows:

- **Section 2: Background** - providing context for the audit and our review of the auditor's Statement of Assumptions and Constraints.
- **Section 3: Summary of Key Issues** – a Summary of key issues identified by our independent review of the C2C OBC and the auditor's Statement of Assumptions and Constraints.
- **Section 4: Review of C2C Outline Business Case** – undertaken against the background of the auditor's Statement of Assumptions and Constraints.
- **Section 5: Potential Scheme Alternatives** - addressing a route via the Girton Interchange, optimisation of options along the A1303 and the emerging EWR corridor;
- **Section 6: Potential Audit Omissions** – draws together information identified in previous sections to highlight areas not yet covered by the audit process;
- **Section 7: EWR Considerations** – review of information released by EWR in March 2021; and
- **Section 8: Recommendations** – our recommendations to the auditor.

SECTION 2 **Background**

2.1.1 This section presents the background to this study both in terms of the C2C scheme and the audit process.

2.2 **Context**

2.2.1 The GCP propose the C2C scheme under the Cambridge City Deal, which is a deal between central Government and three local authorities (Cambridgeshire County Council, Cambridge City Council, and South Cambridgeshire District Council) to improve transport infrastructure in support of regional growth.

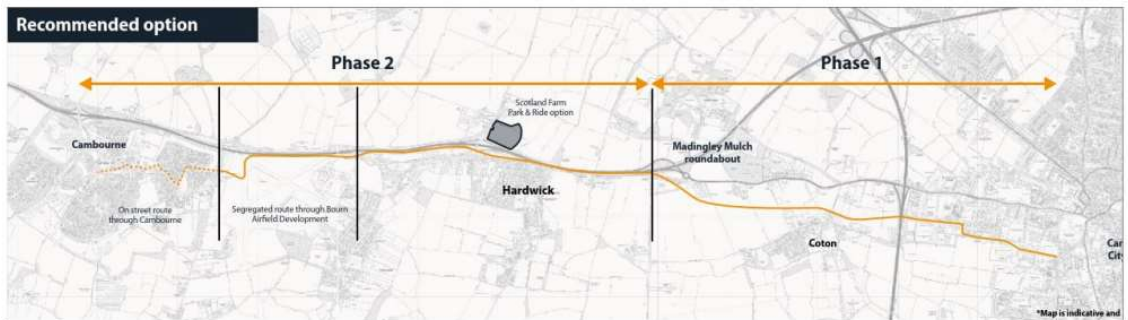
2.2.2 The C2C scheme has been developed to date as a road based 'high quality public transport' (HQPT) bus scheme which links Cambourne in the west and Cambridge City Centre in the east via the University of Cambridge West Campus, and with links to Addenbrookes Biomedical Campus and Cambridge Science Park. The intention is that C2C will be compliant with, and capable of conversion to the Cambridge Autonomous Metro (CAM) scheme. The CAM scheme remains in development but is specified as coming forward as fully or largely segregated from other traffic (Steer, 2019). CAM IS forecast to become operational in the period 2025-2029 and C2C is forecast to come forward in 2024. The planned timeframe for the two schemes is broadly aligned albeit C2C is likely to precede CAM.

2.2.3 The proposed C2C scheme OBC was published on 17 January 2020. That OBC is discussed in more detail at Section 4 of this report. The preferred route option for the C2C scheme runs broadly east from Cambourne following the alignment of the A428 as far as Madingley Mulch roundabout before branching south east towards Cambridge, running broadly parallel to, but south of, the A1303 and entering the west of Cambridge City Centre.

2.2.4 **Figure 1** provides an extract of Mott MacDonald Figure 52: C2C Preferred Option taken from the C2C OBC (January 2021).

Figure 1: Extract of C2C OBC Preferred Route Option

Figure 52: C2C Preferred Option



Source: Mott MacDonald (© Crown Copyright. All Rights Reserved. OS License Number 100023205.2018)

2.3 Auditor's Assumptions and Constraints Report

2.3.1 The auditor's Assumptions and Constraints report was published on 25th March 2021. The report is a simple tabulated list of a series of 51 individual assumptions and constraints grouped across the following 12 categories:

- A. Policy Context
- B. Scheme Objectives
- C. Project Deliverables
- D. Strategic Fit
- E. Connections to CAM and EWR
- F. C2C Options Selection
- G. Economic Case
- H. Financial Case
- I. Commercial Case
- J. Management Case
- K. Full Business Case
- L. Covid-19 Impacts

2.3.2 It is notable that the format of the auditor's statement pairs individual assumptions with individual constraints which limits the scope of any response i.e. a single assumption can only be linked to a single constraint (this is addressed in Section 6 of this report). However, the tabulated presentation is welcomed and our response to those individual constraints and

assumptions that we consider are most relevant in the context of transport is detailed in the latter sections of this Report, providing references to the Auditor's Table References in **bold text**, with key supplementary information provided where relevant.

- 2.3.3 The terms of reference for the independent audit are already identified at paragraph 1.1.2 of this report. Further to that, the auditor's Assumptions and Constraints report (March 2021) notes that the objective of the audit is:

'to test the robustness of those assumptions and constraints and determine whether they remain appropriate in the context of the current strategic frameworks, the emerging Cambridgeshire Autonomous Metro (CAM) network and the East West Rail plans'. (Ref: Cambridge to Cambourne Independent Audit: Statement of Assumptions and Constraints (March 2021), p. 1.)

- 2.3.4 Following release of the C2C Assumptions and Constraints report (March 2021) the independent auditor made a statement on 1st April 2021, that they were aware of a new public consultation 'Making Meaningful Connections'³ launched by East West Rail (EWR). The EWR public consultation is inviting representations until 9th June 2021 on new information regarding a range of infrastructure proposals including route alignments, station locations and level crossings along the route of EWR and is therefore very relevant in the context of this independent audit of C2C which seeks to confirm validity of the C2C proposals to date in the context of EWR and CAM.

- 2.3.5 The auditor stated on 1st April 2021 that:

'The consultation assumes that the preferred corridor from Bedford to Cambridge follows an arc from south of St. Neots to Cambourne with a southerly approach into Cambridge. Following a review of 9 route alignment options, 5 are shortlisted including 2 options with a station at Cambourne North and 3 options with a station at Cambourne South. The Cambourne North station route alignment options are preferred but no option is ruled out at this stage and no decision will be made until after the consultation. The precise location of the stations at Cambourne North or South will not be determined until the preferred route alignment is selected – probably not until 2022 – and a further round of statutory consultations will then take place.'

³https://eastwestrail-production.s3.eu-west-2.amazonaws.com/public/EAS060_ConDoc_310321_Digital_MASTER-1.pdf

This means that the assumptions and constraints described in the Statement of Assumptions and Constraints for the C2C Audit (items A9, B2 and E4) still hold. The latest route options proposals set out in the consultation will be taken into account in the Audit.⁴

2.3.6 Our response in respect of the new information released by EWR is included at Section 7 of this report.

⁴ <https://www.greatercambridge.org.uk/transport/transport-projects/cambourne-to-cambridge/cambourne-to-cambridge-independent-audit> UPDATE: 01 April 2021

SECTION 3 Summary of Key Issues

3.1.1 In undertaking this exercise a number of omissions have been identified both from the auditor's Statement of Assumptions and Constraints and, indeed, the C2C OBC.

3.1.2 The key issues identified are:

- A more robust interrogation of the C2C scheme objectives against wider policy objectives is required.
- The purpose of the audit is to test the robustness of assumptions and constraints and determine whether they remain appropriate in the context of the current strategic frameworks. The strategic frameworks are policy driven and so this area must be considered in the wider policy context. Insufficient examination of policy, particularly in respect of scheme objectives, is presented in the audit to date.
- The C2C option selection process for Phase 1 does not appear to have included appraisal of the following, which is a significant omission from the development of options in the C2C OBC:
 - a fully optimised single on-road option;
 - any consideration of bus lanes in both directions;
 - segregated provision alongside the A1303; or
 - sufficient appraisal of off-road options to the north of A1303.
- A more thorough investigation is required of how C2C can be both CAM compliant and be complimentary to EWR, particularly considering patronage forecasts, interchange and co-working within a single travel corridor. These aspects are all likely to affect the C2C OBC and have not currently been considered either in the OBC or in the audit process to date.
- There is insufficient evidence to date to confirm that suitable alternatives (potential alignment via A428 and Girton Interchange and potential on-highway options) have been assessed to the degree that one can conclude that they do not afford greater protection to the Green Belt which is fundamental in the context of the TWAO process that C2C will be considered against.

- It is recommended that the constraints should include providing a BCR of at least 1 to represent an acceptable level of Value for Money consistent with other GCP projects, particularly in light of the use of Government and public funds.
- Greater consideration of public consultation responses, which are not particularly supportive of many aspects of the C2C proposals, should be undertaken, this is particularly important in light of Government and public funds being used for this scheme; and
- It is strongly recommended that the constraints relating to consideration of alternatives are reconsidered on a more equitable and transparent basis.

3.1.3 Without further work on the above listed issues, the scheme assumptions and constraints are not robust, do not withstand scrutiny, and those shortcomings will undoubtedly be exposed through the TWAO process.

SECTION 4 Review of C2C Outline Business Case

4.1.1 This section considers a high-level review of the C2C OBC5 in the context of the auditors Statement of Constraints and Assumptions.

4.2 Policy Context

4.2.1 The purpose of the audit is to test the robustness of assumptions and constraints and determine whether they remain appropriate in the context of the current strategic frameworks. The strategic frameworks are policy driven, and there is a considerable volume of both emerging and adopted Policy across the Cambridge area that is very relevant to the C2C scheme.

4.2.2 The auditor's Statement of Assumptions and Constraints does not currently drill down into the policy background to determine if the C2C scheme objectives are appropriate. However, for the auditor to conclude whether the assumptions and constraints are appropriate in the context of strategic frameworks it requires examination of the scheme objectives against policy to determine whether the objectives broadly accord. Similarly, the auditor must be satisfied that the C2C OBC has sufficiently considered policy objectives and that the scheme will meet those objectives.

4.2.3 As a minimum the following Policy must be considered alongside the GCP's transport aims:

- Cambridgeshire and Peterborough Local Transport Plan (2020)⁶
- South Cambridgeshire Local Plan (2018)⁷
- Cambridge Local Plan (2018)⁸
- Transport Strategy for Cambridge and South Cambridgeshire (2014)⁹

⁵ <https://www.greatercambridge.org.uk/public-transport-schemes/cambourne-to-cambridge/cambourne-to-cambridge-outline-business-case>

⁶ <https://mk0cpcamainsitehdbtm.kinstacdn.com/wp-content/uploads/documents/transport/local-transport-plan/LTP.pdf>

⁷ <https://www.scambs.gov.uk/media/17087/south-cambridgeshire-adopted-local-plan.pdf>

⁸ <https://www.cambridge.gov.uk/media/6890/local-plan-2018.pdf>

4.2.4 The Cambridgeshire and Peterborough Combine Authority (CPCA) Local Transport Plan sets a series of ten objectives which form the ***'basis against which schemes, initiatives, and policies will be assessed. Objectives have been developed to reflect the Combined Authority's aspirations for the transport network of Cambridgeshire and Peterborough and how it can support the wider economy, social inclusion, and the environment within Cambridgeshire and Peterborough. They address the challenges and opportunities inherent in accommodating growth sustainably, enhancing freight and tourism connections, and putting people and the environment at the heart of transport design and decision making¹⁰'***. The objectives of the CPCA LTP are identified at **Figure 2**.

⁹ <https://www.cambridgeshire.gov.uk/residents/travel-roads-and-parking/transport-plans-and-policies/cambridge-city-and-south-cambs-transport-strategy>

¹⁰ <https://mk0cpcamainsitehdbtm.kinstacdn.com/wp-content/uploads/documents/transport/local-transport-plan/LTP.pdf> p. 40, para. 1.60

Figure 2: CPCA LTP Objectives



4.2.5 Policy objectives within the South Cambridgeshire Local Plan are clear and the Plan seeks 'to strike the right balance between growth and conservation, valuing what makes the area unique. It is about making sure jobs are created, and new homes provided, in the right areas,

and that all transport needs are considered, and people have a choice about where to live so they do not have to rely on cars for all of their journeys' ¹¹

4.2.6 The objectives of the South Cambridgeshire Local Plan are contained in Policy S/2 within Section 2 which defines the Spatial Strategy. Policy S/2 states the Plan objectives, as follows:

- ***'To support economic growth by supporting South Cambridgeshire's position as a world leader in research and technology-based industries, research, and education; and supporting the rural economy.***
- ***To protect the character of South Cambridgeshire, including its built and natural heritage, as well as protecting the Cambridge Green Belt. New development should enhance the area and protect and enhance biodiversity.***
- ***To provide land for housing in sustainable locations that meets local needs and aspirations, and gives choice about type, size, tenure and cost.***
- ***To deliver new developments that are high quality and well-designed with distinctive character that reflects their location, and which responds robustly to the challenges of climate change.***
- ***To ensure that all new development provides or has access to a range of services and facilities that support healthy lifestyles and well-being for everyone, including shops, schools, doctors, community buildings, cultural facilities, local open space, and green infrastructure.***
- ***To maximise potential for journeys to be undertaken by sustainable modes of transport including walking, cycling, bus and train¹².***

4.2.7 Policy 5 of the Cambridge Local Plan refers to sustainable transport and infrastructure and states that 'development proposals must be consistent with and contribute to the implementation of the transport strategies and priorities set out in the Cambridgeshire Local Transport Plan (LTP) and the Transport Strategy for Cambridge and South Cambridgeshire (TSCSC). Cambridge City Council, Cambridgeshire County Council and developers will work together to achieve the objectives and implement the Cambridge specific proposals in the LTP

¹¹ <https://www.scambs.gov.uk/media/17087/south-cambridgeshire-adopted-local-plan.pdf> paragraph 1.5

¹² <https://www.scambs.gov.uk/media/17087/south-cambridgeshire-adopted-local-plan.pdf> Policy S/2 pp22-23

and the TSCSC, with particular emphasis on securing modal shift and the greater use of more sustainable forms of transport'¹³.

4.2.8 It goes on to state that the following will be supported, in principle:

- ***'delivery of local and strategic transport schemes, subject to the outcome of up-to-date, detailed assessments and consultation, where appropriate;***
- ***promoting greater pedestrian and cycle priority through and to the city centre, district centres and potentially incorporating public realm and cycle parking improvements;***
- ***promoting sustainable transport and access for all to and from major employers, education and research clusters, hospitals, schools and colleges;***
- ***working with partners in supporting the TSCSC's aim for a joined-up, city-wide cycle and pedestrian network by addressing 'pinch-points', barriers and missing links;***
- ***linking growth to the proposed city-wide 20 mph zone; and***
- ***easing pressure on the air quality management area (AQMA) in the city centre'.¹⁴***

4.2.9 The policies at a local planning level are broadly aligned across Cambridge City and South Cambridge with an emphasis of delivering sustainable transport connections through the implementation of the TSCSC.

4.2.10 The Transport Strategy for Cambridge and South Cambridgeshire (TSCSC) covers the district of South Cambridgeshire and the city of Cambridge, but also considers the transport corridors beyond the district boundaries from the ring of towns around Cambridge. Within the respective Local Plans for both areas around 33,000 new homes are proposed to be built to help accommodate the 44,000 new jobs projected for the area in the period to 2031. The purpose of the strategy is therefore to:

'Provide a detailed policy framework and programme of schemes for the area, addressing current problems and consistent with the policies of the Third Cambridgeshire Local Transport Plan 2011-26 (LTP3).

¹³ <https://www.cambridge.gov.uk/media/6890/local-plan-2018.pdf> Section 2, p. 31

¹⁴ <https://www.cambridge.gov.uk/media/6890/local-plan-2018.pdf> Section 2, p. 31

Support the Cambridge and South Cambridgeshire Local Plans, and take account of committed and predicted levels of growth, detailing the transport infrastructure and services necessary to deliver this growth’.

4.2.11 Eight specific Strategy Objectives are set, as follows:

- ***‘To ensure that the transport network supports the economy and acts as a catalyst for sustainable growth.***
- ***To enhance accessibility to, from and within Cambridge and South Cambridgeshire (and beyond the strategy area).***
- ***To ensure good transport links between new and existing communities, and the jobs and services people wish to access.***
- ***To prioritise sustainable alternatives to the private car in the strategy area, and reduce the impacts of congestion on sustainable modes of transport.***
- ***To meet air quality objectives and carbon reduction targets, and preserve the natural environment.***
- ***To ensure that changes to the transport network respect and conserve the distinctive character of the area and people’s quality of life.***
- ***To ensure the strategy encourages healthy and active travel, supporting improved wellbeing.***
- ***To manage the transport network effectively and efficiently¹⁵***

4.2.12 In respect of travel demand in South Cambridgeshire Policy TSCSC 3 (*Transport Strategy for Cambridge and South Cambridgeshire, 2014, Section 2, p2-11*) identifies how travel demand should be accommodated which includes:

- Passenger transport services on main radial corridors will be used for part or all of more trips to Cambridge and to other key destinations.
- More people will walk and cycle to access these services.

4.2.13 This serves to demonstrate that, at a strategic level, public transport is important to accommodate future travel demand as well as walking and cycling to public transport nodes.

¹⁵ <https://www.cambridgeshire.gov.uk/residents/travel-roads-and-parking/transport-plans-and-policies/cambridge-city-and-south-cambs-transport-strategy> Section 2, p2-8

4.2.14 Cambridge City Council and South Cambridgeshire District Council are working together to create a joint Local Plan covering the two areas, jointly referred to as Greater Cambridge Shared Planning. The two authorities along with Cambridgeshire County Council and other stakeholders form the Greater Cambridge Partnership (GCP).

4.2.15 The GCP vision is ***“Working together to create wider prosperity and improve quality of life now and into the future”***. Within this vision there is reference to ***“Better Greener Transport – connecting people to homes, jobs, study and opportunity”***.

4.2.16 The specific transport Aims of the GCP are to:

- ease congestion and prioritise greener and active travel, making it easier for people to travel by bus, rail, cycle or on foot to improve average journey time;
- keep the Greater Cambridge area well connected to the regional and national transport network, opening up opportunities by working closely with strategic partners;
- reallocate limited road space in the city centre and invest in public transport (including Park & Ride) to make bus travel quicker and more reliable;
- build an extensive network of new cycle-ways, directly connecting people to homes, jobs, study and opportunity, across the city and neighbouring villages;
- help make people’s journeys and lives easier by making use of research and investing in cutting-edge technology; and
- connect Cambridge with strategically important towns and cities by improving our rail stations, supporting the creation of new ones and financing new rail links.

4.2.17 These transport aims follow the GCP vision and are consistent with the aims of the TSCSC and the policies in the CPCA LTP.

4.2.18 It is apparent that there are some clear and consistent themes of transport policy across Cambridge and South Cambridgeshire which translate into the key transport objectives for the area i.e. this form the strategic framework against which the auditor is testing the assumptions and constraints for the C2C scheme.

4.2.19 These transport policy themes are also generally echoed by the GCP in their aims and objectives for the area and to some extent they appear to translate into the objectives and aims for C2C presented within the C2C OBC. However, there are differences, and it is these

differences that must be identified and explored before C2C can move forward and before the auditor can conclude that the assumptions and constraints are valid against the background of the strategic frameworks.

4.2.20 Further, **Auditor Statement A.5** states the assumption that ***'the Cambridgeshire and Peterborough Combined Authority is responsible for transport infrastructure improvement and the Local Transport Plan. Drawing on the CPIER the goals of the CPLTP published in 2020 are to deliver a transport system that delivers economic growth and opportunities, provides an accessible transport system and protects and enhances the environment to tackle climate change together'*** which is set against the constraints that ***'the CPCA established the Cambridgeshire and Peterborough Independent Economic Review (CPIER). The review provides a robust and independent assessment of the Cambridgeshire and Peterborough economy and the potential for growth. The CPIER confirmed the growth targets established in the City Deal and the need for a package of transport and other infrastructure projects to alleviate the growing pains of Greater Cambridge including HQPT scheme from Cambridge to Cambourne'***.

4.2.21 Under the Powers of the Cambridgeshire and Peterborough Combined Authority Order 2017 No.251 (2017),¹⁶ the CPCA is the local transport authority for the area and covers the transport functions previously covered by Cambridgeshire County Council and Peterborough City Council. The CPCA are responsible for:

- Setting the overall transport strategy, and the Local Transport Plan (the LTP);
- A multi-year local transport budget for Cambridgeshire and Peterborough;
- Management and maintenance of a Key Route Network; and
- Passenger transport.

4.2.22 Thus, it follows that any proposal for C2C (which seeks to provide passenger transport as part of the areas key route network, must accord with the objectives of transport policy set within the CPCA LTP (presented earlier at Figure 3). This exercise does not appear to have been

¹⁶ <https://www.legislation.gov.uk/uksi/2017/251/made>

undertaken but is required to enable a decision relating to robustness of assumptions and constraints against the background of strategic frameworks.

- 4.2.23 **Auditor Statement A.6** refers to the assumption that *'in April 2020 the CPCA published a draft Sub-Strategy to the Local Transport Plan specifically dealing with CAM. The route along the A1303/A428 from Cambridge City centre towards Cambourne, St Neots and Bedford has been highlighted as a strategic project to help make travel by foot, bicycle and public transport more attractive than private car journeys, alleviating congestion and supporting the region's growth issues'*. This is set against the constraint that *'the C2C proposals have been assessed against the policies in the Sub-Strategy and it is concluded that the scheme is compliant, although further review of the eastern end of the scheme (City Access) has been undertaken and a review of the western end will be required once there is clarity with regards to proposals for EWR and a station in the Cambourne area'*.
- 4.2.24 This latter constraint referenced in **Auditor Statement A.6** has, in part, been addressed through the latest public consultation opened up by EWR (similar comments apply to **Audit Statement A.9**). Information within the consultation is considered separately at Section 7 of this report, but it is important to note in reference to **Auditor Statement A.6** how a potential EWR preferred station location north of Cambourne can tie in with the C2C proposals and how patronage, interchange and concurrent routing might be affected. It is important there is a consistent policy context against which all interventions are assessed. Reference to the latest EWR consultation information should be cited alongside **Auditor Response A.6**.
- 4.2.25 Furthermore, the auditor notes that the review against policy is not complete and requires revisiting, particularly at the western end.
- 4.2.26 The assumptions and constraints identified in respect of Policy are generally not considered wrong at this stage, but there is significant room for further investigation to ensure that the assumptions and constraints are appropriate in the context of strategic frameworks i.e. the information currently presented does not go far enough to inform a conclusion in the audit process on this matter. The Statement of Assumptions and Constraints is limiting, in the way that assumptions and constraints have been paired, and a more detailed exercise in respect of policy is required to enable the audit to reach a reliable conclusion, as there are significant gaps at present.

4.3 Scheme Objectives

4.3.1 The vision of C2C, as set out in the C2C OBC (January 2020), is to:

'connect existing and new communities along the A428/A1303 to places of employment, study and key services to enable the sustainable growth for Greater Cambridge. We will deliver this through improved, faster and more reliable HQPT¹⁷ services, together with high quality cycling and walking facilities serving a new Park & Ride site to the west of Cambridge'. (C2C OBC (January 2020) Section 8.2)

4.3.2 The objectives of C2C, as set out in the OBC (January 2020) are:

Figure 3: Extract of C2C OBC Scheme Objectives



Source: Extract for Figure 34 from C2C OBC (January 2020) Section 8.3

4.3.3 The scope of the C2C scheme, as defined in the OBC (January 2020) is:

- *'A HQPT route, between Cambourne and Cambridge, that bypasses general traffic congestion;*
- *A new Park & Ride site enabling traffic on the A428/A1303 access to the HQPT route, and;*

¹⁷ High Quality Public Transport (HQPT)

- ***New continuous high-quality cycling and walking facilities along the route***. (C2C OBC (January 2020) Section 8.6).

4.3.4 The objectives of the C2C proposals provide the basis for all subsequent appraisal so it is essential that the scheme objectives are reviewed in the context of wider transport policy, to establish that they are reasonable and appropriate set of 'criteria' for the development of options that follows.

4.3.5 The Auditor's Statement of Assumptions and Constraints Table B refers directly to Scheme Objectives. **Auditor Statement B.1** presents the following assumptions:

- ***'Achieve improved accessibility to support the economic growth of Greater Cambridge;***
- ***Deliver a sustainable transport network/system that connects areas between Cambourne and Cambridge along the A428/A1303; and***
- ***Contribute to enhanced quality of life by relieving congestion and improving air quality within the surrounding areas along the A428/A1303 and within Cambridge city centre***'.

4.3.6 The assumptions identified within **Auditor's Statement B.1** are an accurate but summarised version of those scheme objectives presented in the OBC for C2C (summarised within OBC Figure 34, extracted in Figure 2 above) and are presented against the following constraints:

- ***Existing car mode share and car ownership within the A428/A1303 corridor is high, and future growth is expected to generate additional demand for car use in this area.***
- ***Traffic data shows that AM peak hour traffic speeds are 75% slower than night time average speeds on the route between the Madingley Mulch Roundabout and M11 Junction.***
- ***Planned growth, between 2011 and 2031, along the A428/A1303 corridor eastbound car trips are forecast to increase by 14% in the AM Peak hour, 82% in the Inter-peak period and, 37% in the PM Peak period. Without intervention this could lead to a further deterioration in traffic speeds and reliability of journey times.***
- ***Travel to work data for key origins along the C2C corridor also illustrate the high level of car use along the route, with the car mode share for residents of Cambourne being particularly high (65%).***
- ***Residents of Cambourne and surrounding villages currently have limited options to use public transport due to the low level of service and current unreliability.***
- ***In the absence of substantial bus priority in the corridor, congestion and delays mean journeys of around 10 miles can take over an hour during peak times. Buses***

therefore offer no competitive advantage over private cars in terms of journey times and reliability.

4.3.7 The auditor sets the scheme objectives against relatively limited, but individually very detailed, constraints and does not cite wider policy when doing so, save for the reference to planned growth, between 2011 and 2031, along the A428/A1303 corridor which will see an increase in vehicle trips (albeit the auditor's identified constraint does not identify if this is as a result of additional homes and jobs set within Policy). Yet as noted in the context of transport earlier, the purpose of the audit is to test the robustness of assumptions and constraints and determine whether they remain appropriate in the context of the current strategic frameworks. The strategic frameworks are policy driven and so this area must be considered in the wider policy context. The audit does not currently go far enough in examining the scheme objectives in respect of policy, although it is noted that currently the auditor has only undertaken the first part of the audit which is publication of the Statement of Assumptions and Constraints, and not analysis of those assumptions and constraints. However, interrogation of policy objectives against scheme objectives must be a focus of the second stage of the audit.

4.3.8 **Auditor Statement B.2** states the assumption that '***supporting development through the busway corridor: The scheme is assumed to promote growth in the area and increase investment. It is designed to be the first in a series of steps to push forward growth***'. This is presented against the constraint that '***longer-term plans for the CAM network and EWR need to be taken into account***'. This is cited against a reference of the C2C OBC but again omits to give reference to the latest information available for EWR which must be considered. Section 7 of this report considers EWR. There is a need for pause to ensure that EWR can be properly considered and that a joined up approach can be taken forward. Again, the second stage of the audit must address this. Further information on EWR is provided in Sections 5 and 7 of this report.

4.3.9 **Auditor Statement B.4** states the assumption that 'the scheme will create a congestion free, high quality public transport corridor: The OBC assumes that the scheme will be able to create this corridor as a segregated busway'. This is presented against the constraints that 'there are still several pinch points and interactions with general traffic that could create congestion and delay along the route including:

- ***Scotland Farm P&R access;***
- ***The section of the scheme which runs through Bourn Airfield must comply with the SPD for the site and complement the development Masterplan; and***

- ***The section of the scheme which runs through West Cambridge must complement the development Masterplan. Consideration must be given to vibration and EMI impacts on sensitive receptors such as the Department of Materials, Science and Metallurgy.***

4.3.10 The benefits attributed to the preferred scheme particularly with respect to journey time savings are reliant on achieving a congestion free public transport route. With uncertainty over significant sections of the route design the identified benefits should be viewed cautiously. Alternatives should therefore remain under consideration. A comparable constraints review of alternatives is recommended.

4.3.11 **Auditor Statement B.6** refers to the assumption that 'on 31st October 2018 the CPCA Board agreed that the C2C scheme should be progressed by the GCP as an essential first phase of developing proposals for the CAM. They accepted the independent review of alignment between the C2C scheme and the CPCA plans for a CAM, undertaken by consultants Arup and commissioned by the CPCA in 2018'. This is presented against the constraint that Arup (consultant appointed by the CPCA) 'has undertaken a high-level review of route options and concluded that:

- ***The process undertaken to date to determine the route is robust and the optimal solution for the corridor is confirmed;***
- ***The route is reclassified as a CAM route to serve the wider network, and not an independent guided busway corridor;***
- ***The vehicle operating along the A428 corridor will comply with the principles of the CAM;***
- ***The route will continue to be designed to align and integrate with the overarching CAM network, comprising one of the phases of the CAM network; and***
- ***Options for mitigating the impact of the scheme at West Fields and Coton will be incorporated into scheme design for the SOBC'.***

4.3.12 The cited review of route options undertaken by Arup was of limited scope and simply sought to confirm that the A428 corridor was not inconsistent with CAM principles. The audit gives no reference at present to other reviews of CAM compliance undertaken since the Arup (October

2018) report referred to in the assumptions quoted in **Auditor Statement B.6**. The additional studies that should be considered within the audit process include:

- Arup Position Paper on CAM and A428 (November 2018) Commissioned by CPCA¹⁸;
- Jacobs Review of C2C against CAM Objectives (June 2020a) Commissioned by CPCA¹⁹,
- Undated CPCA/Jacobs Review of Cambourne to Cambridge, commissioned by GCP; and
- The SOBC for CAM.

4.3.13 The Jacobs Review of C2C against CAM Objectives (June 2020) concluded that C2C currently does not fully meet 12 of the CAM Sub-Objectives, and in turn does not support the four main objectives. The Jacobs report states that in order for C2C to meet the objectives it would need to:

- commit to electric / zero emission vehicles;
- connect to the East West Rail Station preferably via a segregated route around Cambourne;
- be future proofed for CAM central tunnels vehicles;
- provide a Metro-style service; and
- minimise potential environmental impacts, particularly around Coton and Westfields.

4.3.14 Thus, in the context of the scheme objectives it has not been sufficiently demonstrated that C2C is compatible with CAM and the conclusions of the Jacobs report should be considered by the Auditor. It is notable that the OBC for C2C assumes the use of existing Euro VI standard buses rather than vehicles with more advanced guidance technology which CAM seeks to deliver (at the very least CAM is committed to electric vehicles which are not proposed for C2C).

¹⁸ <https://scambs.moderngov.co.uk/documents/s108597/6c-Cambourne%20to%20Cambridge-Appendix%202.pdf>

¹⁹ <https://cambridgeshirepeterboroughcagov.cmis.uk.com/Document>

4.3.15 The Arup position paper (November 2018) reviewed the principal options against 6 broad criteria to determine that the preferred route is “the optimal solution for the corridor”. This is a subjective appraisal which it is not possible to properly interrogate. The report notes the merits of each option vary significantly across each criteria and is, therefore, open to interpretation. For example, it would not be unreasonable to rule out the preferred option as it has the greatest impact on the local population and the highest financial cost. The auditor should not rely solely upon the contents of this report in either considering whether the scheme is either CAM compliant or in supporting a decision regarding its optimal alignment. **Auditor Statement B.6** should include reference to all the above documents.

4.4 Project Deliverables

4.4.1 In terms of what C2C seeks to achieve, **Auditor Statement C.3** states the assumption that C2C will *‘increase active travel through improved infrastructure for cycling and walking:*

- *Comberton Greenway will complement the C2C project as it develops improved pedestrian and cyclist routes with a segregated path continuing beyond the proposed bus route.*
- *Madingly Road cycling improvements enabled by reallocation of road space that complements C2C scheme.*

4.4.2 This is set against constraints that *‘motorised users, as a minimum to include cyclists and walkers, but where appropriate equestrians, and to ensure that all pedestrian facilities are accessible for all. The existing cycling network between Cambourne and Cambridge has sections of segregated links of uneven quality but is discontinuous and does not in total provide a high-quality segregated route which would cater for the potential increased modal share of cyclists along the corridor. Madingly Road potential bus lane/priority measures reallocated to cycling infrastructure’.*

4.4.3 It is noted that the scheme assumes completion of the Comberton Greenway (not part of C2C) and Madingley Road cycling improvements which are, notably, outside the scope of the C2C

project²⁰. This could be seen as counter to the scheme objectives which seek to improve both connectivity and safety for pedestrians and cyclists and indeed to the scheme drawings which include a Non-Motorised User (NMU) route. Further, it is noted that the OBC Strategic Case notes a segregated route for non-motorised users as a constraint to be overcome²¹. It is recommended clarity is provided on the scheme in addition to a more joined up approach to provision of NMU infrastructure in the area more generally (particularly in the vicinity of Coton where there are three potential new elements of cycle infrastructure proposed within approximately 100m of one another. The approach to provision of NMU routes generally can aid decisions regarding accommodation of bus lanes.

4.5 Strategic Fit

4.5.1 In terms of strategic fit, **Auditor Statement D.1** states the assumption that *'development is planned, or is already under development, along the C2C corridor including Cambourne West, Bourn Airfield, West Cambridge and North West Cambridge (Eddington)'*. This is presented against the constraints that *'based on current plans, both those within the current Local Plan or well established through planning applications or known to be emerging, there are around 11,700 additional houses planned and around 13,400 additional jobs along the C2C corridor. Around 50% of all housing planned (c. 6,000 houses) would be directly linked to Cambridge City centre and other key employment locations via the C2C project'*. Similarly, **Auditor Statement D.2** refers to the relationship and dependence on C2C of development at Cambourne West and Bourn Airfield.

4.5.2 There is a direct relationship between development and transport with the two inter-linked. New development can require additional transport infrastructure and services. Equally, new transport infrastructure can facilitate development. However, in respect of C2C, this is of importance in a strategic sense as all the route options considered for C2C (and some not yet considered) would enable development along the A428 corridor (noting there are some policy

²⁰ <https://www.greatercambridge.org.uk/asset-library/Transport/Transport-Projects/C2C/C2C-OBC-Jan-2021/C2C-Jan-2020-App-1-Strategic-Case.pdf> p.97

²¹ <https://www.greatercambridge.org.uk/asset-library/Transport/Transport-Projects/C2C/C2C-OBC-Jan-2021/C2C-Jan-2020-App-1-Strategic-Case.pdf> para. 11.4

constraints). This is shown in the INSET option appraisals in the C2C Strategic OBC (Tables 18 and 23) where all options score equally in economic growth. The appraisal will require review in the context of EWR which would impact on passenger demand on C2C (further comment on this is included at Section 7 of this report).

4.6 C2C Option Selection

- 4.6.1 **Auditor Statement F.1** sets out the following assumptions in respect of options sifting *'the scheme options were developed in two phases. In total 34 options were considered which were sifted through a multi-criteria assessment framework to derive 6 options (3 phase 1 & 3 phase 2) including the P&R site options. These were then combined into 5 options for both phases including a scheme comparator which was eventually selected as the preferred option. The pioneering process reviewed a wide range of options suggested by stakeholders and following consultation. The assessment criteria followed DfT appraisal guidelines and covered a broad range of issues from policy goodness-of fit to local environmental impacts'*. This is set against the constraints that *'the MCAF criteria is a qualitative exercise that measures the performance of each option against a wide range of factors grouped into 6 themes. The option scoring is justified on the available evidence but by its nature is subjective. The results indicated that the best performing option was the segregated off- road option with Park & Ride at Scotland Farm but only by a small margin. The preferred option would create a new busway crossing designated green belt in West Fields, Coton Orchards and National Trust lands. Options following alignments for the CAM and EWR were not evaluated as these are not confirmed, nor are they committed schemes'*.
- 4.6.2 **Auditor Statement F.2** states the assumption that *'alternative alignments to avoid Coton and Hardwick were evaluated as part of the options development process. These were not found to be suitable and performed worse than the preferred option and no better than the other options assessed'*. This is set against the constraints that *'alternative northern route options via Girton interchange are not deliverable within the time horizons for the project and not compatible with CAM route corridor options. Other northern route options to the north of the American Cemetery are constrained by environmentally sensitive areas and heritage assets. The Cambridge American Cemetery and the American Battle Monuments Commission is regarded as a unique national memorial which honours the American military personnel killed in the second world war. They*

would oppose any on-road or off-road scheme which impacted the setting of the cemetery including removing the verges along the A1303 and the uninterrupted views to the north. On-road options for bus lanes/bus tidal flows are also constrained by impact on SSSI and American Cemetery along the A1303 as well as impacts on properties along the route’.

4.6.3 **Auditor Statement F.1** and **Auditor Statement F.2** both refer to the option selection process and the C2C Option Assessment Reports Part 1²², Part 2²³ and Part 3²⁴ that form part of the wider OBC. The option selection process for Stage 2 (OBC) of Phase 1 was effectively limited to two options; an on-road and off-road busway between Madingley Mulch Roundabout and the West Campus. The on-road option appears to have been limited to sections of single bus lane either eastbound only, or tidal flow, neither of which were fully optimised prior to their appraisal and rejection. There does not appear to be an appraisal of on-road bus lanes in both directions, or segregated provision alongside the A1303. If this is so, these are significant omissions from the development of options.

4.6.4 Similarly, there does not appear to have been sufficient appraisal of off-road options to the north of A1303. Again, if so, it is a significant omission from the development of options. Our independent high-level consideration of both these alternative options is presented at Section 5 of this report, which provides further evidence for their consideration.

4.6.5 **Auditor Statement F.2** notes the environmental sensitivity of the American Cemetery as a constraint to the option that would run directly to the north of it as well as to the on road option. However, there does not appear to have been any formal appraisal as part of the sifting process to enable a proper comparison. In particular, the environmental impacts need to be weighed against the alternatives and the associated cost comparisons. There is no clear justification for the constraints referenced in **Auditor Statement F.2**.

²² <https://www.greatercambridge.org.uk/asset-library/Transport/Transport-Projects/C2C/C2C-OBC-Jan-2021/C2C-OBC-2020-Options-Appraisal-Report-Part-1-Appendix-A.pdf>

²³ <https://www.greatercambridge.org.uk/asset-library/Transport/Transport-Projects/C2C/C2C-OBC-Jan-2021/C2C-OBC-2020-Options-Appraisal-Report-Part-2-Appendix-B.pdf>

²⁴ <https://www.greatercambridge.org.uk/asset-library/Transport/Transport-Projects/C2C/C2C-OBC-Jan-2021/C2C-OBC-2020-Options-Assessment-Report-Part-3-Appendix-C.pdf>

4.6.6 It is strongly recommended that the constraints are reconsidered on a more equitable and transparent basis. Section 5 of this report considers alternative options in greater detail.

4.7 Economic case

4.7.1 **Auditor Statement G.2** states the assumption that *'the preferred route from Cambourne to Grange Road has been analysed for its economic benefits and costs. Benefits were assessed at 3 levels following Transport Appraisal Guidelines: level 1 measures the transport user benefits to bus riders and decongestion benefits for car users; level 2 estimates the wider economic benefits assumed to accrue from the scheme from agglomeration; and level 3 estimates the wider economic benefits from land use changes at national and local level, including Gross Value Added through jobs created and the land value uplift from the scheme. These level 3 additionality benefits are what justify the scheme producing a BCR of 1.47 (increased to 3.48 with Greater Cambridge additionality benefits) compared with just 0.43 for the level 1 benefits and 0.48 for the adjusted level 2 benefits'*. This is set against the stated constraints that *'the scheme has been presented as creating 975 new jobs and increasing housing by around 6,000 which are dependent on the scheme. There is an increase in GVA of £102.8m per annum attributed to the scheme. Over a 30-year period this delivers a significant benefit of £676.1m plus £458m from land value uplift, giving a total benefit of £1.13bn. What constrains this assumption is that if the scheme does not support the housing and jobs growth as expected then there is a danger of reduced economic growth'*.

4.7.2 **Auditor Statement G.2** notes that the off-road option has a higher BCR when compared to on-road options. However, more importantly, all options perform poorly in the appraisal and offer poor Value for Money with BCR of considerably less than 1.

4.7.3 **Auditor Statement G.4** refers to sensitivity tests which demonstrate an improved BCR and VfM. However, even then the preferred scheme continues to deliver poor VfM.

4.7.4 It is recommended the constraints include providing a BCR of at least 1 to represent an acceptable level of Value for Money, particularly in light of the use of Government and public funds.

4.7.5 **Auditor Statement G.6** refers to the Green Belt and states the assumption that *'whilst it is always preferable to avoid any impacts on the Green Belt, in the case of C2C, impact is*

inevitable. The National Planning Policy Framework establishes that “certain other forms of development are also not inappropriate in the Green Belt provided they preserve its openness and do not conflict with the purposes of including land within it. These include local transport infrastructure which can demonstrate a requirement for a Green Belt location’. This is presented against the constraint that *‘the C2C scheme has been developed to provide linkage from new settlements located outside the Green Belt to the City of Cambridge. Given the need to connect development outside the Green Belt to the city, some degree of impact on the Green Belt is inevitable’.*

4.7.6 The auditor correctly cites the National Planning Policy Framework in that it does allow for development of local transport infrastructure in the Green Belt where its openness can be preserved, and it does not conflict with the reason for including land within it and a requirement for a Green Belt location can be demonstrated. However, the auditor omits reference to over-arching national policy, to maximise use of previously developed land and protect the character of the Green Belt which, in turn, also accords with Local Plan policy S/4²⁵, and Cambridge South Fringe Area Action Plan Policy CSF/5²⁶. Thus, for policy compliance it must be demonstrated that there is a requirement for C2C to route through the Green Belt, particularly around Coton but also other areas between Cambridge and Cambourne. To do so, it must be shown there is no suitable alternative which affords greater protection to the Green Belt. There is insufficient evidence to date to confirm that suitable alternatives have been assessed to the degree that one can conclude that they do not afford greater protection to the Green Belt.

4.7.7 **Auditor Statement G.7** refers to the assumption that *‘mitigation measures will be firmed up following the Environmental Impact Statement and in consultation with local landowners and the communities affected’.* This is presented against the constraint that *‘There are specific concerns about the impact on the Green Belt, West Fields, the Orchards near Coton as well as the alignment close to Coton conservation area, and the busway section between St. Neots Road and the A428 at Hardwick.’*

²⁵ <https://www.scambs.gov.uk/media/12565/1-front-cover-and-contents.pdf> Policy S/4

²⁶ <https://www.scambs.gov.uk/media/6678/adopted-cambridge-southern-fringe-aap-february-20.pdf> Policy CSF/5

- ***Coton Conservation Area including Grade 1 listed Church.***
- ***Land parcels owned by Cambridge Past, Present and Future, which are protected by National Trust Covenants.***
- ***Fitting within available space in areas where the alignment passes relatively close to properties. For example, along some parts of the St Neots Road. Where necessary noise barriers will need to be explored as an option to ensure that traffic noise experienced by residents reduces.***
- ***Minimising the impact on the Coton Orchard and a City Wildlife Site, to the west and east of the M11 respectively which are bisected by the alignment for the preferred option.***

4.7.8 The auditor correctly identifies that there are specific concerns relating to impact on Green Belt and other important environmental and heritage assets, particularly in the vicinity of Coton. In order for these concerns to be appropriately addressed such that a future Environmental Impact Statement can robustly deal with the subject of mitigation, a full appraisal of all alternatives must be undertaken to ensure that route selection, where it affects Green Belt and those identified environmental and heritage assets, has been developed such that all reasonable alternatives have been explored and only options which would afford greater impact have been discounted. To exclude this work from the assessment of options presented now will potentially risk credibility later under the scrutiny afforded by the TWAO process.

4.8 Management Case

4.8.1 **Auditor Statement J.1** refers to the management case and states the assumption that ***'the management case also identifies the key risks and mitigations for the project. The management case does not differentiate in terms of the options under consideration'***. This is presented against a series of constraints stated as ***'the success and financial viability of the C2C project will be dependent on several factors. Scheme design and delivery will therefore need to consider the following dependencies outlined in the OBC:***

- ***Delivery of housing and employment sites allocated within the South Cambridgeshire Local Plan***
- ***Emerging CPCA Policy specified in the Local Transport Plan. Also need to consider Cambridgeshire Transport Delivery Plan (TDP) for transport capital schemes on the local network to be delivered on a three-year time frame and the Transport Investment Plan (TIP) that includes the C2C scheme, developed alongside the TDP to identify schemes to support growth;***
- ***Monitor how development of CAM progresses as the C2C project aims to deliver the first phase of infrastructure for the larger CAM network;***

- **City Access Strategy which aims to improve congestion on routes into the City Centre which will be key to reducing the journey times for buses and therefore making the Park & Ride attractive and successful; and**
- **Oxford-Cambridge Arc. Both the Expressway and EW Railway will impact on the C2C route and whilst the scheme is not dependent directly upon ~~the~~ proposals, they may have a significant Influence’.**

4.8.2 The listed project dependencies are significant risks to delivery of the C2C project. The reliance on housing delivery, the integration with uncertain future strategic transport projects and the reliance on local transport schemes all cast doubt on the ability of the scheme to deliver the modest benefits currently estimated. It is questionable whether such large amounts of public money should be allocated for limited benefits which are uncertain.

4.8.3 The majority of the benefits accrue from Phase 2 of the scheme with Phase 1 delivering a BCR close to zero. Phase 2 is most reliant on the project dependencies. It would seem appropriate to investigate further an on-road scheme which has a lower cost and could be delivered in the absence of Phase 2. This would provide flexibility to develop Phase 2 to respond to the project dependencies as they become more certain.

4.8.4 **Auditor Statement J.2** also refers to the management case and states the following assumption ***‘the Management Case reviews the process of public consultation and engagement. A communication plan sets out how this process is managed, identifying key stakeholders and how engagement is managed including the facilitation of a project specific Local Liaison Forum’***. This is presented alongside the constraint that ***‘public and stakeholder consultation is essential to ensure that the various aspirations of the general public and key stakeholders are taken into account throughout development and delivery of the project and to manage the communication and flow of information relating to the project’***.

4.8.5 The consultation process has extended over a considerable time period during which there have been changes to behaviour some of which have been accelerated by the Covid-19 pandemic (**Auditor Statement L.1** refers to Covid-19 directly). It is notable that a northern option for Phase 1 has not been consulted on since 2015 and some six years has elapsed

during which time there have been significant moves in Policy and Planning generally. It is worth noting that at the time of the 2015 consultation, only an on-road option for Phase 1 had majority support²⁷. It is recommended that there is further public consultation which reflects the uncertainties and provides the opportunity for the public to confirm their preferences against an updated and revised route options such as those briefly outlined in the next section.

²⁷ C2C_Consultation_Report_01.02.2016

SECTION 5 Potential Scheme Alternatives

5.1.1 The potential shortfall in option selection and appraisal, as identified in the comments on **Audit Responses F.1** and **F.2** (refer to earlier Section 4.6) warrant reconsideration of two principal previously rejected options as well as the EWR corridor which has recently gained traction:

- A route coaligned with the A428 from Madingley Mulch to a location close to the GI and from the south to High Cross, either with or without integration into that interchange;
- Optimised on-highway options along A1303 (that can avoid impacts at the Cemetery and SSSI); and
- EWR corridor.

5.1.2 A brief explanation of these routes and associated commentary is set out in this section.

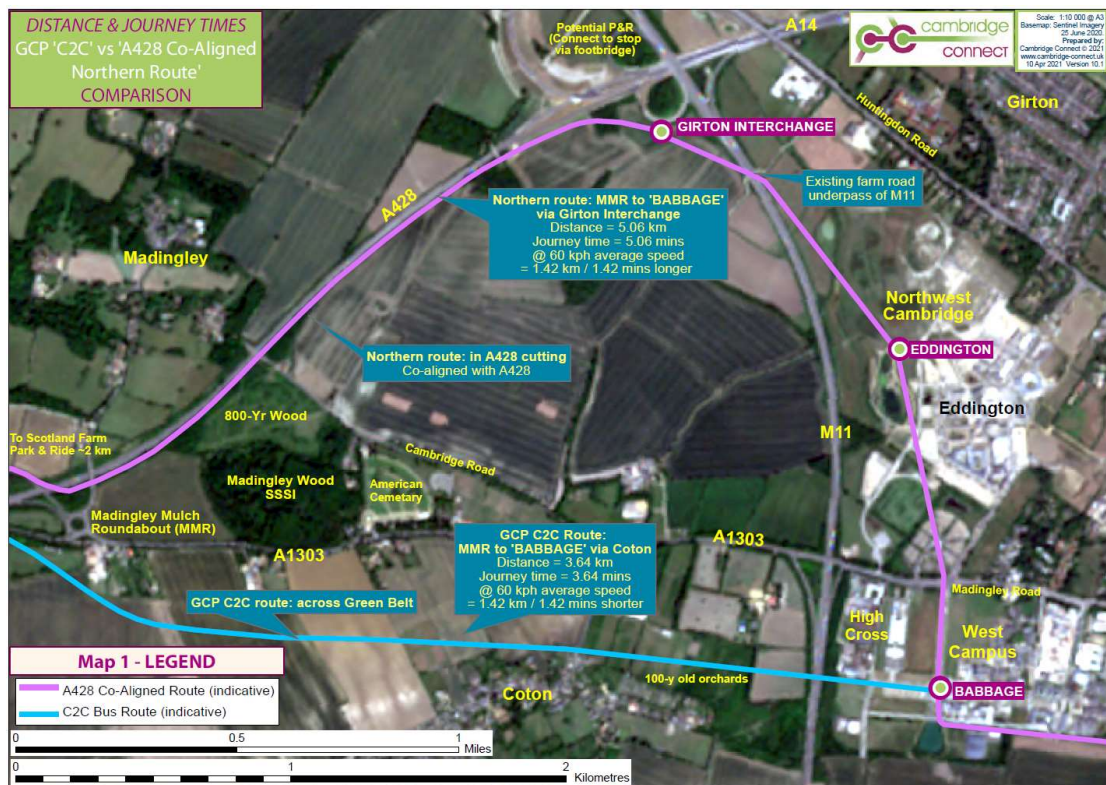
5.2 A428 via a location close to the Girton Interchange

5.2.1 This route would be a segregated public transport route alongside the A428 extending east from the A1303 junction (Madingley Mulch roundabout) as far as the Girton Interchange with the M11, then routing south across the M11 and back towards the A1303 corridor. It would connect directly with the Madingley Road P&R. This route has the advantage of not creating a new corridor across open land instead specifically using the existing transport corridor, being accommodated within the existing A428 cutting and providing a direct link into the strategically important Girton Interchange junction (it is the main junction of four regionally and nationally important roads, the M11, A14, A428 and A1307 (Huntingdon Road). Notably it is not reliant on an interconnection with the Girton Interchange but provides for this in the future.

5.2.2 It is a slightly longer route than the preferred option, but has the advantage of full segregation thus providing good journey time reliability. It would also avoid impacts on the setting of the American Cemetery (associated with either the northern off road alignment considered in the early stages of route development or the potentially the A1303 on road option) as it would run in the A428 cutting near Madingley and hence not be visible from it, and the SSSI. It is a route advocated by Cambridge Connect, who determine the route could be implemented very quickly and in a phased manner and is shown indicatively in pink on their image below at

Figure 4 (which is also included as a full page at **Appendix A**), with the preferred C2C alignment in blue. It also has support from numerous stakeholders.

Figure 4 – Indicative A428 Co-aligned Route Option



5.2.3 We have considered the principles of the scheme and reviewed its likely feasibility. Whilst (as with most highway schemes) there would be engineering challenges and the need for more detailed appraisal, it is a viable option which is worthy of further consideration. At a strategic level when considered against the principal objectives of the C2C project it would deliver benefits in comparison to the current preferred option by connecting to the emerging Eddington community (and potential onward connection to Bar Hill and Northstowe) enabling further economic growth and providing an improved Sustainable Transport Network. It would perform equally well in respect of relieving congestion, particularly on the A1303. Indeed, developing a scheme with future potential to tie in to the Girton Interchange improvements provides the opportunity to re-assign traffic via the A428 relieving the A1303.

5.2.4 In addition, in the context of the option appraisal process (INSET) used by GCP for C2C, it is considered that this alternative would perform better in the environmental '**Contribution to Quality of Life**' criteria and equally well in '**Scheme Deliverability**' as well as being a good fit with policy. It should not be overlooked or forgotten that one of the strategic policy

objectives of the TSCSC is to ensure transport schemes “respect and conserve the distinctive character of the area and people’s quality of life”.

5.2.5 It could simply replace the preferred alignment between the A1303/A428 roundabout and Ada Lovelace Road connecting with the preferred Phase 2 route to the west (or any alternative) and continuing through into central Cambridge to the east. Essentially, it can be considered as a variant to the preferred alignment and warrants further consideration in the context of **Auditor Statement F.2.**

5.2.6 As well as a stand-alone substitution/variant to the preferred Phase 1 alignment it could be complemented in the short term by low-cost alternatives on road along the A1303 (see A1303 On-highway options below). This alternative would also provide the opportunity to coordinate with the improvements planned by Highways England (through the Road Investment Strategy) at the Girton Interchange which will provide connections between the M11 south and A428 west. The two schemes could be developed to complement each other providing a multi-modal improvement to the wider corridor with the potential to deliver greater benefits.

5.3 **A1303 On-highway Options**

5.3.1 Limited low-cost options to create new bus priority measures along the A1303 have been investigated but rejected by the GCP. The two options considered, however, have been limited to a one-way (towards Cambridge) bus priority lane and a tidal bus lane. There has not been proper assessment of optimisation options to overcome the single pinch point close to the Cemetery and SSSI, nor of a full two-way bus priority or, indeed, a segregated or partially segregated route option. The stated reasons the on-road route along the A1303 has been rejected in the process to date can be summarised as:

- would not deliver High Quality Public Transport;
- would only provide an inbound bus lane; and
- would not deliver pedestrian and cycle improvements.

5.3.2 The Mott McDonald report *Madingley Road ‘Quick-Win’ Options Outline* (May 2019) notes that bus lanes in both directions could be provided with minimal land take along the A1303 corridor, which would overcome the first two bullet points. Integrating the C2C scheme with the Comberton Greenway would enable a co-ordinated approach which would reduce further

the requirement for land take along the A1303 as dedicated provision for cyclists would not be necessary. This would address the final bullet point.

- 5.3.3 It is considered the A1303 on-road option has been discounted on the basis of a limited scheme of improvements which do not reflect the full potential of the corridor. Notably the Madingley Road 'Quick-Win' Options Outline (May 2019) report noted that a bus lane in both directions could be achieved with minimal land take solely on the southern side of the A1303 thus not affecting either the American Cemetery or SSSI. This is based on a high-level appraisal which with more detailed assessment could be improved upon. Indeed, the limitations have contributed to the A1303 on road option's its performance in the appraisal process and hence led to it being discounted. With reference to **Auditor Statement F.2** it should be re-evaluated.
- 5.3.4 A re-evaluation now would provide the opportunity to develop an option that reflects the current and emerging transport situation. It is known the A1303 has experienced heavy traffic volumes in the past and these are likely to return to some extent as the pandemic subsides. Already traffic levels have returned in excess of 80% of pre-pandemic levels and commercial (heavy) vehicles have remained relatively constant throughout the pandemic.
- 5.3.5 The A1303 is a direct route to Cambridge from the west and the only option, in the absence of connections at Girton Interchange. The Black Cat to Caxton improvements to the A428 and the development along this corridor is likely to increase pressure along the A1303 in the short term. However, in the longer term, improvements to the Girton Interchange could provide the opportunity to re-allocate road space to public transport in a coordinated manner.
- 5.3.6 Thus, the A1303 on-road option could be progressed in a number of stages. First, a low-cost option within the existing corridor which delivered quick gains with minimal intervention similar to those advocated by MM in their Madingley Road 'Quick-Win' Options Outline. The benefits would be relatively modest, but they would be low cost and provide the time to develop a more comprehensive second stage scheme which could respond to the uncertainties in respect of providing a longer term joined up C2C scheme with EWR and CAM. Specifically it would enable consideration and development of a route co-aligned with the A428 between Madingley Mulch and the strategically important Girton Interchange and then running south to the West Campus (as described above). It would therefore also allow for, but not be dependent on, further benefits to be derived should the Girton Interchange improvement be progressed in the future.

- 5.3.7 This approach would align with the principal C2C scheme objectives providing for growth, improving the transport network and relieving congestion and would fit well in the context of transport policy and wider strategic frameworks. It would similarly perform well in the context of the environmental measures and deliverability.
- 5.3.8 This option would fit with policy particularly well by enabling integration and flexibility to adapt to emerging strategic schemes (both transport and development) whilst also providing immediate, and much needed, short term benefits.

5.4 **EWR Corridor**

- 5.4.1 The potential for C2C to co-exist within the same travel corridor as EWR must also be considered as a viable route option in light of the most recent information released by EWR. The emerging preference for a new station north of Cambourne and a route that runs parallel with the A428 west from Cambourne as far as the A428/Scotland Road junction cannot be ignored. Further commentary regarding the new information released by EWR is included at Section 7 of this report while that regarding the omission of EWR from the process is also included at Section 6 in the context of **Auditor Statements E.2** and **E.3**.

SECTION 6 Possible Audit Omissions

6.1.1 Based on our high-level review of the Auditor's Assumptions and Constraints we believe there are a number of omissions in both the C2C process to date and also the audit thus far, which warrant further consideration before the independent auditor can:

- arrive at a conclusion that can justify the C2C scheme to date; and
- arrive at a conclusion as to the continuing validity and appropriateness of the C2C assumptions and constraints.

6.1.2 This section highlights those omissions and identifies key areas which we believe are missing from the audit to date, or must be addressed, in the second stage to determine validity and appropriateness of the assumptions and constraints identified, and those items that are missing from the C2C process to date.

6.1.3 The items considered in the following paragraphs include:

- Omissions from Audit Process
 - Limitations of Tabulated Structure;
 - Information Not Considered.
- Omissions from C2C Process
 - Accommodating the Route within Cambridge City Centre;
 - CAM;
 - EWR;
 - Alternative Options to Avoid Coton; and
 - Public Consultation;

6.2 Omissions from Audit Process

Limitations of Tabulated Structure

6.2.1 As referenced earlier in this report, it is notable that the format of the auditor's statement pairs individual assumptions with individual constraints and thus presents a limited response meaning a single assumption can only be linked to a single constraint.

- 6.2.2 For the purposes of responding, the tabulated statement is user friendly, but the approach means that constraints have, in some cases, been selectively allocated and also that information is lost between the gaps that arise from the paired structure.
- 6.2.3 The auditor does note that the tabulated 'mapping' is ***'not always clear cut and there are overlaps and some matters that are more distinct. Nevertheless, this format helps to link the assumptions with the constraints to better understand the need for the intervention, the process of selecting the preferred option, evaluating its impacts, how it will be delivered, and interdependencies with the future CAM and EWR networks. No weighting is given to the categories or individual items. At this stage it is considered appropriate to present the assumptions and constraints in a neutral manner. The continuing validity and appropriateness of the assumptions and constraints will be analysed in the second part of the audit'***.
- 6.2.4 A second stage of interrogation is therefore required. The content of this representation is designed to be helpful to enable the audit to move to the next level and the deliverable from the second part of the audit will need to ensure that this pairing system is either re-formatted or supplemented to prevent information from being missed. It is essential that there is clarity in the audit process to enable the terms of reference to be met.

Information Not Considered

- 6.2.5 As referenced earlier at Section 4, there are several reports that postdate the Arup 2018 report cited by the auditor in respect of **Audit Response B.6** that are not referenced at all within the audit. These reports are fundamental to the audit process in that they also consider CAM compliance and thus are relevant to many parts of the audit process (Tables A, B, G and K).
- 6.2.6 A number of GCP Executive Board briefing papers have been relied upon throughout the auditor's Statement of Assumptions and Constraints but the briefing papers refer over time (as recent as December 2020) only to Arup's first 2018 report as a justification for CAM compliance and the southern route providing the best fit, even though three subsequent reports also consider this aspect and have been produced since Oct 2018. Omitting these from the audit process is an error and the second part of the audit should take the findings of these key reports into consideration.
- 6.2.7 As already confirmed in Section 4 of this report, the additional studies that should be considered within the audit process include:

- Arup Position Paper on CAM and A428 (November 2018) Commissioned by CPCA²⁸;
- Jacobs Review of C2C against CAM Objectives (June 2020a) Commissioned by CPCA²⁹,
- Undated CPCA/Jacobs Review of Cambourne to Cambridge, commissioned by GCP;
- The SOBC for CAM; and
- EWR Consultation material.

6.3 Omissions from C2C Process

Accommodating the Route within Cambridge City Centre

6.3.1 **Auditor Statement E.2** states the assumption that '**CAM SOBC assumes the portal connecting the city centre underground section to the C2C route will be in West Cambridge at the southern edge of the proposed development area. The CAM station will be at ground level in this vicinity**' against the constraint that '**Alternative route options for the CAM are still being explored. So far, these rule out any alignment going via the Girton Interchange. A northern route corridor option(s) has been proposed. These would follow an alignment to the north of the A1303 and American Cemetery and connecting to the north side of the A428 and proceeding to Scotland Farm P&R and then crossing over to Bourn Airfield development. An alternative option to extend the CAM tunnel to the west of the M11 on the northern side of A1303 has also been explored. A preliminary evaluation of these route options indicates that they would be higher cost alignments for the busway/CAM and would have environmental impacts on the American Cemetery, 800 Wood, Madingley village and White Pits Plantation, incur longer journey times compared to the preferred busway option and would not attract as many bus riders**'.

6.3.2 The OBC suggests that C2C will provide improved connectivity to Cambridge city centre and the rail links there, and encouragement of further growth and development to the western areas of Cambridge. However, it is unclear from current information how the C2C scheme will

²⁸ <https://scambs.moderngov.co.uk/documents/s108597/6c-Cambourne%20to%20Cambridge-Appendix%202.pdf>

²⁹ <https://cambridgeshirepeterboroughcagov.cmis.uk.com/Document>

operate within the city centre and how it ties in with the wider City Centre Access Project. The OBC refers to **'proposed routes that have not been agreed with route operators'**. It also refers in respect of Cambridge City Centre Access that it proposes a **'a segregated public transport route with end-to end walking and cycling provision and park and ride facility'** but that it **'connects onto Grange Road where it uses the existing road network to run services to the city centre'**, which suggests the city centre section of route is not segregated.

6.3.3 The Jacobs 2020a report notes that **'from and to Grange Road the routes to Parker Street in the City Centre, appear to follow fairly convoluted routes and congested roads, via Pembroke Street/Downing Street and Lensfield Road'**.

6.3.4 It is interesting to note in the context of the C2C scheme offering standard Euro VI buses, that there is an Air Quality Management Area around the city centre. The western limit of the AQMA is along Grange Road. The C2C OBC states that 'poor air quality in the city is largely due to vehicle traffic, so any scheme that seeks to reduce the number of vehicles entering the city centre should bring benefits to air quality'. This is not untrue but the interaction of the proposed C2C with other city centre roads needs to be considered to ensure that the route network can accommodate the scheme without exacerbating congestion and ensure reliable journey times sufficient to attract demand. This latter point is relevant against the background that EWR is likely to also offer a connection between Cambourne and Cambridge,

6.3.5 It is questioned why C2C is not currently proposed to accommodate electric vehicles. The Jacobs 2020a report identified a need for C2C to commit to electric / zero emission vehicles.

6.3.6 City Centre operation does not appear to have been considered sufficiently in the C2C process to date and the audit should identify this omission.

CAM

6.3.7 One of the purposes of the independent audit, set in the original Terms of Reference, is the need to test the validity of assumptions and constraints in respect of CAM.

6.3.8 As referenced earlier in Section 1, the CAM scheme remains in development is forecast to become operational 2025-2029 with C2C forecast to come forward in 2024. Thus, the planned timeframe for the two schemes is close and C2C is likely to precede CAM.

6.3.9 The GCP has committed to ensure that C2C is CAM compliant and could be converted later once CAM comes forward. This approach is welcomed and as commented throughout this

report, there is a fundamental need to plan both local and strategic public transport infrastructure in tandem to ensure a holistic approach and that the schemes are complimentary and not contradictory to one another.

6.3.10 However, only selective information is used within the C2C process to date that seeks to demonstrate CAM compliance and notable omissions in information have been carried through the process since 2018. Those omissions include the findings of the Jacobs 2020a report which concluded that C2C does not fully meet 12 of the CAM Sub-Objectives, and in turn does not support the four main objectives. As stated earlier in Section 4, the Jacobs 2020a report concluded that in order for C2C to meet the objectives it would need to:

- commit to electric / zero emission vehicles;
- connect to the East West Rail Station preferably via a segregated route around Cambourne;
- be future proofed for CAM central tunnels vehicles;
- provide a Metro-style service; and
- minimise potential environmental impacts, particularly around Coton and Westfields.

6.3.11 However, the scheme does not satisfy all of the above listed requirements which is a significant omission of the C2C process to date.

EWR

6.3.12 As with CAM, one of the purposes of the independent audit, set in the original Terms of Reference, is the need to test the validity of assumptions and constraints in respect of EWR. In order to do that appropriately the current status of EWR and the route alignment considerations adopted, must be considered.

6.3.13 **Table E** of the auditor's Statement of Assumptions and Constraints considers connections to CAM and EWR. In respect of EWR, **Auditor Statement E.3** states the assumption that '**CAM connections through/ around Cambourne will depend on the EWR station location. Connections to the rest of the CAM network will be via tunnel through the city centre**' against the constraint that '**C2C travel hubs at Scotland Farm P&R site and in Cambourne may require the CAM to follow a different alignment to the C2C busway in these sections in order to access these facilities depending on the vehicle technology chosen**'.

- 6.3.14 The reference cited by the auditor is the **'Cambridgeshire Autonomous Metro Strategic Outline Business Case, CPCA, February 2019'** which focuses wholly on the needs of CAM but gives no consideration to the proposals of EWR. Reference should also be given here to the latest information available on EWR, which is considered at Section 7 of this report.
- 6.3.15 It is clear that any proposal for a public transport route between Cambourne and Cambridge, regardless of the route alignment, must be taken forward in tandem as part of any wider proposals for both CAM and EWR. EWR is designed to provide strategic infrastructure across the wider Oxford to Cambridge Arc and beyond but, based on information available at the time of writing, seeks to offer a new station stop in the vicinity of Cambourne (most likely to the north of Cambourne). Thus, any local public transport route that also links Cambourne to Cambridge will need to be complimentary to the planned strategic offering i.e. a single travel corridor should come forward that can accommodate any local public transport service in tandem with the strategic provision, including provision of interchange, whilst also being cognisant that a strategic service still has the potential to affect forecast ridership of a local service if station stops are in the same vicinity i.e. at Cambourne. If C2C comes forward earlier, it must be compatible with, and facilitate, delivery of EWR later, and CAM, and build passenger forecasts and thus the economic business case accordingly.
- 6.3.16 On this latter point regarding passenger forecasts, **Auditor Statement E.4** similarly considers EWR and states the assumption that **'the C2C full business case will also need to include a sensitivity test to assess the impact of EWR Rail once there is clarity with regards to the proposals. It is unlikely that EWR will have an impact of the core business case for C2C given that it is unlikely that any EWR proposals will have achieved consent during the C2C assessment period'**. The auditor matches this against the constraint that **'EWR focuses substantially on longer term growth beyond the Local Plan period and not the immediate and worsening issues of congestion and lack of connectivity for expanding communities west of Cambridge. Once a preferred alignment has been agreed for EWR and confirmation of the location of a Cambourne station there will need to be a programme to ensure integration between EWR, C2C and the wider CAM network'**.
- 6.3.17 The reference cited by the auditor is the **'C2C Outline Business Case, Strategic Case, GCP January 2020'** but this should not be considered in isolation now that new information is also available on EWR and the auditor should cite reference to the latest EWR public consultation information. The constraint considered by the auditor is correct but the assumption that it is **'unlikely that EWR will have an impact on the core business case for C2C given that it is**

unlikely that any EWR proposals will have achieved consent during the C2C assessment period is questioned since the need to consider EWR in tandem with C2C is self-evident (refer to Section 5 of this report). One cannot be considered in isolation of the other even if timescales currently mean that the two projects are running on different timelines. Patronage for C2C will be affected by EWR and interchange is important. Government and public funds for provision of a new high quality public transport network should be focussed on a scheme which can come forward in tandem with wider strategic transport infrastructure, whichever comes forward first. At present there appears to be a lack of consideration for the proposals of EWR which, at least in part, appear to mirror the C2C route and will undoubtedly affect future patronage of a local route. Specifically, it is incorrect to state that the EWR proposals will not come forward during the C2C assessment period. The C2C as with any major transport infrastructure is assessed over a 60-year period during which time EWR will come forward. The constraint of integrating with EWR should be considered now to ensure a robust assessment.

Alternative Options to Avoid Coton

- 6.3.18 Sections 4 and 5 of this report have considered alternatives. Section 4 considers this in the context of **Auditor Statement F.2** and Section 5 has provided our independent high-level review of alternatives which must be considered both within the audit process and the C2C process more generally.
- 6.3.19 **Auditor Statement F.2** identifies the assumption that ***'alternative alignments to avoid Coton and Hardwick were evaluated as part of the options development process. These were not found to be suitable and performed worse than the preferred option and no better than the other options assessed'***. This is presented against the constraints that ***'alternative northern route options via Girton interchange are not deliverable within the time horizons for the project and not compatible with CAM route corridor options. Other northern route options to the north of the American Cemetery are constrained by environmentally sensitive areas and heritage assets. The Cambridge American Cemetery and the American Battle Monuments Commission is regarded as a unique national memorial which honours the American military personnel killed in the second world war. They would oppose any on-road or off-road scheme which impacted the setting of the cemetery including removing the verges along the A1303 and the uninterrupted views to the north. On-road options for bus lanes/bus tidal flows are also constrained by impact on SSSI and American Cemetery along the A1303 as well as impacts on properties along the route'***.

- 6.3.20 The references cited are the C2C OBC Options Appraisal Reports and the Madingley Road 'Quick Win' Options Outline, Technical Note (Mott MacDonald, 2019).
- 6.3.21 The Parish Council made representations to the auditor earlier in the audit process in their CPC Auditor Submission (February 2021). Section 3.1 of that submission raised the Environmental Impact Assessment requirement to demonstrate consideration of reasonable alternatives as part of the Transport and Works Act Order (TWAO) process.
- 6.3.22 The work undertaken by the GCP to date has not considered the Northern Off-Road Alignment running north of the Cemetery to the same degree as it has the preferred C2C route option, dismissing this option at the end of the Strategic Outline Business Case phase due to increased cost compared to an online route and the inability to provide two-way bus priority in the Madingley Road which it would join west of M11. CPC made this clear in their February 2021 representation (Section 3.1.1).
- 6.3.23 Similarly CPC also raised in their February 2021 submission that consideration of CAM compliance for C2C considered the 'principle' of a northern off-road alignment in direct comparison to an optimised southern off-road alignment and the on-road A1303 routes i.e. an optimised northern off-road alignment was not considered.
- 6.3.24 The auditor identifies that 'other northern route options to the north of the American Cemetery are constrained by environmentally sensitive areas and heritage assets' **Firstly, this assumption is not correct since this is not the case for the alternative option which is co-aligned with the A428 and proceeds to the Girton Interchange, considered within Section 5 of this report. Secondly, even if this were true,** so are the areas through which the preferred C2C route alignment is currently shown to pass. It passes through Green Belt and a range of designated landscapes and covenanted land and heritage assets.
- 6.3.25 Similarly the auditor identifies that the American Cemetery would '**oppose any on-road or off-road scheme which impacted the setting of the cemetery including removing the verges along the A1303 and the uninterrupted views to the north**'. Indeed it is true that the American Cemetery's preferred route option is along the A428. However, there appears to be a gap in the assessment of optimised on-road A1303 options that can avoid or minimise the impact on the American Cemetery (or of options that avoid it altogether) and other environmental and heritage assets in the vicinity of Coton. Rather, the alternatives have been dismissed too early and not exposed to the same degree of optimisation and assessment as

the preferred option. This appears a weakness in the C2C OBC and the general process to date, particularly when set in the context of the EIA requirements that any TWAO scheme will be scrutinised against.

Public Consultation

6.3.26 As referenced within Section 4 of this report, in respect of the Management Case of the C2C OBC, public consultation is key. The auditor correctly identifies within **Auditor Response J.2** the constraint that *'public and stakeholder consultation is essential to ensure that the various aspirations of the general public and key stakeholders are taken into account throughout development and delivery of the project and to manage the communication and flow of information relating to the project'*. However, this somewhat underplays the key role of public consultation in the TWAO process at which time the process of public consultation undertaken by the GCP and the demonstration that public consultation responses have been considered will be afforded significant scrutiny.

6.3.27 The consultation process for C2C has extended over a considerable time period but it is notable that that a northern option for C2C Phase 1 has not been consulted on since 2015 and some six years has elapsed during which time there have been significant moves in Policy and Planning generally. This must be reflected in the progression of the scheme and the auditor must be satisfied and that consultation to date has been meaningful.

6.3.28 Consultation for Phase 1 suggests a preference among both key stakeholders and the public for an alignment running on or adjacent to existing transport routes, rather than creating a new route across open countryside and Green Belt which is understandable. Notably in 2015,

- 67% supported the on-road route;
- 66% were in strong opposition to the southern off-road route.

6.3.29 Later in 2017, noting that only two alignment options were considered:

- 58% supported an on-road bus lane;
- 33% supported the southern off-road option.

6.3.30 A lack of clarity and information also appears to be a running theme in both public and stakeholder responses with Natural England noting in 2017, that based on the level of detail available at consultation they were *"unable to make any judgement regarding likely impact of the proposed options"*.

- 6.3.31 In addition, there has been stakeholder objection to the southern route from both the National Trust and CPRE, due to impact on Green Belt and covenanted land and a lack of consideration for appropriate alternatives. There have been requests from key stakeholders under the consultation process to date to explore further alternatives that avoid or lessen impact to the Green Belt, covenanted land and the American Cemetery but these requests, to date, have not been met.
- 6.3.32 CPC has already submitted representations to the audit process (dated February 2021) highlighting a lack of meaningful consultation and noting that evidence exists to suggest that some communications from key stakeholders have not been appropriately reported to the GCP to inform strategic decisions on the C2C project and have instead been missed or held back. This must be explored. Reference should be made to CPC's full first submission to the audit process dated February 2021.
- 6.3.33 The independent audit of C2C presents an opportunity to determine a suitable way forward for C2C as a viable scheme, but there is further work to do in satisfying public consultation responses to date and the wider consultation process in general. If due consideration is not given to the process of consultation, there is a significant risk later on at the TWAO stage.
- 6.3.34 It is noted that several rounds of public consultation have been undertaken in respect of C2C but the key to satisfying the TWAO order requirements will be to demonstrate not just that consultation has been undertaken, but that meaningful consultation has been undertaken which means a demonstration that consultation responses have been considered. The key concern with consultations undertaken to date is that the potential alternative northern route running close to the Girton Interchange, has never been considered, despite repeated requests from the Local Liaison Forum and the public. This must be considered in the context of the audit and currently falls outside of points raised in the Statement of Assumptions and Constraints.

SECTION 7 EWR Considerations

7.1.1 EWR released their most recent public consultation exercise on 31 March 2021, inviting responses to information by 9 June 2021. EWR is very relevant to the C2C proposals and one of the purposes of the independent audit is to test the validity of the C2C proposals in the context of EWR.

7.1.2 At present the C2C process:

- has not considered EWR fully;
- has not demonstrated that C2C and EWR can be complimentary (i.e. the need for joined up infrastructure); and
- is inconsistent in the way it considers CAM and EWR.

7.1.3 The second stage of the audit must address this before any conclusions can be reached on whether the assumptions and constraints, and indeed the C2C OBC, is appropriately valid in the context of strategic infrastructure to serve the wider Oxford to Cambridge Arc.

7.1.4 The following paragraphs provide a summary of new information released by EWR and how this reinforces the need for a joined up approach.

7.1.5 As referred to earlier in Section 2 the proposed C2C scheme Outline Business Case (OBC) (January 2020) identified a preferred route option for the C2C scheme which routes broadly east from Cambourne following the alignment of the A428 as far as Madingley Mulch roundabout before branching south east towards Cambridge, running broadly parallel to but south of the A1303 and entering the west of Cambridge.

7.1.6 Cambourne is located on the Clapham Green to The Eversdens stretch of the proposed EWR (referred to as Section D) which involves both new stations and new railway. The latest consultation document by EWR, *Making Meaningful Connections*³⁰ (March 2021), states that

³⁰ https://eastwestrail-production.s3.eu-west-2.amazonaws.com/public/EAS060_ConDoc_310321_Digital_MASTER-1.pdf

Section D would **'bring faster and better long-term connectivity to communities between Bedford and Cambridge. People living in Cambourne and in the area between Sandy and St Neots would benefit from new stations and a potential new connection to the East Coast Main Line (London-Edinburgh)**³¹.

7.1.7 The preferred route option for EWR was identified in January 2020 together with a key decision to access Cambridge from the south. Consultation up until January 2020 had considered options for both a Northern and Southern approach into Cambridge. The latest consultation document states that **'selection of a preferred route option following the previous public consultation was based on a combination of fifteen assessment factors, which included transport user benefits, capital and operating costs and performance against the objectives for East West Rail. The decision to enter Cambridge from the south was based on engineering, operational, economic, and environmental reasons, which were described in the Preferred Route Option Report. We have continued to keep the decision to prioritise a southern approach to Cambridge (as opposed to a northern approach) under review, especially in light of new information'**³².

7.1.8 Based on the preferred Southern Approach the current consultation considers five possible route alignments within that preferred route option, as shown at Figure 5 which is an extract of the EWR Figure presented at page 215 of the EWR 'Making Meaningful Connections' report.

³¹ https://eastwestrail-production.s3.eu-west-2.amazonaws.com/public/EAS060_ConDoc_310321_Digital_MASTER-1.pdf page 22

³² https://eastwestrail-production.s3.eu-west-2.amazonaws.com/public/EAS060_ConDoc_310321_Digital_MASTER-1.pdf page 52

Figure 5: EWR Section D Route Options

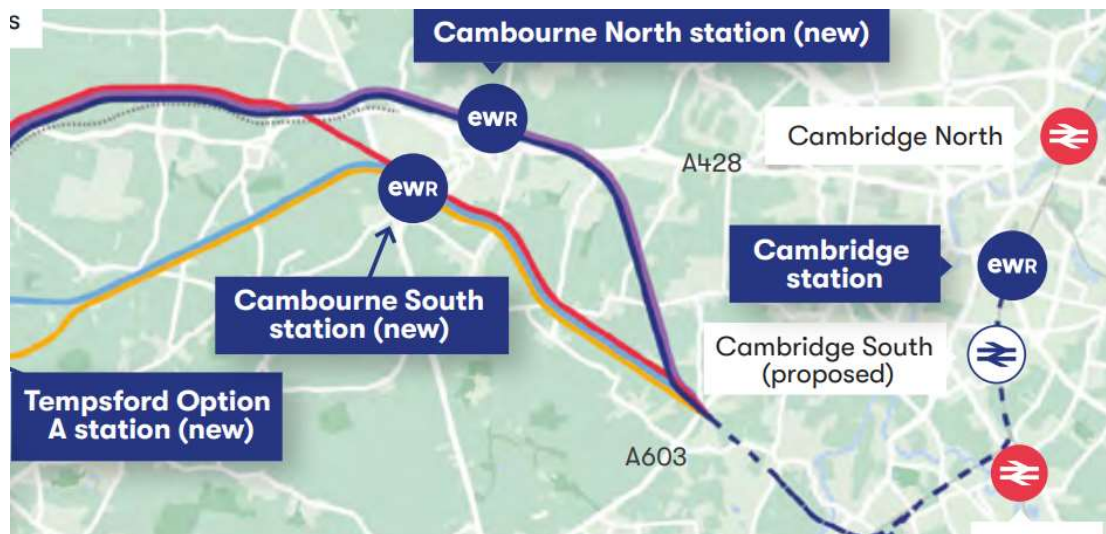


Image Source: EWR: Making Meaningful Connections, (March 2021), p. 215.

- 7.1.9 Three of these (Route Alignments 2, 6 and 8) pass to the south of Cambourne and would involve a new Cambourne South station and involve an alignment that runs broadly south east from Cambourne passing to the west of the settlements of Bourne, Kingston, Claypit Hill, Great Eversden, Little Eversden, Hariton and Hasingfield before routing north east to a new station south of Cambridge.
- 7.1.10 Two further route options are also identified (Route Alignments 1 and 9) which would instead involve a new station north of Cambourne and a route alignment which routes east towards Cambridge running broadly parallel to but north of the A428 as far as the A428/ Scotland Road junction before routing south east towards Hasingfield and joining the southern route alignment into Cambridge. Route Alignment 1 (dark blue) and 9 (purple) are very similar and Figure 6 below provides an extract of Route Alignment 1.

Figure 6: EWR Emerging Preferred Route Alignment 1 (Dark Blue)



7.1.11 The consultation cites Route Alignment 1 and 9 as ‘emerging preferences’ for the following reasons:

- **‘Joined up infrastructure** – they benefit from a shared ‘travel corridor’ with the proposed A428 Black Cat to Caxton Gibbet Improvement Scheme, meaning they already cover a route used regularly to connect people to places.
- **New housing and communities** – [EWR] believe that there is more potential for new homes and communities in the area (particularly for Cambourne North compared to Cambourne South)
- **Economic growth** – alongside the development of new housing, a new station could bring economic growth to the community, creating more jobs and prosperity.

- **Value for money** – they are expected to be less costly to deliver than other alignments connecting to the same station pairings³³.

7.1.12 Thus, the latest consultation still does not commit to a definitive position on accessing Cambridge from the north or south but shows clear intention to adopt the Southern Approach, albeit this will remain 'in review' and against that preferred Southern Approach, there are two emerging preferred route alignments between Cambourne and Cambridge that both link to a new station at Cambourne North and follow a shared corridor with the proposed A428 Black Cat to Caxton Gibbet Improvement Scheme. That A428 Black Cat to Caxton Gibbet Improvement Scheme is subject to a Development Consent Order (DCO) application to the Secretary of State for Transport, which was submitted on 26 February 2021, but the scheme is advanced in its development and, subject to grant of the DCO, will be implemented by Highways England (HE).

7.1.13 Notably, the two emerging preferences for EWR Section D route alignment, both follow a broadly similar alignment to the C2C OBC Preferred Option route between Cambourne and the A428/ Scotland Road junction.

7.1.14 It is clear that with such close mirroring of the two routes that there needs to be very joined up working between the GCP and EWR. It does not make sense to move forward with the C2C scheme until it can be demonstrated that EWR (and CAM) have been appropriately considered within the C2C OBC and, once demonstrated, that it can be ensured that patronage has been considered appropriately, interchange is feasible and that the two routes are complimentary to one another and can use the same infrastructure corridor.

7.1.15 It is not unusual that infrastructure schemes or indeed development opportunities are required to take account of planned transport infrastructure long before that infrastructure has consent. This has been evident across Central Bedfordshire in recent times when potential Local Plan housing and employment allocations have been required (for some time) to take account of Highway's England's proposed Oxford to Cambridge Expressway, despite the Expressway

³³ https://eastwestrail-production.s3.eu-west-2.amazonaws.com/public/EAS060_ConDoc_310321_Digital_MASTER-1.pdf page 23

being relatively early in its planning with just a potential route corridor identified (not dissimilar the current status of EWR). Yet, Allocations were discounted purely on the basis that the Expressway may affect land parcels. Mapped into the context of C2C, and even more relevant since it is two pieces of public transport infrastructure being considered, there is a clear need for C2C to move forward jointly with EWR.

7.1.16 It is noted that the auditor has referred to the latest EWR consultation in their statement dated 1st April 2021, however that statement simply confirms that the consultation information ***'means that the assumptions and constraints described in the Statement of Assumptions and Constraints for the C2C Audit (items A9, B2 and E4) still hold. The latest route options proposals set out in the consultation will be taken into account in the Audit'***.

7.1.17 This remains to be seen and is a key area that must be considered in the audit before any conclusions can be reached on whether the assumptions and constraints, and indeed the C2C OBC, is appropriately valid in the context of strategic infrastructure to serve the wider Oxford to Cambridge Arc.

SECTION 8 Recommendations

8.1.1 Based on the information presented within this report we consider that the auditor cannot be in a position to conclude that the assumptions and constraints are robust given the omissions which exist in the C2C process to date and the gaps which are present in the audit process (to this point). Indeed, it seems more appropriate for the auditor to reach a conclusion which directs the GCP to revisit the options development stage and fully explore all reasonable alternatives in the context of both CAM and EWR.

8.1.2 This report has demonstrated that, at present, the C2C scheme is not robust in respect of the current strategic frameworks, the emerging Cambridgeshire Autonomous Metro (CAM) network and the East West Rail plans:

- A more robust interrogation of the C2C scheme objectives against wider policy objectives is required;
- The purpose of the audit is to test the robustness of assumptions and constraints and determine whether they remain appropriate in the context of the current strategic frameworks. The strategic frameworks are policy driven and so this area must be considered in the wider policy context. Insufficient examination of policy, particularly in respect of scheme objectives, is presented in the audit to date.
- The C2C option selection process for Phase 1 does not appear to have included appraisal of the following, which is a significant omission from the development of options in the C2C OBC:
 - a fully optimised single on-road option;
 - any consideration of bus lanes in both directions;
 - segregated provision alongside the A1303; or
 - sufficient appraisal of off-road options to the north of A1303.
- A more thorough investigation of how C2C can be both CAM compliant and be complimentary to EWR, particularly considering patronage forecasts, interchange and co-working within a single travel corridor. These aspects are all likely to affect the C2C OBC and have not currently been considered either in the OBC or in the audit process to date.

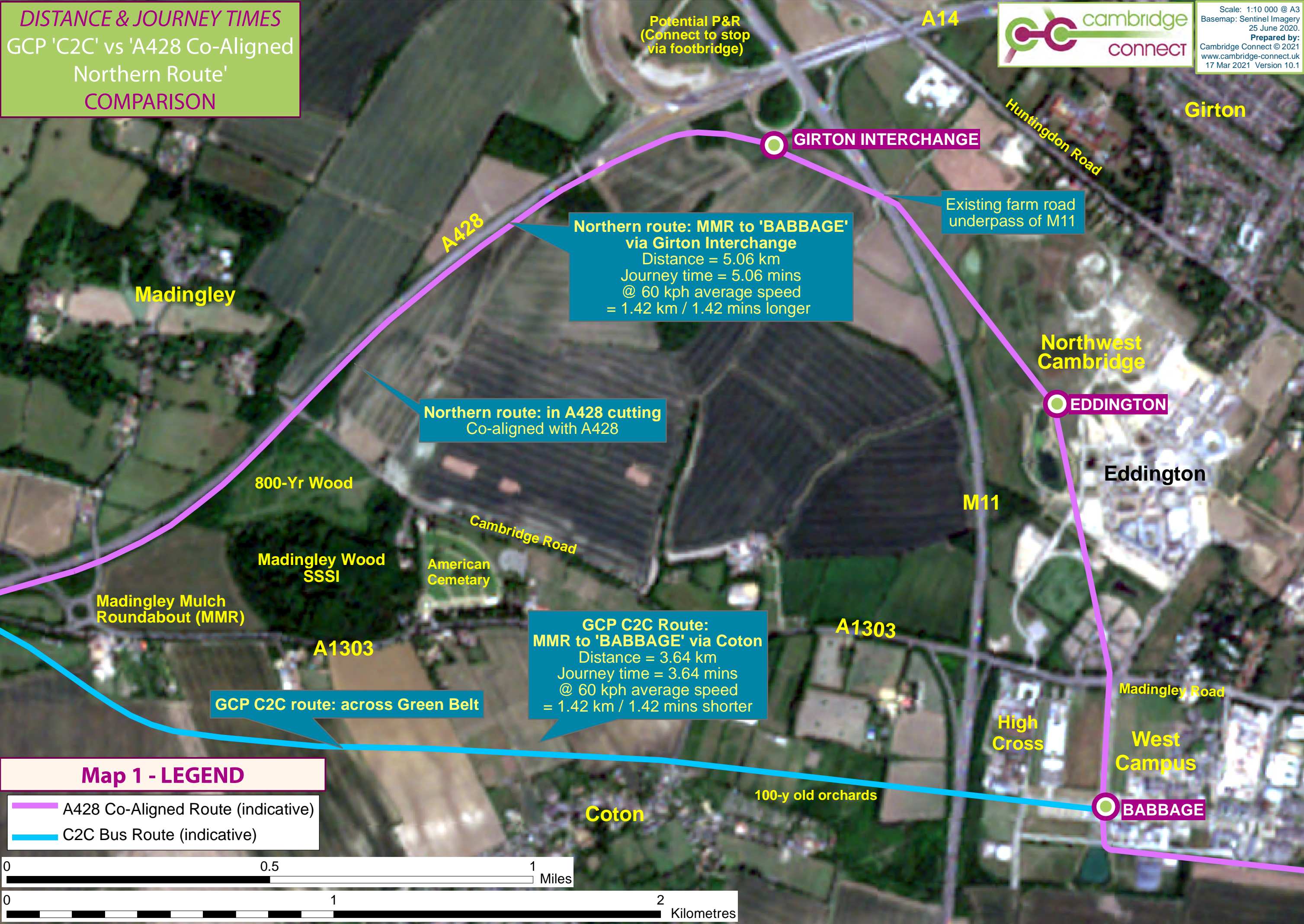
- There is insufficient evidence to date to confirm that suitable alternatives (potential alignment via A428 and Girton Interchange and potential on-highway options) have been assessed to the degree that one can conclude that they do not afford greater protection to the Green Belt which is fundamental in the context of the TWAO process under which C2C will be considered.
- It is recommended that the constraints include providing a BCR of at least 1 to represent an acceptable level of Value for Money, particularly in light of the use of Government and public funds.
- Greater consideration of public consultation responses, which are not particularly supportive of many aspects of the C2C proposals, should be undertaken, this is particularly important in light of Government and public funds being used for this scheme; and
- It is strongly recommended that the constraints relating to consideration of alternatives are reconsidered on a more equitable and transparent basis.

8.1.3 Without further work on the above listed issues, the scheme assumptions and constraints are not robust, do not withstand scrutiny, and those shortcomings will undoubtedly be exposed in any TWAO process. It is recommended the following Audit Statements are not sufficiently robust to enable a thorough test of C2C scheme, these are highlighted in the table at **Appendix B:**

- A.5, A.6, B.1, B.2, B.6, E.2, E.3, E.4, F.1, F.2, G.2, G.4.

APPENDIX A. Indicative A428 Co-aligned Route Option

DISTANCE & JOURNEY TIMES
GCP 'C2C' vs 'A428 Co-Aligned
Northern Route'
COMPARISON



APPENDIX B. Areas of Audit to be Addressed

Cambourne to Cambridge Better Public Transport Project: Independent Audit

Statement of Assumptions and Constraints

i-Transport LLP

Identified Areas of Audit to be Addressed:

- A.5,
- A.6,
- B.1,
- B.2,
- B.6,
- E.2,
- E.3,
- E.4,
- F.1,
- F.2,
- G.2,
- G.4.

Table A: Policy Context

		Assumptions & Constraints Register		
i-Transport Report Ref		Assumptions	Constraints	Reference
		A. Policy Context		
Section 4.2	A.5	The Cambridgeshire and Peterborough Combined Authority is responsible for transport infrastructure improvement and the Local Transport Plan. Drawing on the CPIER the goals of the CPLTP published in 2020 are to deliver a transport system that delivers economic growth and opportunities, provides an accessible transport system and protects and enhances the environment to tackle climate change together.	The CPCA established the Cambridgeshire and Peterborough Independent Economic Review (CPIER). The review provides a robust and independent assessment of the Cambridgeshire and Peterborough economy and the potential for growth. The CPIER confirmed the growth targets established in the City Deal and the need for a package of transport and other infrastructure projects to alleviate the growing pains of Greater Cambridge including HQPT scheme from Cambridge to Cambourne.	<i>CPIER - Cambridgeshire and Peterborough Independent Economic Review, CPCA, September 2018</i>
Section 4.2	A.6	In April 2020 the CPCA published a draft Sub-Strategy to the Local Transport Plan specifically dealing with CAM. The route along the A1303/A428 from Cambridge City centre towards Cambourne, St Neots and Bedford has been highlighted as a strategic project to help make travel by foot, bicycle and public transport more attractive than private car journeys, alleviating congestion and supporting the region's growth issues.	The C2C proposals have been assessed against the policies in the Sub-Strategy and it is concluded that the scheme is compliant, although further review of the eastern end of the scheme (City Access) has been undertaken and a review of the western end will be required once there is clarity with regards to proposals for EWR and a station in the Cambourne area.	<i>Cambourne to Cambridge Better Public Transport Project, Report to GCP Executive Board, 10 December 2020</i>

Table B: Scheme Objectives

i-Transport Report Ref		Assumptions	Constraints	Reference
		B. Scheme Objectives:		
Section 4.3	B.1	<ul style="list-style-type: none"> ● Achieve improved accessibility to support the economic growth of Greater Cambridge ● Deliver a sustainable transport network/system that connects areas between Cambourne and Cambridge along the A428/A1303 <p>Contribute to enhanced quality of life by relieving congestion and improving air quality within the surrounding areas along the A428/A1303 and within Cambridge city centre</p>	<ul style="list-style-type: none"> ● Existing car mode share and car ownership within the A428/A1303 corridor is high, and future growth is expected to generate additional demand for car use in this area. ● Traffic data shows that AM peak hour traffic speeds are 75% slower than night time average speeds on the route between the Madingley Mulch Roundabout and M11 Junction. ● Planned growth, between 2011 and 2031, along the A428/A1303 corridor eastbound car trips are forecast to increase by 14% in the AM Peak hour, 82% in the Inter-peak period and, 37% in the PM Peak period. Without intervention this could lead to a further deterioration in traffic speeds and reliability of journey times. ● Travel to work data for key origins along the C2C corridor also illustrate the high level of car use along the route, with the car mode share for residents of Cambourne being particularly high (65%). ● Residents of Cambourne and surrounding villages currently have limited options to use public transport due to the low level of service and current unreliability. ● In the absence of substantial bus priority in the corridor, congestion and delays mean journeys of around 10 miles can take over an hour during peak times. Buses therefore offer no competitive advantage over private cars in terms of journey times and reliability. 	<i>C2C Outline Business Case, Strategic Case GCP January 2020.</i>

Section 4.3	B.2	Supporting development through the busway corridor: The scheme is assumed to promote growth in the area and increase investment. It is designed to be the first in a series of steps to push forward growth.	Longer-term plans for the CAM network and EWR need to be taken into account.	<i>'C2C Outline Business Case, Strategic Case GCP January 2020.</i>
Section 4.3 & Section 6.2	B.6	On 31st October 2018 the CPCA Board agreed that the C2C scheme should be progressed by the GCP as an essential first phase of developing proposals for the CAM. They accepted the independent review of alignment between the C2C scheme and the CPCA plans for a CAM, undertaken by consultants Arup and commissioned by the CPCA in 2018.	<p>Arup has undertaken a high-level review of route options and concluded that:</p> <ul style="list-style-type: none"> • The process undertaken to date to determine the route is robust and the optimal solution for the corridor is confirmed; • The route is reclassified as a CAM route to serve the wider network, and not an independent guided busway corridor; • The vehicle operating along the A428 corridor will comply with the principles of the CAM; • The route will continue to be designed to align and integrate with the overarching CAM network, comprising one of the phases of the CAM network; and <p>Options for mitigating the impact of the scheme at West Fields and Coton will be incorporated into scheme design for the SOBC.</p>	<i>Cambridgeshire and Peterborough Combined Authority CAM Expert Advice A428 Report. Arup, October 2018</i>

Table E: Connections to CAM and EWR

i-Transport Report Ref		Assumptions	Constraints	Reference
		E. Connections to CAM and EWR		
Section 5.4 & Section 6.3	E.2	CAM SOBC assumes the portal connecting the city centre underground section to the C2C route will be in West Cambridge at the southern edge of the proposed development area. The CAM station will be at ground level in this vicinity.	Alternative route options for the CAM are still being explored. So far, these rule out any alignment going via the Girton Interchange. A northern route corridor option(s) has been proposed. These would follow an alignment to the north of the A1303 and American Cemetery and connecting to the north side of the A428 and proceeding to Scotland Farm P&R and then crossing over to Bourn Airfield development. An alternative option to extend the CAM tunnel to the west of the M11 on the northern side of A1303 has also been explored. A preliminary evaluation of these route options indicates that they would be higher cost alignments for the busway/CAM and would have environmental impacts on the American Cemetery, 800 Wood, Madingley village and White Pits Plantation, incur longer journey times compared to the preferred busway option and would not attract as many bus riders.	<i>CAM Indicative Northern Route Corridor Options Map, CPCA, October 2020.</i>

<p>Section 5.4 & Section 6.3</p>	<p>E.3</p>	<p>CAM: As a segregated route, the preferred option for the C2C is aligned with the CAM project, at least on the section between West Cambridge and Bourn Airfield. CAM connections through/around Cambourne will depend on the EWR station location. Connections to rest of the CAM network will be via a tunnel through the City Centre.</p>	<p>C2C travel hubs at Scotland Farm P&R site and in Cambourne may require the CAM to follow a different alignment to the C2C busway in these sections in order to access these facilities depending on the vehicle technology chosen.</p>	<p><i>'C2C Outline Business Case, Strategic Case GCP January 2020.</i></p>
<p>Section 6.3</p>	<p>E.4</p>	<p>EWR: The C2C full business case will also need to include a sensitivity test to assess the impact of EWR Rail once there is clarity with regards to the proposals. It is unlikely that EWR will have an impact of the core business case for C2C given that it is unlikely that any EWR proposals will have achieved consent during the C2C assessment period.</p>	<p>EWR focuses substantially on longer term growth beyond the Local Plan period and not the immediate and worsening issues of congestion and lack of connectivity for expanding communities west of Cambridge. Once a preferred alignment has been agreed for EWR and confirmation of the location of a Cambourne station there will need to be a programme to ensure integration between EWR, C2C and the wider CAM network.</p>	<p><i>'C2C Outline Business Case, Strategic Case GCP January 2020.</i></p>

Table F: C2C Options Selection

i-Transport Report Ref		Assumptions	Constraints	Reference
		F. C2C Options Selection		
Section 4.6 & Section 5.1	F.1	Options Sifting: The scheme options were developed in two phases. In total 34 options were considered which were sifted through a multi-criteria assessment framework to derive 6 options (3 phase 1 & 3 phase 2) including the P&R site options. These were then combined into 5 options for both phases including a scheme comparator which was eventually selected as the preferred option. The optioneering process reviewed a wide range of options suggested by stakeholders and following consultation. The assessment criteria followed DfT appraisal guidelines and covered a broad range of issues from policy goodness-of-fit to local environmental impacts.	The MCAF criteria is a qualitative exercise that measures the performance of each option against a wide range of factors grouped into 6 themes. The option scoring is justified on the available evidence but by its nature is subjective. The results indicated that the best performing option was the segregated off-road option with Park & Ride at Scotland Farm but only by a small margin. The preferred option would create a new busway crossing designated green belt in West Fields, Coton Orchards and National Trust lands. Options following alignments for the CAM and EWR were not evaluated as these are not confirmed, nor are they committed schemes.	<i>C2C Outline Business Case, Options Appraisal Reports 1, 2 & 3, GCP January 2020.</i>
Section 4.6, Sections 5.1, 5.2, 5.3 & Section 6.3	F.2	Alternative alignments to avoid Coton and Hardwick were evaluated as part of the options development process. These were not found to be suitable and performed worse than the preferred option and no better than the other options assessed.	Alternative northern route options via Girton interchange are not deliverable within the time horizons for the project and not compatible with CAM route corridor options. Other northern route options to the north of the American Cemetery are constrained by environmentally sensitive areas and heritage assets. The Cambridge American Cemetery and the American Battle Monuments Commission is regarded as a unique national memorial which honours the American military personnel killed in the second world war. They would oppose any on-road or off-road scheme which impacted the setting of the cemetery including removing the verges along the A1303 and the uninterrupted views to the north.	<i>C2C Outline Business Case, Options Appraisal Reports 1, 2 & 3, GCP January 2020. Madingley Road 'Quick-Win' Options Outline. Technical Note. Mott Macdonald. May 2019.</i>

C2C Independent Audit

			On-road options for bus lanes/bus tidal flows are also constrained by impact on SSSI and American Cemetery along the A1303 as well as impacts on properties along the route.	
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Table G: Economic Case

i-Transport Report Ref		Assumptions	Constraints	Reference
		G. Economic Case		
Section 4.7	G.2	Segregated busway: Comparison of wider economic impact assessment of the off-road (preferred option) and the on-road option estimates that the on-road option has a slightly positive BCR when local WEI are included whereas the off-road option has a much higher BCR.	The traffic growth generated by the developments along the corridor would increase congestion and impact on the journey times and reliability of an on-road scheme along the A1303 even with bus priority measures such as bus lanes or a tidal bus way.	<i>C2C Outline Business Case, Economic Case GCP January 2020.</i> <i>'C2C Outline Business Case, Options Appraisal Reports 1, 2 & 3, GCP January 2020.</i>
Section 4.7	G.4	Sensitivity Tests: A series of sensitivity test were performed to assess the robustness of the scheme against varying levels of growth. This supports the economic case for the scheme in that where costs may increase the VfM of the scheme remain unchanged, and that if a greater level of growth does materialise then the VfM of the scheme will increase.	The scheme is judged to have medium VfM but is sensitive to changes in land value uplift and GVA generated by additional jobs. If these are less than expected, then the VfM would be poor.	<i>'C2C Outline Business Case, Economic Case GCP January 2020.</i>



Cambourne to Cambridge Better Public Transport Project:
Independent Audit

Cambridge Parish Council

Written representation on the Statement of Assumptions and Constraints:

Annex A:
CPC's first submission to the auditor made on 22 February
2021

Submission from Coton Parish Council to Independent Auditor for C2C Scheme

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1 Introduction

This document is a submission from Coton Parish Council (CPC) in response to the call for evidence that will determine the assumptions and constraints dealt with by the Independent Audit on the Cambourne to Cambridge (C2C) bus journeys scheme. Further detailed representations will be provided when the assumptions and constraints are determined.

2 Appraised scenarios

For the appraisal process to be robust the scenarios assessed need to represent a realistic picture of the scale, scope and type of planned activities as well as of the “without scheme” conditions.

The Department for Transport (DfT) Transport Appraisal Guidance (TAG)¹ recognises that in order “to undertake appraisal of an intervention it will be necessary for it to be sufficiently well defined and specified” since its level of detail “will have a direct impact on the scope and level of assessment and appraisal that is possible, and the degree of confidence that can be placed in the results of appraisal” (para 2.2.8). [emphasis added]

At Stage 1 the design should, amongst others, enable:

- “the key physical and operational aspects of an intervention to be understood;
- interfaces an intervention might have with its environs to be identified”.

At Stage 2 a greater level of design detail is expected to enable a more in depth appraisal to be undertaken commensurate with the decision being made (para 3.1.5).

TAG (paras 2.4.2 – 2.4.8) also specify that “analysts should identify a range of scenarios for the future against which options and subsequent further appraisal would be undertaken” and that the ‘without scheme’ case should involve both a core scenario and “several sensitivity tests and alternative scenarios” representing “Future Changes to the Transport System and Transport Demand”.

As outlined below there is evidence, previously submitted or presented to the GCP, to demonstrate that the scenarios assessed do not meet the above requirements, thus limiting the “degree of confidence” that can be placed in the outcomes.

2.1 Incomplete ‘last mile’ route definition

The Options Assessment Report (OAR3)² used to inform the Outline Business Case (OBC) indicates that different Cambourne to Cambridge (C2C) bus services for the selected options will run from Cambourne, or the proposed Scotland Farm Park and Ride (P&R), via Grange Road to three end-points: the city centre, Cambridge North and the Cambridge Biomedical Campus. However, as highlighted in various meetings and outlined in a letter from CPC’s legal advisor,³ neither the OAR3 nor the Summary of the OBC include a definition of the routes to and from Grange Road to the city centre, let alone their appraisal, and nor have such proposals been subject to consultation. The only indication of the

¹ [DfT 2018 Transport Analysis Guidance, The Transport Appraisal Process](#)

² [Mott MacDonald, 2019 Cambourne to Cambridge Better Public Transport Project Options Assessment Report Part 3: Outline Business Case Appendix 3](#)

³ Letter from Richard Buxton Environmental and Public Law to GCP, 19 September 2017 (Appendix 1)

nature of such a connection is a brief reference to Silver Street in a schematic in the OBC summary and that such routes “are proposed routes only and have not been agreed with the route operators”.⁴

From the limited information in the OBC and other communications, it is understood that the intention is for inward bus movements to be routed via Silver Street and Downing Street to Drummer Street and outbound movements routed via Fen Causeway. It is assumed therefore that the travel times in the OBC are based on such routes. It is not, however, clear how these travel times have been derived, in particular whether and how these have taken account of the significant congestion on these roads, which could substantially impact such times etc. and hence appraisal scores. Furthermore, at GCP workshops attended by CPC representatives, bus operators stated their reluctance to use such routes owing to the constraints and that in practice they would avoid them in favour of the current route used by buses via Northampton St, Chesterton Road, Victoria Avenue and Emmanuel Street. This would almost certainly add to the travel times assumed in the OBC.

Without clarity on such an important element of the project’s “key physical and operational aspects”, the implications (i.e., “interface with its environs”) of such proposals for travel beyond Grange Road for the OBC and overall scheme viability are also unclear. As these may be significant (e.g. lack of segregation and hence risk to reliable and unimpeded journeys and journey time, impacts on historic townscape, impacts on property owners along the route (e.g. University and Colleges amongst others), amenity for other road users etc. the CPC believes that their omission from the optioneering appraisal is a failure in the process that raises significant doubts regarding the “degree of confidence” that can be placed in elements of the OBC.

It is also not clear what level of appraisal – if any – was given to the proposals for bus routes between Grange Road and both the Biomedical Campus and Cambridge North.

2.2 Incomplete definition of operational parameters

In February 2018 the Cambridgeshire Autonomous Metro (CAM) proposals were accepted by, and formally adopted into the long term plans of the GCP so that the C2C busway would be capable of future conversion to accommodate CAM, which is accepted policy (including that of the GCP) to be a likely long term scenario for this link. The decision on which C2C alignment to take forward will thus also predetermine the alignment of the subsequent CAM. The post-February 2018 definition of “the key physical and operational aspects” of the project should therefore have identified such “aspects” associated with scheme use, both for a GCP C2C busway as well as for longer term CAM operations, so that these parameters could inform the subsequent appraisal of its “interfaces ... with its environs”. Indeed this may have contributed to the recent challenge of the C2C scheme made by CPCA on the basis that is non-CAM-compliant.

For example, the GCP C2C bus scheme anticipates 10 vehicle movements per hour (i.e. one every six minutes in each direction), while CAM could utilise smaller vehicles that are faster and more frequent “at least every 2-3 minutes” in a single direction at peak times.⁵ The details of the CAM scheme are still being considered, with options including autonomous or on-demand vehicles etc. Thus the C2C scheme’s operating parameters, and hence its benefits and impacts, have the potential to alter very

⁴ [GCP, December 2019 Cambourne to Cambridge Better Public Transport Project Non Technical Summary to the Outline Business Case. \(p58\)](#)

⁵ [Steer 2018. Mass Transit Options Appraisal. Report commissioned by the GCP and Combined Authority](#)

significantly after the first few years of its operation, when CAM is introduced. These altered core operating scenarios, and indeed any other changes that can reasonably be anticipated over the scheme lifetime, should therefore be reflected in the project development and appraisal process rather than limiting the scope of appraisal to its original, and perhaps short-term use, as a bus route. It is noted that the CPCA ambition is to deliver operational CAM lines from 2023-29⁶, i.e., around the same time at which the GCP anticipates the C2C scheme coming to fruition.

However, as outlined by CPC's legal advisor,⁷ despite the high score of the preferred option against the 'future proofing' criteria, the OBC provides no evidence of such a future scenario being assessed, and the reliability of the score allocation method must therefore be questioned.

CPC's understanding is rather that:

- Phase 1 OARs 2 and 3 were based on appraisals of the GCP C2C busway design and operations i.e. did not take account of any differences associated with CAM (e.g. increased number of movements or infrastructure requirements such as grade-separated crossings for example to accommodate the service frequency);
- as CAM compliance only became a condition of the scheme after the Stage1 strategic phase, subsequent appraisals (OAR1-3) were limited to the three shortlisted options remaining at that time (i.e. on-road tidal bus, on-road busway and southern off-road route). Long term use of the route for a CAM scheme was not considered during the original longlisting, shortlisting or optioneering exercises, nor was this revisited to determine if this may have altered their outcomes. It is therefore not known whether other options may perform better than the one proposed by GCP in delivering the desired project outcomes as currently defined;
- as public consultation for Phase 1 was undertaken in 2015 and late 2017 /early 2018 (i.e., before adoption of the principle of CAM compliance), there has been no opportunity for the public to comment on the location of a scheme that will run on a CAM operational scenario.

It is appreciated that conversion of C2C to CAM is likely to be subject to its own permitting process during which stakeholder input can be provided, but at that stage it seems likely (because substantial physical infrastructure will have already been built, and for economic reasons) there would be very limited scope for modifications to the C2C alignment. Given the lack of appraisal, there is significant risk that the southern off-road route could in future be deemed unsuitable for CAM operation, or require major modifications, with resultant major increase in costs and / or duplication of services and land take between Cambourne and Cambridge (i.e., associated with C2C, CAM and East-West Rail) should alternative alignments be pursued for CAM at that stage). CPC considers that this situation, should it emerge, would fail to meet sound sustainability criteria, and would be highly inefficient and an unjustified use of public funds.

For these reasons, CPC considers that the decision about the C2C alignment should have taken account of an operational scenario comprising a short term C2C / long term CAM scenario, which has yet to be properly determined, let alone assessed.

⁶ [Ely Standard: Concern for CAM Metro delivery timeline](#)

⁷ Letter from Richard Buxton Environmental and Public Law to GCP dated 19 September 2017 (Appendix 1)

2.3 Uncertain demand scenarios

It is understood that the scheme has been based on travel demand prediction for 2031 based on analysis carried out at the start of the project in 2015.

As raised at several GCP Executive Meetings⁸ and as recognised by the DfT,⁹ a unique set of “unexpected events have occurred that could have a significant impact on transport scheme appraisals. These include the COVID-19 pandemic, a revised fiscal and economic outlook, the Green Book review with its focus on levelling-up and the government’s commitment to net zero and the transport decarbonisation plan”. It also recognised that these bring “uncertainty around future travel behaviour” and “assessing which options provide the best return for the tax payer”.

Uncertainty regarding demand for C2C, and hence its business case, is also compounded by a lack of sensitivity analyses of the implications of EWR as part to the C2C development process. This need to address the implications of the EWR on the OBC has been raised by numerous stakeholders including the National Trust¹⁰, Local Liaison Forum, local MP Anthony Browne (now Chairman of the All Party Parliamentary Group on the Environment) and numerous County, District and City Councillors.¹¹

CPC is therefore of the view that the ‘without scheme’ scenario does not sufficiently consider a realistic situation, nor has it been informed by adequate scenario testing that takes account of current uncertainties in “Future Changes to the Transport System and Transport Demand”, as outlined in TAG para 2.4.8 (DfT, 2018).

CPC consider that the scenarios that have been used as the basis for C2C option development, subsequent appraisals and OBC production, including those presented at consultation, are not the ones that are most likely to occur. This arises from the observations that:

- No definition or appraisal has been undertaken of the routes (either in or out of the city) or operating scenarios (including travel time) between Grange Road and the city centre;
- The appraised operating scenario elsewhere on the route relates only to its short-term use by bus, but not its likely longer term use for the CAM metro, which has different operational parameters, notably frequency and speed of movements;
- The demand scenarios on which the scheme is based do not take account of current “uncertain times” as identified by DfT and how these should be reflected in the appraisal process (DfT, 2020), nor of the implications of other significant development in the area, notably EWR.
- Since the above are likely to be “material to the decision at hand” they may make the process applied to date, and its outcomes including the OBC, vulnerable to challenge. They thus meet the criteria for appraisal update in accordance with the recommendations of the DfT’s Proportionate Update Process (DfT 2014).

⁸ e.g., [Questions 1 and 6 at the GCP Executive Meeting of 10th December 2020](#)

⁹ [DfT July 2020. Appraisal and Modelling Strategy A route map for updating TAG during uncertain times](#)

¹⁰ National Trust, Letter from Paul Forecast to GCP, of 13 February 2020 (Appendix 6)

¹¹ Open Letter to GCP, 13 January 2020 (Appendix 10)

3 Consideration of alternatives

As the EIA requirements outlined in the Environmental Impact Assessment (“EIA”) Directive are likely to continue to apply post-Brexit to TWA Orders, the need to demonstrate consideration of “reasonable alternatives” will apply to the C2C Scheme. CPC are of the view that not all reasonable alternative alignments or phasings of the scheme elements have been adequately considered by GCP, and that there is a high probability that plausible alternatives would be raised by interested parties during the pre-application process.

In order to avoid potentially abortive work on the C2C design development and EIA of the currently preferred scheme, CPC are of the view that these alternatives should be adequately considered prior to progressing to the next steps, not least to enable GCP to demonstrate “the main reasons for [his] choice [of the preferred option], taking into account the environmental effects”.¹²

C2C wish to highlight several areas where concerns regarding the approaches to consideration of alternatives have previously been raised.

3.1 Alternative alignments

3.1.1 Northern off-road alignment

An off-road route running north of the A1303 and the American Cemetery was initially considered as part of SOBC development. Although it received fewer public objections than the southern off-road route (See Section 4.1 below), it was discounted at the end of the strategic phase due to increased cost, compared to the online route, and the congestion / inability to provide two-way bus priority on Madingley Road (which it would have joined west of the M11).

This northern route was rejected prior to adequate analysis, so it is not clear whether constraints might have been satisfactorily addressed. In particular, a route further north, close to the Girton Interchange was not explored and remains of interest to multiple stakeholders, including CPC. It is understood that the Cambridgeshire & Peterborough Combined Authority (CPCA) are currently exploring options for optimisation of a northern route (Jacobs, 2020).¹³

It is also noted that subsequent comparison of the CAM compliance of the off-road northern, off-road southern and the on-road A1303 routes^{14,15} considered the optimised southern and on-road routes against the “principle of an off road northern alignment” (para 4.5 of Arup 2018b) – i.e., a non-optimised northern route. Questions have previously been raised by the LLF regarding the validity of a comparison of alternatives that had not been subject to an equal degree of optimisation process. CPC therefore questions the reliability of subsequent use of such an analysis to support the choice of the southern off-road option as the “optimal solution” for the corridor, and its CAM compliance notably reference to it in briefings to the GCP Executive¹⁶ including those taking place¹⁷ after it had

¹² EIA Directive Article 5

¹³ [Jacobs 2020b, Review of C2C alternative northern alignments](#)

¹⁴ [Arup, 2018a CPCA CAM Expert Advice A428 Report](#)

¹⁵ [Arup, 2018b Position paper on CAM and A428 prepared or the GCP on behalf of the CPCA](#)

¹⁶ [Report to GCP Executive Board dated 6 December 2018, submitted by Peter Blake](#)

¹⁷ Section 6.2, of the Executive Board Papers of 10 December 2020 relating to the C2C Scheme

been superseded by a Jacobs¹⁸ report that showed that the preferred C2C route and CAM were non-compliant.

3.1.2 On-road A1303 alignment

While two on-road A1303 options were put out to consultation in late 2017, ahead of this CPC alerted the GCP to the fact that only one (the GCP's proposal for an in-bound busway) had been put through the SOBC refinement process while the LLF's proposal (for a two-way tidal busway) had not, despite undertakings by the GCP to do so. Hence CPC consider the comparison of options undertaken ahead of, and presented at, consultation in 2017/18 to be biased, since it compared a non-optimised tidal busway option against two other options, which had undergone additional (though still inadequate) assessment work.¹⁹

Although some improvement of both the (in-bound and tidal) busway on-road options was undertaken post-consultation to address congestion on Madingley Road, the amount of attention given to improving their performance was considerably less than that given to the southern off-road option. Notably, no effort appears to have been given to avoiding or reducing the land take or visual intrusion at the American Cemetery and Madingley Wood SSSI, which were identified as key reasons for rejection of this route. This is despite the statement by Historic England²⁰ that "mitigation measures should be further considered" and by Natural England that further levels of detail were required in order to make judgement regarding impacts of any of the three proposed options.²¹

Similarly, the option to reduce land-take on Madingley Road (and hence from the American Cemetery and SSSI) through use of the Greenway cycle route already proposed between Comberton and the West Campus as proposed by Cambridge Past, Present & Future was not considered.

CPC also understands that measures for managing congestion through traffic controls using a combination of signals and bus lanes has also been proposed with supporting evidence of performance against C2C criteria but has not been considered to date by the GCP.

CPC consider that such further optimisation of the on-road options, including do minimum scenarios, should have been undertaken as part of the development and appraisal process to inform selection of the best performing alternative. This has become even more relevant in the context of likely changes in demand (Section 2.3) which may have altered the OBC and the ability of an on-road option to meet such demand at least in the short / medium term.

3.1.3 "Girton Interchange" option (route along A428/M11 with optional integration)

Although the A428 between Madingley Mulch Roundabout (MMR) and the Girton Interchange (GI) and the M11 between the GI and High Cross lies within the "corridor of interest" (as shown in Figure 3-1 of Mott MacDonald 2014²²) they were not included in any of the 21 long-listed elements considered for inclusion in the C2C scheme. An option which runs adjacent to such existing highway

¹⁸ [Jacobs 2020a, Review of C2C against CAM Objectives](#)

¹⁹ Letter from Richard Buxton Environmental and Public Law to GCP dated 26 October 2017 (Appendix 9)

²⁰ Stakeholder response of 28 February 2018 from Historic England to GCP (Appendix 4)

²¹ Post consultation response from Natural England dated 21 January 2018 (Appendix 8)

²² [Mott MacDonald, 2014 Madingley Road/A428 Corridor Study Options Appraisal Report Produced for Cambridge County Council](#)

infrastructure was therefore not subject to detailed consideration in the C2C scheme development and appraisal process.

The A428 / M11 route, however, is free of many of the constraints subsequently identified to be associated with the options that were shortlisted. Its adoption may therefore potentially unlock an opportunity for the GCP and CPCA to deliver a scheme that meets the needs of longer term growth since it:

- can be fully segregated and avoid the congestion issues on Madingley Road;
- avoids impacts on the Madingley Wood SSSI and the American Cemetery;
- follows existing transport corridors and thus avoids fragmentation of the Green Belt, landscapes etc and is unlikely to add significantly to existing noise levels (since it would closely follow existing major highways).

The use of the GI has also for some time had wide support amongst local communities, who have frequently expressed the view that it warrants further consideration, as has the LLF. This is demonstrated by a clear statement of community support for its use made in the 'Letter of Community Consensus' sent by the Coalition of Parish Councils (and signed by eight South Cambridgeshire District Councillors) to the Secretary of State for Transport and Highways England (copied to GCP, CPCA, local MPs and Council leaders).²³ The letter was endorsed by Parish Councils and District Councillors representing over 30,000 residents living in communities to the west of Cambridge. This letter also had support from a wide range of community groups (e.g., Cambridge Ahead, Cambridge Connect, Cambridge Past, Present & Future, the Federation of Cambridge Residents Associations and Smarter Cambridge Transport). This issue has also been raised on multiple occasions through questions to the GCP Executive²⁴ as well as through submissions made by Smarter Cambridge Transport, Cambridge Connect, CambridgePPF, the LLF and many others.²⁵

Following a request from the C2C LLF to the GCP to consider such a northern option, the response²⁶ was that this had not been looked at during optioneering, and reaffirmed their previous view that it did not qualify for consideration due to:

- additional journey length (2.2km);
- lack of relief provided on radial routes due to P&R being closer to the city;
- dependence on Highways England;
- the length of time required for its implementation and such a proposal being at odds with the Cambridge & Peterborough Independent Economic Review which stresses the need for immediate investment in infrastructure;
- not providing a stop at West Cambridge;
- non-compliance with CAM;

²³ Letter to Secretary of State for Transport and Highways, dated 1 May 2019 (Appendix 5)

²⁴ E.g., [Public Questions to GCP of 10 December, 2020 Question 5](#)

²⁵ [Smarter Cambridge Transport A14 Girton Interchange – a critical link](#) and [Cambridge Past, Present and Future](#)

²⁶ [Mott MacDonald, Technical Memo dated 4 May 2018, subject: the Northern Route](#)

- unachievable within the required timelines and high cost due to scale of work required to the GI.

Most of these assumptions are not sound and the rationale for rejecting the route is flawed, as CPC understands that they could readily be overcome through some optimisation of design and phasing. It is unclear why, given the high level of support for such an alignment, such basic principles were not at least explored by GCP in more detail before discarding this option.

For example, CPC are aware of potential for a route co-aligned immediately adjacent to the A428 from MMR to the GI, from where it could proceed under the M11 (where the highway is elevated and underpasses already exist) and then follow the general alignment of the M11 on its eastern side to Eddington and High Cross. It is reasonable to propose that a base option need not involve a link integrating into the GI itself, thus avoiding the need for more complex and costly designs with full integration with the GI. The base scenario (without any alteration of the GI) would ensure that the selected route is placed at the GI for potential connection in the future, an objective that has plausible economic and social benefits given the GI is of high strategic importance on the regional road network, connecting as it does the major highways of the M11, A14 and A428. This approach would allow future connections either as part of CAM or later (as CAM is not contingent on this). Clear advantages of such an option would be:

- Avoidance of fragmentation of Green Belt;
- Provision for full segregation along the length of the alternative route;
- Avoidance of impact on the SSSI and American Cemetery;
- Avoidance of costly mitigation contemplated for other options;
- Avoidance of high cost of bridge over the M11 by routing under the highway, potentially utilising / modifying an existing underpass.
- Fully CAM compliant;
- Provision of direct access to the new town of Eddington and to the West Campus;
- The base scenario could be implemented immediately as this would not be dependent on Highways England input or any alterations to the Girton Interchange;
- Delayed expenditure on GI modification (i.e. enabling all-ways interchange) until a future date, but can still operate as Busway or CAM without these modifications while still leaving this open for the future;
- Likely to perform well both for a short / long term C2C busway and for CAM;
- Potential for a future link and coach park at the GI;
- Potential for significant wider economic benefits (WEB) due to better connectivity.

CPC has calculated that such a route would add approximately 1.5–2 minutes of journey time between Cambourne and the West Campus and City. This possible disbenefit would, however, likely be outweighed by the better environmental performance and travel comfort (increasingly recognised by DfT as a consideration that needs to be balanced against travel time) and potential to link into the Girton Interchange thus opening up options for access to / from Bar Hill, Dry Drayton and Northstowe. This latter option could provide a direct route from these communities into the West Campus / City by high quality public transport and increase its BCR. Furthermore, the case for such an option may have increased since the 2018 review, following the requirement of the C2C to accommodate a future CAM, and the non-compliance of the preferred option with such a requirement (Jacobs, 2020).

The CPC therefore request that GCP consider and optimise a route adjacent to and co-aligned with the existing A428 and M11 as described above to a level of detail comparable to the southern off-road alignment to date, which could for example be undertaken as part of the CPCA ongoing review of northern alignments. CPC would be pleased to participate in such an exercise.

3.2 Alternative phasing

The selection and appraisal of options has been influenced by the ability to deliver them by certain dates (e.g. the original City Deal had in-built time constraints that affected release of funds). The latest in a series of deadlines is 2025. The early imposition of unrealistic time-frames for C2C scheme delivery, which the CPC considers to be a misguided strategy, has resulted in important strategically advantageous options being excluded from consideration, and the most expensive, and most opposed, of the three shortlisted options being taken forward by the GCP.

Several members of the GCP Joint Assembly²⁷ have expressed concern about “the choreography, process and timeframe for taking forward the proposals and it was suggested that an interim solution should be developed, leading to long term optimal alignment. This could cost significantly less and would allow more time for a longer term CAM system to be developed. If an interim solution looked attractive it should be pursued, even if it caused delay. Dealing with the urgent problem would buy time and that would be the best way to future proof any decision taken.”

A similar view to pause the scheme to allow consideration of the EWR has been expressed by the National Trust.²⁸ CPC also understands there remain uncertainties about where in Cambourne the station for EWR will be located.

CPC and many other stakeholders advocate implementation of a lower-cost, interim solution that can deliver substantial, high-quality travel benefits, while longer-term interventions, better coordinated with EWR and/or CAM, can be developed. Such a case for a phased approach has been strengthened by:

- The recent questions raised about the compatibility of the preferred alignment with CAM objectives;²⁹
- the risks relating the robustness of the scenarios assessed (Section 2 above) including prediction of demand;
- concerns regarding lack of optimisation of alternatives to the southern off-road route prior to their rejection resulting in a potentially biased appraisal;
- The opportunities associated with a route via the GI, which may take longer to implement than the currently preferred option, but also could deliver superior long-term benefits (Section 3.1.3);
- The continued opposition to a southern off-road route, and support for those that follow where practicable existing road alignments, notably those that have future potential to link into the Girton Interchange.

²⁷ [Report to GCP Executive Board dated 6 December 2018, submitted by Peter Blake](#)

²⁸ National Trust, Letter from Paul Forecast to GCP, of 13 February 2020 (Appendix 6)

²⁹ [Jacobs 2020a, Review of C2C against CAM Objectives](#)

CPC consider that a scenario should be developed that comprises a short term optimised on-road busway along the short section of the A1303 between MMR and High Cross, followed in the medium term by the route with potential to run close to, or link into, the GI as described above (Section 3.1.3). This should be undertaken in association with planning for CAM, although CPC do not consider the scenario as necessarily dependent on CAM. That is, it is plausible that such an option would stand on its own merits, whether or not CAM is taken forward in the ways envisaged. Such a phased scenario should be developed and subject to detailed appraisal to enable a proper comparison against the currently shortlisted options.

The CPC consider that, given the complexity of the impacts and benefits associated with each of the shortlisted options, and changes in the operational scenario since the shortlist was developed, insufficient attention has been given to optimisation of alternatives that may deliver superior long-term solutions. CPC therefore requests that these options are revisited, including:

- Optimisation of interim on-road option;
- Optimisation of northern off-road option, following existing transport corridors where possible;
- Optimisation of routes that follow existing road alignments between MMR and High Cross, both along the A1303 and adjacent to the A428 east of MMR and M11 from GI to High Cross;
- Adoption of a phased delivery comprising an interim low-cost solution meeting short term needs whilst a longer term one is fully developed;
- An appraisal of a specific scenario wherein the interim solution followed by the long term one is undertaken to enable a complete and transparent comparison against the other existing shortlisted options.

4 Stakeholder views

The scheme has attracted considerable attention and comment from local communities and their representatives as well as from charities and land owners. It is therefore important that their views are appropriately taken into account in decision making.

4.1 The public

Consultation on the Phase 1 proposal³⁰ in 2017 identified that:

- 58% supported an on-road bus lane (40% tidal lane, 18% inbound flow); and
- 33% supported a southern off-road option (a northern off-road option via the A428 alignment was not presented for consideration).

CPC note that:

- The summary of this Phase 1 consultation (documented in the OAR2 Executive Summary,³¹ para 3.2.2) cites Option B “on-road” as being preferred by 40% of respondents but omits to report that there was a second on-road option preferred by 18% of respondents and neglected to point out

³⁰ [CRG, Summary Report of Consultation Findings](#)

³¹ [Mott MacDonald, 2018 Cambourne to Cambridge Better Public Transport, Options Appraisal Report Part 2 \(OAR2\)](#)

that the off-road option was preferred by only 33%. The GCP summary thus fails to convey the level of support for on-road vs off-road;

- the already significant preference for the Phase 1 on-road options may well have increased had equal effort been given to their optimisation, as was given to that of the southern off-road options (see Section 3.1.2 for further details);
- The summary of the status of C2C on the GCP website³² only cites the consultee preferences for Phase 2 i.e. 48% preferring the “off road”. While this summary lists the Phase 1 options consulted upon, it fails to provide a similar clear summary of consultee preference for each. Most readers, including potentially the GCP Executive, may therefore interpret the Phase 2 results as being the latest preference for the entire C2C scheme. The information presented has therefore been misleading with respect to the actual levels of support for the scheme.
- CPC highlighted to the GCP their concerns that CPC responses were not included in the initial consultation report;³³
- the documentation of consultee preferences for Phase 1 in key GCP communications have also misrepresented the strong preference for following an existing road alignment between MMR and High Cross;
- The earlier Phase 1 consultation in 2015 also confirmed the majority (67%) supported the on-road route with strong opposition to the southern off-road route (65.5% against) and high, if slightly less, opposition to the northern off-road route (57%)³⁴ (Note that the northern off road option included in this consultation did not proceed via the GI, but rather followed a route across landscape adjacent to the American Cemetery, and the level of opposition is not indicative of that for the option suggested in Section 3.1.3 above); and
- In view of the support for a route via or close to the Girton Interchange (Section 3.1.3), it is likely that preference for all the other options would have been lower had such an option been included in those that were put out to consultation.

CPC therefore question the decision, despite such strong opposition, in support of the southern off-road alignment and for this to have been taken forward as the preferred option.

4.2 Statutory consultees

Historic England³⁵ considered that all three Phase 1 options that were subject to consultation in late 2017 “are likely to cause harm to heritage significance, either to the American Cemetery or to the significance of the village of Coton”. It therefore strongly recommended that “detailed heritage assessments” should be undertaken to meet the requirements of the National Planning Policy Frameworks paragraphs 128 and 129, which specify, amongst others, that “Applicants should work

³² [GCP Cambourne to Cambridge Update](#)

³³ Letter from Mark Abbott Chair of CPC to GCP date 5 April 2018 (Appendix 2)

³⁴ Cambridgeshire County Council 2016 [Cambourne To Cambridge: Better Bus Journeys Consultation Report](#)

³⁵ Post consultation response from Historic England dated 28 February 2018 (Appendix 4)

closely with those affected by their proposals to evolve designs that take account of the views of the community”.

Natural England³⁶ noted that based on the level of detail available they were “unable to make any judgement regarding likely impact of [any of the three] proposed options”.

Subsequent materials published by GCP misrepresented these consultation responses as being favourable to a southern off-road route. A Freedom of Information request uncovered evidence that some transport officers had expressed significant concerns about the way these important responses had been selectively presented by GCP (further information on this point can be provided on request).

While the CPC understand that some further ecological studies were undertaken in 2018 they are not aware of further heritage assessments having been undertaken as recommended by Historic England, and note that consultations with the community on heritage aspects as recommended have not been carried out to date. Nor does CPC know whether English Heritage and Natural England have confirmed that such concerns and their recommendations have been addressed and hence provided a sufficient evidence base for informing the subsequent Stage 2 appraisal.

4.3 Charities and Landowners

Ahead of the August 2017 consultation, the National Trust³⁷ expressed concerns that the proposed southern off-road route crossed land with National Trust covenants. The National Trust requested assurances that prior to publishing the proposal for public consultation, all alternatives that avoided such land be fully explored and that reasoned justification for the preferred option, taking account of such issues, is given. As by this time it had been established that both on-road alignments would be constrained through lack of full segregation on Madingley Road, it is not clear why exploration of other fully segregated routes that did not cross covenanted land was not undertaken ahead of consultation as requested.

These concerns were reiterated in a later submission to GCP by the National Trust,³⁸ as was their previous unease regarding the appraisal process. Furthermore, in view of the announcements regarding EWR the Trust requested a pause in advancing the project to reevaluate its potential to deliver value for money, and supported reconsideration of an in-bound busway along Madingley Road together with a new cycleway. Inexplicably, this correspondence, dated 13 February 2020, was not circulated to the GCP Joint Assembly or Executive Board prior to their June 2020 meetings at which decisions were taken on the route options.

The Campaign for the Protection of Rural England (CPRE)³⁹ most strongly objected to the southern off-road alignment due to its extensive location within areas of Green Belt closest to the historic centre of Cambridge and the impact on the tranquillity and setting of Coton. CPRE considered there to be insufficient transport advantages compared to a fully optimised on-road option.

³⁶ Post consultation response from Natural England dated 21 January 2018 (Appendix 8)

³⁷ National Trust Letter from Paul Forecast of 1 August 2017 (Appendix 7)

³⁸ National Trust, Letter from Paul Forecast to GCP, of 13 February 2020 (Appendix 6)

³⁹ Email from CPRE to GCP (Appendix 3)

4.4 Timing/validity of consultation

CPC notes that Phase 1 consultation was undertaken in late 2015 and late 2017 /early 2018 i.e. before adoptions of CAM by the GCP and CPCA. CPC therefore questions the validity of an assessment process that determines major public expenditure informed by stakeholder views on a scenario (i.e. busway operation) which does not represent a realistic future situation (i.e. CAM operation). CPC note that the CPCA has stated that CAM delivery will take place in the window of 2023 – 2029, the first part of which directly overlaps with the delivery timetable for C2C. It is therefore reasonable to expect that C2C should be planned and delivered in a fully integrated way with CAM. Indeed, considering the delivery timetables, it could be legitimately argued that there is only weak justification for why these two schemes should be separated in their planning, design and delivery.

The CPC wishes to draw to the Auditor’s attention the fact that:

- Despite the southern offline route consistently being strongly opposed by a substantial majority of stakeholders (residents, their representatives, environmental organisations and others), GCP have persisted in promoting it;
- The responses of the statutory consultees, Natural England and Historic England, were misrepresented in GCP consultation literature to give the misleading impression of supporting a southern off-road route, even though they were clear that the level of detail provided at consultation was too low to enable judgement of whether such a route would be acceptable to them, or whether other routes might be preferable;
- Relevant communications from key stakeholders have not been circulated by GCP administrators to decision-makers on the Joint Assembly and Executive Board;
- There is a preference, subject to avoidance of land-take from Madingley Wood SSSI and the American Cemetery, for the principle of a bus route running on or adjacent to existing transport routes, rather than creating new routes across open countryside;
- A route along the A1303 is not the only such option within the defined corridor. Consideration should be given to use of routes adjacent to A428 between the MMR and the GI, and the M11 from the GI to High Cross;
- In view of the commitments made by both the GCP and CPCA to delivery of CAM, consultation on, and hence stakeholder input to, the project has been based on a project scenario that is not the most likely one to occur, even by the GCP’s own documentation of strategy.

5 Robustness of Appraisal Method and its application

Concerns regarding the appraisal methodologies and criteria selected, as well as over the transparency and robustness in their application have been raised on various occasions, including in the letters from the CPC legal advisor⁴⁰ and from the National Trust⁴¹ to the GCP. These have both identified specific examples of inconsistent and biased approaches, and highlighted that many more exist. The CPC

⁴⁰ Letter from Richard Buxton Environmental and Public Law to GCP dated 19 September 2017 (Appendix 1)

⁴¹ National Trust, Letter from Paul Forecast to GCP, of 13 February 2020 (Appendix 6)

concur with their legal advisor's view that the GCPs assessment method has utilised specific criteria that "ensure that Option 3a [i.e. the southern off-road alignment] emerges as the strongest candidate".

CPC understand that it will have an opportunity to further elaborate on questions regarding the assessment methodology in the later submission to the Auditor. They do, however, wish at this stage to highlight a specific concern over the strong reliance on the 'Wider Economic Benefits' in developing the OBC and question the level of confidence that can be placed in the process adopted. It is understood, for example, that the OBC assumes that the project brings about a 100% uplift on the land value at Bourn Airfield and Cambourne expansion, yet it takes no account of the fact that a significant proportion of this of that uplift has already been unlocked through securing planning consents, and because a large number of those dwellings have already been built (hence the uplift has already occurred in the absence of the scheme), and that other projects (e.g. A428 to Caxton Gibbet) also claim to deliver an element of the uplift. These practices appear to fall short of what might be expected in a robust economic appraisal.

CPC wishes to draw the Auditor's attention to previous communications with the GCP expressing concern over the robustness of the options assessment process including the multicriteria assessment and comparisons of BCR and WEBs applied during States 2 and 3 of development of options and the OBC for the preferred scheme.

It is understood that the CPC will have an opportunity to provide further details of such concerns in their second submission to the Auditor in March 2021.

Coton Parish Council First Submission to Auditor

List of Appendices

- 1. Letter from Richard Buxton Environmental and Public Law to GCP dated 19 September 2017**
- 2. CPC letter to Rachel Stopard dated 5 April 2018**
- 3. Email from CPRE to GCP**
- 4. Post consultation response from Natural England dated 21 January 2018**
- 5. Letter Secretary of State for Transport and Highways, dated 1 May 2019**
- 6. National Trust, Letter from Paul Forecast to GCP dated 13 February 2020**
- 7. National Trust Letter from Paul Forecast of 1 August 2017**
- 8. Post consultation response from Natural England dated 21 January 2018**
- 9. Letter from Richard Buxton Environmental and Public Law to GCP dated 26 October 2017**
- 10. Open Letter to GCP Executive Board dated 13 January 2020**

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Cllr Lewis Herbert, Vice Chair
Cllr Ian Bates

Our ref: COT1-001/AC
Email: acopithorne@richardbuxton.co.uk

19 September 2017

Dear Sirs

Cambourne to Cambridge Better Bus Journeys Scheme

We are instructed to write to you by Coton Parish Council regarding the proposed bus route scheme between Cambourne and Cambridge. Our client's interest in this matter will be evident from the parish's location adjacent to one of the proposed routes. In addition, they have been an active member of the Local Liaison Forum ("LLF"), which is supported by the Greater Cambridge Partnership ("GCP"). However, the views expressed in this letter are those of the Parish Council alone.

We are writing now in advance of the meeting of the GCP Executive Board on Wednesday, 20 September 2017. We have considered the documents to date in relation to the proposal and in particular the reports to the Executive Board submitted prior to its last meeting on 26 July 2017 and the report recently produced by officers in relation to the meeting on 20 September.

Our clients have been active participants in the consultations and discussions to date regarding the Cambourne to Cambridge bus journey proposals. Having been dismayed by the (in their view premature and illogical) selection by the GCP of Option 3/3A as the preferred route option last autumn, they were cautiously pleased when the GCP agreed (confirmed in a letter dated 27 April 2017) to assess Option 6, the LLF's alternative proposal, on the same basis as Options 1 and 3A.

However, our client is becoming increasingly concerned that the GCP is merely paying lip service to its assessment of Option 6. For reasons which shall be set out in this letter, there is a real danger of unfairness resulting from the GCP's approach. In the documents produced by the GCP's consultants and officers, analysis is slanted in order to present Option 3A in a favourable light, whilst Options 1 and 6 are treated unfavourably.

Many of these issues have already been ventilated by the LLF to the GCP, although no effort has been taken by the GCP or its consultants to answer them properly. In

particular, our clients wish to draw attention to the following points as an illustration of their overarching concerns regarding the progress of the proposal.

“Future proofing”: the MCAF gives full marks to Option 3A for ‘future proofing’, which is taken to mean its potential to be upgraded to ‘bullet buses’ running over 100 mph, increased frequency of buses or a light rail system. Yet nowhere is there any evidence or analysis to support this contention. If a ‘bullet bus’ solution is introduced, will Coton have buses running faster than cars on a motorway within metres of its primary school? What would be the safety, noise or air pollution impact of that? If a light rail system is introduced, what evidence is there that the Option 3A route would be optimal for that mode of transport? What consideration has been given to other future possibilities, such as autonomous, on-demand vehicles using the standard road network? It is hard to understand how the potential for future proofing can be assessed without having answers to these very basic questions.

“Last mile”: neither the MCAF nor the officer’s reports deal with the question as to where buses in Option 3A go after Grange Road. The September officer’s report states categorically at para 59 that “it is not intended to consult at this stage on specific measures beyond Grange Road given the contingency with the emerging City Access Study and that such measures would in any case fall outside the FOBC.” As the GCP will be well aware, this is an issue which has drawn a substantial degree of public interest and concern. It is highly artificial to propose a scheme whereby the ‘end point’ is nowhere that will actually deliver any benefits for users. The clear implication is that the GCP is unwilling to specify that the buses will then move back to Madingley Road (as has been proposed by the bus operator) or go down to the city centre via Silver Street because both options are likely to be met with opposition. It is also difficult to see how the options can be fairly compared if there is no clear indication of where they will end up.

“Connectivity”: this point is linked to a degree with the “last mile” question. Why are buses being brought into the city centre, while the employment growth areas are elsewhere? This is a question which has plagued this proposal ever since it was first put forward to the public in 2015, but with no clear answer from the GCP. It does not seem to us that this issue has been dealt with in the MCAF, despite obvious differences between the routes in terms of their potential for connectivity.

“Journey times”: the officers’ report calculates, using assumed bus speeds, an interpeak journey time between Cambourne and Grange Road for Option 6 of 27 minutes, considerably longer than the estimate for Option 3A. However, the existing Citi 4 service currently does that journey very reliably in just 18 minutes. How can it be that an optimised route running half on an uncongested dual carriageway and most of the remainder on a dedicated bus lane can be 50% slower than the existing service which has virtually no bus priority? This suggests that the assumed bus speeds for Option 6 are grossly inaccurate and calls into question all the journey time estimates for the on-road schemes.

Although we do not propose to go into the MCAF in detail at this stage, there are a many points which strike us as inconsistent and indicative of a biased approach. For brevity’s sake we refer to one example. At 2.1.20, there is reference to a reduction in CO2 emissions arising from all routes due to the modal shift taking cars off the road. However, at 2.1.9, “Volume Capacity”, it is stated that the model relied upon there assumes that any spare capacity produced by buses going ‘off road’ for option 3A would be filled with car users. At 2.1.20 it is proposed that each option has the same score in terms of impact on air quality because the same number of buses runs on each route. This fails to appreciate however that the on road routes already

experience a certain level of air pollution due to existing traffic, whereas option 3A would be introducing air pollution into a previously pristine environment.

The impression given is that the assessment strains to design the criteria in order to ensure that option 3A emerges as the strongest candidate.

The SOBC for Option 6

Our client also has concerns as to the process by which the options are to be assessed. In keeping with the promises made in the letter from the GCP dated 27 April 2017, the July report by the officer to the GCP Executive Board states at para 11 that further work on Option 6 will be required in order for Option 6 to be presented "on a consistent basis" with Options 1 and 3A for consultation in November 2017. Options 1 and 3 were analysed as part of a Strategic Outline Business Case presented to the GCP EB last October. Option 6 was not included as it was proposed by the LLF in February 2017. The report goes on to state at paragraph 27 that an SOBC has not been undertaken for Option 6, "due to competing calls on the Cambridge Strategic Regional Model (CSRM) and the need to undertake further environmental assessment." The report comments at paras 29 and 30 that an environmental/property assessment and a Benefit Cost Ratio need to be prepared as part of the SOBC for Option 6.

However, the report states (although a word appears to be missing) at para 48 that an SOBC for Option 6 will be completed for the EB's September meeting and states at para 50 that the EB was committed to assess fully Option 6 to the same level as Option 1 and 3/3A "to the level of SOBC".

The minute of the EB's decision on 26 July only records, "that further work be undertaken in respect of an Option 6 alignment". It does not specify that the further work comprise a SOBC for Option 6.

The End of Stage report prepared for the 20 September EB meeting says in relation to Option 6:

- Transport, environmental and MCAF analysis has shown that Option 1 and Option 6 are comparable and therefore both will be taken forward to public consultation as on-road alternatives to Option 3a. It is considered that Option 6 provides a feasible alternative to Option 1 in that it:
- Allows for two-way bus priority along Madingley Road (AM inbound and PM outbound);
 - Potentially has a reduced impact on residents of Madingley Road (east of the M11); and
 - Allows for bus priority across the M11 to JJ Thomson Avenue.

The officer's report for the 20 September 2017 meeting confirms at para 22 that Option 6 (and Option 1) should be taken forward for further public consultation along with the Specific Route Alignments ("SRAs") proposed for Option 3A.

However, it is nowhere clearly stated in the officer's report that Option 6 will be worked up to a level of an SOBC, as previously committed to by the EB. The officer's report recommends consulting on Options 1, 3A and 6 as part of the Full Outline Business Case only. Please could the GCP explain this change in approach?

It is notable that consultants employed by the GCP continue to produce highly detailed and technical reports in relation to Option 3A (such as the Atkins Bus

Options report, the LDA Design report on Green Belt impact and the protected species and habitats report by Cambridge Ecology).

It appears to us that there is potential for unfairness to result if Options 1 and 6 continue to be evaluated against Option 3A, but only the latter has the benefit of a robust information base and thorough assessment. Our client's expectation was, as promised by the GCP, that Option 6 would be treated in a consistent way with Option 3A in order that all options would be considered in a fair and transparent manner.

Proposal for next steps

Our client suggests that the GCP should postpone the consultation planned for November 2017 until early in the new year, following publication of the Inspector's report on the Local Plan and the Mayor's report on light rapid transit. This will also allow the GCP, their officers and consultants, with the involvement of the LLF, to develop the SOBC for Option 6 so as to put it on an even footing with Option 3A.

Our client also urges the GCP to review the substantive criticisms made in this letter and in the submissions made by them and the LLF on the MCAF and other reports before proceeding further.

Our client believes strongly that this is the only way that the consultation on Options 1, 3A and 6 can take place in a context that is fair and fully informed.

There is a consistent dissatisfaction among local residents, including our client's electors, regarding how the GCP has considered the C2C Bus Journey proposal to date. This is wholly avoidable given that the residents who have been involved have a strong desire to see a reliable and robust public transport system put in place between Cambourne and Cambridge. We fail to see how the GCP will succeed in its aim without strong local support for the option that is chosen.

For the avoidance of doubt, this letter is not intended as a pre-action protocol letter in judicial review. Should our clients decide to take a claim in judicial review in future, a full pre-action letter will of course be sent.

Yours faithfully



Richard Buxton Environmental & Public Law

cc. Mark Reeve (Greater Cambridge Greater Peterborough LEP)
Professor Phillip Allmendinger (University of Cambridge)
James Palmer (Mayor)
Rachel Stopard (Interim Chief Executive GCP)
Heidi Allen (Member of Parliament, South Cambridgeshire)
Chris Tunstall, Interim Transport Director

Appendix 2

Mark Abbott
The Old Rectory
73 High Street
Coton
Cambridge
CB23 7PL

Ms Rachel Stopard
Interim CEO
Greater Cambridge Partnership
SH1311
Shire Hall
Cambridge
CB3 0AP

5th April 2018

Dear Ms Stopard

I am writing on behalf of Coton Parish Council to complain in the strongest possible terms about the exclusion of the Council's formal response from the recently published "Cambourne to Cambridge Better Bus Journeys" Phase One Consultation Report.

The list of stakeholder responses considered (see page 101 of the report) includes five named Parish Councils but not Coton. Our response was submitted on 24 January 2018 and acknowledged by Katy Rogerson by e-mail at 17.06 the same day. As arguably the most significantly affected of all stakeholders by the GCP proposals, it is completely unacceptable that our response should have been completely disregarded and demonstrates an extremely disappointing lack of respect on the part of the GCP for the residents of Coton.

This is not the first time that Coton Parish Council's written submissions have been ignored or written out of reports by the GCP (or its predecessor the City Deal). This latest omission must be righted and accordingly we formally request that the report be re-published immediately with our response clearly acknowledged and our comments fairly represented in the discussion section. This should be accompanied by an appropriate media release to ensure that the public is made aware to the greatest extent possible of the corrected consultation report.

Yours sincerely



Mark Abbott
Chair
Coton Parish Council

Appendix 3

Dear Sir

Cambourne to Cambridge Better Bus Journeys Consultation

CPRE (Campaign to Protect Rural England) Cambridgeshire & Peterborough Branch submits the following comments.

Park & Ride

Scotland Farm site. CPRE strongly PREFERS this site. It is less visually prominent in the landscape than the Waterworks site and has good connections to the surrounding road network. Whilst the site is in the Green Belt, it is on the absolute periphery and thus we do not object to it as we do for land nearer to the City (see further information below). The fact that it is 1.7 miles farther from the City is not a significant disadvantage for cyclists, and arguably is actually advantageous. If travellers into Cambridge do park at Scotland Farm and wish to continue their journey by cycle, they can do so. Other cyclists have the option of getting the bus into the City and then using a folding bike. We see an advantage in the Park & Ride site being farther from the City because more time and mileage will be on a bus and less in a car, with consequent reduction of vehicles on the A1303 road into the City.

Waterworks site. CPRE OBJECTS to the Waterworks site because of the lighting and buildings, which would have an adverse impact on the setting of Coton and Madingley. Given the availability and advantages of an alternative site (Scotland Farm), we see no special circumstances justifying such a location squarely within the Green Belt and it would therefore constitute inappropriate development.

Route

Route B. CPRE strongly PREFERS Route B. It essentially limits the use of Green Belt land to any unavoidable widening of the existing route of Madingley Road. The tidal busway flow will enable faster journeys on services into and out Cambridge at peak times. While the Consultation leaflet states that Route B would require the widening of the existing M11 bridge (or the erection of an adjacent cycle/footbridge), we understand that it may be possible to avoid this by careful remanagement of the carriageways and cycle/footpaths. This could then be cheaper than the estimated cost of £17.7m and thus bring the total cost nearer to the estimated cost of £12.4m for Route A.

It is felt that the benefits of Route B outweigh the additional cost and note that Route B is significantly cheaper than Route C.

Route C. CPRE most strongly OBJECTS to Route C (in any of its sub-options) which lies extensively within the Green Belt. The Green Belt serves to protect the historic setting of Cambridge. In its eastern section, West Fields (alongside the University West Cambridge site) represents one of the closest areas to the historic centre and is thus of particular importance. The irredeemably negative impact on the tranquillity and beauty of Coton, and its environs and this approach to the city, would be a permanent loss to the region. Whittling away of the Green Belt absolutely must be resisted. The estimate high cost of Route C is a further objection.

Based on the evidence present, there are insufficient transport advantages to Route C in comparison to what would be achievable through a fully optimised version of Route B. There are no advantages to Route C which would outweigh the enormous negative environmental impacts on the Green Belt and to the historic heritage of the city and its environs.

Yours faithfully

(REDACTED)

CPRE Cambridgeshire and Peterborough

Appendix 4

From C2C Stakeholder responses

Published on 20 Nov 2018

<https://www.greatercambridge.org.uk/transport/transport-projects/cambourne-to-cambridge/cambourne-to-cambridge-consultation-2017/18/>

Received 30/01/2018 from Historic England in a letter

Dear Sir / Madam,

Ref: Cambourne to Cambridge consultation

Thank you for consulting Historic England on the proposed new bus route and park and ride site between Cambourne and Cambridge.

Historic England have already provided advice to you through our pre-application service both at meetings and through our response to the previous public consultation in November 2015. Historic England offer an initial free pre-application service, after which we offer extended pre-application advice for ongoing cases. The current public consultation falls within our extended pre-application advice (<https://historicengland.org.uk/services-skills/our-planning-services/enhanced-advisor-services/extended-pre-application-advice/>). As you are aware, our extended pre-application advice is provided on a cost-recovery basis.

Following our meeting in December and our discussions, we offered extended pre-application advice to cover this consultation. As you have not accepted this offer of advice, we are unable to respond to the current consultation. However, if you would like further pre-application advice from us regarding this scheme, we will be happy to provide that advice through our extended pre-application service. This service only relates to ongoing pre-application advice. Once a planning application is made, Historic England will respond as a statutory consultee on proposals affecting the historic environment.

If you have any further questions, please do get in touch. Yours faithfully

[REDACTED]

Principal, Historic Places Team

FURTHER RESPONSE RECEIVED ON 28 February 2018:

Dear [REDACTED]

Pre-application Advice

CAMBRIDGE TO CAMBOURNE (BUS ROUTE)

Thank you for consulting Historic England about your proposals for the above bus route and the associated park and ride site options. As the Government's adviser on the historic environment Historic England is keen to ensure that the protection of the historic environment is fully taken into account at all stages and levels of the local planning process. Therefore we welcome this opportunity to review the proposed alternative routes for this important new transport link. We will not be providing a view on which option is preferred, but will instead consider what harm, if any, each option would cause to the significance of heritage assets. This letter should be read alongside our previous consultation response (Nov 2015).

Summary

The proposals offer three alternative routes for a dedicated route for buses between Cambridge and Cambourne using a mixture of new and/or existing road infrastructure. These are presented as Routes A, B and C, of which C has a number of potential alternative routes. In addition there are two

potential park and ride car park options being consulted upon: Scotland Farm, north of Hardwick on the northern side of the A428 junction with Scotland Road; and The Waterworks, located at the junction of the A1303 Madingley Road and St Neots Road. We consider that all three of the routes, and the car parking location options, are likely to cause a level of harm to the significance of heritage assets, and that considerable attention needs to be paid to the mitigation strategies of all options in order to meet the requirements of national planning policy. We also strongly recommend that, prior to the final selection of the route, a detailed heritage impact assessment is carried out that identifies the harm to heritage assets for each potential option, and which can be used to inform the route selection process.

Advice

This consultation focuses on Phase 1 of the bus route, which is the section of the route between the Madingley Mulch roundabout to Cambridge. It is stated that the second phase, between Cambridge and Madingley Mulch, will be consulted upon at a future stage. Our response therefore only considers the routes as presented between the two proposed park and ride sites and their termination in Cambridge.

Route A and B

Route A would operate along the existing line of Madingley Road out towards either of the two proposed park and ride car parking sites, and would require the widening of the existing road along this route to facilitate the construction of a dedicated bus lane along one side. The option would mostly use the existing alignment of the carriageway, with the exception of a short section of road immediately east of the American Military Cemetery, which would be realigned to reduce the angle of the existing bend.

Route B would be very similar to Route A, and would involve the widening of the existing road to accommodate a central 'tidal' bus lane sandwiched between two normal carriageways, with a pedestrian and cycle way along the northern edge of the road. Route B also differs from Route A in that it would not require the realignment the A1303 to the east of the American Military Cemetery, and would make use of the A428 instead of the St Neots Road were the Scotland Farm park and ride site selected.

The American Cemetery and Memorial is a Grade I Registered Park and Garden with a Grade II* memorial chapel. The cemetery is one of twenty four permanent Second World War cemeteries erected on foreign soil by the American Battle Monuments Commission and is the only permanent United States of America Second World War military cemetery in the British Isles. It is built on land gifted to the United States by Cambridge University, and is subject to a 1954 international agreement signed by United Kingdom Prime Minister Anthony Eden and United States Ambassador Winthrop W. Aldrich. This agreement includes various clauses that protect some areas of the land around the cemetery, including that along the roadside, from future development. The original buildings of the cemetery, which are constructed of very high quality Portland Stone, were designed by the architects Perry, Shaw, Hepburn and Dean of Boston, Massachusetts, and are set within a ceremonial landscape laid out by Olmsted Brothers, an important firm of twentieth century landscape architects based in Brookline, Massachusetts.

The site of the cemetery is located on the north facing side of the hill on the north side of the A1303. Its location and siting creates a strong emphasis on its relationship with the landscape to the north, reinforced through soft landscaping within the cemetery site and the north-east orientation of its principal features. The graves of the cemetery are laid out in arc facing north-east, with the flagpole on its raised platform forming the focal point of the fan. From within the cemetery the topography allowing expansive views north across the Cambridgeshire countryside towards Ely, with its

cathedral visible on the horizon. To the east of the flagpole is a series of reflective rectangular pool gardens, linking the flag to the Memorial Chapel, which is also orientated to the north. However, the principal approach to the main entrance of the cemetery is along the A1303 from the east and west, with its main ceremonial entrance gateway flanked by two small classically proportioned loggias that face each other across an area of hard landscaping that leads through to a circular garden containing a central flagpole.

The present A1303 runs directly along the southern boundary of the cemetery, and is separated from it by a sloping strip of road verge and a thick roadside hedge, inside which is narrow tree belt that contains areas of car parking set within the trees. A tall brick wall encloses the area of the cemetery to the north and separates it from this car parking, although pedestrian access is possible. Despite these barriers, the noise generated by the relatively high levels of traffic travelling along the road is a constant presence within the cemetery, with larger road vehicles remaining visible above the high brick wall. These factors detract from the sense of spiritual calm that one would normally associate with a cemetery, although the effect is lessened further into the cemetery and down the hill.

The cemetery is a designated heritage asset of the highest significance, reflecting not only an important international and historic relationship between the United Kingdom and the United States - demonstrated by the original gift of the land - but also the spiritual significance attached to the resting place of 3,812 United States service personnel who lost their lives and who are commemorated by the cemetery. It is the only American Second World War cemetery in the United Kingdom. Underlying these factors, the cemetery is also an important example of the work of an internationally renowned family firm of landscape architects, and an unusual example of their work in the United Kingdom. This importance is reflected by its Grade I status.

Both Route A and Route B would involve the encroachment of the highway further towards the cemetery, the removal of part of the cemetery's site along its boundary with the road, and would also involve the intensification of the road use along the A1303. These effects are considered to be harmful to the significance and special interest of the cemetery, and are explored in more detail for each option below.

Specific Commentary on Route A

This route will impact upon both the physical fabric of the American Military Cemetery and its setting.

We would highlight that there is a discrepancy between the photo-montage image on p14 of the consultation document and the larger format photo-montage. The consultation document shows a pedestrian path immediately abutting the cemetery hedge, while the larger photo-montage document shows a bus lane.

The option presented by Route A would require the removal of a section of the cemetery site along its boundary so that that the highway can be widened in order to accommodate a cycle path or a bus lane. The section of land that would be lost to the highway currently comprises open green space in which the entrance stone to the cemetery sits prominently at a perpendicular angle. The route A option would see this area converted to highway which would immediately abut the hedge row boundary with the cemetery. The entrance stone is shown as repositioned to sit parallel with the cemetery boundary. The rationalisation of the entrance space in the way proposed would alter detrimentally the ceremonial approach to the cemetery and reduces the prominence of the entrance stones. The red asphalt surface treatment of the bus lane and road markings immediately against the cemetery boundary would conflict with the subdued palette of colours evident within

the cemetery itself which would be harmful to its contemplative, commemorative nature. There would also be an intensification of the road use with its associated noise and traffic, although we note that this factor is already an element affecting the setting of the cemetery. This would be harmful to the appreciation of the entrance to the cemetery when approaching it along the A1303, and from within the cemetery site.

The proposal, by reason of the proximity of the highway to the cemetery and loss of verge, would result in irreversible, adverse impacts upon the approach, setting and layout of the cemetery site. This harm would be compounded by the associated intensification of the road which would further erode the experiential significance of this nationally important contemplative space both in terms of noise, pollution, vibration, and visual intrusion. It is acknowledged that planting would be retained along the boundary of the highway with the cemetery in an effort to differentiate space, but this planting is unlikely to be successful in mitigating the harm which has been identified to the designated heritage asset and it is recommended that mitigation measures are explored further. We consider that the proposal would result in less than substantial harm to the heritage asset, as defined by paragraph 134 of the NPPF.

Specific Commentary on Route B

This route has the potential to have physical and setting impacts on the American Military Cemetery Registered Park and Garden (Grade I Registered). Like Route A, the option presented by Route B in the photo montages would require the removal of a section of the cemetery site along its boundary, and an urbanising of its immediate surroundings to provide a cycle path. There would be the loss of the existing road verge, and the carriageway would encroach into this area to abut the hedge. There would also be an intensification of the road use with its associated noise and traffic, although we note that this factor is already an element affecting the setting of the cemetery. This would be harmful to the appreciation of the entrance to the cemetery when approaching it along the A1303, and from within the cemetery site.

In terms of the carriageway treatment, we consider that the option of Route B would be marginally less harmful to the immediate setting of the cemetery than Route A, at least as illustrated in the large-scale photo-montages. This is owing to the presence of the less intrusive pedestrian and cycle path immediately adjacent to the cemetery gates which would act as a buffer between the cemetery and vehicular movement. The less intensive use profile and more muted surface colour treatment of which would be less harmful to the appreciation of the cemetery's entrance than the red tarmac proposed for the bus lane in Route A, and it would also allow pedestrian or cycle access to the cemetery. Notwithstanding that point, cycle lane markings on the pedestrian footway should be carefully positioned so as to reduce their impact upon the immediate approach to the cemetery,

We are, however, concerned about the position, size, scale, and detailed design of the traffic signal gantries proposed. The gantries are large, spanning across both the pedestrian and vehicular routes and would introduce an unduly urban, over-engineered element into this relatively rural location. The height and position of the gantries along with the illuminated signage would visually intrude upon the cemetery, affecting views both from within and into the Registered Park and Garden to the detriment of its overall character. The consultation documents do not contain a justification for these large gantries nor is it clear why a gantry would be required immediately outside the southern boundary of the cemetery.

Overall, we consider that Route B as presently illustrated would cause a moderate level of harm to the appreciation of the heritage asset within its setting and from within the asset itself. This would be caused by encroachment of the carriageway into the existing verge truncating its principal entrance, as well as the placement of the proposed signal gantry. There would be long term and

permanent impacts to the setting of the cemetery as a result of the additional carriageway, and the intensification of the road use. As with Route A, we recommend that possible mitigation measures are explored further. We consider that Route B would cause a moderate level of harm to the heritage asset, which would, in planning policy terms, be considered 'less than substantial'. Were Route B presented without the construction of the large signal gantry immediately outside the cemetery boundary, the harm would be less, and would be marginally lower than Route A as presented in the large format photomontages.

Please note, however, our comment regarding the potential discrepancy between the consultation imagery discussed under Route A above. Were Route A also to locate the pedestrian and cycle path against the cemetery, overall Route A would cause a lower level of harm than Route B to the significance of the cemetery.

Route C

Route C comprises three different potential routes. All three share the principle of a new bus and cycle route on an alignment through presently undeveloped land between the village of Coton (designated as a Conservation Area, and containing a number of listed buildings) and the line of the A1303 to the west of the M11; a new crossing over the M11; and routes south of Madingley Road and the University Sports Grounds that would terminate at Grange Road. From Grange Road the bus service would either run north to travel into the city using the existing Madingley Road route to Magdalene Street, or south and east along a new route that would terminate at Silver Street.

We would note that all three potential options for route C run through the Green Belt. The Green Belt around Cambridge helps to meet the requirement of paragraph 80 of the NPPF, 'to preserve the setting and special character of historic towns.' Any local transport infrastructure proposals in the Green Belt need to take into account the importance of preserving the openness of the Green Belt, paragraph 90.

The historic village of Coton is a small, historically primarily agricultural village with its origins in the early medieval period. The core of the village is arranged along the Whitwell Way, a linear route running east-west through the village, past the twin focal points of the Church of St Peter and the adjacent moated site which surrounds the present rectory. The presence of this archaeological feature probably indicates the presence of a small and moderately prosperous manorial site in the medieval period. There is a minor road from Grantchester that runs through the village from the south, joining the A1303 north of the settlement. To the west of the historic core of the village is an area of twentieth century housing, built on land south of Whitwell Way. The significance of Coton is principally related to its historic, architectural and archaeological interests as an example of a small rural settlement of moderate prosperity, set in the Cambridgeshire countryside to the west of Cambridge.

To the north west of the village, the landscape rises towards the A1303, and the countryside is presently of a relatively open character allowing long views from public rights of way across the village towards Cambridge and, in the distance, the Suffolk countryside beyond, including glimpses of Coton and the Church of St Peter amongst the trees. Immediately north-east of the village is the Coton Orchard, an area of fruit trees evident on historic maps from the beginning of the twentieth century. Both these areas of landscape, with their different agricultural uses, contribute to the still largely rural character of the setting of Coton and its conservation area. This is particularly appreciated in views north west from the village across the landscape, and is also appreciated when travelling along the northern route into the village past the orchard.

The construction of the new linear route with associated hard infrastructure and signage, and the introduction of regular vehicular movement and noise, through the village's presently rural surroundings, will detract from the appreciation of the village within its setting. It will introduce an element of urbanising development into the landscape to the northwest, north east and on the present northern approach to the village, which is presently a relatively narrow country lane, enclosed by natural hedges. There will also be the loss of a part of the century old Coton Orchard, which contributes considerably to the setting and character of the village, especially on its north side. Either of the routes to the north-west would be partly screened by the existing reservoirs, but harm would nonetheless be caused by the inherent change to the generally rural, open landscape in this location.

We consider that both the pink and blue route would cause harm to the significance of the Coton Conservation Area and the Church of St Peter, owing to development in their settings. The harm would be of a moderate level. In planning policy terms, this would be within the 'less than substantial' range, which would need to be weighed against the public benefits of the proposal. The alignment of the blue route and the southern M11 bridge option may represent marginally less harm, as it would not bisect the Coton Orchard in as harmful a location, allowing it to retain more integrity and link with the present garden centre. The blue route also runs further from the American Cemetery, thus minimising the potential for harmful impacts on this heritage asset.

We consider that, the harm associated with either of the options for Route C could be minimised or avoided subject to a robust mitigation strategy to ensure that the route appears as a rural feature in an existing landscape. In the long views north and west from the village, mitigation would need to present the appearance of a mature and substantive agricultural field boundary, For example, planting could be used to screen the busway, this would be most successfully achieved by using an appropriate mix of native species, including appropriate hedgerow trees such as dogrose, hawthorn, hazel, crab apple and dogwood. Environmental and ecological benefits should also be incorporated in any mitigation strategies. Any intersection with Cambridge Road will need to be sensitive and will require careful consideration would also to minimise the visual intrusiveness of the busway on this road.

Route C also has the potential for harm as it runs through the West Cambridge conservation area and near to two Grade II listed buildings on Grange Road. The potential exit points for the busway would need to be carefully designed to avoid or minimise the harm to the character of the conservation area or the settings of these listed buildings in either of the potential locations. At this stage it is difficult to comment as to how harmful such a route could be as the harm could vary greatly depending on the final detail of the proposal.

Waterworks Park and Ride Site

We consider that this site has the potential to cause low level of harm to the significance of Coton Conservation Area and the Madingley Hall Park and Garden owing to development in their setting. The harm to the former relates to the further urbanisation of the existing rural setting the village owing to the presence of the associated buildings, CCTV and signage that may be visible in longer views, and the potential for harm to Madingley Park relates principally to the potential for additional light pollution visible at night, rather than any direct visual impacts.

Mitigation of this site would be key to minimising those harmful effects. For instance, the site would need to present the appearance of woodland/shelterbelt to avoid and minimise the urbanising of the landscape. The present suggested line of trees along its boundary would likely be inadequate to achieve this effect. In order to minimise the impact of street lighting, this would need to be

specified to be of a type that directed all light downwards, minimising sky-glow, and other infrastructure should be designed to avoid being visible in longer views.

Scotland Farm Park and Ride Site

We consider that this site has the potential for a low level of harm to the Madingley Park Registered Park and Garden, and Madingley Hall. The harm would be related to the potential for visually intrusive light pollution caused by the additional lighting that may be required. As above, these effects would need to be minimised through an appropriately robust scheme of soft landscaping and dense tree planting around the perimeter of the site, and the specification of lighting types that would direct light downwards with minimal associated sky glow.

Policy Considerations

Paragraph 128 of the National Planning Policy Framework requires applicants to describe the significance of any heritage assets, including any contribution made by their settings, affected by a proposal. Paragraph 129 contains a requirement for local planning authorities to identify and assess the significance of heritage assets affected by a proposal (including development in their setting), and take that assessment into account when considering the impact of the proposal on the heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal. Paragraph 132 of the NPPF sets out that, when considering the impact of a proposed development on the significance of a heritage asset, great weight should be given to the asset's conservation. It goes on to state that the more important a heritage asset, the greater that weight should be. The policy makes clear that, in addition to direct physical impacts, the significance of a heritage asset can be harmed or lost through development within its setting. As heritage assets are an irreplaceable resource (paragraph 126) any harm identified as being caused by the proposed routes will require a clear and convincing justification. Where harm is judged to be less than substantial to the significance of the heritage asset, paragraph 134 requires that this harm should be weighed against the public benefits of the proposal.

Conclusion

To conclude, we consider that all three potential routes and their sub-options are likely to cause harm to heritage significance, either to the American Military Cemetery or to the significance of the village of Coton. Prior to the determination of a final option for this busway therefore, we strongly recommend that detailed heritage impact assessments (HIA) covering all of the route and parking site options should be carried out in order to meet the requirements of paragraphs 128 and 129 of the NPPF. The HIAs should be used to explore the significance of the designated and non-designated heritage assets that would be affected by the proposed routes and park and ride sites, and subsequently determine the harm that would be caused to that significance by the proposals. They should also determine whether and to what extent that harm can be mitigated and, if so, used to explore and inform appropriate mitigation measures.

Next Steps

Thank you for involving us at the pre-application stage of Phase 1 of the Cambridge to Cambourne bus way. At present, we consider that there remains considerable work to be undertaken to fully assess and describe the impact of the various proposed routes and park and ride sites on the heritage assets identified. Your scheme may benefit from our continued engagement; if so, we would welcome the opportunity to continue our Extended Pre-application discussions to see if our concerns can be addressed. If you would like to discuss this option further, please do contact me.

Yours sincerely

[REDACTED]

Historic Places Advisor, East of England

CAMBRIDGE TO CAMBOURNE (BUS ROUTE)
Pre-application Advice

List of information on which the above advice is based
Better Bus Journeys - Phase 1 Consultation Pack and associated maps/photo montages

LETTER OF COMMUNITY CONSENSUS FROM CAMBRIDGE PARISH COUNCILS, DISTRICT COUNCILLORS AND COMMUNITY GROUPS

01 May 2019

The Rt. Hon. Chris Grayling MP
Secretary of State for Transport

cc: The Rt. Hon. **James Brokenshire** MP, Secretary of State for Housing, Communities and Local Government

Heidi Allen MP for South Cambridgeshire
Daniel Zeichner MP for Cambridge
Lucy Fraser MP for East Cambridgeshire
James Palmer, Mayor, Cambridgeshire & Peterborough Combined Authority
Councillor Bidget Smith, Leader of South Cambridgeshire District Council
Councillor Lewis Herbert, Leader of Cambridge City Council
Rachel Stopard, CEO Greater Cambridge Partnership
Jim O'Sullivan, CEO Highways England

Dear Secretary of State,

Open Letter of Community Consensus on the need for all-ways connectivity at the Girton Interchange serving the M11, A428, A14 and A1307 at Cambridge.

The Girton Interchange is a key strategic junction on the Cambridge regional road network, connecting the M11, A14, A428 and A1307. The junction is severely hampered by a lack of all-ways connectivity. Enabling full connectivity will provide faster and more efficient connections on the road network, help to alleviate some of the long-standing congestion problems in the region and facilitate regional transport links to support economic growth. Moreover, it will improve connections between new housing developments west of Cambridge, the M11 motorway and the rapidly growing biotechnology cluster south of Cambridge city. Longer-term, the junction is vital to proposed improvements to east-west links.

Purpose of this letter

We are a group of Parish Councils and South Cambridgeshire District Councillors, representing over 30,000 people living in communities in and near Cambridge, and selected community interest groups. We note the letter from the Greater Cambridge Partnership (GCP) to Highways England (19 Oct 2017) regarding the urgent need for all-ways connectivity at the Girton Interchange; we welcome the consensus among local governments, the Combined Authority for Cambridgeshire and Peterborough, the GCP, MPs and business groups to progress this scheme; and we warmly welcome the positive indications from Highways England for delivery in due course.

We are concerned, however, that Highways England has not yet committed to include the Girton Interchange in the Road Investment Strategy (RIS-2) work period between 2020 and 2030, and that no clear plan has yet been articulated.

We write to express, in the strongest terms possible, our support for this development, which is long overdue, and to request that it be given urgent priority.

Requests for urgent action

1. We request that work on improvements to the Girton Interchange to enable all-ways connectivity be accelerated and given urgent priority as part of the strategic transport improvements needed in this region.
2. We request that the strategic importance of the Girton Interchange be fully recognised by ensuring it is integrated with any mass transit scheme taken forward to the west of Cambridge.
3. We request that improvements help to reduce, and not exacerbate, the already detrimental impacts of traffic on the local road network and on the immediately surrounding communities.
4. We request that present proposals to constrict the capacity of the A428 eastbound where it joins the A14 at the Girton Interchange, from the present two lanes down to one lane, be reconsidered in anticipation of future needs.
5. We request that, where practicable, this work be integrated with on-going work on the A14 to make the most cost-effective use of resources and supporting works already mobilised.
6. We request that funding be made available and that all stakeholders work together to give their full commitment, with the aim of delivering these improvements by 2023 at the latest.

The letter from the GCP and MPs and the response from Highways England are encouraging, and we are pleased that support is broad and analysis is underway. However, we note that these improvements have been called for by the community for more than twenty years, with little action to date. Much as we welcome the ongoing work of Highways England, there is currently no commitment to a timetable for completion of the improvements at the Girton Interchange. We believe the time for clear, unambiguous action has arrived, and a plan and timetable for delivery of this essential infrastructure is urgently needed.

In summary, all-ways interconnections at this critical junction are in the local, regional and wider national strategic interest and are in need of urgent action by all relevant parties.

If it would be helpful, we would be pleased to meet you or your officials to provide more information on the views of the community on the scheme.

We look forward to hearing from you.

Coalition of Parish Councils



Steve Jones
Chair

Cambridge Connect



Dr Colin Harris
Director

Parish Councils, District Councillors and Community groups expressing support for this letter

The Coalition of Parish Councils comprising Arrington, Barton, Bourn, Boxworth, Caldecote, Caxton, Comberton, Connington, Coton, Croxton, Dry Drayton, Elsworth, Eltisley, Eversden, Grantchester, Hardwick, Knapwell, Longstowe, Madingley, and Toft parish councils.

Girton Parish Council and South Trumpington Parish Council, which are not members of the Coalition, also have endorsed the letter. Cambourne Town Council has also long-expressed support for all-ways connectivity at the Girton Interchange.

South Cambridgeshire District Councillors:

- Cllr Ian Sollom (Harston & Comberton) (the Parishes of Barton, Comberton, Coton, Grantchester, Harlton, Harston, Haslingfield, Hauxton and South Trumpington)
- Cllr Philip Allen (Harston & Comberton)
- Cllr Tony Mason (Harston & Comberton)
- Cllr Grenville Chamberlain (Hardwick) (the Parishes of Hardwick and Toft)
- Cllr Tumi Hawkins (Caldecote) (the Parishes of Bourn, Caldecote, Childerley, Kingston, Little Gransden and Longstowe)
- Cllr Tom Bygott (Girton) (the Parishes of Dry Drayton, Girton and Madingley)
- Cllr Dr Shrobona Bhattacharya – Cambourne
- Cllr Ruth Betson – Cambourne

Selected Community interest groups:

- Cambridge Ahead
- Cambridge Connect
- Cambridge Past, Present & Future
- Federation of Cambridge Residents Associations (FeCRA)
- Smarter Cambridge Transport

Background

On 19 October 2017 an open letter was written from the Greater Cambridge Partnership to Jim O’Sullivan, Chief Executive of Highways England regarding the Roads Investment Strategy 2 (RIS2) – M11 in Cambridgeshire. This letter noted a clear consensus within our region for the improvements to the Girton Interchange, as indicated by the broad representation in the letter of local government, the academic and business communities, and Members of Parliament for Cambridge City and South Cambridgeshire.

Martin Fellows, Regional Director of Operations (East) Highways England, responded on 17 Nov 2017 that the agency is assessing the strategic road network (SRN), including pressures on the M11 and the case for improvements at Girton Interchange, which will feed into RIS2. Following consultation, the Investment Plan for RIS2 will continue to be developed over 2018. In due course the Secretary of State for Transport will decide on priorities for RIS2, to be published in 2019.

The Girton Interchange is a key strategic junction on the regional road network, which is severely hampered by a lack of all-ways connectivity. Enabling connectivity will provide faster and more efficient connections on the road network, help to alleviate some of the long-standing congestion problems in the region, facilitate regional transport links and support economic growth. Moreover, it

will improve connections between areas west of Cambridge, such as Cambourne, and the M11 motorway, and support the increasing population. Longer-term, the junction is vital to proposed improvements in East-West links between Cambridge, Milton Keynes and Oxford, as recommended by the National Infrastructure Commission.

We recognise that some villages lying in close proximity to the Girton Interchange are already significantly affected by noise and air pollution from the current road system. It is important therefore that improvements should help to reduce, and do not exacerbate, any impacts on local communities.

Coalition of Parish Councils

The Coalition of Parish Councils to the West of Cambridge was formed to provide a coordinated voice on planning issues.

Cambridge Connect

Cambridge Connect was formed in 2016 to promote enduring and sustainable transport for Cambridge, in particular a light rail metro with an underground in the historic city core. The Girton Interchange is considered a key node on the network, where the metro would link with important strategic highways. Cambridge Connect works closely with Railfuture, UK Tram and Rail Haverhill, amongst others.

More information on Cambridge Connect is available at www.cambridge-connect.uk

Address for Correspondence

Dr Colin Harris
Director
Cambridge Connect
12 Silverdale Avenue
Coton, Cambridge CB23 7PP

Email: colin.harris@cambridge-connect.uk

Tel: 01954 212 847

Girton Interchange – Peak Hour traffic with A1303 gridlock

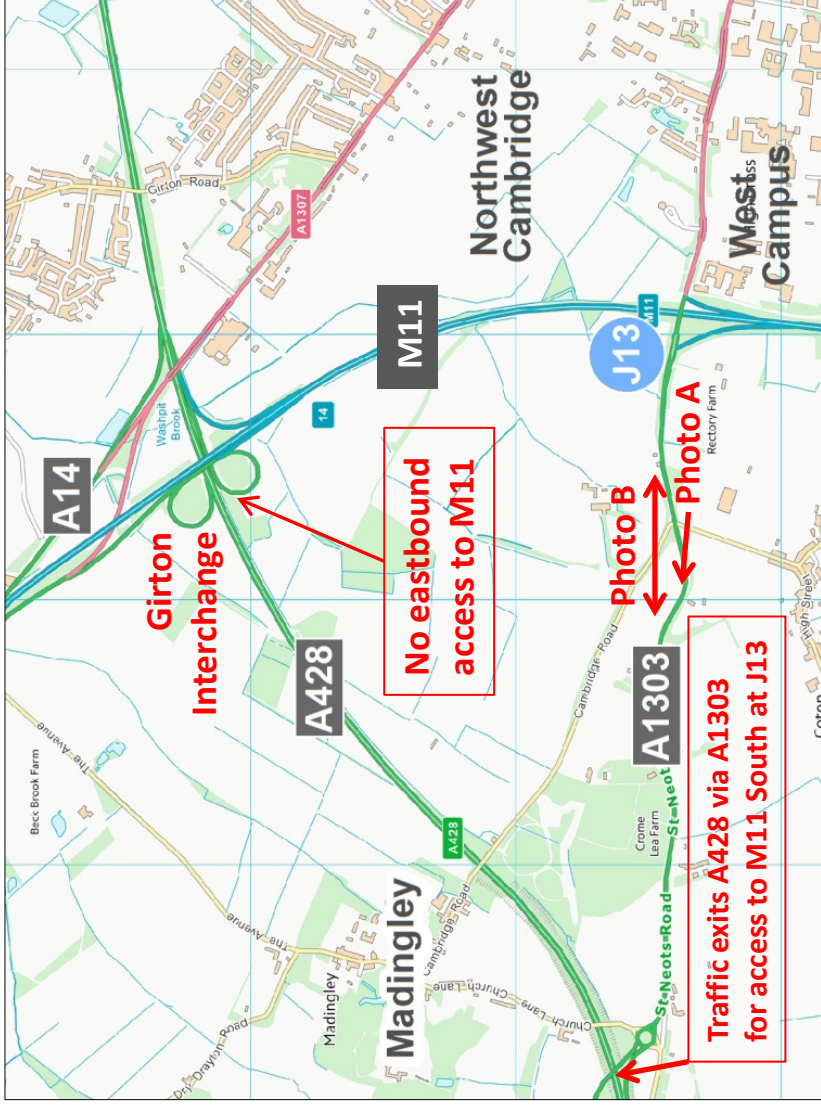


Photo: courtesy Natasha Hodge 2018

Photo A: 08:20 19 Sep 2018 – A1303 (Madingley Rise) gridlock. Only access onto M11 from Cambourne off A1303 at J13. No access at Girton Interchange.

- Inefficient, wastes time, generates pollution, costly to economy



Photo B: 08:36 26 Feb 2019 – A1303 (Madingley Rise) gridlock continues... No access at Girton Interchange

Girton Interchange – Effect of reduction to one lane east on A428 at Girton Interchange (peak) – 2016 - 2019



Photo: Colin Harris 2016



Photo: courtesy Natasha Hodge 2018

Photo A: 01 Feb 2016, 08:50 am (peak)

- A428 looking east from Maddingley bridge over A428
- 4-lane highway, 1800 m to M11
- Lack of congestion
- **No eastbound connection or access to M11**

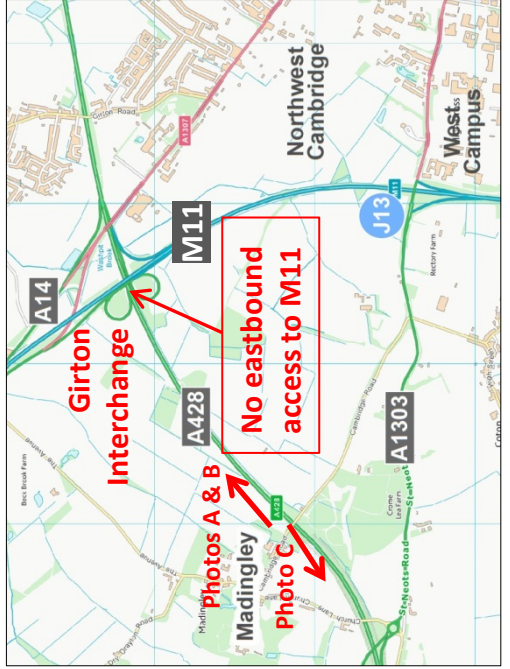


Photo B: 26 Feb 2019, 08:26 am (peak)

- A428 east from same location as Photo A – with reduction to one lane at Girton Interchange
- **No eastbound connection or access to M11 at Girton Interchange**



Photo C: 26 Feb 2019, 08:28 am
A428 west from same location as Photos A & B with reduction to one lane at Girton Interchange



**National
Trust**

paul.forecast@nationaltrust.org.uk
Direct line: +44 (0) 1284 747560

BY EMAIL to Nicholas.Mills@cambridgeshire.gov.uk

Councillors Ian Bates, Aidan Van de Weyer, and Lewis Herbert
Greater Cambridge Partnership Executive Board
Shire Hall
Cambridge
CB3 0AP

13th February 2020

For the attention of: Councillors Ian Bates, Aidan Van de Weyer and Lewis Herbert

**Greater Cambridge Partnership Executive Board 19th February 2020
Better Public Transport: Cambourne to Cambridge**

I am writing to you ahead of the meeting of the Greater Cambridge Partnership Executive Board Meeting to be held on 19th February. The National Trust has grave concerns about Item 10 on the agenda, Better Public Transport: Cambourne to Cambridge, and about your officers' recommendations to develop the scheme and submit a Transport and Works Act Order for the preferred route.

You will be aware that the Trust has objected to the scheme because of the unacceptable impact it will have on sensitive landscapes, including land protected by deed of covenant so as to 'guard the famous views to and from the city and to safeguard the special features of the neighbouring countryside and villages'; you will also be aware that we first raised these concerns over two years ago. Over that period, we have engaged with both phases of the consultation process and with subsequent discussions, believing that this would provide the most effective route to securing a positive legacy for the historic places that we care for, and for important habitats. At the same time, we have also raised concerns about the option appraisal process, flawed analysis, and the availability of information.

I would now urge you to pause and re-consider your commitment to pressing ahead with this costly and damaging scheme. The choice of the Preferred Route Option for the Bedford to Cambridge section of East West Rail, announced on the 30th January, is hugely significant to the business case for the busway. The northern rail corridor passes through Cambourne and will inevitably mean lower passenger numbers using the busway, hence both the 'do

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nothing' and 'do something' options now need to be re-evaluated. Whilst I welcome the intention to undertake an 'assessment of complementarity of C2C with the selected East West Rail route', this must take place prior to the decision to submit a Transport and Works Act Order for the scheme. I feel sure that you will want to allow for due process, minimise the risks of legal challenge, and avoid further abortive work, and for these reasons, I believe that the Better Public Transport: Cambourne to Cambridge should not get the green light in its current form.

Instead, a fundamental reconsideration of public transport options for the west of Cambridge should commence which will have the support of local communities and stakeholders. From the initial consultation held in 2015 to the present day the GCP has been reluctant to modify the scheme as originally conceived. By contrast, the East-West Rail decision has clearly taken consultation responses into account. Specifically, the Preferred Route Option was chosen following detailed analysis which found that:

- It would deliver the best value for taxpayers, returning the most benefit for every £ spent;
- It was the most popular option with people who responded to EWR Co's 2019 consultation;
- It would deliver the best opportunities for supporting and enhancing the environment.

Green transport is vital but opposition to the preferred off-road scheme is growing, not only because of its harmful impact on the natural and built environment, but also because it is now clear that the scheme does not deliver good value for money. Benefits such as land value uplift would be provided by the railway and interim lower cost solutions which avoid impact on the environment, green belt, and local communities, should be considered. For example, could an in-bound on-road bus lane along Madingley Road, alongside a new cycle route, meet predicted demand?

The National Trust would be pleased to work with you in ways that will enable the project to move forward to this next phase so that a Better Public Transport: Cambourne to Cambridge scheme can be delivered in both a timely and cost-effective way whilst ensuring that special places remain protected for future generations to enjoy.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Paul Forecast', written in a cursive style.

Paul Forecast
Regional Director, National Trust

Appendix 7



National Trust

Cllr Francis Burkitt
Greater Cambridge Partnership,
SH1311,
Shire Hall,
Cambridge,
CB3 0AJ

Paul.forecast@nationaltrust.org.uk
Direct line: +44 (0) 01284 747560
01 August 2017

Dear Cllr Burkitt

A428 Park and Ride options - Cambourne to Cambridge

I am writing regarding the review of the possible Park and Ride options for the Cambourne to Cambridge Better Bus Journeys scheme. It is understood that the Greater Cambridge Partnership (formerly City Deal) are currently in the process of reviewing the location of the proposed Park and Ride which will facilitate the A428 Cambourne to Cambridge new busway. It is noted that the proposals will be published for public consultation this autumn.

As you are aware, the initial route options for the proposed busway are adjacent to, or incorporate land which is under the protection of the National Trust historic covenants. The Coton Corridor band of covenanted land was established in 1958 in order to protect this area of countryside from urban development.

The National Trust acknowledges that the aim is to deliver a new high quality public transport infrastructure that improves connectivity, reduces congestion and enhances the environment and that this approach is supported by national and local planning policy which promotes sustainable transport and a strong competitive economy in areas where a lack of infrastructure would hinder economic growth.

It is understood that further consideration is being given to a number of options; including a segregated route, an on-road alternative and low cost comparator options. The National Trust is extremely concerned about the impact of the proposals on covenanted land and the visual impact of the proposed infrastructure. It is therefore requested that all options for the Park and Ride facility and associated bus route (on-road and off-road) that avoid National Trust covenanted land are fully explored prior to publishing the proposals for public consultation. As part of this process the National Trust would like to be assured that all alternative options avoiding such land have been considered and that a reasoned justification for the preferred option is given.

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President: HRH The Prince of Wales
Regional Chairman: Inga Grimsey
Director, East of England: Paul Forecast

Registered office:
Heelis, Kemble Drive, Swindon, Wiltshire SN2 2NA
Registered charity number 205846

I look forward to receiving a response to this request in due course once an options appraisal has been carried out. Should you wish to discuss this further please do not hesitate to contact me.

Yours sincerely

Paul Forecast
Regional Director

Cont/d

Appendix 8

From C2C Stakeholder responses

Published on 20 Nov 2018

<https://www.greatercambridge.org.uk/transport/transport-projects/cambourne-to-cambridge/cambourne-to-cambridge-consultation-2017/18/>

Received 22/01/2018 from Natural England in an email

Dear [redacted]

Cambourne to Cambridge Better Bus Journeys Phase One consultation

Thank you for consulting Natural England on the above in your email dated 13 November 2017.

You will be aware that Natural England provided comments at the earlier options stage of this scheme, in our letter dated 12 October 2016 (ref: 197667).

Please note that our comments below only apply to the proposed route between Madingley Mulch roundabout and Cambridge. We are not aware that route options from Cambourne to Madingley Mulch roundabout form part of the current consultation. Natural England will expect to be consulted on the rest of the proposed route in due course.

It is also important to note at this stage that the level of detail provided for the proposed route options is too indicative for us to provide any detailed comments or advice. Based on the detail currently available Natural England is unable to make any judgement regarding likely impact of the proposed options. This is particularly the case with respect to on-line route options A and B which are located in very close proximity to Madingley Wood Site of Special Scientific Interest (SSSI).

Further plans should clearly indicate the boundary of the SSSI in relation to detailed route options. Traffic modelling / air quality screening should be undertaken for the different route options, to inform the assessment process and preferred route selection. This will be particularly important in assessing potential impacts on the sensitive ancient woodland habitat of Madingley Wood SSSI. This is located within the 200m screening distance' for air quality impacts associated with road schemes. As mentioned previously we are supportive of the aims of the scheme to achieve improved connectivity and reduced congestion between residential and employment areas while improving the quality of life in Greater Cambridge. Natural England is pleased that potential impacts on the natural environment have been given better consideration. Whilst we welcome preparation of an environmental constraints map we are aware that a number of locally designated wildlife sites have been omitted from the plan. These should be included and given appropriate consideration through this and future phases of scheme development.

Route Options A and B

The route plans do not show the boundary of Madingley Wood Site of Special Scientific Interest (SSSI) and the supporting habitat of the adjacent 800 Wood. Options A and B are located in close proximity to this nationally designated site and proposals could have an adverse impact, through direct and indirect effects, on the notified features of the ancient woodland. Potential impacts are not considered in the route descriptions.

Route option A appears to be an on-line scheme involving widening of the transport corridor to the north. This would bring the road corridor closer to the boundary of Madingley Wood SSSI. This option therefore appears to pose the greatest risk of direct and indirect impact to the SSSI. The strip of land between the existing road corridor and the SSSI provides an important habitat buffer which protects the SSSI from adverse effects associated with the road corridor including traffic emissions, contamination, noise, lighting and access.

The nationally important and sensitive habitats of this site are very limited in extent and isolated from similar habitat; consequently this habitat and dependent species are extremely vulnerable to environmental change through the effects of development. Natural England will not support any project likely to have an adverse impact on this designated site or buffering habitat. Detailed ecological assessment will need to demonstrate that any project will not have an adverse impact on

this site through direct or indirect effects. Ancient woodland is particularly sensitive to changes in air quality associated with transport schemes hence detailed assessment will need to include consideration of air quality impacts on Madingley Wood SSSI.

Natural England advises that options / proposals should seek to reduce the amount of traffic passing close to the SSSI as far as possible. We would also welcome consideration of proposals to deliver an enhanced habitat buffer between the road corridor and Madingley Wood, to reduce traffic related adverse effects to the SSSI and thus provide benefits for wildlife.

Route option B appears to be an on-line scheme involving widening of the existing transport corridor to the south. This scheme is therefore located slightly further from the boundary of Madingley Wood SSSI than Route A and should therefore pose less risk of direct impact to the woodland. Nonetheless our comments and advice relating to Route A apply similarly to Route B.

Route Option C

This off-line route option appears to be sufficiently distanced from designated sites and therefore unlikely to have any adverse impact on these. Potential indirect impacts will need to be assessed in detail.

We are aware of the presence of a number of locally designated wildlife sites, not indicated on the route plans or discussed in the route descriptions, with the potential to be adversely affected by proposed development. This includes potential direct impact to Coton Path Hedgerow County Wildlife Site (CWS) and impacts to several City Wildlife Sites. The plans should be revised to show these sites and potential impacts should be assessed to identify an appropriate route that avoids these sites of local biodiversity importance.

This route also includes Priority Biodiversity Action Plan habitat and areas of Best and Most Versatile (BMV) land (Agricultural Land Classification grades 1 -3a).

Any further development of Route C should ensure that impacts to CWSs and other locally designated sites and Priority Habitat are avoided. Proposals should also seek to prioritise development on lower grade agricultural land, to protect higher quality land, as far as possible.

Park & Ride options

Natural England does not have specific concerns with either of the proposed options as these are unlikely to affect key interests within our remit. However, we would wish to see details of traffic modelling and air quality assessment to be satisfied that proposals will not have any adverse effect on nearby designated sites.

Other comments

A scheme of this scale should deliver significant biodiversity net gain, in accordance with paragraph 109 of the National Planning Policy Framework. Further consultation should include proposals for ecological enhancement including creation of green infrastructure / corridors and ecological networks — implemented and managed to make a valuable contribution to local Biodiversity Action Plan targets and Green Infrastructure Strategy2 objectives.

Natural England will be pleased to provide further comments on proposed route options following the preparation of additional information to address our advice above.

I hope these comments are helpful. For any queries relating to the specific advice in this letter only please contact Janet Nuttall on 0300 060 1239. For any new consultations, or to provide further information on this consultation please send your correspondence to consultations@naturalengland.org.uk.

Yours sincerely

(REDACTED)

Sustainable Land Use Adviser

RICHARD BUXTON

ENVIRONMENTAL & PUBLIC LAW

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Greater Cambridge Partnership
SH1311
Shire Hall
Cambridge CB3 0AJ

Attn. Cllr Francis Burkitt, Chair
Cllr Lewis Herbert, Vice Chair
Cllr Ian Bates

Our ref: COT1-001/AC
Email: acopithorne@richardbuxton.co.uk

25 October 2017

Dear Sirs

Cambourne to Cambridge Better Bus Journeys Scheme

We refer to our letter dated 19 September 2017, to which we have not had a response, despite a promise to do so from Mr Tunstall in his email dated 2 October 2017.

The Greater Cambridge Partnership Executive Board ("GCP EB") decided at its meeting on 20 September 2017 to undertake further consultation on the bus route options known as Option 1, 3A and 6 as proposed by officers in their report to that meeting. This was expressed as "subject to a further meeting with the LLF Technical Group to further refine option 6".

We understand that when the Local Liaison Forum Technical Group met on 5 October, the lead transport officer, Ashley Heller, confirmed that "they were not going to be able to change fundamental assumptions to do with Option 6". Our clients are dismayed by this as they consider the version of Option 6 presented by the GCP to be a sub-optimal on-road comparator and not to accord with the proposal they have been advocating, including but not limited to:

- segregated bus priority is indicated to extend only as far as High Cross, whereas there is no obvious impediment to continuing a median bus lane considerably further, certainly as far as JJ Thomson Ave or even Clerk Maxwell Rd;
- no access is indicated to the West Cambridge site, despite this having always been a key feature of Option 6;
- no 'smart traffic' measures beyond the end of the bus lane east of the M11 are included, which will unnecessarily reduce the bus travel time;
- the median bus lane has been presented as definitively tidal, rather than offering it as an option, for consideration now or as a future development should outbound congestion warrant it;

- the photographic mock-ups of the route depict overhead gantries (of highly questionable safety value) west of the M11, which are not yet known to be necessary and give a potentially misleading perception of detrimental visual impact;
- the journey time presented in the animation is 9 minutes, which is significantly longer than the existing Citi 4 service achieves off-peak, despite the latter having minimal bus priority measures;
- reference is only made to improved outbound journey times in the evenings, whereas there will also be substantial improvements in journey times and reliability inbound in the morning and indeed throughout the day;
- the proposed off-road cycle/pedestrian provision via Coton village is omitted;
- no mention is made of the possibility of the median bus lane being used in the future for innovative or new forms of transport, such as trams, autonomous vehicles, monorail, etc.

Please could you confirm that the GCP's position is that Option 6 will not be amended to take into account the 'optimal' version as has been advocated by the Local Liaison Forum.

We also seek clarification of the GCP's position in relation to the work to be done on Option 6 in order for it to be considered on a consistent basis with Option 3A. As you will recall, in the letter dated 27 April 2017 to the Local Liaison Forum, the GCP promised to examine and put forward Option 6 on a similar/same basis to Options 1 and 3A.

The officer's report prepared for the GCP EB meeting on 27 July 2017 states at paragraph 11 that further work on Option 6 will be required in order for Option 6 to be presented "on a consistent basis" with Options 1 and 3A for consultation in November 2017. Options 1 and 3 were analysed as part of a Strategic Outline Business Case ("SOBC") presented to the GCP EB last October. Option 6 was not included as it was proposed by the Local Liaison Forum in February 2017. The report goes on to state at paragraph 27 that an SOBC has not been undertaken for Option 6, "due to competing calls on the Cambridge Strategic Regional Model (CSRM) and the need to undertake further environmental assessment." The report comments at paras 29 and 30 that an environmental/property assessment and a Benefit Cost Ratio need to be prepared as part of the SOBC for Option 6.

However, the report states (although a word appears to be missing) at para 48 that an SOBC for Option 6 will be completed for the EB's September meeting and states at para 50 that the EB was committed to assess fully Option 6 to the same level as Option 1 and 3/3A "to the level of SOBC".

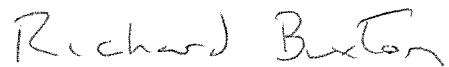
The minute of the EB's decision on 26 July only records, "that further work be undertaken in respect of an Option 6 alignment". It does not specify that the further work comprise a SOBC for Option 6. As far as we understand, a SOBC for Option 6 has never been carried out. In practical terms, the GCP has continued to instruct consultants such as Atkins to produce detailed reports analysing Option 3A, namely the Atkins Bus Options report, the LDA Design report on Green Belt impact and the protected species and habitats report by Cambridge Ecology.

The decision of the GCP EB on 20 September made no mention of further work to refine Option 6.

Please therefore could the GCP confirm that there is no intention to work Option 6 up to a SOBC and that no further work, by consultants or officers will be carried out on Option 6.

As we assume these intentions will already be decided upon by the GCP, we request that a substantive response be given by close of business on Wednesday, 1 November 2017.

Yours faithfully

A handwritten signature in black ink that reads "Richard Buxton". The signature is written in a cursive, slightly slanted style.

Richard Buxton Environmental & Public Law

Cc Rachel Stopard (Interim Chief Executive GCP)
Chris Tunstall (Interim Director of Transportation, Cambridgeshire County Council)
Ashley Heller (Team Leader, Transport Projects)

**STOP THE C2C BUSWAY MADNESS:
THE ALTERNATIVE IS STARING YOU IN THE FACE**

Give commuters what they really need, at a fraction of the cost, a fraction of the time, and a fraction of the environmental and social damage.

An Open Letter to the Greater Cambridge Partnership (GCP)

13th January 2020

Dear GCP Executive Board,

Commuters from the west deserve a fast, frequent, reliable public transport service – and they need something that can be implemented without delay. And taxpayers deserve value for money. This is best achieved with a simple, efficient bus scheme using existing roads. The same is not true of the current off-road scheme that will cause environmental and social damage, at a cost of around £200 million – at least 4 times the alternative – even before considering the inevitable delays and added costs.

Bus lanes on the existing road can be implemented straightaway and:

- Provide journeys to Cambridge Biomedical Campus, City Centre and Science Park that can be **faster, more direct** and **just as reliable** as an off-road busway;
- At a **quarter of the cost**;
- And with **minimal harm to the environment and surrounding communities**.

An off-road busway will take many years to build and take commuters to the wrong place:

- The proposed route via Charles Babbage Road and Adams Road or the Rifle Range onto Grange Road doesn't take people where they need to go.
- It's **extremely poor value for money** and **highly damaging** to the environment and the setting of Cambridge.
- And **local opposition**, public enquiries and judicial reviews **mean it will not be built any time soon**.

A fast and efficient on-road solution is the right thing now and for the future:

- It works in the **short-term**, offering a fast, frequent and reliable commuter service within a couple of years.
- It works for the **longer term** too, given the extra options and capacity that will come with the East-West rail link and, potentially, an upgrade of the Girton Interchange.
- And there's no good reason why it can't be **compatible** with a proposed CAM metro featuring road-running vehicles.

We call on the GCP to jettison their environmentally and socially damaging off-road scheme through Cambridge's precious Green Belt – and focus on delivering a realistic and valuable public transport scheme from Cambourne NOW.

Yours faithfully,

Philip Allen, South Cambridgeshire District Councillor, Harston & Comberton Ward
Anthony Browne, MP for South Cambridgeshire
Rod Cantrill, Cambridge City Councillor, Newnham Ward
Markus Gehring, Cambridge City Councillor, Newnham Ward
Ian Manning, Cambridgeshire County Councillor, Chesterton Division
Anthony Martinelli, Cambridge City Councillor, Market Ward
Tony Mason, South Cambridgeshire District Councillor, Harston & Comberton Ward
Josh Matthews, Cambridge City Councillor, Newnham Ward
Cheney Payne, Cambridge City Councillor, Castle Ward
George Pippas, Cambridge City Councillor, Queen Edith's Ward
Ian Sollom, South Cambridgeshire District Councillor, Harston & Comberton Ward
Dan Summerbell, Cambridge City Councillor, Trumpington Ward