



Greater Cambridge Partnership

CAMBOURNE TO CAMBRIDGE

Outline Business Case - Appendix D -
Management Case Addendum



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1 INTRODUCTION

1.1 OUTLINE BUSINESS CASE

- 1.1.1. The Cambourne to Cambridge Public Transport Project (CtoC) Outline Business Case (OBC) Management Case document was prepared in January 2020¹. The OBC was developed in line with HM Treasury and Department for Transport (DfT) guidance on the preparation of a 5-Case business case.
- 1.1.2. In August 2021, the DfT released an update to the *Transport Business Case* guidance document to reflect the 2020 HM Treasury Green Book review.
- 1.1.3. The overall concept for developing business cases across three investment stages and utilising the five-case model remained unchanged within the update to the *Transport Business Case* guidance, but the specific contents, and their level of development, within each of the five cases was revisited.

1.2 PURPOSE OF THIS DOCUMENT

- 1.2.1. This Management Case Addendum provides a companion document to the existing OBC Management Case, focussing on a review and update of the scheme dependencies and the project delivery programme.

1.3 STRUCTURE OF THIS DOCUMENT

- 1.3.1. The structure of this document is set out below.
 - Chapter 2 provides a summary overview of the Management Case developed in January 2020 and sets out the areas for review and update in this addendum document; and
 - Chapter 3 provides a review and update of the Management Case Project Dependencies and Project Delivery programme

¹ <https://www.greatercambridge.org.uk/asset-library/Sustainable-Transport/Public-Transport/Cambourne-to-Cambridge/C2C-OBC-Jan-2021/C2C-Jan-2020-App-1-Management-Case.pdf>

2 MANAGEMENT CASE

2.1 INTRODUCTION

- 2.1.1. The OBC Management Case was published in January 2020. The Management Case sets out Project Dependencies and the Project Plan.

2.2 PROJECT DEPENDENCIES

- 2.2.1. Project dependencies identified by the 2020 OBC were as follows:
- Delivery of housing and employment sites set out in the South Cambridgeshire Local Plan. A key driver of the CtoC scheme is the new housing developments, particularly at Cambourne West and Bourn Airfield.
 - Emerging Cambridgeshire and Peterborough Combined Authority (CPCA) policy. The CtoC scheme, the OBC stated, needed to be reviewed against the draft Local Transport Plan and future Cambridge transport systems proposals to ensure the scheme's alignment with current policy;
 - Cambridge Autonomous Metro (CAM). The OBC identified a need to monitor the development of CAM as the CtoC scheme formed part of Phase 1 of the infrastructure for CAM;
 - City Access Strategy. The OBC stated that the City Access Strategy by addressing congestion in the city centre and facilitating travel in and out of the city centre through improved bus journey times would be a key factor in encouraging people to use the CtoC Park and Ride.
 - Oxford-Cambridge Arc: Both the Oxford-Cambridge expressway and East-West Rail projects were identified as having an impact on travel in the corridor and although CtoC is not directly dependent on these schemes it was stated that these schemes may have a significant impact on CtoC;
 - Emerging technologies. The final specification of CtoC will be led by technology advances and solutions available at the time of procurement.

2.3 PROJECT PLAN

- 2.3.1. The project scope and execution was assessed by the full project team and with the support of key stakeholders. GCP developed its own work and reporting stages using key decision points based on the DfT business case process. The detailed programme approved by the Project Board was set out in Appendix J of the January 2020 Management Case. The reporting process for raising risks to programme delivery was through a Status Report to the Project Board. A formal requirement to change the programme would be reported to the GCP Executive Board for approval with recommendations provided for the decision-makers.
- 2.3.2. The Management Case set out the key milestones for the CtoC delivery programme shown in Table 2-1. .

Table 2-1 – CtoC Delivery Programme (January 2020) – Key Milestones

Phase	Task	Target Completion Date
Phase 1: Establish Project	Agree the scope of the project	2014
	GCP Executive Board Approval	2014
Phase 2: Identify Outline Concepts	Options Generation & Initial Sifting	2Q2014
	Further Options Assessment	2Q2015
	Stakeholder Consultation on Options	1Q2016
	SOBC	3Q2016
	GCP Executive Board Approval	3Q2016
Phase 3: Identification of Preferred Option	Further Option Assessment	3Q2017
	Further Stakeholder Consultation	1Q2018
	Business Case Update Preferred Option	2Q2018
	GCP Executive Board Approval	4Q2018
	Develop Design	1Q2019
	Stakeholder Consultation	1Q2019
	OBC	4Q2019
	GCP Executive Board Approval	4Q2019
Phase 4: FBC & Statutory Approvals	TWAO Application	3Q2020
	Objection Management	1Q2021
	Public Inquiry (if required)	1Q2021
	Secretary of State Decision	4Q2021
	Procurement	1Q2022
	FBC	1Q2022

	GCP Executive Board Approval	2Q2022
Phase 5: Final Design Scheme for Approval	Final Designs	1Q2022
	GCP Executive Board Approval	2Q2022
Phase 6: Construction & Final Operator Handover	Scheme Construction	2Q2022
	Handover	2Q2024
	Scheme Opening	2Q2024

3 MANAGEMENT CASE REVIEW AND UPDATE

- 3.1.1. The Management Case Review and Update is presented in this chapter. Table 3-1 shows the actions undertaken for this OBC update, namely a review, and if appropriate an update of project dependencies and the project plan. A risk management update is also provided for project risks.

Table 3-1 – Sections of Management Case Updated

Section	Comments	Action
Introduction and objectives	This section would need to be revisited to ensure it reflects any updates to the Management Case	Addressed at FBC
Evidence of similar projects	Chapter 2 of the Management Case includes evidence of similar projects. This section could be updated if there are further relevant projects delivered since production of the OBC	Addressed at FBC
Governance, organisational structure and roles	This section would need to be revisited to ensure it reflects the release of the Value Toolkit	Addressed at FBC
Assurance	There are no changes anticipated to this section of the Management Case	No action for OBC Addendum, reconsider at FBC stage
Programme or project reporting	There are no changes anticipated to this section of the Management Case	No action for OBC Addendum, reconsider at FBC stage
Programme or project scope, dependencies and constraints	Chapter 3 of the Management Case sets out the project dependencies. These need to be revisited to reflect their latest position	Addressed in OBC Addendum
Project implementation	There are no changes anticipated to this section of the Management Case	No action for OBC Addendum, reconsider at FBC stage
Programme or project plan	The project programme will need to be revisited to ensure it reflects the latest position	Addressed in OBC Addendum

Stakeholder engagement and communications	This section should be updated to reflect the latest position and any additional stakeholder engagement activities since the production of the current OBC	Addressed at FBC
Risks and issues management	This section should be updated to reflect any changes in the risk register	Addressed at FBC
Lessons management	This section was added as part of the August 2021 update to the DfT's Transport Business Case guidance	Addressed at FBC
Benefits management	This section would need to be revisited to ensure it reflects the release of the Value Toolkit	Addressed at FBC
Data information security	This section was added as part of the August 2021 update to the DfT's Transport Business Case guidance	Addressed at FBC
Benefits management and evaluation	This section would need to be revisited to ensure it reflects the release of the Value Toolkit	Addressed at FBC
Project closure	This section was added as part of the August 2021 update to the DfT's Transport Business Case guidance	Addressed at FBC

3.2 PROJECT DEPENDENCIES

- 3.2.1. Chapter 2 of this document has set out the project dependencies identified in the OBC. In this chapter these project dependencies have been revisited to reflect their latest position.
- 3.2.2. The review of the project dependencies is shown in Table 3-2 below: It should be noted that the housing developments along the CtoC corridor are dependencies requiring the CtoC to be implemented to be developed. The other potential impacts shown in Table 3-2 are considered complementary impacts rather than dependencies.

Table 3-2 – Project Dependencies

	Impact on the Development of the Scheme
Delivery of housing and employment sites set out in the South Cambridgeshire Local Plan and Emerging Greater Cambridge Local Plan.	A key driver identified in the 2020 OBC for the CtoC scheme is the new housing development at the Bourn Airfield and Cambourne West sites. The 2018 South Cambridgeshire Local Plan provided for 3,500 new homes at Bourn Airfield and 2,350 new homes at Cambourne West. In the Emerging Greater Cambridge Local Plan, the housing units increase to 2,850 homes at Cambourne West. There are also 2,000 additional homes to be built in Cambourne, as identified in the latest Emerging Local Plan. Delivery of much of this housing development is dependent on the CtoC scheme.

City Access Strategy	The CtoC scheme will deliver a sustainable transport network which would derive additional benefit from complementary initiatives such as the City Access Strategy, which seeks to reduce the attractiveness of the car as a mode for accessing the city centre but would provide additional benefits for alternative modes including the CtoC scheme. Making Connections, a part of the City Access programme, proposed a Sustainable Travel Zone (including a road-user charging scheme) discouraging car use in the city centre. The proposed STZ is not being taken forward, but the March 2024 GCP Executive Board agreed that any revised proposals for City Access would be developed through the Greater Cambridge Transport Strategy led by the Cambridgeshire County Council.
Cambridge South East Transport project (CSET)	The Cambridge South East Transport project (CSET) provides enhanced and safer bus, cycling and walking routes in the A1307 and A1301 areas. CSET is included in the GCP's vision for a future Bus Strategy and is one of the four public transport corridors including active mode improvements identified as essential to link growing communities across Cambridge. As such CSET is complementary to CtoC in supporting the growth of the Cambridge economy.
Cambridge Autonomous Metro (CAM)	The CtoC scheme is part of a wider high quality public transport network (HQPT). This included CAM (Cambridge Autonomous Metro), which is no longer being pursued. However, whilst the CAM offered additional network synergy, the CtoC scheme was never dependent on the CAM scheme.
Greater Cambridge Greenways	The Greenways network of improvements to cycling and pedestrian connectivity provides scope for enhanced connectivity for users of the CtoC cycling and walking infrastructure. The Greenways in general, and in particular the Comberton Greenway, will provide additional connectivity benefits for active modes using the CtoC Non-Motorised Users (NMU) infrastructure.
East-West Rail	<p>East-West Rail (EWR) will provide improved rail connectivity along the Oxford-Cambridge Arc.</p> <p>In 2024, the EWR section connecting Bicester with Bletchley and Milton Keynes is scheduled for completion.</p> <p>The section of EWR connecting Milton Keynes with Cambridge is in the planning stage. In 2021, the consultation document identified the route along the A428 with a station in Cambourne North as the emerging preference for the EWR alignment.</p> <p>EWR will have an impact on travel in the CtoC corridor. However, the impact on CtoC is not likely to be significant as EWR will serve longer distance travel whilst CtoC will serve shorter distance travel between Cambourne West / Bourn Airfield and Cambridge. .</p>

Oxford-Cambridge Expressway	In 2020, there were plans for an expressway, the Oxford-Cambridge Expressway, however this scheme is no longer being pursued, so there is no likely medium-term impact for CtoC.
National Highways M11 Improvements	National Highways regularly reviews its network to identify improvements to be included in its Route Improvement Strategy (RIS). Currently, the opportunity to improve either Junctions 13 or 14 has been discussed but there are no current plans for either to be delivered in the RIS.
Emerging technologies.	Emerging technologies were identified in the OBC as a project dependency. Utilisation of emerging technologies remains a consideration for the final specification of CtoC, which will reflect the latest technologies and solutions available at the time of procurement. GCP is currently preparing to trial the solutions developed for the CAVForth scheme, which operates buses on motorways in mixed traffic. As such this provides a significant basis upon which CtoC can build.

3.3 PROJECT PLAN

- 3.3.1. The project plan has been revisited to reflect the latest position and is shown in Table 3-3 below. It should be noted that this is subject to further refinement as the project progresses.

Table 3-3 – Updated Project Delivery Plan

Phase	Task	Target Completion Date, OBC Update
Phase 1: Establish Project	Agree the scope of the project	2014
	GCP Executive Board Approval	2014
Phase 2: Identify Outline Concepts	Options Generation & Initial Sifting	2Q2014
	Further Options Assessment	2Q2015
	Stakeholder Consultation on Options	1Q2016
	SOBC	3Q2016
	GCP Executive Board Approval	3Q2016
Phase 3: Identification of Preferred Option	Further Option Assessment	3Q2017
	Further Stakeholder Consultation	1Q2018
	Business Case Update Preferred Option	2Q2018
	GCP Executive Board Approval	4Q2018

	Develop Design	1Q2019
	Stakeholder Consultation	1Q2019
	OBC	4Q2019
	GCP Executive Board Approval	4Q2019
Phase 4: FBC & Statutory Approvals	TWAO Application	3Q2024
	Objection Management	4Q2024
	Public Inquiry (if required)	2Q2025
	Secretary of State Decision	4Q2025
	Procurement	4Q2025
	FBC	4Q2025
	GCP Executive Board Approval	4Q2025
Phase 5: Final Design Scheme for Approval	Final Designs	4Q2025
	GCP Executive Board Approval	4Q2025
Phase 6: Construction & Final Operator Handover	Scheme Construction	1Q2026
	Handover	4Q2027
	Scheme Opening	1Q2028

3.4 RISK MANAGEMENT

- 3.4.1. The approach to risk management and development of a risk management strategy is set out in the 2020 OBC Management Case. The risk register has since been updated to capture the progress of the scheme and assist in programme management.
- 3.4.2. The current key quantified project risks at OBC stage are a result of a QCRA carried out in February 2024. An assessment score has been produced for each risk. These scores are set out in Table 3-4, along with a summary of impacts, mitigation measures and mitigation progress for each risk.

Table 3-4 – Risk Register - Key Project Risks

Risk/Opportunity	Risk Category	Project Stage	Project Risk Description (If)	Potential Impact (Then)	Pre-Mitigation Likelihood	Pre-Mitigation Impact	Pre-Mitigation Score	Risk Mitigation / Realisation Measures	Post-Mitigation Likelihood	Post-Mitigation Impact	Post Mitigation Score
Risk	External Stakeholders	DS3 - Preliminary Design	The agreements with the developers take longer to negotiate than planned, due to the concerns of the Environment Agency around the capacity of water infrastructure to accommodate additional housing. This is delaying the TWAO submission and could put the overall project at risk.	Since the TWAO application is not being submitted until the signed agreements are in place, this could result in the programme being delayed with associated cost increases including inflationary pressures.	5	5	25	Continued negotiation and schedule of regular meetings with landowners' agents to reach conclusion. Capture tasks in project programme.	5	5	25
Risk	Construction	DS5 - Delivery	Utility diversions may not be complete in time, cost more and take longer. Key interfaces are Cadent Gas, UKPN overhead electricity at the proposed park & ride site and communications apparatus at various locations.	Prolongation and associated costs including cost of mitigation.	4	4	16	Advanced works contract to undertake the utility diversions and additional GPR surveys. Agreement of the protective provisions with the utility providers.	4	4	16
Risk	Statutory Process	DS3 - Preliminary Design	The TWAO submission is not authorised by the Secretary of State (SoS) because of concerns with adherence to Statutory Process, for example: - Consultation Process (separate risk created)	If the process or documents does not adhere to the TWAO requirements, then there will be grounds for the scheme to be delayed/ rejected.	3	5	15	Legal advice should mitigate risk sufficiently and implement strategies for Consultation etc. Produce documents and	2	5	10

			<ul style="list-style-type: none"> - Non-adherence of deadlines/ time constraints in TWAO - Documents do not meet requirements 	Cost impact includes programme delay and resubmission of the TWAO.				processes as advised by legal advisors			
Estimating Uncertainty	Project Funding	DS5 - Delivery	Construction inflation may exceed cost plan provision due to shortage in supply chain capacity and demand outstripping supply.	<p>The latest update to the Cost Estimate (V1.9) included an allowance for inflation and inflation contingency of £24.3 million. This estimating uncertainty captures the possibility that the project has over or under provided for inflation.</p> <p>The estimating uncertainty has been modelled with a pessimistic skew as construction cost inflation is consistently tracking above the general rate of inflation.</p> <p>Min - 5% reduction in inflation cost</p> <p>MI = no substantive variation from inflation costs built into the cost estimate.</p> <p>Max -20% increase in inflation costs.</p>	5	4	20	Manage through best practice commercial and procurement management	5	4	20
Risk	Supply Chain	DS5 - Delivery	Market interest /competing projects. Competition for resources with Sizewell C, Black Cat to Caxton Gibbet, and other major projects will drive up resource cost. The construction programme is also challenging (2 years).	<p>If local contractors are not available, then may need to source contractors from further afield resulting in delay to procurement and driving up costs.</p> <p>Inflationary impact over and above cost plan</p>	4	4	16	<p>Consideration of procurement routes to make the project attractive to potential tenderers.</p> <p>Pre-market engagement.</p>	3	4	12

				provision expected to be covered within our cost plan allowance for inflation. Main cost impact is prolongation of the project team and delayed start of project, possibly up to 6 months delay (resulting in 2.5% inflation)							
Risk	Statutory Process	DS3 - Preliminary Design	Statutory stakeholders object to scheme e.g. risks associated with landowners, utilities diversion works etc	If the risk to Stakeholders statutory assets was high enough to warrant an objection, then the scheme could be halted.	3	5	15	Consultation strategy for early engagement with stakeholders. Work jointly with land and legal advisors. Ensure collaborative interfaces and workstreams to ensure focus on TWAO requirements.	3	4	12
Risk	Design	DS3 - Preliminary Design	Risk that alignment of circa 200m route along Rifle Range Track could have an adverse impact on trees that are protected by TPOs	Potential need to design alternative alignment or localised measures to safeguard tree roots.	5	4	20	WSP has undertaken a radar survey of roots and prepared an indicative engineering solution set out in a Technical Note. Engage with LA Tree Protection Officers to confirm proposed methodology and solution.	5	3	15

Risk	Project Scope	DS3 - Preliminary Design	Developments do not proceed as planned	If the developments do not proceed as planned, then the scheme will receive less S106 funding and there is likely to be lower demand for the CtoC scheme bus services which are connected to future growth.	4	4	16	Close consultation with CCC is required to affirm that developments will proceed as planned in the scheme corridor and assumed build out timescales.	4	3	12
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WSP QCRA, February 2024



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