TRANSPORT & INFRASTRUCTURE COMMITTEE

Date:Wednesday, 17 January 2024

Democratic Services

Edwina Adefehinti
Interim Chief Officer Legal and Governance
Monitoring Officer

10:00 AM

2nd floor, Pathfinder House
St Mary's Street
Huntingdon
Cambs
PE29 3TN72

Civic Suite, Pathfinder House, St Mary's Street, Huntingdon PE29 3TN

AGENDA

Open to Public and Press

1 Apologies for Absence and Declarations of Interest

2 Minutes of the Previous Meeting and Action Log

To approve the minutes of the meeting held on 15 November 2023 and to note the Action Log.

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3 Public Questions

Arrangements for asking a public question can be viewed here - Public Questions - Cambridgeshire & Peterborough Combined Authority (cambridgeshirepeterborough-ca.gov.uk)

4	**Combined Authority Forward Plan** To note the Combined Authority Forward Plan	
5	**Director's Highlight Report**	**13 - 62**
6	**Bus Reform**	**63 - 76**
7	**Bus Strategy Update**	**77 - 198**
8	**Transport Funding Decisions**	**199 - 207**
9	**A10 Corridor Project** To receive a verbal update on the progress of the A10 corridor project and the potential themes that will be considered for public consultation.	
10	**Peterborough Station Quarter Update**	**208 - 365**
11	**Budget and Performance Report - January 2024**	**366 - 369**
12	**Transport & Infrastructure Committee Agenda Plan**	**370 - 377**
13	**Exclusion of the Press and Public** To determine whether the Public and Press be excluded from the meeting in accordance with section 100(A) (4) of the Local Government Act 1972 as amended, as the following item of business has an exempt appendix and the discussion may involve the disclosure of exempt information as defined in Part 1 of Schedule 12A of the Act; information relating to the financial or business affairs of any particular person (including the Authority holding that information).	
14	**Kings Dyke Update**	**378 - 379**
15	**Date of next meeting:** Wednesday, 13 March 2024	

COVID-19

The legal provision for virtual meetings no longer exists and meetings of the Combined Authority therefore take place physically and are open to the public. Public access to meetings is managed in accordance with current COVID-19 regulations and therefore if you wish to attend a meeting of the Combined Authority, please contact the Committee Clerk who will be able to advise you further.

The Transport & Infrastructure Committee comprises the following members:

For more information about this meeting, including access arrangements and facilities for people with disabilities, please contact

Rebecca Stephens

Dr Andy Williams

Cllr Gavin Elsey

Mayor Dr Nik Johnson

Councillor Peter McDonald

Councillor Chris Seaton

Councillor Neil Shailer

Councillor Alan Sharp

Councillor Sam Wakeford

Clerk Name:	Joanna Morley
Clerk Telephone:	
Clerk Email:	joanna.morley@cambridgeshirepeterborough-ca.gov.uk

CAMBRIDGESHIRE & PETERBOROUGH
COMBINED AUTHORITY

Transport & Infrastructure Committee
Draft Minutes

Wednesday 15 November 2023

Venue:	Civic Suite, Pathfinder House, Huntingdon PE29 3TN	
Time:	10.00 to 13.00	
Present:	Councillor Anna Smith Mayor Dr Nik Johnson Councillor Alan Sharp Councillor Gavin Elsey Councillor Neil Shailer Councillor Lara Davenport-Ray Councillor Chris Seaton Councillor Peter McDonald Ms Rebecca Stevens Mr Andy Williams	Chair and Member for Cambridge City Council CPCA Mayor East Cambridgeshire District Council Peterborough City Council Cambridgeshire County Council Huntingdonshire District Council Fenland District Council South Cambridgeshire District Council Business Board Representative Business Board Representative
Apologies	Councillor Sam Wakeford	Huntingdonshire County Council

Minutes:

1	**Announcements, Apologies for Absence and Declarations of Interest**
1.1	The Chair welcomed Cllr Elsey, the new Peterborough member of the Committee.
1.2	Apologies were received from Cllr Wakeford. Cllr Davenport-Ray attended as his substitute
1.3	Cllr Seaton declared an interest as he was a trustee of FACT Community Transport and also Chairman of Hereward Community Rail Partnership. These were deemed non-pecuniary interests and therefore would not affect his participation in items on the agenda.
2	**Draft Minutes and Action Log**
2.1	The Chair made reference to a recent meeting of Peterborough City Council where comments had been made about exactly what had been said at the September meeting of the Transport and Infrastructure Committee (TIC) in relation to item 7 on the agenda; Depot for Electric Buses - Peterborough. The Chair would be writing to the Mayor of Peterborough, Cllr Nick Sandford, to ask that the record of their Council meeting be corrected so that it accurately reflected what had been said at the TIC meeting and aligned with the Committee's own minutes.
2.2	The minutes of the meeting of 13 September 2023 were approved as an accurate record.
2.3	The Action Log was noted.

3	**Public Questions**
3.1	Four public questions had been received. These had been circulated to the Committee prior to the meeting and can be found, together with the responses given, on the website here: CMIS > Meetings under additional meeting documents. The first three questions, from the Bramley Line Heritage Railway Trust, Peter Wakefield – Vice-Chair, Railfuture East Anglia, and Mr Hollingsworth, Cambridge resident, were read out by the Governance Manager and responses to each were given by the Chair. The fourth question was asked by Mr Wood who was present at the meeting to address the Committee. Mr Wood was allowed a supplementary question and asked that an individual in the CPCA be designated as a 'Bus Stop Czar' with specific responsibility for Bus Stop infrastructure.
4.	**Combined Authority Forward Plan** RESOLVED 1. That the Combined Authority Forward Plan be noted.
5	**Director's Monthly Highlight Report –November 2023**
5.1	Steve Cox, Executive Director – Place and Connectivity, introduced the report which provided the Committee with a general update on the key activities of the Place and Connectivity Directorate in relation to Transport and Infrastructure, which were not covered in other reports to this meeting. It also provided information on some key developments, risks and opportunities that had emerged.
5.2	During discussion the following points were noted: a) The Mayor drew the Committee's attention to the Road Safety: Vision Zero Summitt meeting referenced in the report and requested, through the Chair, that all the Committee members and the Business Board members pledge their support for the approach which believed that no death or serious injury was acceptable on the roads. The Chair and members voiced their support and confirmed they would highlight the issue with their respective councils and the Business Board, and also initiate conversations with the Police and Crime team. b) Information had been circulated on Soham Train Station usage data but it did not provide the comparison asked for in the Action Log so members asked that this action remain open. Officers were waiting on information from Greater Anglia that would enable them to do the comparison work that was needed in order to establish how well it was doing in relation to the business case. c) The importance of progressing the work on the A141 because of its impact on the delivery of Huntingdonshire's Local Plan was absolutely recognised. Part of the delay over the past year had been to enable policy changes on Active Travel and Climate Change to be wrapped into the work. d) Carbon impact was an important consideration and would be assessed as part of the work on both the A10 and the A141. e) Peterborough City Council (PCC) had put an application in to National Highways for a flyover to replace the extremely dangerous Wittering junction which crossed the A1. The member for Peterborough asked that the Committee support this application as it would undoubtedly reduce deaths and serious accidents and align with the Vision Zero pledge raised by the Mayor. Officers were in regular contact with National Highways and would follow up on this issue. f) The views of the Committee on the Government proposal to close ticketing offices had emboldened the Mayor to join other metro mayors to challenge Government. The subsequent change in policy was greatly welcomed and both the Mayor and the Chair thanked officers and the legal team on the work done behind the scenes on this issue. g) At the Climate summit an open letter written by young people highlighted that, for the young, public transport including trains and buses, was unappealing and a choice of last resort. They would like to collaborate with politicians and gather opinions from the public, particularly young people, to see what could be done as they saw public transport as a major concern that was limiting their opportunities. The Chair asked whether they could be invited to a future TIC meeting to discuss the matter further as it was imperative that CPCA worked to ensure that public transport was a positive choice for the younger generation.

	h) Further collaboration between the Environment and Sustainable Communities Committee, and the Transport and Infrastructure Committee was to be encouraged because of the links between them around climate change and the important role transport played in achieving net zero targets. RESOLVED 1. That the Transport and Infrastructure Committee note the report.
6	**Local Transport and Connectivity Plan**
6.1	Tim Bellamy, Acting Assistant Director Transport, introduced the report which provided an update on the Local Transport and Connectivity Plan (LTCP) and invited the Committee to recommend that the Combined Authority Board approve the final version of the Plan. The Plan would be submitted to central government on the agreement and approval of the Combined Authority Board.
6.2	During discussion the following points were noted: a) The Chair thanked the new Peterborough member and Leader of the Council for engaging very positively with the LTCP process given the very short time between their appointment and its presentation to the Committee. In return the Peterborough member thanked the team for the effort they had put in to work with Peterborough. b) Although there were areas in the document that they agreed with, both the Fenland and East Cambridgeshire members, who represented rural areas, expressed some continuing concerns with the revised LTCP especially with its approach to car use. c) The CPCA would continue to look at the bus services provided and their connections to other routes not just in terms of providing a better service to encourage people to use the services, but also from a safety aspect ensuring that bus stations were a more attractive environment in which to spend time. d) Officers were working with partners, including PCC, on the connectivity study between North Northamptonshire and Peterborough to explore short, medium and longer term options for this issue. e) Although Buses were a key component of the Strategy, officers were also looking at other innovations such as light rail options for some areas. f) The LTCP provided a menu of measures that could be used across the region but was not intended to be prescriptive. Any measures would ultimately still need to be developed and agreed by the relevant Highways Authority. g) Offices were engaging with Active Travel England and all constituent councils about connectivity and using active travel in more rural areas. h) Members thanked officers for how closely they had worked with the constituent authorities to try and capture their aims, as laid out in the specific appendices. i) Bus operators had expressed how important dedicated road space was in order to improve the reliability and timetabling of their services. j) Government expected all Combined Authorities to have an LTCP document and funding was dependent on it. RESOLVED On being proposed by the Chair and seconded by Cllr Elsey, it was resolved to: [6 in favour, 2 against] 1. Note the contents of the revised Local Transport and Connectivity Plan 2. Recommend to the Combined Authority Board to approve the Local Transport and Connectivity Plan.

7	**Bus Strategy Update (including Bus Network Review)**
7.1	Neal Byers, Transport Consultant, introduced the report which set out the further findings of the Bus Network Review and the recommendations for services to be retained and the further work required to complete the review. The paper also provided an overview of an audit of the on-street infrastructure, the intension to submit a further bid to the national Zebra funding scheme and updates on the national £2 fare scheme.
7.2	During discussion the following points were noted: a) The Chair suggested that the discussion be split into three sections; one on the routes, one on the BSIP funding, and one on future activities. A request by Cllr Todd-Jones to speak to the third part of the discussion had been accepted by the Chair. b) Members of the Committee highlighted a number of routes and made a number of comments. Officers welcomed these comments which would feed into the wider review of the network and responded on particular routes as follows: • Service 29 was introduced as a trial and an opportunity to provide an alternative connection. CPCA officers would work with PCC on this as it could potentially be discontinued if not used. • In order to get recommendations in place for the next financial year the timescale for decisions on all of the services would be the CA Board meeting in January. • Officers would have another look at service 18 but felt that the extent to which changes could be made to it had already been exhausted. It was possible that more could be done around promotion of the service and officers would look to work with East Cambridgeshire colleagues on this. • In respect of service 11 tendered services could not be put into an area where services were already operating commercially. There was also a trade off between faster journeys and those that connected to particular communities. Conversation would be had with the council to see how the communities across the whole of that route could be best served. c) There were no specific questions on BSIP+ d) Cllr Mike Todd-Jones, who represented Arbury ward on Cambridge City Council and was also Chair of the North Area Committee, addressed the Committee and asked that the CPCA use whatever leverage they had to lobby Stagecoach and to consider two issues affecting his residents for future investment. The first concerned the Bus A route down Histon Road which had had five of the six stops withdrawn and which therefore put elderly users and those with mobility issues at significant disadvantage. The request was for at least a second stop to be re-instated. The second request was for consideration of a through route from the north of the city to the south without a change in the city centre. e) The CPCA would go through an options process to understand what was the right approach for a combined authority to take in regard to ownership and maintenance of bus stop infrastructure. This would happen as part of the work on bus reform. f) A plea was made for the engagement process referenced in 2.6 of the report to be extended to business organisations such as the Chamber of Commerce and the Federation of Small Businesses. g) The Chair and the Mayor were thanked for championing the cause of the Wittering service. <u>RESOLVED:</u> (UNANIMOUS) On being proposed by the Chair and seconded by Cllr Davenport-Ray, it was resolved to: 1. To receive and consider the findings of the Bus Network Review 2. To note the positive and constructive engagement with communities and bus operators. 3. To recommend to the CPCA board the proposals for the 19 tendered bus services which were placed under review. 4. To recommend to the CPCA board a preferred way forward for the allocation of the BSIP+ funding. 5. To note the proposed focus for short-term investment if further funding was available. 6. To note the intension of CPCA to submit a submission to the Zebra round 2. 7. To note the work of CPCA to audit the on-street bus service infrastructure and information. 8. To note the update on the national £2 fare scheme.

8	**BP Roundabout Non-Motorised User (NMU) Crossing Study**
8.1	Robert Jones, Transport Programme Manager, introduced the report which provided an update on the BP Roundabout Non-Motorised User (NMU) Crossing Study and outlined the next stages. The paper also sought a recommendation to the CA Board that the project progress to the next stage and that funding of £550,000 for this next stage be approved.
8.2	During discussion the following points were noted: a) An underpass option had been ruled out on the basis of cost which was likely to be prohibitive and disproportionate to demand. In addition, at consultation events, an underpass had not been cited as a preference. b) The Chair and the Mayor thanked officers for all the hard work done on the project. <u>RESOLVED</u> (UNANIMOUS) On being proposed by the Chair and seconded by Cllr Sharp it was resolved to 1. To note progress on BP Roundabout non-Motorised User (NMU) Crossing Study. 2. To recommend to the CPCA Board to approve the funding of £550,000 for the next stage of this project, from within the MTFP. The funding will be from £1.8m subject to approval unallocated active travel funding for 2024/25 to fund further appraisal work (Stage 2 in para 3.5)
9	**March Area Transport Study**
9.1	Emma White, Transport Programme Manager introduced the report which provided an update on the work undertaken to date on the March Area Transport Study (MATS). The paper also proposed the reallocation of underspend on both the full business case process and March Walking and Cycling.
9.2	During discussion the following points were noted: a) At a recent meeting of the MATS member steering group, held with colleagues from CCC, there was an indication that further works on the Northern Industrial Link Road (NILR) had been put on hold. Members sought reassurance that there was still a commitment to deliver on this. b) The NILR would be part of the capital programme of the MTFP being put forward to the Board for consideration at their November meeting. This was in two parts; funding for the development of the scheme and funding for the delivery of it in the longer term. <u>RESOLVED:</u> (UNANIMOUS) On being proposed by the Chair and seconded by Cllr Seaton, it was resolved to 1. To note progress on March Area Transport Study (MATS) 2. Approve the reallocation of £85,000 underspend from Full Business Case 1 to Full Business Case 2 3. Approve the underspend of £124,913 from the previously approved March Walking and Cycling budget to complete additional activities for Walking and Cycling in March.
10	**Wisbech Rail**
10.1	Matthew Lutz, Transport Programme Manager, introduced the report which gave an update on the Wisbech Rail Project following a request from Transport and Infrastructure Committee Members. Rob Russell, Business Development Officer for Network Rail, was also in attendance to answer members' questions.

10.2	During discussion the following points were noted: a) Wisbech was recognised as one of the largest towns in England without a rail link to the main network. b) Conventional heavy rail was probably not the most suitable option in the context of the project at this time and so other options and newer technologies were being explored, and taken right back to pre-feasibility, to understand what was possible. c) Network Rail would not be telling the CA what to progress with but instead would provide them with a report that detailed the high-level costings and the benefit-cost ratios. The CA would then be able to use this information in a business case which Network Rail would support. d) Members expressed their frustration with the project which had been talked about for so long but had made little headway. e) The engineering report would be finished by 31 March 2024 and it was expected that final costings, which could start in tandem with this work, would be ready a month after that. f) While the Network Rail work was progressing CPCA officers had been challenged by the Assistant Director to see what could be delivered in the short term. g) In terms of futureproofing, Network Railway confirmed that none of the options being looked at in the modal appraisal precluded any future connectivity onto the main line. In the first instance however, the focus was on how that connection could be made to March. h) The Chair thanked Rob Russell for joining the meeting. <u>RESOLVED:</u> 1. To note the development in relation to the Wisbech Rail Project.
11	**Budget and Performance Report**
11.1	Tim Greenwood, Finance Manager, introduced the repot which provided an update of the financial position for 2023/24 and an analysis against the 2023/24 budget up to the period ending September 2023.
11.2	During discussion the following points were noted: a) The underspend in concessionary fares was, as members had suggested, partly due to the effects of the Pandemic and there was further work to be done in encouraging usage and giving reassurance to passengers. <u>RESOLVED:</u> That the Transport and Infrastructure Committee: 1. Note the financial position of the Transport Division for the financial year 23/24 to September 2023. 2. Review and comment on the current Transport budgets within the Combined Authority's Medium-Term Financial Plan and Capital Programme. <u>ACTION:</u> 1. The Concessionary Fees lead officer to circulate to the Committee a briefing note on the concessionary fares' budgetary position and the expectations for next year.
12	**Transport & Infrastructure Committee Agenda Plan** <u>RESOLVED:</u> 1. That the Transport and Infrastructure Committee Agenda Plan be noted.

13	**Exclusion of the Press and Public** RESOLVED: 1. That the Transport and Infrastructure Committee meeting remain in public session.
14	**DEFRA's Air Quality Bid**
14.1	Yo Higton, Active Travel Lead, introduced the report which provided an overview of the Defra Air Quality Grant (2023/24) bid submitted on 29 September 2023.
14.2	During discussion the following points were noted: a) The location of central Cambridge city had been chosen as it was the largest transport related Air Quality Management Area (AQMA) and therefore would have the largest impact on the project. If successful the project model could be rolled out to other areas if additional funding was available. RESOLVED: On being proposed by the Chair and seconded by Cllr Seaton, it was resolved to: 1. To note the contents of the Defra Air Quality Grant Bid. 2. To recommend to the Combined Authority Board to approve the drawdown of Air quality Grant funding subject to Defra approving the bid. 3. Subject to Defra approving the bid, recommend to the Combined Authority Board to approve the delegation of authority to the Assistant Director - Transport to enter into a contract with sub-contractors named in the bid, subject to procurement, and in consultation with the Chief Financial Officer and Monitoring Officer
	---o0o--- The Chair thanked all of the transport team for their hard work ---o0o---
15	**Date of Next Meeting**
15.1	The date of the next meeting was confirmed as Wednesday 17 January 2024.

Meeting Ended: 12.47pm

Transport & Infrastructure Committee Action Log

The action log records actions recorded in the minutes of Transport & Infrastructure Committee meetings and provides an update on officer response.

Minutes of the meeting on 15 November 2023					
Item	**Report Title**	**Lead Officer**	**Action**	**Response**	**Status**
11.	Budget and Performance Report	Tim Greenwood	The Concessionary Fees lead officer to circulate to the Committee a briefing note on the concessionary fares' budgetary position and the expectations for next year. . .		In progress

Minutes of the meeting on 13 September 2023					
Item	**Report Title**	**Lead Officer**	**Action**	**Response**	**Status**
5. (8)	Bus Network Review	Neal Byers	Officers to provide members with additional information on BSIP funding and the costings for the extension of the Ting Contract until the end of the year. .	Provided as part of the Bus Strategy Update report that went to the November meeting.	Closed

Minutes of the meeting on 12 July 2023					
Item	**Report Title**	**Lead Officer**	**Action**	**Response**	**Status**
4.	Place & Connectivity Directorate Monthly Highlight Report – June 2023	Steve Cox	The Active Travel Lead Officer to engage with Members over the next three months to understand the key concerns around rural connectivity and for these to then be fed back to Active Travel England.	The Head of Transport and the Active Travel Lead will be engaging with Leaders and Members during the autumn period to understand their concerns around rural connectivity. Some of this information has been gained from meetings with Leaders over the course of the past 2 months alongside the session held with ATE.	On-going

Minutes of the meeting on 14 June 2023					
Item	**Report Title**	**Lead Officer**	**Action**	**Response**	**Status**
5.	Place & Connectivity Directorate Monthly Highlight Report – May 2023	Steve Cox	Officers to circulate to the Committee a simple comparison of indicators showing Soham Station Usage; looking at what the bid had indicated, what the tickets entered were, what the ORR reported, and what the differences between these were.	Simple graph showing the comparison between the two datasets will be circulated on receipt of the next update (6 months point). This should be available for future TIC meeting, depending on the release of the data.	Open
5.	Place & Connectivity Directorate Monthly Highlight Report – May 2023	Steve Cox	Officers to ask Stagecoach to investigate design strategies that would allow for two wheelchair spaces with alternative space offered for storage of prams and push-chairs.	Officers liaising with Stagecoach at a technical level to consider what can practically be done to assist. Officers will report back to the TIC in due course.	In progress
6.	E-Scooter Update	Anna Graham	A paper on e-bikes as part of a fully integrated active travel system and how they would link in with buses and trains to be presented to the Committee at a future meeting.	Specific item on integrated usage to be presented at future TIC meeting following the acceptance of the LTCP.	Open

Transport & Infrastructure Committee

17 January 2024

Agenda Item **5**

Title:	Director's Highlight Report: January 2024
Report of:	Steve Cox, Interim Executive Director – Place & Connectivity
Lead Member:	Cllr Anna Smith, Chair of Transport and Infrastructure Committee
Public Report:	Yes
Key Decision:	No
Voting Arrangements:	No vote required

Recommendations:	
A	Note the content of this report.

Strategic Objective(s):	
The proposals within this report fit under the following strategic objective(s):	
X	Achieving good growth
X	Increased connectivity
X	Enabling resilient communities

1. Purpose

1.1	This report provides a general update on the key activities of the Place and Connectivity Directorate in relation to Transport and Infrastructure, which are not covered in other reports to this meeting. It also provides information on some key developments, risks and opportunities that have emerged.

2. Recent and Forthcoming Events

2.1	On 21 November 2023 TIC member Dr Andy Williams and CPCA Transport Programme Manager attended a construction site visit to the Cambridge South Station. The visit was attended by senior members of the DfT, Network Rail and the Construction contractor J Murphy and Sons Ltd. The project continues to be well advanced with planned track closures over both this Christmas and New Year and next year also. The foundations for the footbridge and the structures for the new platforms can clearly now be seen. Progress remains as planned for 2025 opening.

3. Combined Authority scheme updates

3.1 **Fengate Access Study - Eastern Industries Access - Phase 1**

An update on the Fengate Access Study - Eastern Industries Access - Phase 1 includes:

- Completed - Newark Rd footpath, Oxney Road pedestrian crossing and Junction 7 improvements are now complete. There are some post completion works on-going which are close to being finalised.
- On-going - The Oxney Road/Newark Road mini roundabout project is now substantially complete with some minor snagging items to address and Stage 3 Road Safety Audit to complete. The Storey's Bar Road/Edgerley Drain Road/Vicarage Farm Road junction sub-project commenced on site on Monday 13 November 2023. This is estimated to be completed by 31 March 2024.
- Environmental work has commenced to identify sites where additional tree planting will be undertaken.

Junction 7


Newark Road Footpath

Oxney Road Crossing

Oxney Road Mini Roundabout


3.2 **Electric Vehicle Infrastructure and Local Electric Vehicle Infrastructure (LEVI) Capability Fund.**

This section provides an update on the work undertaken to date on Electric Vehicles Infrastructure and the LEVI fund and highlights the development of the Electric Vehicle Infrastructure Strategy – comments of which would be warmly received by officers.

Information on the LEVI fund is available via the following links - https://www.gov.uk/guidance/apply-for-local-ev-infrastructure-levi-funding and Local electric vehicle infrastructure fund - Energy Saving Trust.

In March 2023, the Transport and Infrastructure Committee and CPCA Board took note and comment on the draft Electric Vehicle Implementation Strategy, approved the East Anglian Alternative Fuel Strategy, and approved the drawdown of the £88,560 from the LEVI Capability Fund.

In March 2023, an indicative allocation to the Combined Authority was made of up to £5,437,000 capital and £403,440 capability funding under the LEVI Fund. The allocation would require that funding be used to support charge-point delivery across the region, and that there should be collaboration with any constituent local authorities on proposals to use it.

In August 2023, the Combined Authority was successful for the bid for the £403,440 Capability Fund and notified that in terms of the £5,437,000 Capital Fund tranche two was entered and in 2024/2025 a detailed application for this funding will need to be undertaken and submitted.

It has been made clear as part of the funding that collaboration drives scale and can increase the amount of private investment leveraged into projects. Therefore, the Combined Authority and Highways Authority are working as one team with the Highway Authorities.

The Capability Fund looks to achieve the following:

- Finalise EV Strategy;
- Establish EV Infrastructure Governance;
- LEVI capital fund business case;
- Training;
- Engagement – constituent councils, members, public and other key stakeholders;
- Market testing;
- Consultancy work – mapping / site selection / branding;
- Procurement – CPCA wide;
- Development of 5-year Delivery Plan;
- Staff capacity to deliver installed and commissioned charging infrastructure; and
- Work towards application for Capital Fund (£5,437,000).

In September 2023 Combined Authority Board approved the drawdown of the £403,440 LEVI Capability Fund. Progress to date includes:

- Engagement with constituent Councils' officers.
- Councillor presentation introducing Electric Vehicles and Charging Infrastructure was undertaken in November 2023.
- Engagement with England's Economic Heartland and other Local Authorities on strategies, lessons learned and way forward.
- Working through tasks as per the Capability Fund particular focus on EV strategy, consultancy work including mapping and procurement. Looking to procure mapping work this month.
- Programme, Risks and Business Case workshops internally.
- Progressing joint procurement – it is proposed Peterborough City Council lead on this – LEVI have stated "to drive scale and increase the amount of private investment leveraged into projects, collaboration between local authorities is a requirement of the LEVI Fund (between constituent authorities within a Combined Authority, between County and District Authorities and between London Boroughs).
- To realise the economies of scale, where suitable we anticipate this collaboration should result in joint procurement exercises conducted by the collaborating authorities.

- Started engagement with distribution network operator (DNO); and
- Launch of a public engagement survey this month to understand people thoughts and needs in terms of Electric Vehicle and Infrastructure in January 2024.

A draft Electric Vehicle Infrastructure Strategy was bought for comment to Combined Authority Board in March 2023. Since March 2023, this strategy has been worked on and an updated DRAFT document is appended to this report for comment in Appendix A.

The report will cover topics including:

- Scope;
- Vision & Objectives;
- Background and Policy Context;
- Local and Regional Policy;
- Chargepoint speeds and technology;
- Enabling infrastructure (DNO connections);
- Current situation across Cambridgeshire and Peterborough;
- Key Focus Areas;
- Chargepoint accessibility;
- Communication, Advocacy and Outreach;
- Public and Shared Transport;
- Planning, Regulation and Guidance;
- Commercial options for installation and operations;
- How we will deliver; and
- Action Plan.

Currently, the strategy is being shared for comment with all constituent Councils and a final collaborative and agreed document is planned to be tabled at the March 2024 Transport and Infrastructure Committee and subsequently approved at the Combined Authority Board.

3.3 **A47 High Level Study**

In the summer of 2023 Norfolk County Council on behalf of the A47 Alliance commissioned a high-level study to assess the benefit of fully dualling the A47 and the carbon impacts of doing so. The Combined Authority contributed a small amount of funding, £6,537.60, to the study's development. The outcome of the study is due to be reported at the A47 Alliance on 19 January 2024. A further update will be provided in the next Director's Report.

3.4 **Active Travel Update**

<u>Chris Boardman and Active Travel England visit</u>

The visit from Chris Boardman and his Active Travel England colleagues was successful. There was sufficient media coverage and promotion of the Winter Wheelers campaign which is currently running in the region. The group started at Cambridge Station and cycled, using Voi bikes, along the Chisholm Trail to Cambridge North station. Here they boarded a bus on the guided bus way and had a walking tour around Northstowe.

<u>ATE Self-Assessment</u>

Active Travel England's Self-Assessment was submitted on the 22 December. The Self-Assessment allows us to provided evidence of our capability and ambition for active travel schemes. Using our evidence Active Travel England provide the Combined Authority with a rating. This rating determines how much funding we receive in future funding rounds. We are currently at a Level 2 and are aiming to achieve a Level 3.

	Bids Submitted In November we submitted an eCargo Bike Try-Before-You-Buy bid to Climate KIC. The bid requested £77,380.80 to expand the current scheme running in Cambridgeshire. Department for Transport have released their Transport Decarbonisation Demonstrators grant. We are currently talking to local businesses about the opportunities available to us. Active Travel Specialist Advisory Board The Active Travel Specialist Advisory Board (SAB) (formally known as the Scrutiny Group) met for the first time in November and again in December to discuss the requirements for a Walking, Wheeling, and Cycling Commissioner. Work is underway to create a job description for this role.	Item 5
3.5	**Cambridgeshire County Council Transforming Cities Fund (TCF) works** TCF-funded schemes have enjoyed successes, as well as encountering some challenges, during 2023. The installation of a new signalised crossing outside a primary school, as well as nearby junction safety improvements and road resurfacing work on The Brook in Sutton, was completed on time during the school summer holidays. A similar major junction improvement on Barton Road in Cambridge was also completed according to programme and brings major benefits to active travel users crossing the A603. Two additional zebra crossings are planned for installation in Chatteris early in 2024 and are also on-track and expected to be complete according to the programme, and design work to progress improvements to the Addenbrookes Roundabout in Cambridge are well underway and will be completed within programme. There are some challenges within the delivery programme, including securing road space for works within Cambridge City due to high demand, impacting the programme for a planned upgrade to a crossing of Chesterton Road in Cambridge, at the junction with Carlyle Road. The proposed modal filter on Mill Road Cambridge was subject to an application to the Court to suspend the Traffic Regulation Order and all associated work until the final determination of the case. The County Council is waiting a further hearing to determine whether the Traffic Regulation Order should be suspended, no action will be taken until this point. A large proportion of the TCF funding is allocated towards implementing 20mph zones in locations around the County. This has proved popular with schemes planned for completion in Cambourne, Ely, Histon and Impington, Huntingdon, Ramsey and Bury, St Ives and St Neots before the end of the financial year. Installation of the first of these schemes is expected to commence in January 2024. Further engagement is planned for the 20mph schemes proposed in Soham and Cambridge before an application for a Traffic Regulation Order is made, with programme for delivery of these schemes to be confirmed subject to the outcome of consultation.	
3.6	**Climate-KIC's Cargo Bike Try-Before-You-Buy Scheme Bid** On 13 September 2023, the Climate-KIC advertised the Sustainable Cities Mobility Challenge 2024 fund. Applications for grants up to 90,000 EUR (£78,000) were requested with a maximum of five projects funded. Cities and towns, with a population of at least 25,000, in the EU Member States, Horizon Europe Associated Countries1 (including the United Kingdom) and Switzerland were eligible to apply. The challenge called on cities to present bold and impactful projects that seek to decarbonise transport, improve local air quality and accelerate the take-up of active, shared, collective and/or electric mobility. The projects would support the transition to cleaner, greener, and more inclusive transport. The cargo bike try-before-you-buy model has been piloted by Cambridgeshire County Council (CCC) since July 2021. This scheme has been very popular and there is currently a four-week waiting list to borrow an electric cargo (e-cargo) bike. The scheme has eight bikes; four bikes in two styles for families	

	to borrow, and four different styles for businesses to trial. To date there have been over 160 trials of cargo bike and over 65% of participants have decided to purchase a cargo bike after the trial period. However, despite the popularity of the cargo bikes, the scheme only had funding for three years and so will come to an end in spring 2024. Therefore, this project was selected as a basis for this bid. The bid proposed a scheme that will build on Cambridgeshire's success by adding eight additional bikes and expand the geographical reach to Cambridgeshire market towns and Peterborough city. Three additional family cargo bikes will be added to the Cambridgeshire scheme and four family bikes and one business bike will be available in Peterborough. Families and businesses wanting to try out a cargo bike can access the details of the bikes online. There are nine styles of bikes to choose from and the loan time is between 1 and 8 weeks (1 or 2 weeks for families and 4 or 8 weeks for businesses). There is a small fee to take part in the scheme to ensure that the bikes are valued. All bikes (including the 8 original bikes) will be fitted with a GPS tracker, which will allow data to be collected about people's journeys and routes taken. This valuable data can be used to help prioritise cycle networks and remove physical barriers. The bikes will be supplied with chain locks and receive a routine service at 6 months and an in-depth service at 12 months. The intention is that the scheme will be provided by a local company who can offer the benefit of local knowledge. The organisation that delivers the project will be selected in line with the Combined Authority's procurement process. The procurement process will commence mid-January to ensure the provider is in place and bikes purchased by April 2024. The project will continue until July 2025. A copy of the bid is attached at Appendix B
3.7	**Transport Decarbonisation Demonstrators Bid** The Combined Authority are looking to support a bid into the Transport Decarbonisation Demonstrators. Competition overview - Transport Decarbonisation Demonstrators - Innovation Funding Service (apply-for-innovation-funding.service.gov.uk). The bid allows UK registered businesses to apply for a share of up to £2 million to work with Local Authorities to develop place-based solutions to transport decarbonisation. This funding is from the Department for Transport (DfT). The first bid is with Modular Clinton Global (MCG) Ltd (other stakeholders include Nottingham University, Cater and Merger Consult and New Climate Solutions Ltd). The projects looks to create a place-based demonstrator that will support collaborative energy-efficient transport management to track, connect and optimise assets towards net zero transportation. It thus empowers transport operators and policy makers at local authorities with enhanced transparency of carbon emissions as well as costs, to strategically adapt decarbonised operations, secure energy provision(renewable/hydrogen), and unlock the potential to deliver benefits and incentives to travellers. If successful in the bid and If all the data requested is available, the project is targeting to deliver a simplified tool for the Combined Authority to measure the impact, which could be aid further the decarbonisation roadmap and implementing the net-zero transition. The second bid is with Outspoken Cycles. Their bid is to run an eCargo bike library for residents and create an on-street hire scheme for eCargo bike. This scheme will deploy ecargo bikes to key locations across both Cambridgeshire and Peterborough. A Bluetooth-based app system will allow members of the public to rent eCargo bikes on short journeys. In addition, there will also be a fleet of bikes that are available to rent for one or two months from a selection of eCargo bikes. Both parts of this scheme will encourage users to participate in active travel as well as increase the number of shorts duration trips made by eCargo bikes. The bids were submitted 8th January 2024 and the successful bidders will be informed in February 2024.

4. Monthly Transport Statistics

	Jan 23	Feb 23	Mar 23	Apr 23	May 23	June 23	July 23	August 23	Sept 23	Oct 23	Nov 23	YTD
Passenger numbers on subsidised routes (last updated 13/10/2023)	90,593	97,960	112,011	*NB passenger numbers provided by 4-week period by all but two operators.* *Period 1 (2nd – 29th April) = **143,627** (updated 13/10/23)* *April ridership separately recorded = **25,628** (updated to include an additional operator.)* *NB. Period 1 total is missing data from 2 small operators.*	*Period 2 (30th April to 27th May) passenger numbers = **152,646** (updated 13/10/23)* *May ridership separately recorded = **27,439*** *(updated to include an additional operator)* *NB. Period 2 total is missing data from 2 small operators*	*Period 3 (28th May to 24th June) passenger numbers = **149,838*** *(Total is missing data from 1 operator) Updated 22/11/23* *June ridership separately recorded = **31,677*** *(updated to include an additional operator)*	*Period 4 (25th June to 22nd July) passenger numbers =**163,520*** *(NB. Amended 22/11/23)* *(Total is missing data from 1 small operator.)* *July ridership separately recorded = **32,274*** *(NB. Updated 22/11/23.)*	*Period 5 (23rd July to 19th August) passenger numbers = **147,827*** *(NB Amended 22/11/23)* *(Total is missing data from 1 small operator.)* *August ridership separately recorded = **30,754***	*Period 6 (20th August to 16th September) passenger numbers = **143,743*** *(NB Amended 22/11/23)* *(Total is missing data from 2 small operators.)*	*Period 7 (17th September to 14th October) passenger numbers = **138,768*** *(Total is missing data from 3 small operators.)*	*Period 8 (15th October to 11th November) passenger numbers = **168,133*** *(Total is missing data from 3 small operators.)*	*Periods 1 to 8 (with missing data) total = **1,209,892*** *April to August ridership separately recorded = **147,772***

		Jan 23	*Feb 23*	*Mar 23*	*Apr 23*	*May 23*	*Jun 23*	*Jul 23*	*Aug 23*	*Sep 23*	*Oct 23*	*Nov 23*	*YTD*
Real time passenger information	Total signs	439	439	439	439	439	*439*	*453*	*453*	*453*	*453*	*453*	
	Faults reported and fixed	11	5	8	3	6	*2*	*11*	*5*	*2*	*11*	*7*	
Taxi cards – customers, booklets issued in 2023/24 to date													99 (requests from 54 scheme members)
Bus passes issued		1,706	2,041	2,407	1,873	2,010	1,862	1,916	2,110	1,684	2,014	1,662	
Library assisted bus pass applications					316 (Cambs) 96 (P'boro)	317 (C) 92 (P)	262 (C) 96 (P)	235 (C) 92 (P)	280 (C) 116 (P)	262 (C) 70 (P)	275 (C) 87 (P)	185 (C) 66 (P)	Total = 2,596 (April to October)
Love to ride miles													1,368,184 miles
Rides on escooters		75.5k	85.2k	89.8k	85.6k	97.8k	111.5k	101.8k	95.6k	105.2k	116k	110.7k	883.9k

Bus Pass call centre update:

- Performance for bus passes calls answered for October was above the SLA of 85% finishing the month at 92.50%
- Calls to the Contact Centre, including telephone applications was 743
- The average wait time for calls was down from 2.28 minutes I September to 01/25 minutes and the average call time 6.09 minutes
- Non-phone contacts were 3,503, which includes processing application evidence documents

Community Transport Support of Volunteer Car Schemes:

- Support to Community Transport Volunteer Car Schemes though verification of driver Data Barring Service checks for new and renewing drivers and issue of ID cards. 114 checks have been carried out since 1st April 2023.

5.	Appendices
5.1	Appendix A: - Draft Electric Vehicle Infrastructure Strategy Appendix B: - eCargo Bike Bid Appendix C: – Sustainable Cities Mobility Challenge 2024 Guidance

6.	Implications
Financial Implications	
6.1	None.
Legal Implications	
7.1	None.
Public Health Implications	
8.1	None.
Environmental & Climate Change Implications	
9.1	Neutral.
Other Significant Implications	
10.1	None.
Background Papers	
11.1	None.

CAMBRIDGESHIRE & PETERBOROUGH COMBINED AUTHORITY

Cambridgeshire & Peterborough Electric Vehicle Infrastructure Strategy

02/01/2024

Version History

Revision Number	Revision Date	Nature of Revision	Checked by	Reviewed by	Approved by
1	01/03/2023	Draft	EB/JB	EW	
2	20/09/2023	Draft	EW		
3	05/12/2023	Draft			
4	02/01/2024	Draft	EW		

Glossary

BEV – Battery Electric Vehicle

CPCA – Cambridgeshire and Peterborough Combined Authority

CCC – Cambridgeshire County Council

EST – Energy Savings Trust

EV – Electric Vehicle

EVI – Electric Vehicle Infrastructure

LEVI - Local Electric Vehicle Infrastructure (Fund)

ORCS – On Street Residential Charging Scheme

PCC – Peterborough City Council

Summary

Key points

- The UK government's Net Zero and air quality ambitions are underpinned by the take up of electric vehicles. The Electric Vehicle Mandate comes into force in 2024 and sees a ramping up of electric vehicle production with all new sales of cars and vans to be electric only in 2035.
- The Local Transport and Connectivity Plan (LTCP) sets out the strategic ambition for transport improvements across the CPCA area. For electrification and chargepoint role out, it identifies key considerations for the area, including:
    - A unified vision and approach to chargepoint deployment;
    - Prioritisation of areas with low off-street parking access; and
    - Ensuring deployment is supported in more challenging/uncommercial areas to deliver an equitable distribution across the region
- Electric vehicle charging infrastructure is key to support the adoption of electric vehicles.
- The CPCA region currently has 443 chargepoints with government estimates of 13,412 required by 2030.
- CPCA has a role to play in ensuring the equitable, safe and sustainable deployment of electric vehicle charging infrastructure, particularly to support those in rural areas and other locations where charging may be challenging.
- CPCA's vision for EV charging infrastructure is for everyone in the region to have the necessary EV charging infrastructure available in the right place, at the time they need. This charging infrastructure will be high quality, safe, affordable, environmentally sustainable and accessible.
- CPCA will apply for central government funding to support EV charging roll out, such as the LEVI and ORCS funding, and will work with local authority partners to ensure realisation of the strategy.

Actions

To take the strategy forward, CPCA will take the following actions:

Action	Target Date	Responsible organisation
Publish EV Infrastructure Strategy (draft is scoped out, write, get approval)	March 2024	CPCA
Establish EV Infrastructure Governance within each LA the feeds through to the existing CPCA's Climate Action Plan governance	March 2024	CCC / PCC
Develop and submit a LEVI capital fund proposal(s)	TBC once understand deadlines	CCC / PCC

Engage with constituent Councils to take forward as a collective	Through timescale of project	CCC
Soft market testing	Dec 2023	CPCA / CCC / PCC
Produce data to inform site selection and mapping of chargepoints	Feb / March 2023	CCC / PCC
Establish appropriate route to market for each LA, prepare and launch EV infrastructure procurement(s)	Summer 2024	CCC / PCC
Develop a 5-year delivery plan for EV infrastructure	June 2024	CCC / PCC
Deliver installed and commissioned charging infrastructure	2025 onwards	CCC / PCC
External engagement and promote collaboration on schemes (e.g. with tier 2 and adjacent local authorities, or constituent authorities if in a Combined Authority)	Dec 2023 onwards	CCC

Introduction & Scope

In July 2018, the Government published its Road to Net Zero strategy, an ambitious roadmap towards delivering zero emissions transport across the UK.

The Road to Net Zero Strategy is built around a core mission: to put the UK at the forefront of the design and manufacturing of zero emission vehicles and for all new cars and vans to be effectively zero emission by 2040. The plan set out the policy to end the sale of new conventional petrol and diesel cars and vans by 2040. By then, the strategy expects the majority of new cars and vans sold to be 100% zero emission and all new cars and vans to have significant zero emission capability. By 2050 the strategy wants almost every car and van to be zero emission.

Across Cambridgeshire and Peterborough, transport is the largest contributor to our carbon footprint (Figure 1). Of these transport emissions, 96% come from our road traffic.

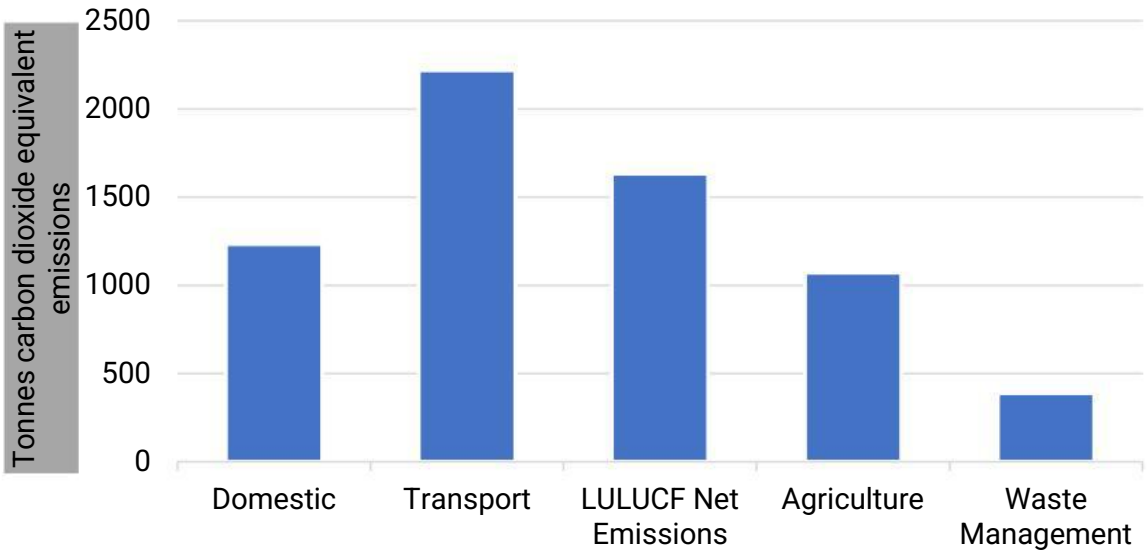

Figure 1 Carbon dioxide equivalent emissions for 2021 in Cambridgeshire and Peterborough

Whilst it is known that the best route to avoiding a significant proportion of these emissions is to encourage modal shift away from low occupancy vehicles in favour of active travel, public transport and travel avoidance. Some low occupancy methods of powered travel are likely to remain in high demand for the foreseeable future, and something must be done now to avoid the associated emissions. In addition, those with mobility issues are likely to need continued access to private vehicles and these will need to be electrified and the infrastructure put in place.

A long-term approach and continued commitment from the Combined Authority and constituent local councils is required to support the development of the local EV market and to ensure that access to charging infrastructure is not a barrier to entry. The transition away from combustion engines is happening quickly and at an increasing rate. The scope of this strategy is therefore to address the transition of roadgoing transport within Cambridgeshire and Peterborough away from fossil fuels in the short term and through the next decade.

The strategy focuses on 5 key areas for delivery:

1. Charging Infrastructure – to ensure our approach is appropriately targeted to different settings
2. Chargepoint Accessibility – to ensure all our communities have equitable access to public chargers
3. Communication, Advocacy and Outreach – to share our knowledge and empower our communities
4. Public and Shared Transport – to support the deployment of electric buses through collaboration with bus operators and deployment of central government funds

VISION / OBJECTIVES

VISION

CPCA's vision for EV charging infrastructure is:

"For everyone in the region to have the necessary EV charging infrastructure available in the right place, at the time they need. This charging infrastructure will be high quality, safe, affordable, environmentally sustainable and accessible".

CPCA's Objectives

- Install EV chargepoints in public locations, including on-street and destinations to support those who rely on public charging
- Support the growth of a range of chargepoint locations by overseeing the activities of chargepoint operators, communities and the Distribution Network Operator to ensure coverage and choice
- Fleet/Public Transport objective – improving through new infrastructure and supporting operators in the transition to LEMs/EVs
- To monitor and co-ordinate the provision of EV charging infrastructure so that the combined authority can respond to changes in uptake, market development and technology improvement.

Background & Policy Context

National Policy

Government set out the UK 2050 Net Zero Strategy[1] in October 2021, and has subsequently published its Electric Vehicle Infrastructure (EVI) Strategy[2]. It identified five key challenges in providing the necessary EVI to support the ban on internal combustion engine (ICE) vehicles which will come into force by 2035:

- The pace of roll-out is too slow
- Too often, public charging lets people down
- The business case for commercial deployment can be challenging
- Connecting new chargepoints to the electricity system can be slow and expensive
- More local engagement, leadership and planning is needed

The Government's vision for 2030 is that:

- Everyone can find and access reliable public chargepoints wherever they live
- Effortless on and off-street charging for private and commercial drivers
- A reliable network of high powered chargepoints along major roads
- Fairly priced and inclusively designed public charging, trusted by consumers
- Market-led roll-out for the majority of chargepoints, backed by competition
- Infrastructure seamlessly integrated into a smart energy system
- Continued innovation to meet drivers' needs

To deliver this vision, Local Transport and Highways Authorities must work together with our partners to leverage the market and ensure equitable, high quality public charger provision is available to communities across the CPCA area.

In July 2022, the UK Government published 'Taking Charge: the Electric Vehicle Infrastructure Strategy3', which articulates the strategy to achieve a 2030 vision where Electric Vehicle Infrastructure (EVI) is removed as a perceived, and real, barrier to the adoption of Electric Vehicles (EVs). This provides the National EV Policy context in which the rationale for action on EVI must be considered.

Within this context, there is a need for action coordinated by a local EVI Strategy to address six significant challenges:

- Political;
- Environmental;
- Societal and Public Health;
- Technological;

[1] Net Zero Strategy: Build Back Greener - GOV.UK (www.gov.uk)
[2] UK electric vehicle infrastructure strategy - GOV.UK (www.gov.uk)
[3] Taking charge: the electric vehicle infrastructure strategy (publishing.service.gov.uk)

- Legislative; and
- Economic

Political

Multiple public commitments have been made to reduce carbon emissions. The UK has a legally-binding net-zero target for 2050. Since 2018, over 400 councils across the UK have made climate emergency declarations, which has led to a range of local climate change commitments and initiatives.

Cambridgeshire has committed to a target of achieving net zero by 2045. And in July 2019, Peterborough City Council declared a climate emergency committing to make the council's activities net-zero carbon by 2030, and to also help Peterborough become a net-zero carbon city by 2030.

Furthermore, most Local Transport Plans include references to EVI deployment as a means for delivering high-quality, sustainable infrastructure for travel.

Action is needed to fulfil on these political declarations and targets.

Environmental

The UK's ten warmest years all occurred since 2002, reflecting a global heating which is considered "unequivocal" to have been caused by the increasing levels of carbon dioxide (CO_2) being emitted into the atmosphere by humanity (IPCC, 2021). Although UK GHG emissions have dropped 43% in total since 1990 – driven particularly by the decarbonisation of power generation – the latest Committee on Climate Change report shows that transportation is still the worst-performing sector in the country, despite the impact of covid-19 on 2019 and 2020 emissions. Road transport accounts for around 15% of the UK's carbon emissions in 2019 and so transitioning from petrol and diesel to EVs is essential to achieving net zero.

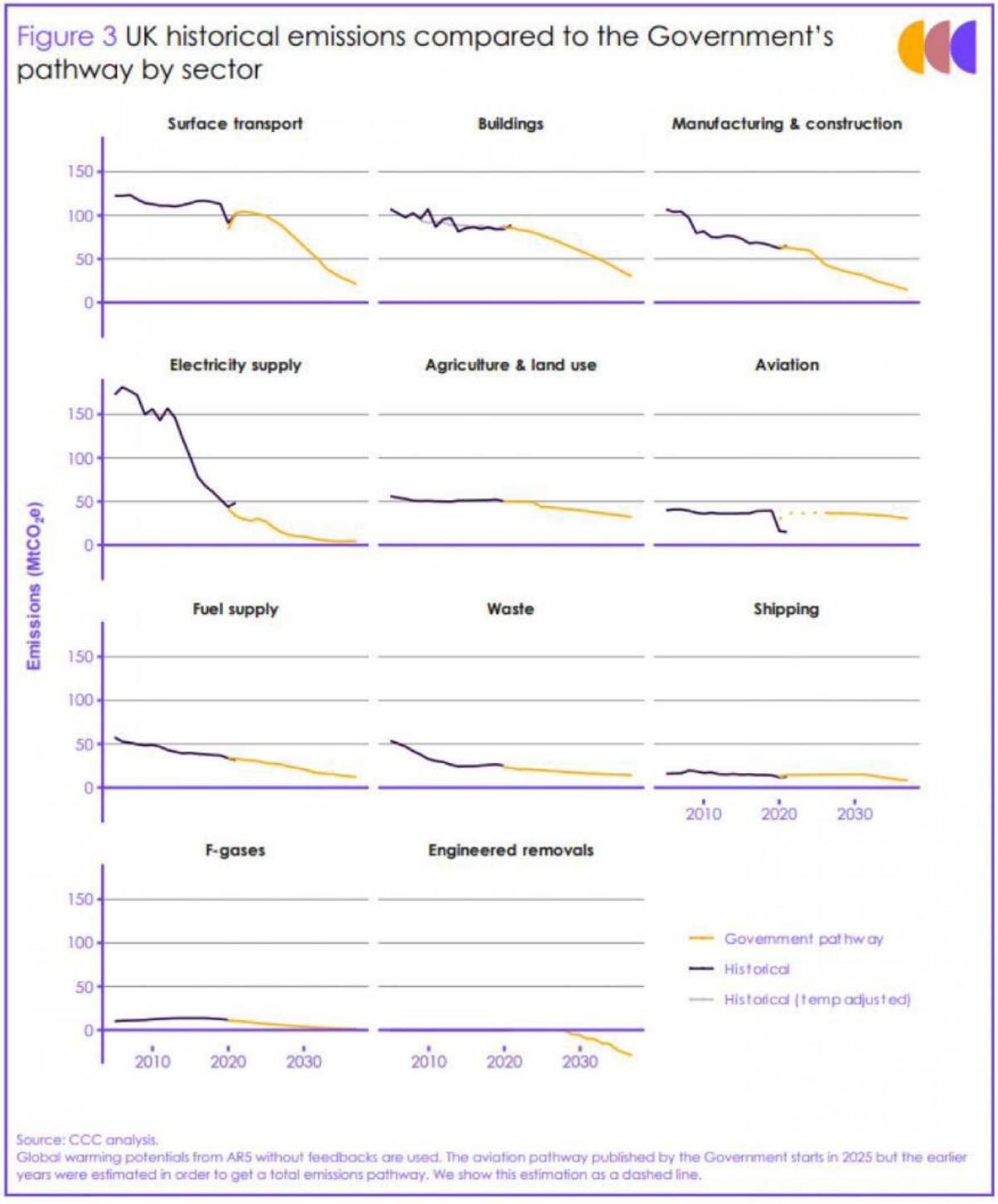

Figure 2: UK historical emissions and Government future pathway per sector

Action is needed to address this significant source of emissions.

Societal and Public Health

Everyday life is impacted for good and ill by the widespread use of conventionally-fuelled engines in life, commuting, business and leisure. Yet because of the economic and social benefits of transport, poor air quality is now the largest environmental risk to UK public

health. The enquiry into the death of Ella Kissi Debrah listed air pollution as an official cause of death for the first time in the UK.

A recent study highlighted that a child living within 50m of a major road could have their lung growth stunted by up to 10% due to air pollution.

In 2019 and 2020, the covid-19 crisis and ensuing lockdowns highlighted wider, more worrying links between urban air quality and public health resilience as evidence emerges that populations exposed to poorer air quality have lower resilience to the disease. Furthermore, updates to the World Health Organisation (WHO) global air quality guidelines in September 2021 mean that the UK legal limits on some particulate matter are now four times higher than the WHO's maximum levels. However, some councils are adopting these new guidelines such as Cambridge City Council in conjunction with South Cambridgeshire.

The graph below shows the scale of emissions across the region from ICE vehicles which are the major contributors to air quality in the region:

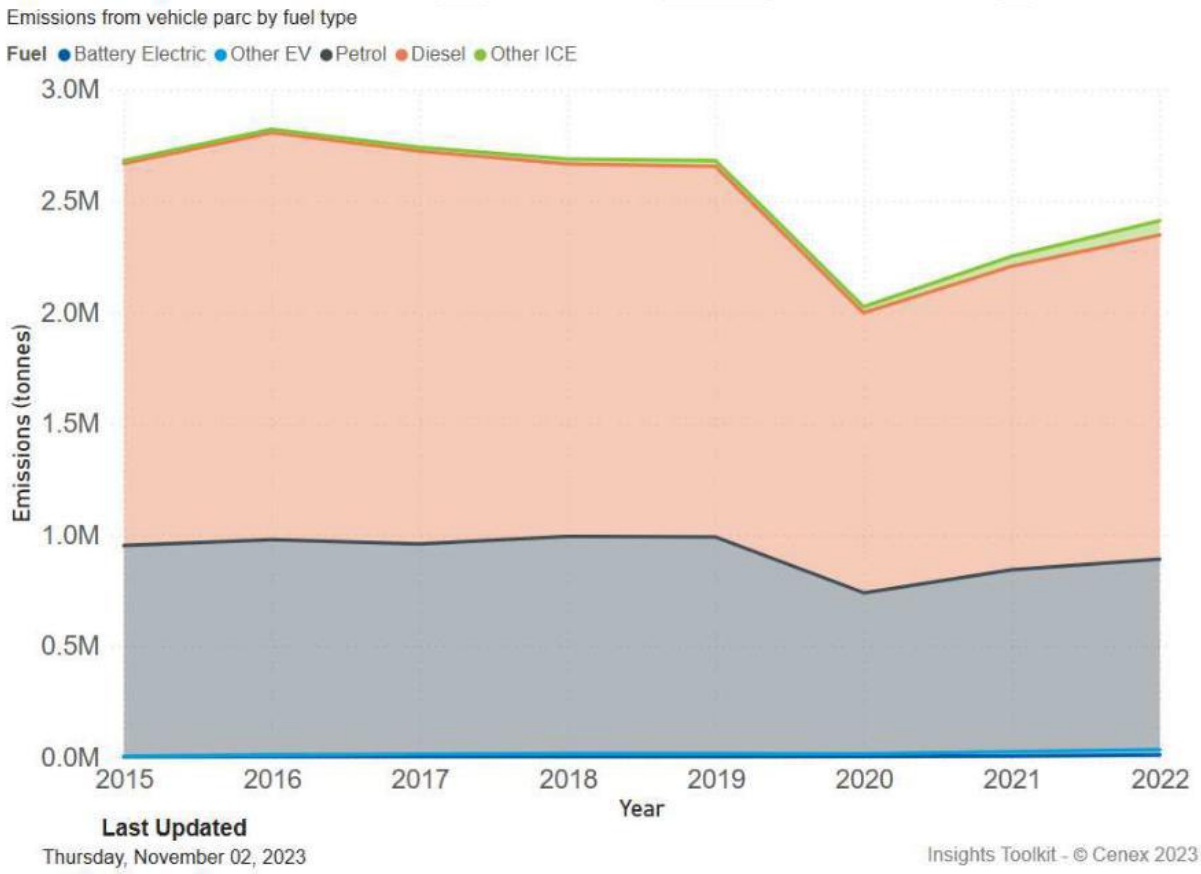

Figure 3: Emissions by vehicle fuel type, East region[4]

[4] Emission from vehicle parc by fuel type 2015-2022, East regions, Cenex, Nov 2023

A number of air quality management areas were set up within the region where local authority partners found that specific sites were not going to meet the national air quality objectives. An overview of these AQMAs is set out below:

Cambridge: The centre of Cambridge has been within a statutory Air Quality Management Area since 2004 due to exceedances of nitrogen dioxide (NO2). The main source of nitrogen dioxide in Cambridge is from vehicle emissions. Air quality has been slowly improving in most parts of Cambridge in recent years, but there are parts of the city, including the busy central streets, where levels of NO2 continued to be high prior to the COVID-19 pandemic[5].

East Cambridgeshire: East Cambridgeshire is predominantly rural in character and air quality is relatively good. Statutory objectives are being met at all monitoring locations and the council has not designated any areas as Air Quality Management Areas (AQMA).

Huntingdonshire: Huntingdonshire currently has four Air Quality Management Areas (AQMA's). 1. Huntingdon, 2. St Neots, 3. Brampton, and 4. A14 Hemingford to Fenstanton. The main air quality issues within Huntingdonshire continue to be NO2 from vehicle emissions, mostly originating from the A14 and to a lesser extent the A1, both of which run through the district. However, local traffic within the market towns also contributes to some elevated levels, compared to the rest of the district[6]. Data collected demonstrates that there were no breaches of any of the national objectives in 2022 at any of the measurement locations within Huntingdonshire.

South Cambridgeshire: No exceedances of any of the national air quality objectives were reported at any of the monitoring locations. Whilst there has been a slight increase or equivalent levels in concentrations to the previous year seen at some monitoring locations, these are still below pre pandemic levels. •There continues to be no exceedances of any objectives at any of the sites in the AQMA which is now revoked in 2022.

Peterborough: There is currently one Air Quality Management Area (AQMA) in the council, for emissions of SO2 from a brickworks (not transport related) in the area administered by Fenland District Council (see below).

Fenland: In 2022 Fenland monitoring demonstrated that air quality remains compliant with national air quality objectives. Fenland currently have four Air Quality Management Areas (AQMAs); three in Wisbech (SO2, PM10 and NO2) and one in Whittlesey for SO2 (relating to a brickworks). It was proposed in the 2017 Annual Screening Assessment, to revoke the latter AQMA, subject to the agreement of DEFRA. The AQMA is still in force.

Technological

Vehicle Original Equipment Manufacturers (OEMs) are preparing for an order of magnitude increase in the sale of electric vehicles EVs in the coming decade. Whereas ten years ago,

[5] Air Quality Annual Status Report 2022 - Cambridge City Council
[6] 2023 Air Quality Annual Status Report (ASR) for the year 2022 (huntingdonshire.gov.uk)

there were around ten models available, as of 2022 customers can choose between over 100 models of electric car and vans, with Heavier Goods Vehicle (HGV) announcements on the horizon.

Throughout 2022, EVs have consistently accounted for over 20% of new sales, with Battery Electric Vehicles (BEVs) contributing around 15%, bucking the trend of an overall drop in the total vehicle sales. This has been accompanied by an increase in requests by local residents for electric vehicle infrastructure (EVI).

The technology for the majority of charging situations, using various plug-in chargers, appears to be clear. However, new technology will likely emerge as well as innovative ways in which plug-in chargers can be installed into the public realm. CPCA will monitor these technologies and make recommendations for their introduction in the region, including the possibility of running trials.

Legislative

Whilst there are many good 'soft' reasons for an EV programme, it is important to recognise that there are also official 'hard' targets to be met. The UK Government committed the country in June 2019 to a legally binding goal of reducing Greenhouse Gas (GHG) emissions to a net-zero position by the middle of this century. CPCA's local authority partners have adopted targets to support this goal as set out in the section below on Local & Regional Policy.

The large contribution of road transport to the UK's overall UK carbon emissions, as presented previously, is addressed by the UK governments commitment to phase out sales of new petrol and diesel vehicles by 2035 and ensure that all new vehicles are zero emission from this date. This will be achieved through new regulations known as the Zero Emission Vehicle (ZEV) Mandate, due to come into effect from 2024. The commitments made by UK Government effectively guarantee that EVs will become the new normal over the next decade, and therefore it is essential that we expand the UK's EV charging infrastructure network. Local authorities have a significant part to play in this, particularly in providing infrastructure close to where people live.

Action to support the 2035 ZEV Mandate for cars and vans will be key to achieve these goals.

Economic

In the first half of this decade, economic growth has been under pressure with the cost-of-living crisis, post-pandemic challenges and Brexit. Even before the latest economic challenge, growth was a critical piece of the EV puzzle. The uptake of EVs will benefit local economies through regeneration, business growth, upskilling local labour, trade and even inward investment. Destinations will soon need to provide EVI as a hygiene factor to attract visitors and footfall.

The mass-deployment of EVI will require new roles at Chargepoint Operators and down into the supply chain. Furthermore, the installation, maintenance and repair of EVI will provide job opportunities for qualified electricians.

Action will be needed by LAs to ensure that these benefits are secured for local businesses and economies.

Local & Regional Policy

The Local Transport and Connectivity Plan (LTCP) sets out the strategic ambition for transport improvements across the CPCA area. A key focus is to "address the adverse pollution and alleviate the harmful consequences of the transport network" on human health and climate. Decarbonisation of transport, in line with Government's Transport Decarbonisation Plan [7]is core, and use of alternatives for fossil fuels is explored in the CPCA's Alternative Fuel Strategy[8].

For electrification and chargepoint role out, it identifies key considerations for the area, including:

- A unified vision and approach to chargepoint deployment;
- Prioritisation of areas with low off-street parking access; and
- Ensuring deployment is supported in more challenging/uncommercial areas to deliver an equitable distribution across the region

The CPCA's Climate Action Plan [9]provides a means to deliver this ambition, bringing together the local authorities to ensure a fair and equitable network of public chargers are provided, particularly for those residents unable to charge at their homes. This EV Strategy underpins this ambition, setting out how we can act to deploy public chargers and meet the considerations highlighted by the AFS.

Across the CPCA area, the Local Authorities also have their own climate and carbon objectives, which include their ambitions to facilitate EV charging.

Cambridgeshire

Cambridgeshire County Council's Climate Change and Environment Strategy sets a vision for the County to be net zero by 2045 while supporting residents to make the changes they can to reduce their emissions. Supporting modal shift and removing barriers to take up of low carbon transport is a key priority.

Similarly, the District Councils are working in their areas to support the transport transition. Cambridge City Council and South Cambridgeshire District Council each have their own EV

[7] Transport decarbonisation plan - GOV.UK (www.gov.uk)
[8] Document.ashx (cmis.uk.com)
[9] FINAL CLIMATE REPORT LOW (002).pdf (hubspotusercontent40.net)

Strategies, while Fenland, Huntingdonshire and East Cambridgeshire District Councils have, or are enquiring into charge points / planning chargepoints provision across their car parks.

Peterborough

In July 2019, Peterborough City Council declared a climate emergency. Peterborough City Council have committed to make the council's activities net-zero carbon by 2030, and to also support Peterborough become a net-zero carbon city. Transport and Travel forms a key part of this ambition, including encouraging the use of active travel modes, public transport and electric vehicles. Increasing the number of people travelling sustainably in Peterborough will significantly reduce the city's carbon emissions, along with bringing several other vital benefits including improving physical and mental health, improving air quality, reducing travel costs and stimulating the economy and providing jobs to the local area.

Chargepoint Technology and Enabling Infrastructure

Currently chargepoints fall into four main categories in respect of the speed with which they deliver electricity to the vehicle:

- Slow (or Standard) – 3.7 to 8 kW
- Fast – 8 kW to 49 kW
- Rapid – 50 kW to 149 kW
- Ultra-Rapid – 149 kW and over

Typically, these speeds will be suitable for different situations depending on the driver's needs. Slow charging is suitable for long durations, either overnight or all day parking whilst, for instance, parked in a train station or office carpark. Fast charging is suitable for a durations of approximately 2-6 hours depending on the speed of the chargers which ranges from 8 kW to 49 kW. Rapid charging can deliver significant amount of energy in relatively short periods such as a half-hour. For instance, for a typical 60 kWh car battery 50% of its capacity could be charged in as little as 18 minutes. Ultra-Rapid charging brings the charging times down further and come close to the current customer experience of refuelling at the petrol forecourt.

Charging is usually delivered via cables from charging posts, as pictured below. Other chargers can be found contained within lighting columns, bollards and the sockets installed within the surface of the road.

Charging usually is via cable to the chargepoint itself. However, there are technologies which deliver the electricity wirelessly via an induction pad. Whilst this can remove certain obstacles to charging it relies on standardization of the vehicle and interface which has meant that this charging technology is seldom deployed.

CPCA is open to a range of technologies as long as they are in line with our vision of the infrastructure being accessible, safe and sustainable.

Enabling Infrastructure for Installation of chargepoints

The installation of chargepoints depends on the appropriate electrical capacity being delivered to the site via the local distribution network. A high number of Rapid or Ultra-Rapid chargepoints requires significant electrical capacity and this can involve upgrade to the connection to the distribution network. The costs of the upgrade vary significantly based on the distance of the EV charging site from the local distribution assets (such as a secondary sub-station) and these costs are often the largest cost component of the upgrade.

Installation of chargepoints is therefore very dependent on the cost of the distribution network and chargepoint operators can be reluctant to install chargepoints where the necessary financial returns are uncertain. There can be a role for public bodies to invest in long-term infrastructure to support the roll-out of EV charging infrastructure to make certain sites more attractive for the private sector and thus bring charging to key locations which otherwise would not have been taken forward.

The Current Situation across Cambridgeshire & Peterborough

EV take up

Across the region 9,968 battery electric and plug-in vehicles were registered under private keepership as of Q3 2023. Electric vehicle uptake across the region mirrors the national picture, with an almost exponential growth (4).

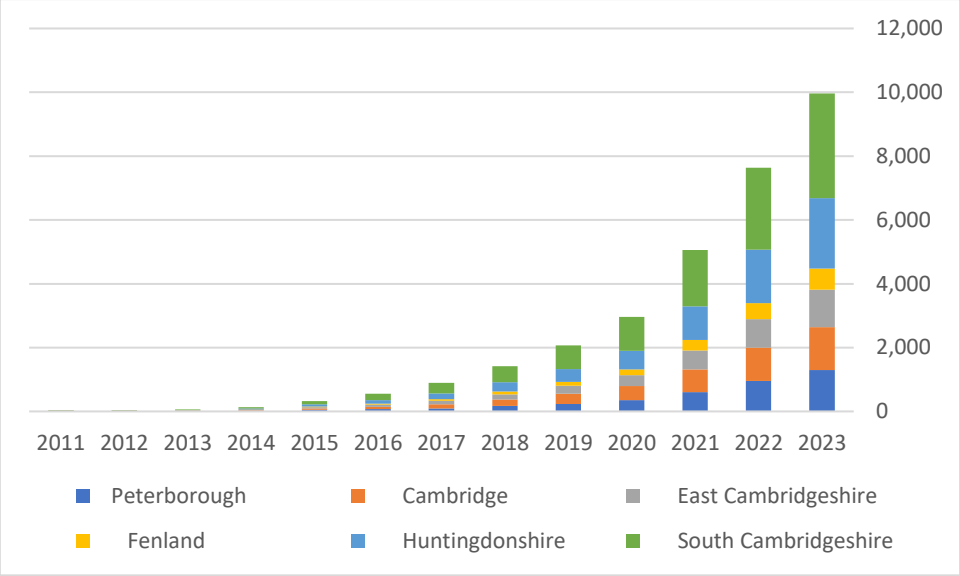

Figure 4 Registered battery electric and plug-in cars under private keepership in Cambridgeshire and Peterborough. DfT Statistics: VEH0132

To compare EV ownership with the rest of the UK and London, CPCA is currently behind the UK total as seen in figure 5 below.

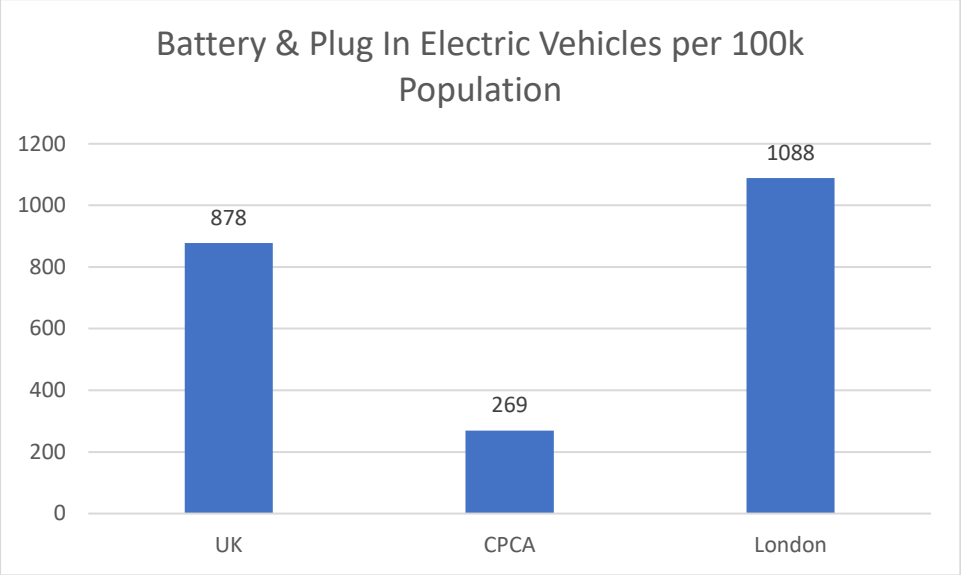

Figure 5: Battery Electric and Plug In Vehicle per 100k head of population (source DfT & ONS)

EV Chargepoints – publicly available

OZEV forecasts for the region, as produced by the NEVIS model run by Cenex, suggests that in 2030 cars and LCVs will require 13,421 sockets split across the four charging types, as per the table below:

Standard (7 kW)	11,419
Fast (8-49 kW)	875
Rapid (50 kW +)	535
Ultra-Rapid (100 kW+)	583
Total	**13,412**

Table 1 Number of Chargepoints needed for cars and LCVs in 2030 in CPCA, Cenex forecast

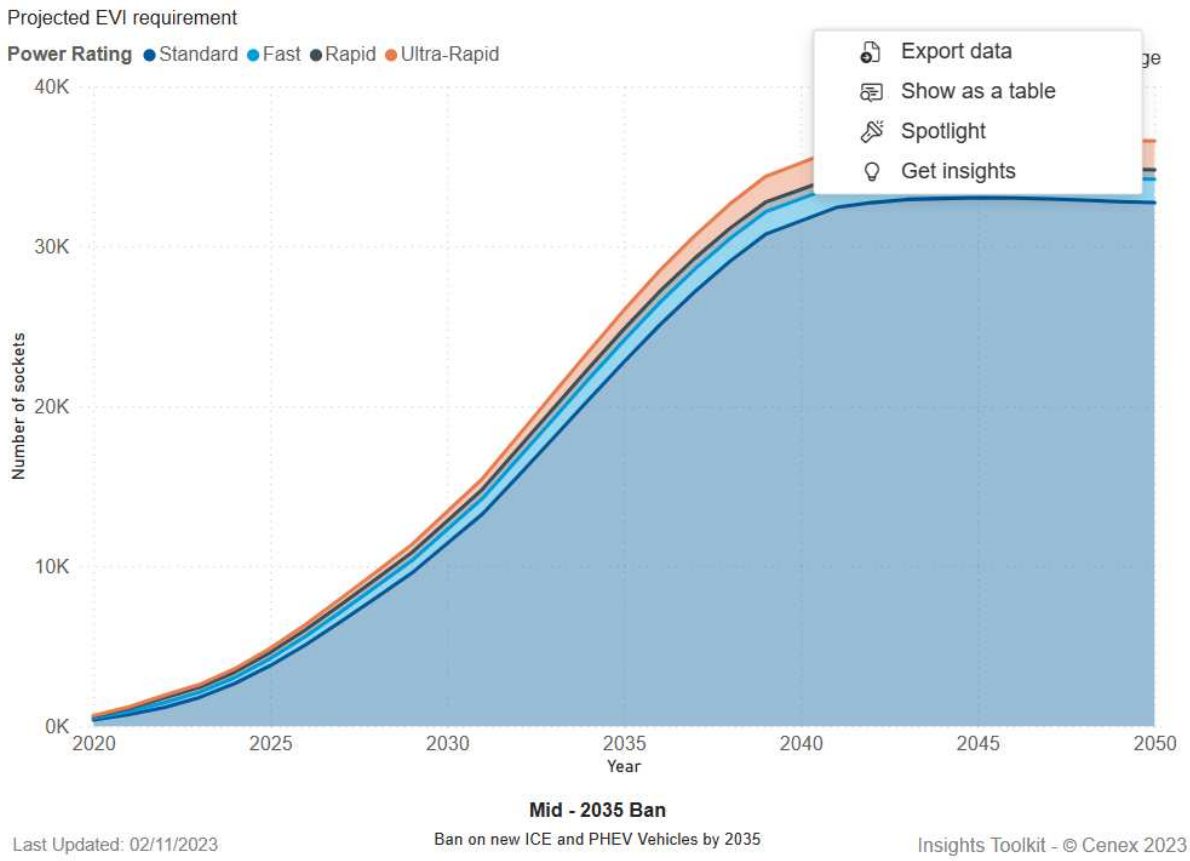

Figure 6: Projected EV Charging Requirement, Cenex

The Local Transport and Connectivity Plan (LTCP) demonstrates that the public charging network across East Anglia is at a relatively early stage of development. The majority of charge points are clustered around key settlements, or distributed along the road network, with relatively few charge points found in between. The LTCP comments that if widespread roll-out of electric vehicles is to become a reality, a concerted effort is needed to provide better charging provision across our geography and that the Electric Vehicle Infrastructure Strategy will ensure a continued focus on the development of the appropriate infrastructure. The LTCP concludes we will therefore support the development of a low carbon transport system through supporting change to new vehicle technologies and lower carbon fuels; promoting lower carbon transport choices; encouraging a transfer to lower carbon vehicles; and education on lower carbon transport issues.

The latest DfT data from October 2023 puts the total number of public chargepoints in Cambridgeshire and Peterborough at 443, consisting of 339 slow/fast and 114 rapids (Figure 7). The majority of these chargepoints are in private sector settings: supermarkets, service stations etc.

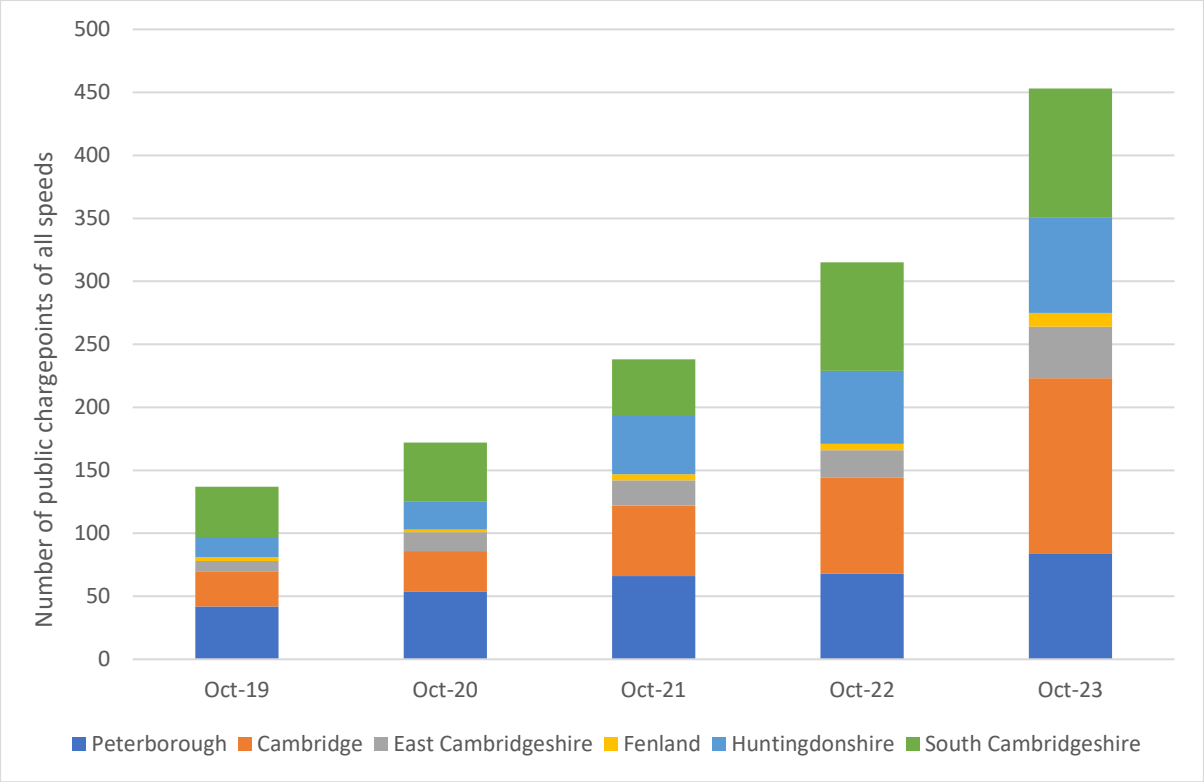

Figure 7 Number of public chargepoints across Cambridgeshire and Peterborough. ONS Data

Across the region, public chargepoint provision is unevenly distributed. Fenland has the fewest chargepoints - likely due to the low numbers of electric vehicles in the area undermining a business case for installations. We must work to develop a network that delivers a transiton away from fossil fules, enabling all our communitites to switch.

Map of Current EV Infrastructure locations

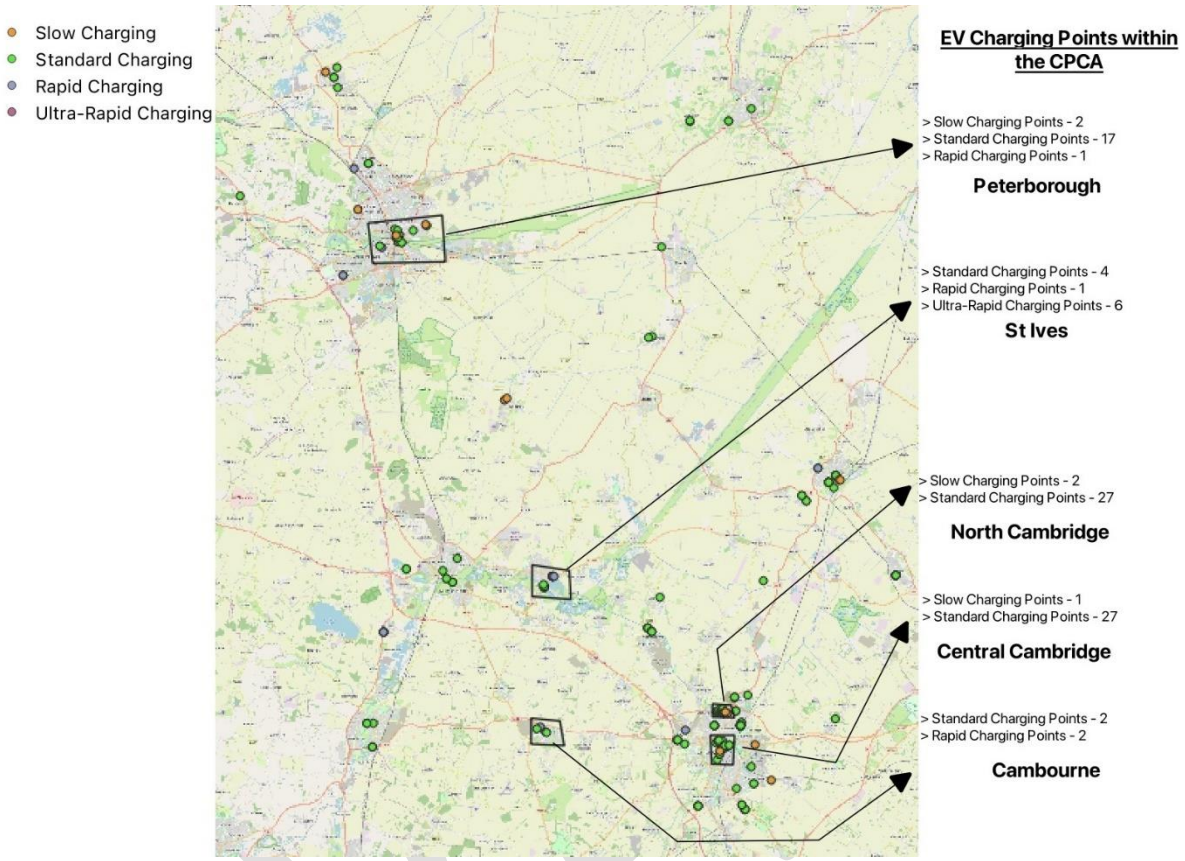

Figure 8: Map of EV chargepoints locations (ZapMap)

As can be seen in the graph below, the East of England has 39 chargepoints per 100,000 head of population, putting it below the average of 60 across the UK. Whilst comparisons with other areas of the UK may be inexact due to demographic differences, it would appear that CPCA has to install a greater number of chargepoints to enable the transition to EVs.

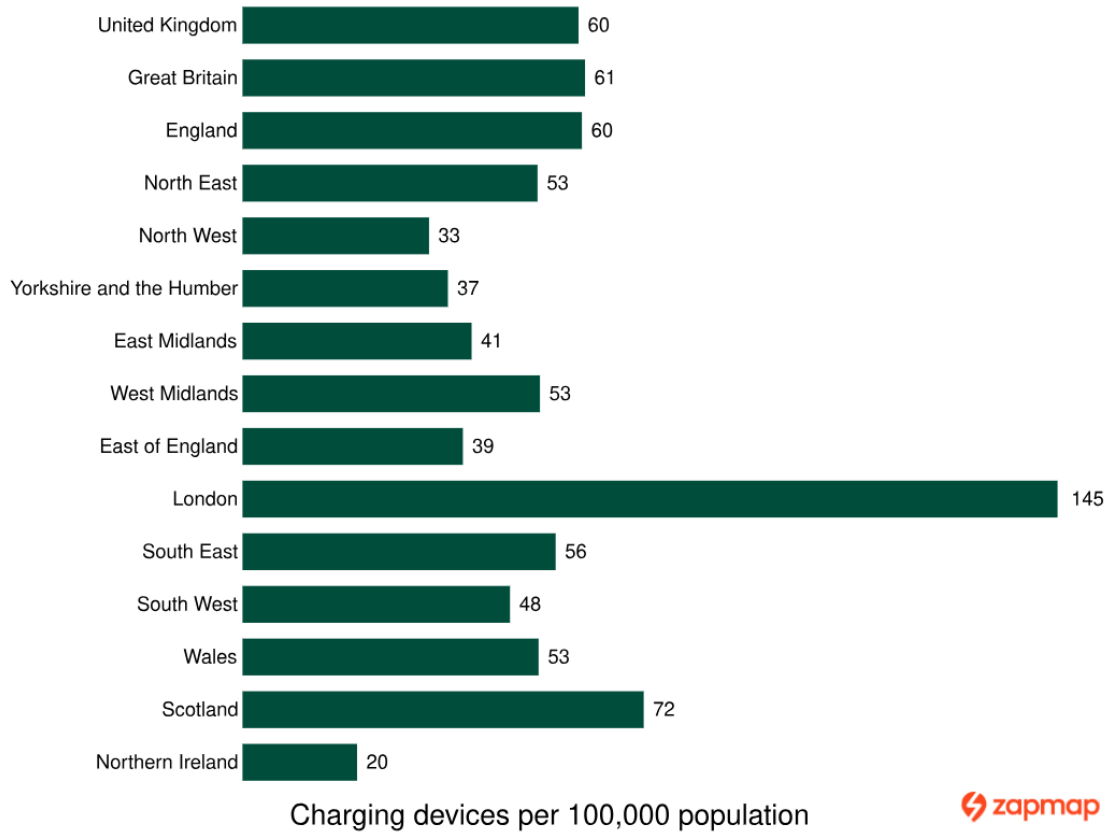

Figure 9: Charging devices per 100k population (ONS)

Barriers to EV uptake

Consumer surveys suggest there are a number of commonly identified reasons why people do not make the switch to an electric vehicle. Many of these will be addressed within the Strategy:

Identified Challenge	How we can address them
Upfront cost	Whilst the CPCA and local highways authorities cannot reduce the costs of EVs, the CPCA can work with our communities to ensure they are aware of the longer-term financial benefits of switching from an ICE vehicle. Engagement with communities to "myth bust" and enable everyone to understand the rapidly evolving technologies on offer can be undertaken.
Range anxiety	
Uncertainty over the technology	
Reliability of chargers	The CPCA and Highways Authorities can ensure through delivery and procurement approaches that there are sufficient numbers of public chargers where they are most needed and work with chosen contractors to ensure reliability and accessibly
Availability of Chargers	

Identified Challenge	How we can address them
	is prioritised. This needs to be communicated to public in realtime – smart monitoring.
Grid Capacity	Local Area Energy Planning – Planning where critical electrical infrastructure is located and scaled to ensure access to the network is available in areas where infrastructure is needed. Peterborough already has a plan, and Cambridgeshire is currently developing theirs.

Lack of solutions for residential areas : Requests

The Council, and Districts, are receiving increasing numbers of requests for on-street chargepoints: the majority are from Cambridge residents. While absolute numbers of requests are low, these have been unprompted, and we anticipate that should a "call" be put out for suggested locations the response could be significant.

Cambridge	57	Huntingdonshire	5
East Cambridgeshire	4	South Cambridgeshire	9
Fenland	3		

Similarly, there have been enquires regarding permission to trail cables and other "DIY" solutions which pose a potential safety and equity risk on the highway. The potential to charge cars parked on the street and connected to a house electrical network is discussed below.

Key Focus Areas - Charging Infrastructure

Home Charging

This is where a resident has their own private EV chargepoint installed on their property. In most cases this is only an option where residents have off-street parking. As would be expected with a mixture of urban and rural environments, there is a wide range across the region of those with and those without off-street parking and opportunity for off-street charging. The table below shows the percentage of those properties in each local authority which rely on on-street parking and therefore will need charging solutions suitable:

Peterborough	38%
Cambridge	38%
E Cambridgeshire	20%
Fenland	29%
Huntingdonshire	22%
South Cambridgeshire	16%

Table 2: Percentage of households reliant on on-street parking (WSP Analysis)

Installing your own charger

Various reports suggest that over 80% of EV charging happens at home. Residents who have access to off-street parking can install a home-charger connected to their home electricity supply. These are often the most convenient and cheapest way of charging. There are lots of options out there, and we can work to signpost our residents to authoritative guidance and information.

Some homes, particularly those in private rentals, may be eligible for government grant to support the purchase and installation of a chargepoint. We can work with landlords and tenants to ensure all are aware of the financial benefits currently available to them.
All new build homes in England will be fitted with electric vehicle charging stations as standard, under new building regulations designed to promote the uptake of low-emission vehicles.

EV Chargepoint Crossing-over

EV Crossing-over is where a resident has their own chargepoint on their property but no associated off-street parking. Instead the vehicle is parked on-street, and the charging cable “crosses-over” the footway.

There are concerns about the safety of these technologies as they may introduce hazards to pedestrians. However, CPCA will support the various highway authorities within the local

authority partners to explore technology options, some of which are being trialled in other parts of the country.

Residential EV Charging

This focuses on where residents don't have off street parking so need to be enabled to charge close to home.

On-Street Charger Installations

Public on-street charging is primarily focused on enabling those residents who cannot charge at home to do so at, or close to, where they would normally park.

These chargers will tend to be slower (c.7kW) chargers to reflect the longer durations that residents tend to park for when at home. These also tend to be compatible with the widest range of different vehicles. Where chargers are installed, we would generally seek to designate the bays as "EV only "to ensure access is maintained. Where such changes to parking is considered a requirement, formal Traffic Regulation Order processes would be followed, and the local community consulted.

There is no universal guidance on what is acceptable on the highway in terms of the physical installation design. This is left to the relevant highways authority to agree.
Finding suitable locations can be a challenge, and we set out some principles for this in section 0. Charging points should not be considered the personal charging point of any individual but will be an asset for the community to access.

Destination Charging and Charging Hubs

This focuses on where EV drivers may want to charge either at a destination or en route. This includes the Council run car parks, public buildings such as offices and leisure centres and, where appropriate, on-street parking in town centres.

Car Parks (incl. Park & Rides)

Across Cambridgeshire and Peterborough, there has been a focus on ensuring local authority car parks have EV chargers.

In Peterborough, there are currently 22 public charging spaces (as opposed to points) as well as the 4 e-Taxi rapids and 3 for our own service vehicles. 4 public charging are on street and 18 are in the car parks.

Across Cambridgeshire the District Councils are already installing across their car parks.

There are several chargepoints across the Cambridgeshire park and ride locations, with officers closely monitoring how further installations could be facilitated. We have a commercial arrangement with Tesla at Trumpington P&R. Alongside this we have a separate commercial arrangement with BP Pulse at Trumpington and Milton.

St Ives and Babraham P&Rs are having significant numbers of chargers installed as part of the wider Smart Energy Grid projects, both of which are now in construction. Consideration for the other P&Rs is underway, with officers seeking to align the chargepoint approach (at a minimum pricing) across all sites.

General Principles for chargepoint locations

When we assess where to locate charging infrastructure there are a range of elements to consider. Each site will be different, but in broad terms:

- Provide charging points in the places that people need them, especially rural areas, but not in locations that encourage additional car use.
- Focus on areas where residents cannot make the switch to EV without access to a public charging network, but we want to ensure a good geographical spread across the county.
- Ensure any charging points we enable are complementary to, and not in direct competition to others already operating in the area.
- Engage with the market to encourage them to invest in charging infrastructure within the region and to ensure any additional public charging infrastructure is complementary to privately owned charging points.
- Initial efforts will focus in areas where we predict there will be more charging points required. These are areas where there is less access to off road parking, where uptake trends are fastest and where there are more commuter journeys happening.
- Cambridgeshire and Peterborough residents will have the opportunity to suggest suitable specific sites for charging points to be installed.
- Individual sites will be subject to full feasibility investigations including an assessment of local grid capacity.

Ensuring Equitable Access to Chargepoints

Ensuring equitable access to chargepoints is a key objective of CPCA as the transition to electric vehicles currently favours those with higher incomes and home-charging with off-street parking. Estimates included above suggest that up to 40% of households do not have access to off-street parking and charging and it will be critical to address this section of the population if they EV transition is to be achieved.

Therefore it is key that CPCA supports the installation of a publicly accessible chargepoint network and one aimed particularly at those who have to rely on this as they do not have access to a domestic charger. This could mean:

- Identifying locations which have a high density of cars parking on the street which need public charging facilities and exploring the various mechanisms (use of government grants or concessions) to deliver the required chargepoints;
- Supporting the implementation of electric car clubs to assist in the transition to electric vehicles in particular locations;
- Identification of publicly owned car parks close to areas of housing without off-street parking which could be used for overnight charging. The necessary infrastructure might need to be put in place, such as improved lighting and security, to encourage users and ensure safety and security.

ChargePoint Accessibility – PAS1899 BSI/Motability

Nationally it is expected that by 2035 when the ban on new ICE vehicles come into force, we will have over 2.5 million disabled drivers on UK roads. Ensuring everyone in our community are able to easily access and use chargepoints infrastructure is vital.

To support Local Authorities, British Standards Institute produced best practice guidance – PAS 1899:2022 – which sets out how to make EV chargepoints accessible to all. As far as practicable, all public chargers installed by local authorities access the CPCA area will to comply with the best practice set out in this guidance.

The best practice guidance sets out standards[10] on:

- Open data: “all drivers should be able to locate available and working chargepoints that suit their needs easily when they need to charge their vehicle, with openly available static and dynamic (i.e. data types that are subject to change on a regular basis such as whether the chargepoint is in use or available) data.” CPCA will require all chargepoint operators providing service on publicly owned land to make their data available to the combined authority as well as any databases and platforms used by central government or consumers.

- Pricing transparency: “consumers should be able to understand and compare pricing offers across the UK charging network, using a pence per kWh metric which is clearly displayed in advance of charging. “

[10] PAS 1899:2022 Electric vehicles – Accessible charging – Specification

- Reliability: consumers should expect a 99% reliable and with a free 24/7 helpline when consumers experience issues; this will ensure that we eliminate any anxiety about chargepoints not working and any inconvenience which comes with faulty equipment.

- Payment: accessibility is not just about ensuring all can use the chargers – we must also ensure they are as easy straight forward to use as possible. Increasingly, current EV drivers are sharing their frustration at the proliferation of payment mechanisms required to use different types of chargers. In response, Government is bringing forward new requirements for all chargers funded by public sector grants above 7.1 kW to include non-proprietary payment methods. This could include contactless, pay as you go capabilities.

We will ensure that all chargers we install, where possible, will have this payment option. Where there are chargers already installed, we will explore the possibly to retrofit, however it is likely these will need to be transitioned as their replacements dates come up.

These standards are also contained within the Public Charge Point Regulations which came into force in 24 November 2023.

Communication, Advocacy and Outreach

We understand the concerns that have been raised and the need for more information to be shared to give drivers and business the confidence they need to go electric. Some of these points are addressed in this strategy. There is also an increasing body of Government and industry guidance available that dispels many of the misconceptions about EV's and guides drivers through the electrification journey and vehicle and charger funding available.
There are a number of community-led projects to install chargepoints for residents and/or their wider communities. For example, the resident association at Marmalade Lane in Orchard Park are installing charge points in their car parking area. Similarly, several Parish Councils are working with South Cambridgeshire District Council to install chargepoints at their parish halls. There are initiatives to help resident groups and other community bodies install their own chargepoints without waiting for government funding. For instance, the ChargeMyStreet (www.chargemstreet.co.uk) community benefit society which installs and operates community EV chargepoints, raising money through community shares.

We can take learning from these schemes and, working with our partners such as CambsACRE to share these schemes and encourage and empower our communities to act themselves.

We will ensure our communities have easy access to this information and local examples. We will host events, such as the Energy Saving Trust "Go Electric" events to bring this information to our communities, empowering them to decide what will work best for them.

Public Transport

In July 2021 the government published the Transport Decarbonisation Plan[11], which details the government's intended strategic direction for decarbonising the transport sector. The paper details the intention to move mobility away from motor vehicles (irrespective of fuel propulsion system) firstly to active travel (e.g. cycling, scooting and walking) and secondly to public mass transit (e.g. bus, train and tram). Below summarises the current situation:

The first two electric double-deckers (dds) were in service in late 2019 and more recently PCA delivered 30 electric buses in Cambridgeshire in the last year through the first iteration of the ZEBRA funding. There are ambitions to continue the electrification of buses in the region. A further 30 electric buses are planning to be introduced into Peterborough in the coming year and there is an ongoing study to find an appropriate depot to install with the required electric vehicle charging.

Looking longer-term, there is an ambition to introduce a significant number of electric buses over the next 10 years or so at approximately similar volumes to the projects undertaken to date. However, it should also be noted that there are ambitions to introduce hydrogen vehicles for longer journeys so battery electric vehicles are not the only technology being considered.

There are two broad trajectories for realising this electrification target within the context of bus ownership:

Within an Enhanced Partnership, the necessary investment would likely continue (or be required) by central government via such funds as ZEBRA. However, the nature of ZEBRA funding means that the necessary funding cannot be guaranteed and so CPCA is reliant on this external funding or the ambitions of the operators themselves.

- Within a franchising arrangement where CPCA gradually mandates the move to electric buses; this gives CPCA more certainty on the electrification pathway. Within this option, CPCA would be interested to understand how devolved central government spending on buses could be managed by CPCA to accelerate the deployment.

Active Travel

The Department of Transport has been promoting active travel as a means of reducing carbon emissions and improving public health. In July 2022, the DfT published a framework document for Active Travel England (ATE), which will lead the delivery of the government's strategy and vision for walking and cycling where half of all journeys in towns and cities are walked and cycled by 2030.

[11] Transport decarbonisation plan - GOV.UK (www.gov.uk)

Electrification of bicycles is a growing trend. In 2020, the number of electric bikes sold in the UK increased by 63% compared to the previous year, which was the sharpest growth in the 2017 to 2022 period. Electric bikes will predominantly be charged at home, however cycle hire schemes offering electric bikes, as well as Mobility Hubs (see below), may need to offer electric charging facilities. These will be different technologies than those needed for cars and can be easier, and cheaper, to install.

Mobility Hubs

Mobility hubs are a recent concept, developing upon the idea of interchange. This has, over the past decades been traditionally applied to public transport. The concept has been enhanced to apply more broadly to encouraging more sustainable travel including active travel and car-share for example. They aim to provide convenient and seamless connections between different modes of transportation, reducing the need for private car ownership and promoting sustainable transportation options.

Mobility Hubs can have a particular role to play in rural areas where those without access to private cars can be particularly impacted. In the context of EV charging, mobility hubs in rural areas can be good locations for car club locations as well as places where those without access to off-street parking and charging can bring their vehicle to charge.

Hubs generally include public transport, biking, micro-mobility, and car-sharing. They could also be sites for EV charging where drivers switch to other transport modes, such as public buses or e-bikes. EV charging infrastructure may therefore be required at some mobility hubs as part of the range of services they can offer to encourage both EV adoption as well as take up of other modes.

Shared Transport

Through the LTCP, Councils are working to ensure that transport is not only cleaner, but that congestion is reduced, and places are better linked by public transport and active travel routes.

For those who only occasionally make journeys that aren't a good match with public transport, there are already options that can negate the expense of owning and maintaining a personal car. Whilst electric bikes have seen a huge uptake, they will not suit everyone, so we will work to ensure car clubs are expanded where possible. We will ensure that charging facilities are co-located with these services to enable car club vehicles to be electric too. Even in our rural areas, where a car club might mean a resident could switch to one vehicle rather than two, we can see big benefits.

For those that don't want to drive or ride themselves, and traditional public transport isn't an option, ride hailing services and taxis may be an option. Working with such services to ensure infrastructure is available to enable them to switch to electric will be important. Already all taxis licenced by Cambridge City Council must be ultra low or zero emission, and rapid chargepoints for taxi's have been installed to facilitate this change. Other District Councils are looking at similar approaches.

Cambridgeshire

Taking these together, in Cambridgeshire have worked with our Local Planning Authorities to ensure chargepoint provision is “designed in” to any development. It incumbent upon the developer to provide suitable levels of EV charging points, as may be required to meet OZEV requirements, within each dwelling curtilage, or in designated areas (private laybys/ small communal car parks etc). These must be provided without need to install on the adoptable public highway.

Additionally, we recommend that the promoter of any site should carefully consider the siting of EV charging in relation to the overall development management strategy, as recommended in the National Design Guide, such that ‘management and maintenance responsibilities are clearly defined for all parts of a development’.

Peterborough

Peterborough’s Local Plan Policy LP13 states that all development requiring parking provision should be designed, unless there are exceptional design reasons for not being able to do so (e.g. listed building constraints or site-specific factors), to incorporate facilities for electric plug-in and other ultra-low emission vehicles, or as a minimum the ability to easily introduce such facilities in the future.’

How we will deliver

There are two main government funding schemes available to us: the On-Street Residential Chargepoint Schemes (ORCS) and the Local Electric Vehicle Infrastructure (LEVI) Scheme. These have different terms but are both designed to support local authorities to deliver charging infrastructure in the more challenging locations where the need is greatest.

Commercial Models

There are a range of commercial options available to local authorities for installing, operating and maintaining EV chargepoints. These models will depend on the level of investment available as well as the appetite towards risk and ownership of assets. There are broadly two choices:

Own and Operate Model: An approach in which a local authority appoints a supplier to install and manage chargepoints on council-owned land for the contract period and fully funds the installations, typically using grant funding and local authority capital. Operating and maintaining the chargepoints would be contracted to a third party. The main advantage of this approach is the control it gives to a local authority over the location of the chargepoints and the tariffs. However, this approach comes with financial risk and may require significant capital investment.

Concession Model: The local authority grants the chargepoint operator the right to offer a service on local authority owned land at their own commercial risk. The concession or lease could be granted in return for either payments per bay or a share of the revenue generated. The chargepoint operators is responsible for installation through to operation and maintenance for an agreed contract period for a fee. This could either involve no funding from local authorities or could be match funded by the authority which could give more control and develop the less commercially viable sites. This approach lower the risk and investment for the local authority whilst giving up more control over, for instance, tariffs.

Where financial business models are strong we will explore investing our limited capital funds, but in the majority of cases we anticipate use of either government grants and/or private sector investment. Therefore our preferred option for delivery and ongoing management, operation and maintenance is via a concession model using a third party contractor who specialise in EV charging and understand the detail of how to manage such networks.

We will develop rolling annual delivery plans to ensure we are delivering at the pace and scale we need to support our residents to transition.

Governance

Governance of the EV strategy will sit with the Combined Authority, with responsibility for execution by the respective local authority partners. Funding applications, such as LEVI and ORCS will be undertaken by CPCA, with procurement of EV chargepoints the responsibility of local authority partners as funds come available.

Recommendations for ongoing governance and monitoring:

- Create an EV taskforce with representatives from across the authority to co-ordinate activity, negotiate with chargepoint operators and liaise with the DNO;
- Monitor key metrics regarding EV uptake, changepoint installation and usage to enable future planning;
- Co-ordinate best practice and use of standards relating to EV chargepoint design, installation and fit within Transport policies;
- Act as a central point of EV information across the authority.

Action Plan

Detail to be confirmed

Action	Target Date	Responsible organisation
Publish EV Infrastructure Strategy (draft is scoped out, write, get approval)	March 2024	CPCA

Establish EV Infrastructure Governance within each LA the feeds through to the existing CPCA's Climate Action Plan governance	March 2024	CCC / PCC
Develop and submit a LEVI capital fund proposal(s)	TBC once understand deadlines	CCC / PCC
Engage with constituent Councils to take forward as a collective	Through timescale of project	CCC
Soft market testing	Dec 2023	CPCA / CCC / PCC
Produce data to inform site selection and mapping of chargepoints	Feb / March 2023	CCC / PCC
Establish appropriate route to market for each LA, prepare and launch EV infrastructure procurement(s)	Summer 2024	CCC / PCC
Develop a 5-year delivery plan for EV infrastructure	June 2024	CCC / PCC
Deliver installed and commissioned charging infrastructure	2025 onwards	CCC / PCC
External engagement and promote collaboration on schemes (e.g. with tier 2 and adjacent local authorities, or constituent authorities if in a Combined Authority)	Dec 2023 onwards	CCC

Co-funded by the European Union

Application form*:*

Sustainable Cities Mobility Challenge 2024

Please complete the form below in English using a standard font[1] (size 11). Please also upload an estimated **project budget** (max. two A4 pages). You may also append relevant annexes or supporting visuals e.g. maps, diagrams, photos. **In total, the application should not exceed 10 A4 pages.**

Full name of town/city (or name of organisation applying on behalf of the city/town):	Main Applicant: Cambridgeshire and Peterborough Combined Authority (Combined Authority) Supporting Applicants: Cambridgeshire County Council (CCC) Peterborough City Council (PCC)
Physical address of town/city/applicant organisation:	Pathfinder House, St Mary's Street, Huntingdon, PE29 3TN, England
Main contact person for application - full name and job title:	Yo Higton Active Travel Lead
Main contact person: email and telephone number:	Yo.Higton@cambridgeshirepeterborough-ca.gov.uk
Amount of funding requested:	£77,380.80

Your project description should respect the limit of 2,000 words (excluding spaces between words) and cover the following:

- Brief description of the **mobility challenge/problem** you are trying to solve.
- Brief description of the **proposed solution(s)**
- Briefly identify any potential **risks** that could affect delivery.
- Implementation **timeline**
- Anticipated climate/environmental/societal **benefits – and how these will be measured.**
- Potential for **learning** and **replicability** in other cities.
- We anticipate that municipalities will be the main applicants for this call. However, if applicable, please list **any other organizations involved** in delivering the project (such as NGOs or SMEs).

[1] such as Times New Roman, Arial or Calibri

Co-funded by the European Union

- Please attach a letter demonstrating the **support of the mayor - or other evidence of senior political support/municipal mandate**.
- Include an **estimated budget** (max 2 pages A4), which should include staff costs.

…/

Description of proposed project: Cargo Bike Try-Before-You-Buy Scheme

Background

Cambridgeshire and Peterborough have a combined population of 317,870. Historically Cambridge City has a proud tradition of active travel. The city is unique in the UK in having significant levels of cycling, with the 2011 Census revealing that 29% of journeys to work were made by bike. Conversely, elsewhere in the region the rate of cycling is more in-line with national averages. The Combined Authority and its constituent councils are committed to **accelerating the take-up of active travel modes** to ensure we reach our **target of 15%* reduction in car mileage by 2030**. To reach this ambitious target, focus needs to be on more than safe infrastructure, but also on suitable alternatives to the motor vehicle. Cargo bikes provide a suitable alternative for transporting children or goods around town as they can carry heavier loads than a standard bike.

The Problems Being Addressed

The purchase of a cargo bike is a **big financial commitment** and has been found to be a barrier to converting to active travel. Furthermore, there are **many styles of cargo bike** on the market, which makes choosing one a difficult task. Therefore, the Combined Authority aims to help overcome these barriers by running a try-before-you-buy scheme for residents and businesses in Cambridgeshire and Peterborough.

The try-before-you-buy model has been piloted by Cambridgeshire County Council (CCC) since July 2021. This scheme has been very popular and there is currently a four-week waiting list to borrow an electric cargo (e-cargo) bike. The scheme has eight bikes; four bikes in two styles for families to borrow, and four different styles for businesses to trial. To date there have been over 160 trials of cargo bike and over 65% of participants have decided to purchase a cargo bike after the trial period. Details of the current scheme can be found here. However, despite the popularity of the cargo bikes, the **scheme only had funding for three years and so will come to an end in spring 2024**.

The Proposed Project

The aim of the proposed try-before-you-buy e-cargo bike scheme is to enable residents and businesses to **decarbonise their transport choice and improve local air quality**. Table 1 outlines the outcomes and outputs of the project.

Table 1: Objectives, Outcomes and Outputs

Objectives	Outcomes	Outputs
Decarbonise families and businesses' transport	Reduced dominance on motor traffic	Over 15,000 km travelled by hired cargo bike in one year period, reducing CO2 emissions from motor vehicles.

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Improve local air quality Accelerate the uptake of active travel	Better health and higher quality of life for users Information about distances travelled and routes taken by cargo bike	Over 100 individuals or businesses trialling the cargo bikes. At least 30% of participants reporting they are considering or will buy a cargo bike. Data from GPS trackers.

The scheme will build on Cambridgeshire's success, add eight additional bikes and expand the geographical reach to Cambridgeshire market towns and Peterborough city. Three additional family cargo bikes will be added to the Cambridgeshire scheme and four family bikes and one business bike will be available in Peterborough.

Families and businesses wanting to try out a cargo bike can access the details of the bikes online. There are nine styles of bikes to choose from and the loan time is between 1 and 8 weeks (1 or 2 weeks for families and 4 or 8 weeks for businesses). There is a small fee to take part in the scheme to ensure that the bikes are valued.

The scheme would be promoted via social media, articles in local newsletters, with case studies and on the website of the Combined Authority, CCC and Peterborough City Council (PCC). Details of the scheme will be shared with Councillors in each district, local National Childbirth Trusts, the Chamber of Commerce, Cambridge Angels, Peterborough Business Network and Campaign for Better Transport, along with numerous cycle campaign groups across the region.

All bikes (including the 8 original bikes) will be fitted with a GPS tracker, which will allow **data to be collected about people's journeys** and routes taken. This valuable data can be used to help prioritise cycle networks and remove physical barriers. The bikes will be supplied with chain locks and receive a routine service at 6 months and an in-depth service at 12 months.

Each user will be asked to fill out a pre- and post- **questionnaire**. This will allow data to be collected on:

- Km travelled during trial
- Number of children on bike and their ages / number of employees
- What the bike will be used for
- Whether the cycling journeys were replacing a vehicle journey
- Feedback from using the bike – what they liked and disliked
- Number of trips taken each week
- If they intend to purchase a cargo bike in the future
- What the barriers are to purchasing a cargo bike

Monthly reports will be provided to the Combined Authority by the organisation running the scheme and the Combined Authority will provide the funder with a report every four months and at the end of the project as set out by the payment schedule. The reporting can be increased if the funder requires.

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The intention is that the scheme will be provided by a local company who can offer the benefit of local knowledge. The organisation that delivers the project will be selected in line with the Combined Authority's procurement process. The procurement process will commence mid-January to ensure the provider is in place and bikes purchased by April 2024. The project will continue until July 2025. Please see the **Gantt Chart** in the appendices for more details.

The Combined Authority has a proven track record in delivering multiple capital and revenue projects, ranging from tens of thousands of pounds to multi-million-pound projects. The **Single Assurance Framework** provides details on how the Combined Authority has the responsibility to ensure that it provides appropriate stewardship of public funds, that it drives improvements and standards within its initiation, and the development and approval of programs and projects. The elements within the Single Assurance Framework are scalable and will be agreed within the context of this project.

In delivering this project, we will adopt the established method of **project management** which is used for projects of varying sizes. The Project Manager will be the Combined Authority's Active Travel Lead, who will oversee the project and report to the Project Board.

The Project Team will consist of the Project Manager, CCC's Principal Active Travel Officer and PCC's Principal Transport Planning Officer who will be responsible for managing the organisation who run the day-to-day scheme. The Project Sponsor will be the CPCA's Interim Head of Transport and the Project Board will consist of the Active Travel Lead, Interim Head of Transport, Principal Active Travel Officer and Principal Transport Planning Officer. All Officer time is not included in the amount requested; Officer time will be provided as match funding.

The risks that will affect delivery have been considered in the **Risk Register** that can be found in the appendix.

Impact of Scheme

The impacts of the Try-Before-You-Bike Cargo Bike scheme are **numerous and wide reaching**.

On an individual level there are **health benefits** from swapping shorter journeys to bike rather than car. Furthermore, the trial period enables **travel behaviour shift** for a short period, then once a cargo bike is purchased many more journeys can be done by bike. Of the 129 individuals who participated in the current resident trial, 67% responded they would buy a cargo bike with another 19% considering it. This shows the impact of providing different styles of bikes to try out before purchasing.

Families using cargo bikes will have a **positive impact on future generations' travel habits**. If, at a young age, children see it as normal to travel by bike, rather than getting into a car, they are more likely to continue this behaviour as a teenager and in adult life. The users from the current trial report that in total nearly 150 children were transported via cargo bike.

Furthermore, no drivers licence is required to ride a cargo bike (although training will be provided before the bikes are loaned out). The use of a cargo bike for businesses enables them to employ young apprentices or staff that do not have a drivers or van licence. This therefore have **benefits for local employment opportunities**.

The scheme allows others in the community to see that using a cargo bike is possible for everyday business. The people who partake in the scheme are leading by example, creating an environment where this type of **travel is**

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normalised and allowing the fellow businesses to consider using one themselves. This message will be enhanced by providing case studies and sharing them with companies within the region.

The scheme will have a positive **impact on local air quality** as vehicle journeys will be replaced by bikes. Using the data from the current trial in Cambridgeshire, it has been calculated that the loaned cargo bikes travelled 15,185 km. Assuming the journeys were replacing a large family car, this is a saving of 3,903 kg CO_2**.

In conclusion, the Try-Before-You-Buy Cargo Bike scheme will have a positive impact on individuals' health and quality of life, on air pollution and will reduce the dominance of motor traffic.

Potential for learning and replicability

This project adds knowledge and experience to the advancement of healthy, sustainable mobility in urban and semi-rural areas. The pilot project has proven that there are many positive impacts on people and the environment. This tried-and-tested model will be rolled out in Peterborough city and market towns within Cambridgeshire, thus demonstrating how the model can be replicated. Please see the Risk Register for details of the lessons learnt from the original project.

The Combined Authority and our constituent council partners would like to share the scheme and results with other English local authorities. This will be done by attending conferences and linking with interested colleagues.

*from a 2019 baseline
** Grams_CO2_transportmodesUK.pdf (aef.org.uk)

Please provide your word count:
Maximum 2000 words (not counting spaces between words).

List your appendices below:	
Appendix 1: CPCA Mayoral Support Appendix 2: CPCA Gantt Chart Appendix 3: CPCA Risk Register Appendix 4: CPCA Project Budget	

Please send this completed form (together with budget and relevant appendices) as a **pdf document** to: sustainablecitiesmobility@climate-kic.org **by the deadline: 23.00 CET on Friday, 24 November 2023**.

∞End of application form∞

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Sustainable Cities Mobility Challenge 2024

EIT Climate-KIC is running a Sustainable Cities Mobility Challenge for European cities to identify bold and impactful projects which seek to decarbonise transport, improve local air quality and accelerate the take-up of active, shared, collective and/or electric mobility. The call aims to support the transition to cleaner, greener, and more inclusive transport, in line with the objectives of the European Green Deal, Urban Mobility Framework, New European Bauhaus and the EU Cities Mission.

Who can apply?

Cities and towns (with a population of at least 25,000) in the EU Member States, Horizon Europe Associated Countries[1] (including the United Kingdom) and Switzerland are eligible to apply.

Essential information

- Project proposals should be submitted by city councils, municipalities or local authorities (including municipality-owned organisations/companies). Applications should provide evidence of senior political support/municipal mandate).

- Projects will be selected based on the potential for **impact, learning,** and **replicability** in other towns and cities. They should seek to make a positive difference to people and the environment in the area where they are implemented, adding to the body of knowledge/experience to shift cities more rapidly towards more sustainable mobility systems.

- Examples of the types of projects that could be considered for support include (but are not limited to), the following:
    - Low Traffic Neighbourhoods (LTNs) or Low Emission Neighbourhoods (LENs)
    - Walking, cycling and wheeling projects.
    - Projects which support shared and collective mobility (public transport)
    - Play streets, school streets and other projects which reallocate street space to social/cultural activity.
    - Mobility hubs
    - Sustainable transport of goods and services/logistics.
    - Parklets and greening schemes which encourage active travel.
    - Behaviour change projects (where these support on-street changes – standalone behaviour change initiatives will not be considered).
    - Apps and journey planners which facilitate sustainable mobility.
    - Data collection, analysis, monitoring and evaluation tools.

- Each city project selected will be granted up to 90,000 EUR (depending on the total number of proposals selected in the call). A maximum of five projects will be funded.

[1] https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-news/updates-association-third-countries-horizon-europe-2021-12-21_en

- The anticipated grant payment schedule is as follows: 20% when project starts; 70% after four months (subject to delivery and on receipt of progress update); 10% when closing the project (subject to delivery and on receipt of progress report).

- The grants could be used (for example) to:
    - Fund/support a city-led local project or pilot project, and/or
    - Fund cities' work with NGOs or SMEs which are developing impactful solutions to address specific mobility challenges.

- Proposals can be centred around new ideas or initiatives - or can relate to elements of existing or emerging city programmes/strategies that advance sustainable urban mobility.

- Cities should aim to complete their projects by July 2025.

Interested towns and cities are invited to submit a **short project proposal (maximum 2,000 words)** outlining the mobility problem or challenge they would like to tackle, and their proposed action to address this.

To apply, please complete the application form and send your proposal to **sustainablecitiesmobility@climate-kic.org** by 23.00 CET on Friday, 24 November 2023.

Please submit any questions you may have about the call (in English) to the same email address. We will collect these, write up (anonymized) answers and publish these as Questions and Answers on our website. Please ensure that any questions reach us by 23.00 CET on 10 November 2023.

Indicative call timeline:

- Call opens: **Wednesday, 13 September** 2023 CET
- Call closes **Friday, 24 November** 2023 23.00 CET.
- Evaluation of proposals: during December 2023.
- Successful applicants notified from mid-January 2024
- Projects start: **April 2024**
- Projects end: **by July 2025**.

Proposal evaluation process:

Proposals will be scored by a panel using the following criteria:

- **Clarity of proposal** (15 points)
- Focus on **impact** (20 points): the project has a positive impact on the environment and/or people's quality of life (for example, by reducing GHG emissions and/or local air

pollution, reducing dominance of motor traffic in a city or neighbourhood, or by making it easier for citizens to access sustainable, safe and affordable mobility)

- **Learning** and **replicability** (15 points): the project adds to knowledge and experience relating to the advancement of healthy, sustainable urban mobility. It has potential to be replicated, adapted and/or scaled up in other urban areas.

Shortlisted applicants will be invited to a short online interview.

We will aim to provide useful feedback to applicants that are not successful, depending on the number of applications received.

We reserve the right not to select any of the proposals if we consider that none meet the criteria and objectives of the Call.

Transport & Infrastructure Committee

17 January 2024

Agenda Item **6**

Title:	Bus Reform
Report of:	Neal Byers
Lead Member:	Cllr Anna Smith
Public Report:	Yes, with EXEMPT appendix.
Key Decision:	Yes
Voting Arrangements:	**Recommendations A, C & D:** No vote required **Recommendation B**: A vote in favour by at least two thirds of all members (or their substitute members) appointed by the Constituent Councils, to include the members appointed by Cambridgeshire County Council and Peterborough City Council, or their substitute members.

Recommendations:	
A	Note the progress of the Bus Reform business case, independent audit and recommendation to be considered by the CPCA Board
B	Comment on and agree the principle of proceeding with Franchising as the preferred model for bus reform (sections 2.14 - 2.18), for consideration of the CPCA Board
C	Note the Draft Proposed Franchising Scheme as described and set out in the exempt Appendix A
D	Note that the CPCA Board will receive the updated business case, report of the independent auditor and recommendation to proceed to public consultation.

Strategic Objective(s):	
The proposals within this report fit under the following strategic objective(s):	
X	Achieving ambitious skills and employment opportunities
X	Achieving good growth
X	Increased connectivity
X	Enabling resilient communities

1. Purpose

1.1 Transport is a cornerstone of the economic, social, and environmental fabric of Cambridgeshire and Peterborough. As we navigate a post-pandemic landscape, the need for a resilient, efficient, and user-centric public transport system is more pressing than ever. Our region's prosperity and growth are inextricably linked to the effectiveness of our transport systems, with buses playing a pivotal role.

Currently, the Cambridgeshire and Peterborough Combined Authority (CPCA) supports a bus network that is integral to the daily lives of our residents, facilitating access to employment, education, healthcare, and leisure activities. However, this network is not without its challenges. The prevailing deregulated system, which has been the operational norm since 1986, is showing signs of strain. Decreasing patronage, exacerbated by the COVID-19 pandemic, alongside increasing operational costs, has brought us to a crossroads. The status quo is unsustainable; a bold, transformative approach is required to revitalise our bus services and align them with the evolving needs and expectations of our community.

1.2 In this context, we find ourselves considering a shift in how bus services are managed and operated within our region. Franchising presents a promising alternative to the current deregulated model, offering a pathway to a more coordinated, efficient, and user-focused bus network. This model aligns with the broader strategic objectives of CPCA, including enhancing connectivity, supporting economic growth, fostering social inclusion, and contributing to environmental sustainability.

This paper outlines the rationale for consulting on bus franchising as a viable option for Cambridgeshire and Peterborough, while retaining the option to introduce an Enhanced Partnership. The paper summarises the potential benefits, challenges, and implications of transitioning to a franchised bus system. The aim is to ensure that our bus network not only meets the current needs of our residents but is also poised to adapt and thrive in an ever-changing transport landscape.

2. Proposal

2.1 **The Vision**

The CPCA envisions a transformative future for its bus network, one that is not only responsive to the current needs of its residents and businesses but also considers future demands and challenges. This vision is underpinned by a set of factors that align with our broader strategic objectives, encompassing social, economic, and environmental considerations.

Enhanced Accessibility and Connectivity:

Our primary ambition is to significantly improve the accessibility and connectivity of the bus network. This involves expanding the network to underserved areas, enhancing the frequency and reliability of services, and extending operational hours to provide more comprehensive coverage throughout the day and week. The goal is to make buses a viable and preferred option for a wider array of travel purposes, including commuting, education, healthcare access, and leisure activities.

Economic Growth and Opportunity:

A robust and efficient bus network is pivotal to supporting the region's economic aspirations. By facilitating easier access to job markets, commercial centres, and educational institutions, an enhanced bus service can play a crucial role in driving economic growth and opportunity across Cambridgeshire and Peterborough.

Social Inclusion and Equity:

Recognising the diverse needs of our community, the bus network aims to promote social inclusion by providing affordable, safe, and accessible transportation options. This is particularly crucial for vulnerable groups, students, the elderly, and those without access to private vehicles, ensuring that all residents have equitable access to essential services and opportunities.

Environmental Sustainability:

In line with regional and national targets for carbon reduction and environmental sustainability, the bus network aims to contribute significantly to these goals. This includes transitioning to low or zero-emission buses, promoting modal shift away from private car usage, and integrating the bus network with other sustainable transport modes such as cycling and walking.

	Customer-Centric Service and Experience: Item 6 A key ambition is to transform the customer experience of bus travel. This involves not just the physical aspects of travel, such as comfort and convenience but also the overall service experience including ticketing, customer service, and the provision of real-time travel information. Embracing digital technologies and innovations plays a significant role in achieving this goal. Financial and Operational Sustainability: Ensuring the long-term financial and operational sustainability of the bus network is crucial. This involves exploring funding models, enhancing the cost-effectiveness of services, and ensuring that the network can adapt to changing demographic and travel patterns over time. It also requires the consideration of additional public investment to improve bus services. The ambitions for the bus network in Cambridgeshire and Peterborough are comprehensive and multifaceted, aiming to create a convenient, reliable and easy to use public transport system. These ambitions set the context for considering franchising or an enhanced partnership as a strategic approach to realise this transformative vision for our bus services.
2.2	**Existing Challenges and the Need for Bus Reform** As the CPCA contemplates the future of its bus network, it is important to acknowledge the existing challenges that necessitate bus reform. These challenges not only impede the current effectiveness of our bus services but also pose significant barriers to achieving our long-term strategic ambitions. Declining Patronage and Service Viability: One of the most pressing challenges is the declining patronage of bus services, a trend exacerbated by the COVID-19 pandemic. This decline has affected the commercial viability of many routes, leading to service reductions and cancellations, particularly in less densely populated or economically less affluent areas. The result is a vicious cycle: reduced services lead to lower patronage, which further diminishes service viability. Operational and Financial Constraints: The increasing operational costs, partly due to rising fuel prices and maintenance expenses, pose significant financial challenges. These costs are coupled with limited funding options, placing a strain on the ability to maintain, let alone expand, service offerings. The need for investment in modern, eco-friendly buses adds another layer to these financial challenges. Network Fragmentation and Lack of Coordination: Under the current deregulated system, the bus network suffers from fragmentation, with multiple operators running different services with limited coordination. This fragmentation leads to inconsistencies in service quality, fare structures, and scheduling, making the network less user-friendly and hindering the potential for integrated multimodal transport solutions. Customer Experience and Accessibility Issues: Customer experience varies significantly across the network, with issues such as lack of real-time information, inconsistent service quality, and inadequate coverage during off-peak hours and in rural areas. Improving accessibility for all, including those with mobility challenges, is a key concern that needs to be addressed. Environmental Impact: The environmental impact of the existing bus fleet, primarily comprised of diesel-powered vehicles, is a growing concern, especially in light of regional and national goals for reducing carbon emissions. Transitioning to a greener fleet is important and requires substantial investment and strategic planning. Response to Changing Travel Patterns: The evolving nature of work and travel patterns, accelerated by the pandemic, presents both a challenge and an opportunity. There is a need to adapt the bus network to meet these changing patterns, such as the rise in flexible working, which affects peak travel times and demands for connectivity.
2.3	**The Road to Better Buses** The journey towards an improved public transport system begins with investment in our bus infrastructure and services. This includes modernising fleets, expanding routes, and better service management. These improvements result in tangible benefits: increased ridership, reduced urban congestion, and a significant step towards improved connectivity for urban and rural communities.

	Ongoing Bus Consultation Item 6 The CPCA has been working with members, bus operators and the public to examine where the network could be strengthened with further investment through the Mayoral Precept. The following sets out the types of improvements which have been identified and will be further developed, alongside other feedback provided through public engagement. This list is by no means exhaustive, but provides examples of where investment could improve the network: • Primary (core) service enhancements across the CPCA network – earlier morning journeys; increased frequency; continuation of peak frequency into early evening; additional stops. • Introduce new services. • Reinstatement of rural services, including evening and weekend services • Network remodelling to create better connectivity between services, including busway stops and railway stations and other interchanges. The CPCA will consider the outcome of the consultation on the medium-term financial plan, alongside input from TIC members and the CPCA Board to further develop the opportunities to invest into bus services.
2.4	However, to transform these incremental gains into systemic change, a more coordinated approach is required. This is where bus reform is considered to examine how changes to the way bus services are governed can secure a more efficient and effective network, from increased levels of investment. The question of bus reform includes a wider consideration of the system which supports the bus services, such as the following aspects: **Processes and service planning** • Single range of network-wide, all-operator tickets • Opportunity to subsidise fares for particular groups or offer fares discounts to promote certain services • Single network identity • Ability to plan and simplify the whole network, ensuring connections between services and overall network efficiency, such as use of Park & Ride sites as interchange hubs • Reinvestment of surplus revenue from profit-generating services to cross-subsidise socially-necessary services • Ability to achieve integration of different types of transport (local bus and school/college transport) Therefore, the question of bus reform is set in the context of an ambition to invest further into the bus network. As the investment level in buses increases, the CPCA needs to consider the associated decision to introduce either an Enhanced Partnership or Franchise.
2.5	**The Case for Reform: Franchising and Enhanced Partnership** In addressing the challenges facing our bus network, the CPCA is considering two primary models for reform: Bus Franchising and Enhanced Partnership. Each model offers distinct approaches to improving our bus services, and their potential merits and challenges have been given careful consideration through the business case process.
2.6	**Enhanced Partnership (EP)** Potential: An Enhanced Partnership allows for a collaborative approach with existing bus operators. It can lead to quick wins in improving services, as it builds on existing relationships and structures. EPs can introduce unified standards for service delivery, fare structures, and potentially, some level of integrated ticketing. This model is particularly beneficial where there is a willingness among operators to work together towards shared objectives. Challenges: The effectiveness of an EP is highly dependent on the degree of consensus and collaboration among participating operators. It may offer less control to CPCA compared to franchising and could be limited in its ability to bring about changes or large-scale network restructuring. The EP model is less likely to ensure consistency across the entire network, as operators retain a significant degree of autonomy.

2.7	**Bus Franchising** Potential: Franchising offers CPCA the ability to exert comprehensive control over the bus network, including routes, timetables, fares, and service standards. This model facilitates a more coordinated and user-focused approach, allowing for a unified brand, integrated ticketing systems, and a more efficient allocation of resources. Franchising can also drive improvements in service quality and consistency, making the bus a more attractive option for users. Challenges: Implementing a franchising model requires substantial upfront investment and resource commitment. There are complexities involved in the tendering process and ongoing management of contracts.
2.8	**Enhanced Partnership vs. Franchising in the context of increasing Public Sector investment** The escalating levels of public sector investment in the bus network present distinct opportunities and challenges within the frameworks of Enhanced Partnership and Franchising models. The increasing reliance on public funding necessitates a careful evaluation of how this investment translates into control, efficiency, and network enhancement under each model.
2.9	**Enhanced Partnership (EP)** Opportunities with increasing investment: Enhanced Partnership allows for quicker implementation and leverages existing operator relationships. Increased public investment can facilitate specific improvements in service quality, infrastructure enhancements, and customer experience initiatives. It can also support targeted subsidies for fare reduction or service expansion in underserved areas. Challenges with increasing investment: As public sector investment grows under an EP model, a significant challenge emerges in the form of limited direct control over the network. Despite increased funding, the CPCA will find its influence over route planning, service frequency, and overall network design constrained. This situation can lead to inefficiencies, as the authority's ability to direct investment towards strategic, long-term network improvements is limited. Furthermore, reliance on operator consensus under an EP might slow down or limit the scope of changes that can be effectively implemented, potentially leading to a mismatch between investment and desired outcomes.
2.10	**Franchising** Opportunities with increasing investment: In a franchising model, heightened public sector investment directly translates into greater control and the ability to shape the network according to strategic objectives. This model offers the potential for a holistic redesign of the network, ensuring that public funds are aligned with broader goals like enhanced connectivity, environmental sustainability, and social inclusion. Franchising can foster a more efficient allocation of resources, with the ability to implement integrated ticketing, unified branding, and consistent service standards across the network. Challenges with increasing investment: The primary challenge in a franchising model is the significant upfront investment and the complexities of contract management and oversight. As the public sector's financial stake increases, so does the responsibility for ensuring efficient, effective, and sustainable service delivery. The transition to a franchised system will involve navigating complex negotiations with existing operators and managing the associated political and operational risks.
2.11	While both EP and franchising models offer pathways to improve the bus network, the impact of increasing public sector investment on each model varies considerably. Enhanced Partnerships, while beneficial for incremental improvements and leveraging existing structures, are more likely to fall short in offering full control commensurate with increased investment. On the other hand, franchising, with its greater direct control and strategic alignment, can ensure that increased public investment is more effectively and efficiently channelled towards comprehensive network transformation. However, it requires a more substantial commitment in terms of resources and management. The decision between these models should therefore consider the balance between the desired level of control, the scale of investment, and the long-term strategic objectives of the CPCA.
2.12	**Introduction to the Outline Business Case (OBC) Assessment for CPCA Bus Network Reform** The Outline Business Case (OBC) for the CPCA bus network reform serves as a comprehensive assessment tool, designed to evaluate the potential pathways for transforming the region's bus services. The OBC's primary objective is to identify the most effective and sustainable model for bus service delivery, aligning with CPCA's strategic goals of improved accessibility, sustainability, and service quality. The updated, post audit, OBC will be provided to the CPCA to inform their decision. The following summarises the key points of the business case to inform debate at the committee.

2.13	**Scope of the OBC** The OBC considers a range of scenarios and factors to ascertain the most viable approach for bus network reform. It considers the economic, financial, commercial, and strategic dimensions of various bus service delivery models, providing a multi-faceted analysis of each option. Three Investment Scenarios: Central to the OBC are three investment scenarios – low, medium, and high – each representing different levels of financial commitment and corresponding service enhancements. These scenarios are evaluated across two potential delivery models of Bus Franchising and Enhanced Partnership (EP). Key Considerations: The OBC assessment closely analyses the impact of each scenario on various aspects of the bus network, including: • Economic viability, focusing on the benefit-cost ratio and net present value to gauge the overall financial feasibility. • Strategic alignment with CPCA's broader transportation goals, including environmental sustainability and enhanced public accessibility. • Risk management, particularly the uncertainties associated with transitioning to a new operational model. • Commercial viability and the degree of public sector influence in shaping the bus network to meet regional needs.
2.14	**Outcome of the OBC** The OBC's findings are instrumental in guiding CPCA's decision-making process for bus network reform. It provides a detailed evaluation of how each investment level under the franchising and EP models aligns with the authority's objectives, offering insights into the potential benefits and challenges associated with each approach. In the following section, we specifically discuss the case for adopting a franchising model, drawing on the evidence and analysis presented in the OBC.
2.15	The case for adopting a franchising model for the CPCA bus network is supported by several key findings from the OBC assessment. The business case reflects the balance which needs to be considered between the strategic and economic benefits and the additional financial and commercial risk associated with a franchise scheme. The following points summarise the key aspects of the OBC in relation to a franchise scheme. Economic Analysis: The medium investment franchising scenario demonstrates the best performance in terms of Benefit-Cost Ratio (BCR) and Net Present Value (NPV), reflecting the balance of investment costs against the benefits to passengers from improved services. This level of investment is projected to provide the best value for money compared to the low and high investment scenarios. Officers are currently testing additional scenarios to identify the 'tipping point', between the low and medium investment scenario, where the value for money decision moves from and EP to a Franchise scheme. This additional information will be presented to the CPCA board to help evidence the move toward franchise at a lower level of investment. Financial Sustainability: The medium investment scenario suggests that franchising, although requiring financial support initially, would start to generate revenues after 12-15 years. This contrasts with the high investment scenario, which would need ongoing financial support due to the high costs of operating a comprehensive, high frequency network. The financial dimension for the OBC identifies a wide range of funding sources, with three primary sources highlighted as being most likely to enable investment which can underpin the longer-term investment. These sources include: Mayoral Precept, Transport Levy and government grant. The business case separates out the operating costs of both EP and franchise arrangement from service improvements and capital investment. The breakdown of the contribution of each of these elements is set out in the OBC and will be reported to the CPCA Board. Public Sector Influence and Control: Franchising under medium investment offers CPCA high public sector influence, essential for guiding the distribution of benefits and dealing with uncertainties. This is particularly important as the CPCA

	looks to steer the bus network towards its strategic goals of improved accessibility, sustainability, and service quality. Strategic Alignment and Benefits: Franchising aligns with CPCA's strategic objectives by offering an opportunity to design a comprehensive bus service that meets the region's specific needs. This model allows for significant enhancements, improvements in infrastructure such as bus lanes, shelters, and fare capping to keep prices affordable. Risk Management: While franchising presents a higher level of uncertainty during the transition phase compared to Enhanced Partnerships, it shows lower uncertainty during operation. This suggests that once the franchising system is established, it offers a more stable and predictable operational environment. Commercial Viability: Franchising under the medium investment scenario provides CPCA with more control over the design of the overall scheme, enabling it to effectively meet its commercial objectives and ensure the delivery of intended outcomes.
2.16	**Comparative advantage of franchising over an enhanced partnership:** When compared to an enhanced partnership, franchising in the medium investment scenario outperforms in terms of economic benefits. The franchising model offers better control and oversight of the bus system, providing better value for money and is more likely to achieve CPCA's strategic outcomes. The business case shows that the medium investment scenario for franchising presents a well-rounded case for reforming the bus network in the CPCA area. It balances economic viability with strategic benefits, offers greater control and influence for the public sector, and aligns with long-term goals of enhancing the bus service in terms of sustainability, coverage, and user experience. The decision to pursue this model should take into account its ability to meet CPCA's strategic objectives, its financial sustainability, commercial viability, and practical feasibility.
2.17	**The tipping point - When franchising becomes the preferred choice over an enhanced partnership** There is a tipping point in the investment trajectory where the shift to bus franchising becomes the preferred way forward. This tipping point is characterised by a level of service development where the scale of public investment suggests more oversight and public control will provide better value for money. Beyond this tipping point franchising emerges as the preferred way forward to maximise social value and value for money of the investments made, ensuring that the bus system evolves into a more efficient, reliable, and user-focused service. This tipping point is between the medium investment scenario and the low investment scenario, suggesting that franchising would remain the preferred way forward with a reduction from the medium investment scenario.
2.18	Based on the OBC, it is proposed that the principle of moving to a franchise model as public investment increases is presented to the Combined Authority Board as the preferred option for bus regulatory reform and that the public are consulted on this.
2.19	**Draft Proposed Franchising Scheme** The Draft Proposed Franchising Scheme describes how the CPCA would implement such a scheme on the Region's bus network. It outlines for the purpose of consultation when the decision would be taken to implement franchising, when it would be put in place in each area, how long between the local service contract's start date and service provision (buses on the road), as well as information on the routes and areas franchising would be put in place in, and those bus services that would not be included. The Proposed Franchising Scheme is included in exempt Appendix A.
2.20	The Scheme outlines existing bus routes which would be included and allows flexibility to change, develop and improve them based on public feedback and input from the board. The CPCA would determine the service frequencies and timetables of these routes that bus operators would run under a local service contract. Once the franchising scheme is implemented in an area, all bus services that stop in that area must run under a local service contract or have a service permit, unless it is excepted from the franchising scheme or is an interim service.

2.21	The Act allows the Proposed Franchising Scheme to be amended after the consultation closes, this will enable the Board and Mayor to respond to any network changes and also confirm the pace and scale of the franchise.
2.22	It is currently proposed that the whole of the CPCA area would become part of the scheme. Bus service contracts would be rolled out across two “Rounds”. This is currently anticipated to cover the Greater Cambridge Travel to Work area in one round and the north Cambridgeshire and Peterborough area in a second round. Each round would include a range of contract sizes to encourage large and SME operators to bid for contracts.
2.23	The rationale for this approach would be to allow sufficient time for the franchise contracts to be procured and mobilisation to take place, as well time for the local bus industry to adapt smoothly to a new model of operation.
2.24	The Act states that there must be a minimum period of 6 months between when the contract is entered into and when the bus service provision will start, to provide adequate time for mobilisation. The CPCA proposes at least 9 months for the mobilisation of each large franchise contract. It is proposed that the CPCA would facilitate depots to be made available within each round of large franchise contracts.
2.25	The Mayor will take the final decision on whether to implement a franchising scheme, or pursue other partnership options, following final consultation with the CA Board at a public meeting later in 2024. If franchising is chosen, then it is proposed that the franchising scheme would be made at that point of the final decision.
2.26	All identified routes are organised by origin and destination points. These may be subject to change as demands on the network change and grow alongside the funding decisions of the board. At this stage they reflect the current network and its needs.
2.27	The first franchised services are currently expected to be operating from September 2026. Contracts would be put out to competitive tender for the bus services in those areas and operators would bid for them. There would be multiple ‘lots’ of varying sizes in each Round to allow for large, medium, and smaller operators to bid for contracts that are within their resourcing capacity. This would allow local small and medium operators the opportunity to continue to provide a similar level of service that they do in the current network, as well as opening the opportunity for expanding their services by bidding for multiple contracts. After the mobilisation period, where operators will prepare to deliver the new bus services under the CPCA’s specification, buses in that Round would be running under contract, unless on a service permit or exempted from the scheme.
2.28	**The independent auditor’s report** Following the preparation of the Assessment, the Act requires an Authority to obtain a report from an independent audit organisation on its Assessment.
2.29	In October 2023, Grant Thornton (“the Independent Auditor”) were instructed to prepare the report on the OBC on behalf of the CPCA. Grant Thornton’s commentary report is due to be issued in January 2024 and to be provided alongside the updated OBC to the CPCA Board. The Independent Auditor will give an opinion on: a. The information relied on in considering whether the CPCA would be able to afford to make and operate the Proposed Franchising Scheme, and in considering whether the Proposed Franchising Scheme would represent economic value for money, is of sufficient quality. b. The analysis of that information in the Assessment is of sufficient quality. c. The Combined Authority had due regard to the guidance issued under section 123B of the Act in preparing the Assessment.
2.30	It should be noted that whilst undertaking their analysis, the Independent Auditor has identified a number of observations in relation to the Assessment which will be set out in the commentary report which will be published for the Board. The full text of the audit report and the scope of the opinion will be provided to the CPCA Board to support their decision making, ahead of being published as part of public consultation.

2.31	**Consultation** Item 6 Following the preparation of the Assessment, a formal consultation on the Proposed Franchising Scheme is required in accordance with sections 123E to 123G of the Act. This consultation is open to all and would consider the views of bus users, residents, businesses, transport providers and other key stakeholders. Specific stakeholders who must be consulted as part of the process include: • Local bus operators • Representatives of employees of such operators • Organisations representing local passengers • Local authorities who would be affected by the proposed scheme, including National Parks Authorities where relevant • A Traffic Commissioner • Chief Officers of Police for areas to which the proposed scheme relates • Transport Focus (the Passengers' Council) • The Competition and Markets Authority.
2.32	As part of any consultation, the following documents must be published: • A consultation document relating to the proposed scheme; • The Assessment • The Independent Audit
2.33	The consultation document would include: • a summary of the Assessment • the franchising scheme area • a description of the proposed franchised services • a description of any proposed exemptions from regulation (eg cross boundary services) • the date on which the Combined Authority proposes to make the franchising scheme, together with the first date or dates by which the authority or authorities proposes to enter into contracts with operators to provide franchised services • the periods that must expire between the Combined Authority entering into a contract, and services starting to be operated under that contract • a description of the Combined Authority's plans for ongoing engagement throughout the life of the franchising scheme to seek views on how well the scheme is working • a description of how the Combined Authority plans to facilitate involvement of small and medium sized operators through the procurement process • the date by which responses to the consultation must be received.
2.34	It is proposed that a consultation would run for 12 weeks and would include significant direct engagement with communities across the CPCA area, including less often heard groups. It is also proposed that carrying out this consultation is delegated to the Executive Director – Place and Connectivity in conjunction with the Chair of the Transport and Infrastructure Committee and the Mayor.
2.35	**Future steps** Following the consultation period, the CPCA would prepare and publish a report setting out a response to the consultation together with a recommendation as to whether or not to proceed with the proposed franchising scheme or with an Enhanced Partnership. Following the consideration of the public consultation by the CPCA Board, it would be the Mayor that takes the decision as to whether or not to proceed with a franchising scheme.
2.36	CPCA will address issues raised by respondents to the consultation, including any changes to the franchising proposal made as a result. Depending on the significance of any changes, the CPCA may choose to consult again.

2.37	The CPCA board will use the response from the public consultation to inform the decision on the preferred form, alongside decision making for the level of funding and pace of implementation for the preferred scheme. Following consideration of the CPCA board on the funding and network ambition, the Mayor will make the decision to franchise, or proceed with an enhanced partnership.

3. Background

3.1	The development and reform of the bus network in Cambridgeshire and Peterborough are shaped by a myriad of policies and strategies, spanning local, regional, and national levels. These policies not only direct the operational aspects of bus services but also reflect broader goals in areas such as climate change, economic development, and urban planning.
3.2	National Policy and Strategy: The National Bus Strategy for England, 'Bus Back Better', introduced in March 2021, represents a fundamental shift in the government's approach to bus networks. This strategy emerged in response to the dual challenges of declining national patronage and the impact of the COVID-19 pandemic. It advocates for a reconsideration of the existing deregulated bus network model and encourages the exploration of alternative delivery methods, including Enhanced Partnerships and Franchising. Key tenets of 'Bus Back Better' include: • Integrated services and simple ticketing systems to facilitate ease of use. • Ambitious improvements in bus service frequency, reliability, and coverage. • A strong focus on achieving net-zero targets and supporting the government's Levelling Up agenda by connecting people to jobs, education, and services more effectively. Regional Policies: England's Economic Heartland (EEH) strategy, 'Connecting People Transforming Journeys', envisions a world-class, decarbonised transport system capitalising on regional technological expertise. This strategy underscores the importance of public transport and shared transport solutions for sustainable growth and improved quality of life.
3.3	**Local Transport and Connectivity Plan** The Cambridgeshire and Peterborough Local Transport and Connectivity Plan (LTCP) set out visions for a transport network that supports economic growth, social inclusion, and environmental sustainability. Key goals include: • Enhancing access to jobs and services via sustainable transport modes. • Promoting social inclusion through affordable and accessible public transport. • Addressing pollution and aiming for net-zero emissions by 2050. • Improving the resilience and reliability of the transport network. The LTCP's objectives dovetail with the ambitions outlined in the National Bus Strategy, reinforcing the need for a transformative approach to bus service delivery in the region.
3.4	These policies and strategies collectively underscore the importance of a reimagined bus network in Cambridgeshire and Peterborough - one that is more integrated, efficient, and aligned with contemporary social, economic, and environmental goals. Franchising emerges as a compelling option within this policy context, offering a route to achieving these broad objectives and addressing the challenges of the current bus service delivery model.

4. Appendices

4.1	EXEMPT Appendix A: Draft Proposed Franchising Scheme

5. Implications

Financial Implications	
5.1	The approved 2023/24 budget provides resource for the next stages of the Bus Reform project to be undertaken. The full financial implications of bus franchising will be considered at the final decision-making stage and will be informed by the statutory and internal processes identified in the paper. The decision to invest public funding into buses under a franchise will remove some flexibility for future budget setting as the financial commitments are for the medium to long term. Officers will continue to explore a range of funding options to provide revenue support for the transport network. The transition to a franchising model under the medium investment scenario for the CPCA bus network carries significant financial implications. **Initial Investment and Long-term Financial Sustainability** The medium investment franchising scenario requires a substantial initial investment, which includes costs associated with infrastructure enhancements and the establishment of operational facilities like depots and bus priority. However, this scenario is projected to begin generating revenue within 10-15 years, indicating a path to long-term financial sustainability. **Comparison of Investment Scenarios** In comparison with the low and high investment options, the medium investment scenario for franchising offers a more balanced approach. It avoids the high ongoing subsidy requirement of the high investment scenario, while offering greater service improvements and potential revenue generation than the low investment option. **Benefit-Cost Ratio (BCR) and Net Present Value (NPV)** The medium investment franchising scenario shows a favourable BCR and NPV over a 30-year appraisal period, suggesting that the benefits to passengers and the broader community are likely to outweigh the investment over time. It should be noted that the realisation of the economic benefits is skewed towards the second 15 years of the 30-year appraisal period. **Exploration of Additional Funding Options** Given the substantial upfront costs and the CPCA's commitment to improving bus services, exploring additional funding options remains important. Potential sources include Government Grants and Subsidies alongside Local Levies and Taxation Measures. **Financial Risk Management** The adoption of franchising under medium investment necessitates a robust financial risk management strategy. This includes contingency planning for unexpected costs, regular financial performance reviews, and adaptive measures to respond to changes in ridership patterns or operational costs. **Need for Transparent Financial Reporting** The CPCA will continue to undertake transparent financial reporting. This includes clear documentation of expenditure, revenue streams, and the performance against budgetary targets, ensuring accountability and stakeholder confidence. The financial implications of transitioning to a franchising model under a medium investment scenario for the CPCA bus network are significant but manageable with careful planning and exploration of diverse funding sources. The model promises long-term financial sustainability and aligns with the strategic objectives of enhancing the bus network, provided that a robust financial risk management strategy is in place. The assessment to date focuses on the use of the Mayoral Precept, Transport Levy and government grant to fund the network. The final level of funding and sources of the funding will be considered as part of the post consultation decision making.
Legal Implications	
6.1	The proposal to transition to a franchising model under the medium investment scenario for the Cambridgeshire and Peterborough Combined Authority (CPCA) bus network entails several legal implications that need to be carefully considered. These implications are primarily governed by existing legislation, notably the Bus Services Act 2017 and regulations related to public consultation.

	Compliance with the Bus Services Act 2017 Item 6 Franchising Powers: The Bus Services Act 2017 grants local transport authorities, like CPCA, the power to implement franchising schemes. This involves assuming responsibility for the provision of bus services, which traditionally fell under private operators in a deregulated market. Statutory Requirements: The Act sets out specific statutory requirements that CPCA must adhere to when implementing a franchising scheme. This includes conducting an assessment of the proposed franchising arrangement, demonstrating that it would contribute to the implementation of the local transport policies, and showing that it offers value for money. **Public Consultation Process** Legal Mandate for Consultation: The Act mandates a thorough public consultation process before any franchising scheme is implemented. This consultation must be comprehensive, inclusive, and transparent, allowing for input from various stakeholders, including current bus operators, passengers, and the general public. Consideration of Responses: CPCA is legally required to consider consultation responses carefully and use them to inform the final decision on the franchising model. The authority must also publish a report summarising the consultation process and its outcomes. **Procurement and Contractual Obligations** Tendering Process: Implementing a franchising model involves a tendering process for bus service contracts. This process must comply with procurement regulations, ensuring fairness, transparency, and non-discrimination in the selection of bus operators. Contract Management: The legal implications extend to contract management with selected operators. Agreements must outline service standards, performance metrics, financial arrangements, and mechanisms for dispute resolution. **Risks of Legal Challenges** Potential for Challenges: There is a risk of legal challenges from existing bus operators or other stakeholders who may contest the franchising decision or process. CPCA must ensure that all legal procedures are meticulously followed to mitigate this risk. Judicial Review: Decisions related to franchising can be subject to judicial review, particularly if there are allegations of procedural impropriety or non-compliance with statutory duties. **Regulatory Compliance and Monitoring** Ongoing Compliance: Once the franchising scheme is in place, CPCA will have ongoing responsibilities to ensure compliance with transport and environmental regulations. Monitoring and Enforcement: The authority must establish mechanisms for monitoring contractual compliance by operators and enforce regulations to maintain service standards and protect passenger interests. In conclusion, the legal implications of transitioning to a franchising model are substantial and require meticulous adherence to legislative requirements and regulatory standards. The CPCA must undertake a rigorous and legally compliant approach in its franchising scheme, covering all aspects from public consultation to procurement and ongoing regulatory compliance.
Public Health Implications	
7.1	The investment in the Cambridgeshire and Peterborough Combined Authority (CPCA) bus network, particularly under the franchising model, presents significant public health benefits: • Accessibility to Healthcare: An efficient bus network ensures easier access to healthcare and essential services, crucial for vulnerable populations. • Improved Air Quality: Transitioning to an eco-friendly bus fleet will enhance air quality, reducing health risks associated with air pollution. • Encouragement of Active Travel: Better bus connectivity promotes walking, contributing to physical fitness and reducing lifestyle-related health conditions. • Mental Well-being and Social Inclusion: Reliable bus services can alleviate travel-related stress and encourage social interaction, enhancing mental health and community cohesion. While these benefits are notable, it's important to manage any transitional disruptions effectively to maintain public support for the long-term health advantages of the investment.

Environmental & Climate Change Implications	
8.1	Environmental Impact of CPCA Bus Network Investment The investment in the bus network, particularly the transition to a franchising model, would make a substantial positive impact on the environment. This initiative is a key part of the region's commitment to combating climate change and enhancing environmental sustainability. By introducing a more eco-friendly bus fleet, which could include electric buses, the CPCA will significantly lower greenhouse gas emissions associated with public transport. Improvement in Air Quality and Resource Conservation Another important environmental benefit is the improvement in air quality. A modern, cleaner bus fleet will reduce the emission of harmful pollutants, contributing to a healthier atmosphere and overall public health. This aligns with broader efforts to create a more sustainable and liveable urban environment. Additionally, the move towards an efficient public transport system is expected to contribute to the conservation of natural resources. By optimising fuel usage and embracing sustainable practices, the initiative will reduce the ecological footprint of the region's transportation network, aligning with broader environmental conservation goals. Promoting Sustainable Urban Mobility The investment aims to promote sustainable urban transport by encouraging a modal shift from private car use to public transport. This shift is critical for reducing overall vehicle emissions, easing traffic congestion, and creating a more sustainable urban transport system. The enhanced bus network will not only meet immediate transportation needs but will also play a vital role in the region's long-term sustainable development.
Other Significant Implications	
9.1	Impact on Large and SME Bus Operators The proposed investment in the CPCA bus network, particularly under a franchising model, has specific implications for both large and small to medium-sized enterprise (SME) bus operators in the region. This section outlines these implications in the context of increased investment in the bus network and CPCA's commitment to supporting operators of all sizes. Opportunities for Large Operators: Expanded Business Opportunities: Increased investment in the bus network would provide larger operators with opportunities to expand their services and modernise their fleets, especially in adopting more environmentally friendly vehicles. Stable Contractual Relationships: Franchising models offer the potential for stable, long-term contracts, providing large operators with predictable revenue streams and clearer operational parameters. Enhanced Service Standards: With a franchising model, large operators will need to adhere to higher service standards set by CPCA, necessitating improvements in efficiency, customer service, and reliability. Challenges and Support for SME Operators: Market Entry and Competition: The franchising model may present challenges for SME operators in terms of market entry and competition with larger companies. CPCA will ensure that franchising contracts are accessible to SMEs, by designing smaller contract packages and ensuring a transparent bidding process. Engagement and Collaboration: Actively engaging with SME operators throughout the transition process will vital. This engagement would include consultation, feedback mechanisms, and collaborative planning to ensure that their unique challenges and needs are addressed. Maintaining a Diverse and Competitive Market: Encouraging Diverse Participation: To ensure a healthy, competitive market, CPCA will continue to encourage participation from both large and SME operators. This diversity enriches the service offerings and fosters innovation in service delivery. Balancing Interests: It is essential to balance the interests and capabilities of both large and SME operators. This balance ensures a fair and equitable market, providing choices for consumers. While increased investment in the bus network under a franchising model presents numerous opportunities for bus operators, it also raises challenges, particularly for SMEs. CPCA's approach will

	aim to foster an environment that supports and encourages the growth of operators of all sizes, ensuring a competitive and diverse market that ultimately benefits the entire region.
Background Papers	
10.1	Previous decision on Bus Reform, CPCA TIC paper, 29/04/2020
10.2	Bus Reform – Draft Outline Business Case, CPCA TIC Paper, 13/09/2023

Transport & Infrastructure Committee

17 January 2024

Agenda Item **7**

Title:	Bus Strategy Update
Report of:	Neal Byers
Lead Member:	Cllr Anna Smith, Chair of Transport and Infrastructure Committee
Public Report:	Yes
Key Decision:	Yes
Voting Arrangements:	**Recommendation (A):** A vote in favour by at least two thirds of all members (or their substitute members) appointed by the Constituent Councils, to include the members appointed by Cambridgeshire County Council and Peterborough City Council, or their substitute members. **Recommendation (B**): No vote required

Recommendations:	
A	To recommend to the CPCA board the proposals for the two remaining tendered bus services which were placed under review and the bus services which data was previously unavailable.
B	To note the submission of the Zebra round 2 bid to the Department for Transport and update on Bus Stop Infrastructure work.

Strategic Objective(s):	
The proposals within this report fit under the following strategic objective(s):	
	Achieving ambitious skills and employment opportunities
	Achieving good growth
X	Increased connectivity
	Enabling resilient communities
The proposal sets out three important workstreams to improve the bus network in the Combined Authority area. Buses are an essential part of providing connectivity to our communities.	

1. Purpose	
1.1	The Combined Authority and its partners are seeking an approach to provide the 'best possible' tendered bus network within the funding available. The previous approach was limited as decision makers did not have a clear process and sufficient data. The Bus Network Review is required to enable the CPCA Board to make future decisions on a more structured and balanced basis.
1.2	This paper sets out the further findings of the Bus Network Review and sets out recommendations for the remaining services to complete the review.

2. Proposal

2.1 There is a medium-term vision to explore the best delivery model to recast the network and peoples experience of it through Bus Reform i.e. Enhanced Partnership or Franchising. An immediate decision was taken to secure the existing network and retender services during 22/23 and 23/24. Over the 23/24 financial year, the Bus Network Review workstream was established. The approach will enable Leaders to make decisions for the 24/25 financial year for tendered services on a more structured and balanced basis. The Bus Network Review focuses on the tendered bus services. Bus Reform will provide a more strategic and ambitious response to the challenges faced by the bus system.

2.2 All existing tendered bus services have been assessed against the framework. The outcome of the analysis provides a ranking of each service against the objectives set out in the Local Bus Service Assessment Framework. This assessment has considered the need and affordability of each service. It has also considered the distance travelled for each service to help establish the value for money of more rural services.

2.3 **Undertaking the Bus Network Review**

This report presents the findings of the remaining which sets out those services which needed to be improved and services where further data was required.

2.4 **Recommendations for services under review**

The following summarises the recommendations for each of the bus services which have been placed under review. The services which are retained would be contracted for a further 12 months. This contract period reflects the considerations on Bus Reform to enable the CPCA Board to transition to an Enhanced Partnership or Franchise without incurring costs associated to contract variations which may be determined in the 2024/25 financial year.

Service	Recommendation	Justification
29	End of Trial	This service was introduced as a trial to provide an alternative direct route to the existing interchange option which is available. Last year there were less than 2,000 passengers, largely due duplication of other services. The communities on the route are serviced by a range of well used buses, including the 1, 5A, 6, 23/24, 60 and 904. These services provide access to important destinations, including the hospital via interchange at Peterborough bus station. As a result of this recommendation, none of the communities on the route will be left without access to a bus services. Following a further review, this trial is recommended to be ended and the service withdrawn. Alongside this review, CPCA is working with members on new or improved bus services which will be considered to provide improvements in Cambridgeshire and Peterborough.
Ting	Retain with refocusing.	The Ting DRT service is proposed to be retained and refocused. The early trial of the service has shown that while it can meet an important need, that the coverage and purpose has been quite broad. The operating model has led to services focusing in St Neots, delivering shorter journeys within the local area which is serviced by other routes, rather than a focus on the more rural communities which are not serviced by other routes. The proposal is to better serve the communities to the West of Huntingdonshire and limit the potential for journeys to start and end within St Neots. The refocusing will remove duplication with scheduled bus services and provide more

		availability to the rural communities. The number of buses used to provide the service will be reduced to reduce the cost of the service and ensure efficient use of resources.

The recommendation for the Ting service has been informed by external advice provided to CPCA, both on the potential future role of Demand Responsive Transport in the region and also a specific assessment of the Ting service. Both reports are appended to this report for information. The lessons learnt from the current Ting service will be used to inform future services which are designed to serve the most rural communities. This will consider demand responsive alongside semi-flexible services. Semi-flexible service include both scheduled services, typically during the peak, and a demand responsive element, typically during the off-peak.

If agreed, each of the proposed changes will be progressed through to contracting. This will require a new tender process.

2.5 **Update on services requiring further information**

The following summarises the status of the services for which data was not available for the September or November Board meetings.

Service	Recommendation	Justification
110	Retain service	Meeting a community need for the Ely - Cottenham - Impington communities and cost per passenger journey is below £12 (£9.64). This is in line with recommendations made for the services presented in September and November 2023.
203	Retain service	Meeting a community need for the Isleham community, providing connections to Newmarket and cost per passenger journey is below £12 (£11.02). This is in line with recommendations made for the services presented in September and November 2023.

2.6 **ZEBRA 2**

On 15 December 2023 the Combined Authority submitted to DfT a bid for ZEBRA 2 funding.

The initial ZEBRA funding has provided 30 zero emission all-electric buses running in Cambridge from May 2023. Based on that success we have placed a bid, in connection with Stagecoach, for 33 zero emission buses for Peterborough. If successful, the bid will deliver 15 single deck and 18 double deck buses, in order to convert Peterborough's bus services Citi 1/Citi 2/ Citi 3 and Citi 4 to all-electric operation.

There are dependencies on locating sufficient suitable land with access to the power grid to create a suitable bus depot with electric charging capacity, but officers are working to secure suitable property. A decision on the ZEBRA 2 bid is expected by mid-March 2024.

2.7 **Bus Stop Infrastructure**

Members are asked to note that within the MTFP, officers plan to commence work on a programme for Bus Stop Maintenance project. The cost is shown within the MTFP and allows for a county-wide audit of our bus stops, and work to commence improving the bus stops, fitting them with flags and timetable cases. As the project rolls out across 2024-27, the project will seek to make bus stops safer, wheelchair accessible and more attractive.

3. Background	
3.1	**Bus Network Review** The Bus Network Review is being undertaken to support decision on the future network. To inform the development of the approach, officers have reviewed the approach of other transport authorities, including Liverpool City Region, South Yorkshire Mayoral Combined Authority, Hertfordshire, and Oxfordshire. All authorities consider the need for a service and the affordability of the service. Walking distance to a bus is the most common metric to establish need. Cost per passenger journey is also the most widely used metric for measuring the performance on contract.
3.2	All of these authorities shared the common challenges of managing the affordability of the network in the face of increasing pressures on local budgets. The approach undertaken for the Bus Network Review is largely consistent with the approach adopted by others.

4. Appendices	
4.1	Appendix A: Bus Network Review – Service Summaries Appendix B: Future role of DRT in Cambridgeshire and Peterborough Appendix C: Ting Assessment report

5. Implications	
Financial Implications	
5.1	The total budget available to support existing bus services in 2023/24 is £7,598,432. The current budget is funded through the Transport Levy, Mayoral Precept, Bus Operator Service Grant and Bus Recovery Grant. Subject to decisions yet to be taken on the 2024/25 budget, the budget to support bus services for the next financial year is anticipated to retain the current level of funding, with the potential for the budget to be increased to support further investment into bus services. The decision to fund bus services using the Mayoral Precept is part of the consultation on the Medium-Term Financial Plan. Any increase to the budget available for bus services will support delivery of the bus strategy and the outcome will be reported to the next TIC. The Bus Recovery Grant is not expected to be available in 2024/25. The Bus Recovery Grant funding represented £174,835 of the total budget.
Legal Implications	
6.1	Following the evaluation of the bus service recommendations, there are legal implications to consider. For routes and services where performance and community needs align with current provision, the authority is positioned to extend contracts with existing operators where the terms can be extended. Where there is a need for enhanced services or the term of an existing contract has ended, it is required to initiate a transparent tendering process. The tender process will ensure that operators can competitively bid to provide the services, in compliance with procurement regulations. Contracts will be either extended or introduced for 12 months.
Public Health Implications	
7.1	The proposed recommendations concerning bus services, which encompass both enhancements and a few reductions, have overall positive public health implications. Retaining and improving bus services ensures residents maintain reliable access to healthcare, fostering timely medical interventions and regular health check-ups. This not only promotes physical well-being through increased daily activity from walking to bus stops but also supports cardiovascular health and counters rising obesity rates. Reliable bus services reduce feelings of isolation, particularly among vulnerable populations like the elderly. This improved social connectivity, in turn, supports mental well-being. Furthermore,

	encouraging the use of public transport over private vehicles can lead to a marked reduction in emissions, subsequently improving air quality and benefiting respiratory health among the community. The primary objective of these recommendations is to ensure both public health benefits and value for money are achieved. By striking a balance, the recommendations provide a bus network, while also acknowledging the indirect health benefits brought about by economic stability, job accessibility and access to essential services.
Environmental & Climate Change Implications	
8.1	Bus services play a pivotal role in mitigating environmental impacts and climate change. When effectively utilised, buses reduce the number of single-occupancy vehicles on the roads, leading to decreased traffic congestion and, consequently, reduced greenhouse gas emissions. Buses present a more sustainable mode of transportation, emitting fewer pollutants per passenger compared to cars. Encouraging the use of public buses can significantly contribute to our efforts to combat climate change, improve air quality, and reduce the carbon footprint of transport.
Other Significant Implications	
9.1	There are no other significant implications associate to the recommendations in this paper. Future implications of decisions on bus reform will be presented to the committee as required.
Background Papers	
10.1	13 September 2023 TIC meeting - Bus Network Review - Initial Recommendations 15 November 2023 TIC meeting - Bus Strategy Update (including Bus Network Review)

Appendix A Bus Network Review – Service Summaries

Introduction

This document provides additional information on the 19 services which have been reviewed as part of the Bus Network Review 2023. The document summarises each of the services which were placed under review, following the decision of the CPCA Board in September 2023. The information provided here supports the recommendations of the report presented to the Transport and Infrastructure Committee and the CPCA Board.

Services under review

The following table summarises the services which have been reviewed.

Service route	Service number
Duxford - Whittlesford - Sawston - Whittlesford - Duxford	7A
Cottenham - Chatteris - March	8A
Peterborough: City Hospital - Hampton	29
Over - St Ives	15
Cambridge - Fowlmere - Barley	31
Cambridge - Orwell - Wrestlingworth	75
Newmarket - Fulbourn - Teversham - Newmarket Road Park & Ride	18
St Neots - The Offords - Buckden	65
West Huntingdonshire Demand Responsive Transport	Ting
St Ives - Somersham - Ramsey	301
Huntingdon - Ramsey - Chatteris	305
St Neots - Kimbolton - Tilbrook	150
St Ives Town Service	22A (300)
Peterborough - Upwood	415
March Town Service	33A
Royston - Bassingbourn - Guilden Morden	17
Newmarket - Fordham - Soham - Stuntney - Ely	12
Haverhill - Linton - Burrough Green	19
Eynesbury - St Neots - Eaton Ford/Eaton Socon - St Neots - Eynesbury	61

Structure of service summaries

Each of the following summarise provides information on:

- General service information
    - *References to 'catchment' are measured as 400m from a bus stop.*
- Bus Network Review metrics
- Recommendation and proposed change
- Justification for recommendation
- Next steps for the service

Service number	7A	Patronage reported in 2022/23	771
Places service	Duxford - Whittlesford - Sawston - Whittlesford - Duxford	Contract cost bracket	50,001-100,000
Catchment served	23,000	Length of route (km)	20.3
Number of amenities in catchment	12	Cost per passenger	£124.83
Current Operator	A2B	Cost per passenger per km banding	Over £2 per passenger per km

Service description	Service Map
Operates Monday to Saturday and provides four journeys to Sawston and three journeys back, with customers interchanging with commercial journeys towards Cambridge for shopping, leisure, and medical appointments.	

Reason for service to be reviewed

Over £24 per passenger and over £2 per passenger per km

Recommendation and Proposed change

Retain with improvement

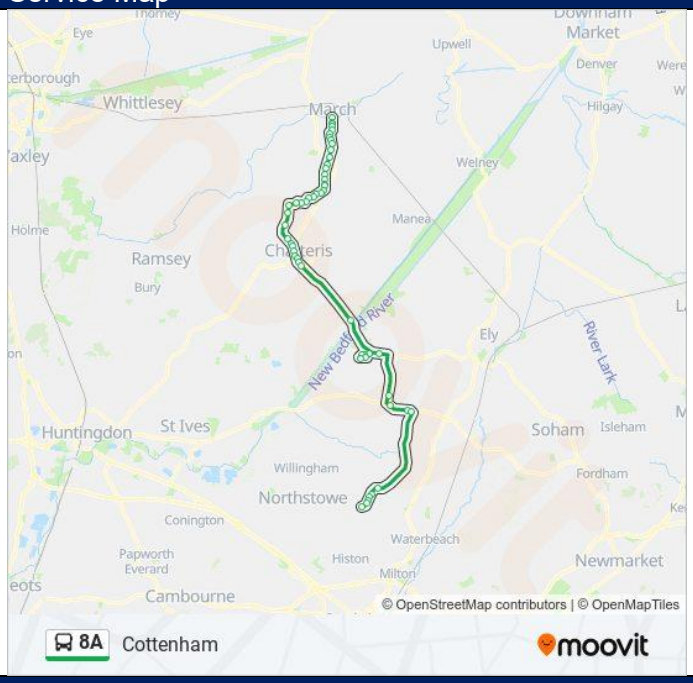
Justification

This service has been reviewed as part of a package which includes 7A, 31 and 75. The 7A is recommended to be merged with a home to school service. This will provide a more cost-effective solution for both CPCA and Cambridgeshire County Council, while retaining connections for the community. A number of options have been considered for the three services, which together are intended to provide a more joined-up and integrated service, while significantly improving the value for money.

Next step

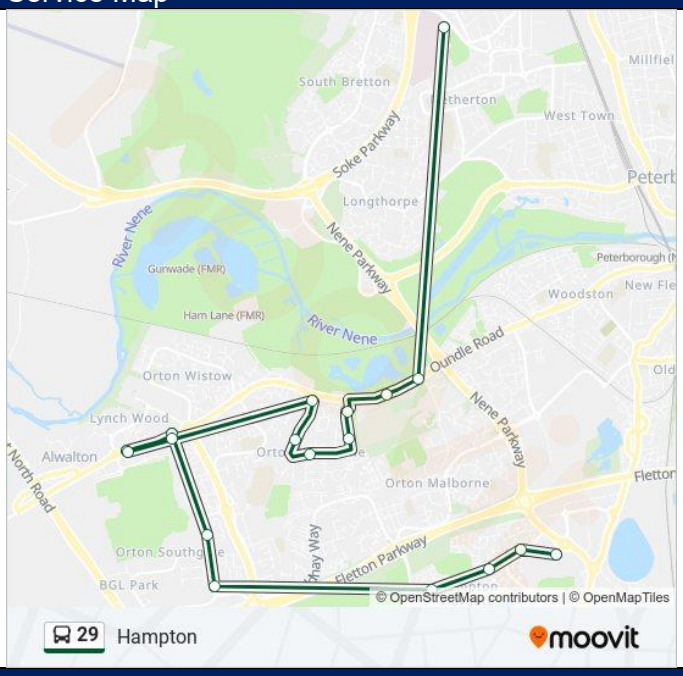
Confirm service specification for change.

Service number	8A	Patronage reported in 2022/23	2,603
Places service	Cottenham - Chatteris - March	Contract cost bracket	£150,001 - £200,000
Catchment served	13,500	Length of route (km)	41.7
Number of amenities in catchment	70	Cost per passenger	£76.35
Current Operator	Stephensons	Cost per passenger per km banding	£1-£2 per passenger per km

Service description	Service Map
One return journey, Monday to Saturday, where customers can interchange with a commercial bus service at Cottenham to arrive in Cambridge before 9am and depart after 5pm for work or education.	

Reason for service to be reviewed
Over £24 per passenger and £1-£2 per passenger per km
Recommendation and Proposed change
Retain with improvement
Justification
The service historically used to travel into Cambridge City, however, the service CPCA inherited currently ends at Cottenham. This end point was determined in response to a change to commercial services which meant the 8A service could no longer travel the full journey due to the potential for competition. The current end point provides no facilities for effective interchange and therefore the service has become unattractive. The proposed change is to provide a significantly improved interchange at the Milton Park and Ride. This is intended to drive additional demand by making use of a key interchange point.
Next step
Confirm service specification for change.

Service number	29	Patronage reported in 2022/23	1,833
Places service	Peterborough: City Hospital - Hampton	Contract cost bracket	£100,001 - £150,000
Catchment served	7,530	Length of route (km)	17.2
Number of amenities in catchment	43	Cost per passenger	£74.71
Current Operator	Dews	Cost per passenger per km banding	Over £2 per passenger per km

Service description	Service Map
Six return off-peak journeys linking Hampton and areas of The Ortons with Peterborough City Hospital without having to change buses in the city centre. Operates Monday to Saturday.	

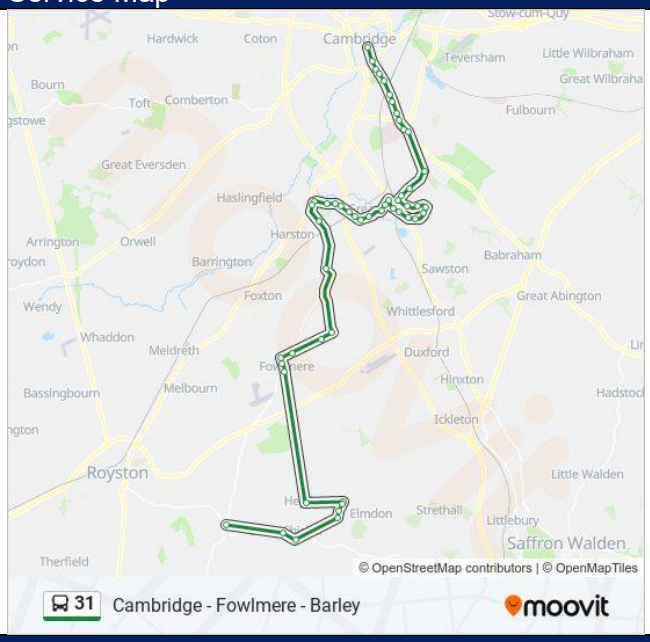
Reason for service to be reviewed
Over £24 per passenger and over £2 per passenger per km
Recommendation and Proposed change
Further engagement required
Justification
This service was introduced as a trial to provide an alternative direct route to the existing interchange option which is available. The service has seen very limited take-up over a number of years and therefore it is proposed to undertake a further review to establish if the trial should end. Last year there were less than 2,000 passengers. In addition to this service, the communities have access to important destinations, including the hospital via interchange at Peterborough bus station.
Next step
Communicate proposed change

Service number	15	Patronage reported in 2022/23	312
Places service	Over - St Ives	Contract cost bracket	£10,000-£50,000
Catchment served	12,300	Length of route (km)	39.2
Number of amenities in catchment	35	Cost per passenger	£59.41
Current Operator	A2B	Cost per passenger per km banding	£1-£2 per passenger per km

Service description	Service Map
Provides one return off-peak journey twice each week for shopping, leisure, or medical appointments.	N/A

Reason for service to be reviewed
Over £24 per passenger and £1-£2 per passenger per km
Recommendation and Proposed change
Retain with improvement
Justification
The service provides a short connection to local communities in the area. In the immediate term the service can be extended to serve Willingham, which will create more demand for the service and develop the catchment area and add a direct link to St Ives for Willingham residents. A further review should be undertaken which explores the options to link with the 1A and 5A, with improved connections to Sutton. This is suggested as part of the next review of bus services.
Next step
Confirm service specification for change and review further options over 2024/25.

Service number	31	Patronage reported in 2022/23	3,109
Places service	Cambridge - Fowlmere - Barley	Contract cost bracket	£100,001 - £150,000
Catchment served	16,300	Length of route (km)	29.4
Number of amenities in catchment	80	Cost per passenger	£41.56
Current Operator	A2B	Cost per passenger per km banding	£1-£2 per passenger per km

Service description	Service Map
One return peak journey and three return off-peak journeys, Monday to Saturday, to Cambridge (city centre or Addenbrooke's Hospital) for work, education, shopping, leisure, and medical appointments.	

Reason for service to be reviewed

Over £24 per passenger and £1-£2 per passenger per km

Recommendation and Proposed change

Retain with improvement

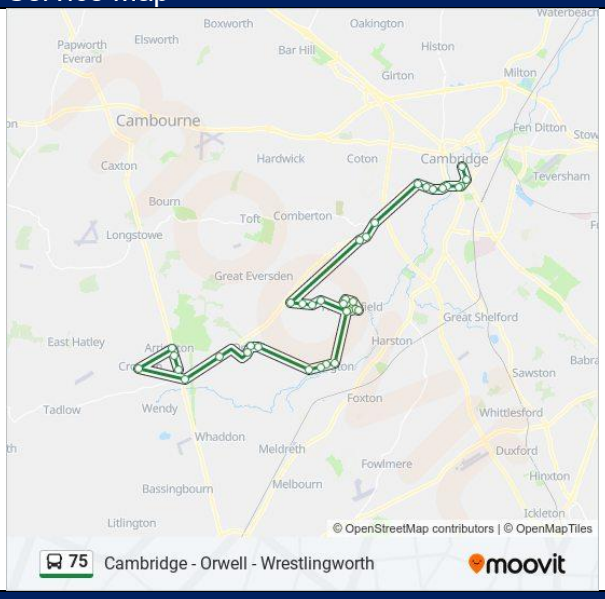
Justification

This service has been reviewed as part of a package which includes 7A, 31 and 75. The 31 and 75 are proposed to be recast, with revised frequency, better integration with the service 26 and a more efficient use of resources across the contracts. The Peak journeys will be retained to provide access to work and education, with the changes focused on the off peak. The changes will also extend the destinations to provide connections to Royston, timed to complement the service 26. The changes to these services will provide an overall improvement in the network and retain services to the communities currently served.

Next step

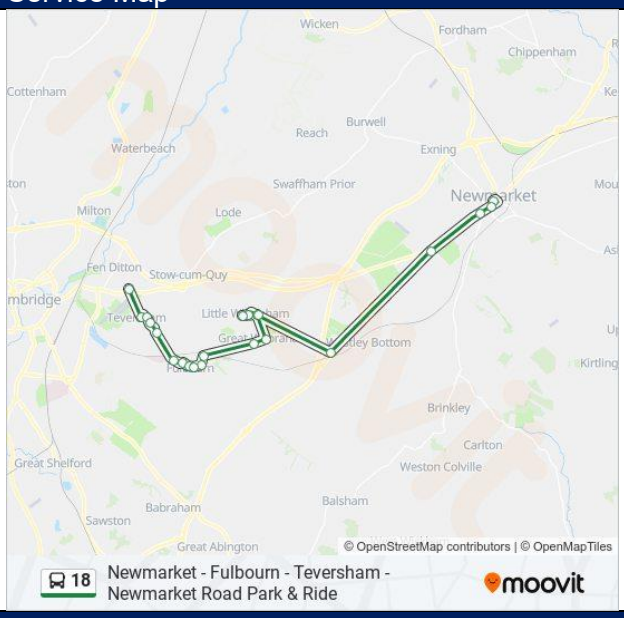
Confirm service specification for change

Service number	75	Patronage reported in 2022/23	5,198
Places service	Cambridge - Orwell - Wrestlingworth	Contract cost bracket	£100,001 - £150,000
Catchment served	21,800	Length of route (km)	31.3
Number of amenities in catchment	60	Cost per passenger	£20.36
Current Operator	A2B	Cost per passenger per km banding	Under £1 per passenger per km

Service description	Service Map
One return peak journey enabling customers to arrive in Cambridge before 9am and depart after 5pm for work or education. Also, four return journeys operating between 9am and 5pm, including one calling at sixth form colleges, for shopping, medical appointments, leisure, and education. Operates Monday to Saturday.	

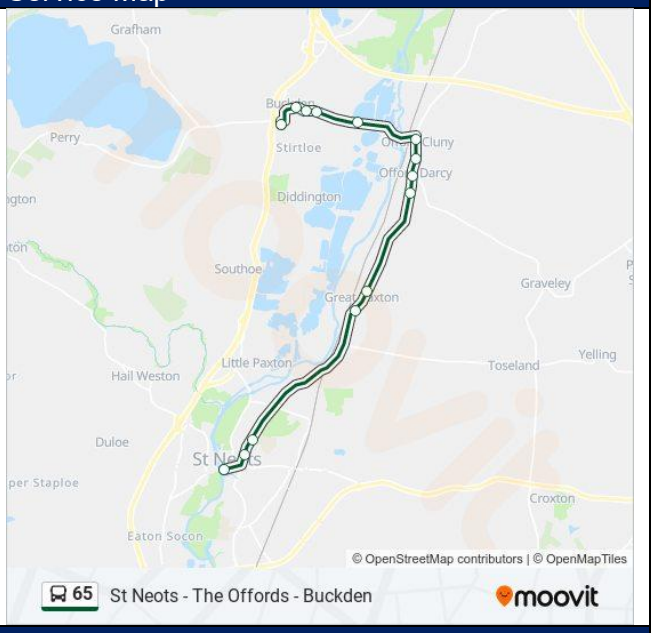
Reason for service to be reviewed
£13-£24 per passenger
Recommendation and Proposed change
Retain with improvement
Justification
This service has been reviewed as part of a package which includes 7A, 31 and 75. The 31 and 75 are proposed to be recast, with revised frequency, better integration with the service 26 and a more efficient use of resources across the contracts. The Peak journeys will be retained to provide access to work and education, with the changes focused on the off peak. The changes will also extend the destinations to provide connections to Royston, timed to complement the service 26. The changes to these services will provide an overall improvement in the network and retain services to the communities currently served. Note that the service has a Cost per passenger per km under £1.
Next step
Confirm service specification for change

Service number	18	Patronage reported in 2022/23	566
Places service	Newmarket - Fulbourn - Teversham - Newmarket Road Park & Ride	Contract cost bracket	£10,000-£50,000
Catchment served	2,200	Length of route (km)	19.1
Number of amenities in catchment	25	Cost per passenger	£40.52
Current Operator	A2B	Cost per passenger per km banding	Over £2 per passenger per km

Service description	Service Map
Provides one return off-peak journey twice each week between Teversham and Newmarket for shopping, leisure, or medical appointments. Also, one return off-peak journey twice each week between The Wilbrahams and Newmarket Road P&R where onward journeys can be taken to Cambridge for shopping, leisure, and medical appointments.	

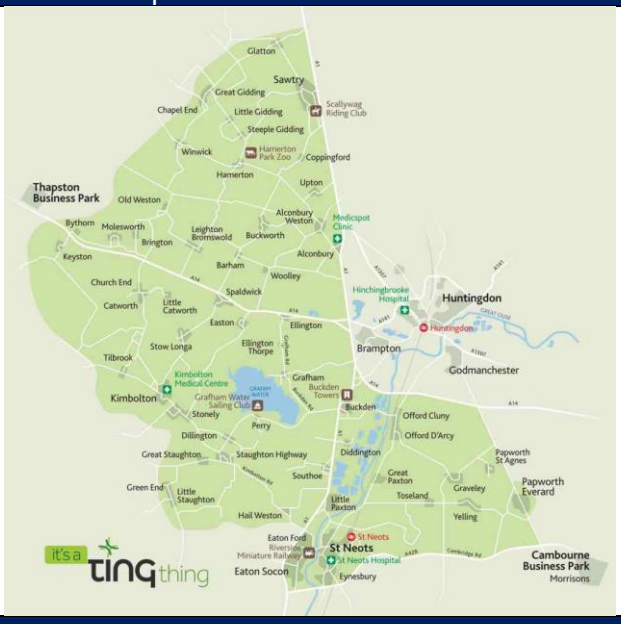
Reason for service to be reviewed
Over £24 per passenger and over £2 per passenger per km
Recommendation and Proposed change
Retain with a focus on Tuesday service
Justification
This service currently provides two journeys per week to access shopping in New Market. The service levels have not recovered following Covid and reflects a wider trend for changes to travel habits, particularly for people using ENCTS passes. Is proposed to retain the Tuesday service, which provides access to the town for the main market day. This should be reviewed following changes to continue to provide a shopping service.
Next step
Confirm service specification for change

Service number	65	Patronage reported in 2022/23	2,987
Places service	St Neots - The Offords - Buckden	Contract cost bracket	£50,001-£100,000
Catchment served	5,300	Length of route (km)	10.2
Number of amenities in catchment	34	Cost per passenger	£19.99
Current Operator	Dews	Cost per passenger per km banding	£1-£2 per passenger per km

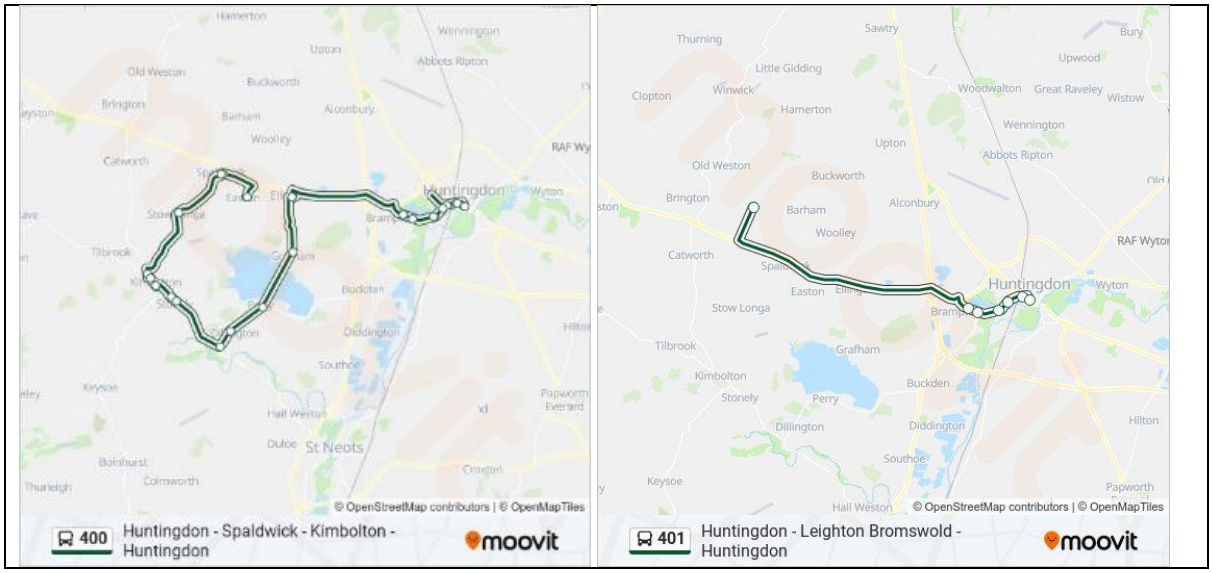
Service description	Service Map
Provides three return off-peak journeys, Monday to Friday, to either Brampton Surgery, or St Neots Town Centre, for shopping, leisure, or medical appointments.	

Reason for service to be reviewed
£13-£24 per passenger and £1-£2 per passenger per km
Recommendation and Proposed change
Retain with improvement
Justification
The service has been an improvement in passenger numbers, which reflects the reliability of the service. Proposals have been made by community members to provide further connection to the Buckden General Practitioners which may have a slight improvement on demand and connect the bus service to important health centre. This change should be examined further to understand if there is an additional financial requirement to serve this need.
Next step
Confirm service specification for change

Service number	Ting	Patronage reported in 2022/23	10,046
Places service	West Huntingdonshire Demand Responsive Transport	Contract cost bracket	£400,000-£500,000
Catchment served	68,727	Length of route (km)	N/A
Number of amenities in catchment	74	Cost per passenger	£42.31
Current Operator	Vectare	Cost per passenger per km banding	N/A

Service description	Service Map
Demand responsive travel from villages in West Huntingdonshire to nearby towns, Huntingdon and St Neots, or other villages within the designated area. Available 6am – 8pm, Monday to Saturday.	

Reason for service to be reviewed
Over £24 per passenger
Recommendation and Proposed change
Retain with improvement
Justification
The Ting DRT service is proposed to be retained and refocused. The early trial of the service has shown that while it can meet an important need, that the coverage and purpose has been quite broad. The operating model has led to services focusing in St Neots, delivering shorter journeys within the local area which is serviced by other routes, rather than a focus on the more rural communities which are not serviced by other routes. The proposal is to better serve the communities to the West of Huntingdonshire and limit the potential for journeys to start and end within St Neots. The refocusing will remove duplication with scheduled bus services and provide more availability to the rural communities. The number of buses used to provide the service will be reviewed to ensure efficient use of resources. The review will enable the further consideration of the 400 and 401 services as all passenger journeys on those routes could be covered by Ting. These changes will be brought back to the January Board for decision.
Next step
Confirm service specification for change and consider changes to services 400 and 401 with local Councillors.


Hamerton
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Upton
Abbots Ripton
Old Weston
Buckworth
Brington
Alconbury
Barham
Woolley
Catworth
Huntingdon
Wyton
Tilbrook
Buckden
Diddington
Southoe
Keysoe
Papworth Everard
Hail Weston
Duloe
St Neots
Bolnhurst
Colmworth
Thurleigh
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400
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Little Gidding
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Woodwalton
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Upton
Abbots Ripton
Old Weston
Buckworth
Brington
Barham
Alconbury
Woolley
Catworth
RAF Wyton
Huntingdon
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Tilbrook
Grafham
Kimbolton
Buckden
Stonely
Perry
Dillington
Diddington
Hilton
Southoe
Keysoe
Papworth
Hail Weston
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401
Huntingdon - Leighton Bromswold - Huntingdon
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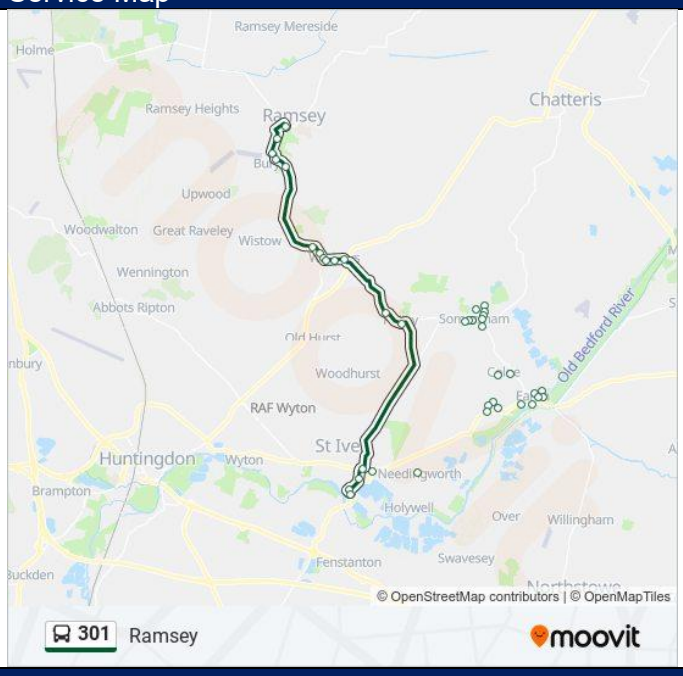
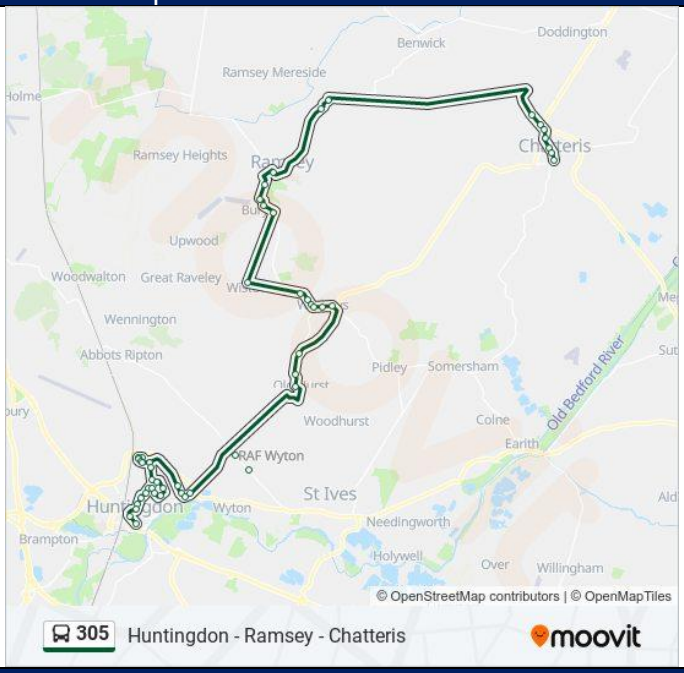
Service number	301	Patronage reported in 2022/23	5,775
Places service	St Ives - Somersham - Ramsey	Contract cost bracket	£150,001-£200,000
Catchment served	10,200	Length of route (km)	33.4
Number of amenities in catchment	65	Cost per passenger	£31.58
Current Operator	Dews	Cost per passenger per km banding	Under £1 per passenger per km

Service description	Service Map
Early morning and evening journeys linking villages towns and villages in Huntingdonshire with St Ives so onward journeys can be taken to Cambridge for work and education, Monday to Saturday.	

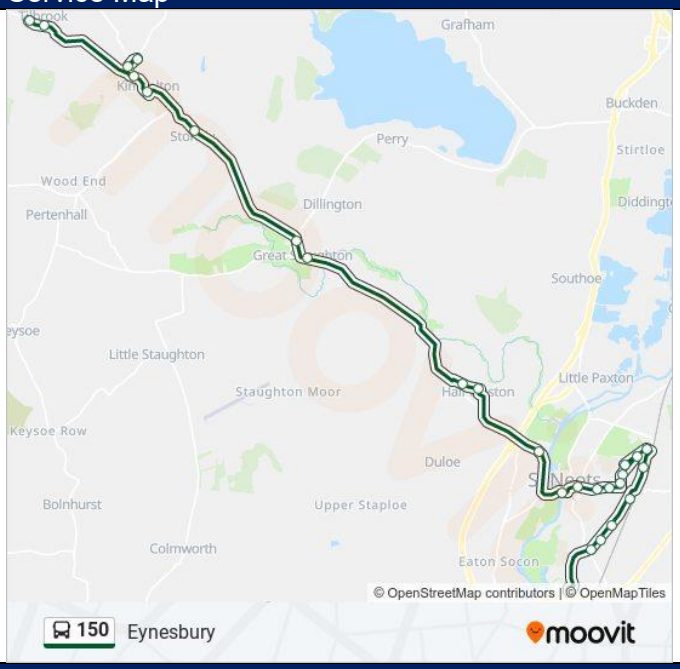
Reason for service to be reviewed
Over £24 per passenger
Recommendation and Proposed change
Retain with improvement
Justification
It is proposed to retain the service in the current format, noting that a proposed improvement to the 305 is intended to support connectivity in the Ramsay area. Retaining the 301 in the current format and improving the 305 are intended to provide an overall improved bus service and attract more users. Note that the service has a Cost per passenger per km under £1.
Next step
Confirm service specification for change with input from local Councillors.

Service number	305	Patronage reported in 2022/23	16,251
Places service	Huntingdon - Ramsey - Chatteris	Contract cost bracket	£200,001-£250,000
Catchment served	24,200	Length of route (km)	37.9
Number of amenities in catchment	96	Cost per passenger	£13.34
Current Operator	Dews	Cost per passenger per km banding	Under £1 per passenger per km

Service description	Service Map
Service providing five return journeys, including one peak return journey, linking Huntingdonshire towns and villages with Chatteris and Huntingdon for work, education, shopping, leisure, and medical appointments. Operates Monday to Saturday.	

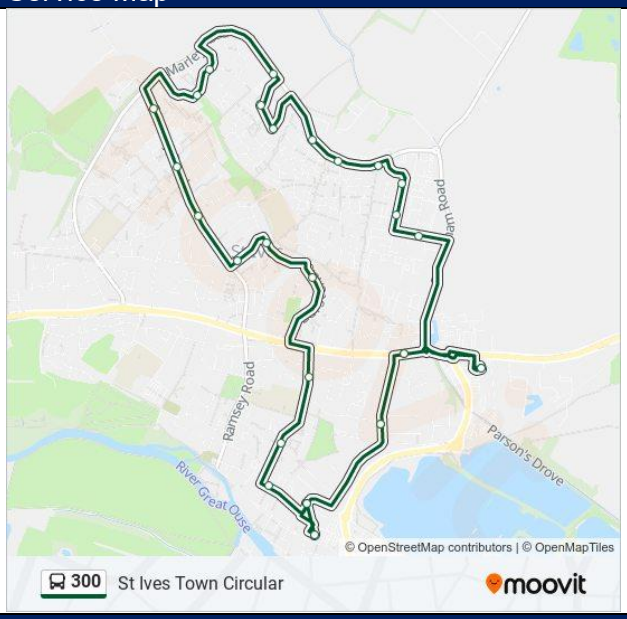
Reason for service to be reviewed
£13-£24 per passenger
Recommendation and Proposed change
Retain with improvement
Justification
The service will be improved to increase frequency and journey time. The approach would add one bus to the contract. After meeting with local councillors, there was clear feedback to focus on strengthening the Huntingdon – Ramsey and also connections to Chatteris. This approach will provide improved access to health, education, retail, job and entertainment facilities in Huntingdon.
Next step
Confirm service specification for change with input from local Councillors.

Service number	150	Patronage reported in 2022/23	6,280
Places service	St Neots - Kimbolton - Tilbrook	Contract cost bracket	£50,001-£100,000
Catchment served	10,300	Length of route (km)	22.3
Number of amenities in catchment	62	Cost per passenger	£15.26
Current Operator	Dews	Cost per passenger per km banding	Under £1 per passenger per km

Service description	Service Map
Service providing four return journeys, including one peak return journey, linking Huntingdonshire villages with St Neots for work, education, shopping, leisure, and medical appointments. Operates Monday to Saturday.	

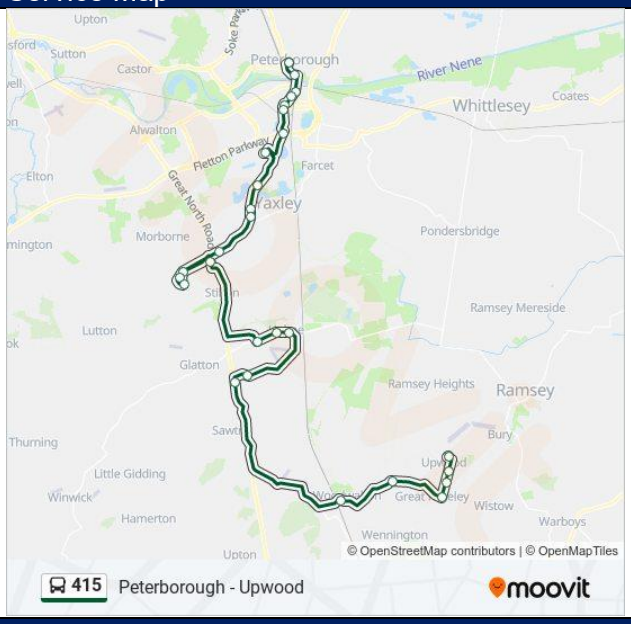
Reason for service to be reviewed
£13-£24 per passenger
Recommendation and Proposed change
Retain with further review following refocusing of the Ting service
Justification
The service is proposed to be retained. Further work is required to determine the best operational and contractual approach to the service. The proposed changes to Ting are expected increase demand for this service. This will be further reviewed during 2024/25 to establish if demand has increased. Note that the service has a Cost per passenger per km under £1.
Next step
Review service performance following changes to Ting

Service number	22A (300)	Patronage reported in 2022/23	3,518
Places service	St Ives Town Service	Contract cost bracket	50,001-100,000
Catchment served	9,330	Length of route (km)	23.9
Number of amenities in catchment	45	Cost per passenger	£22.11
Current Operator	Dews	Cost per passenger per km banding	Under £1 per passenger per km

Service description	Service Map
Providing five off-peak journeys which link residential areas of St Ives with the town centre and Morrisons supermarket, Monday to Saturday, for shopping, leisure, and medical appointments.	

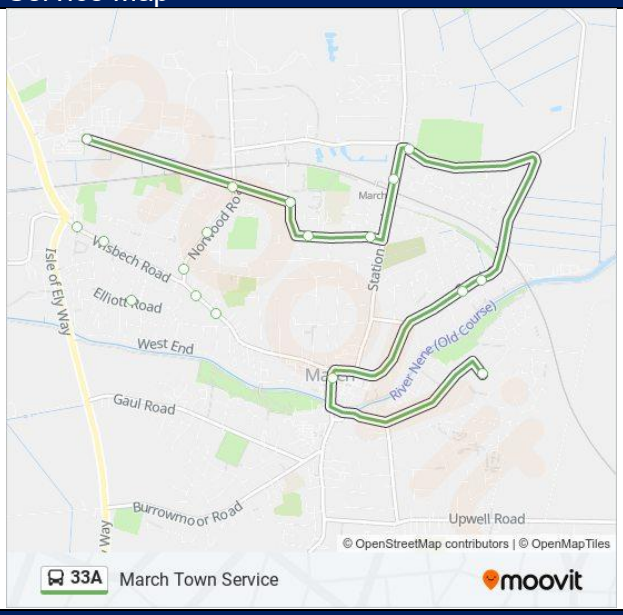
Reason for service to be reviewed
£13-£24 per passenger
Recommendation and Proposed change
Retain with review of alignment following changes to commercial services
Justification
This service, known as the 300, has seen recent increase in use following changes to the commercial service, specifically serving a gap in the network for the Morrisons superstore and local area. This change to the commercial network indicates that the 22A is now providing access to a wider community and initial evidence shows demand has increased for the services. This service should be retained but kept under review to ensure the increase in demand is retained. Note that the service has a Cost per passenger per km under £1.
Next step
Review service performance to establish if demand uplift remains

Service number	415	Patronage reported in 2022/23	642
Places service	Peterborough - Upwood	Contract cost bracket	10,000-50,000
Catchment served	10,500	Length of route (km)	42.6
Number of amenities in catchment	34	Cost per passenger	£20.49
Current Operator	Dews	Cost per passenger per km banding	Under £1 per passenger per km

Service description	Service Map
Provides one return off-peak journey once each week between Huntingdonshire villages and Peterborough for shopping, leisure, or medical appointments.	

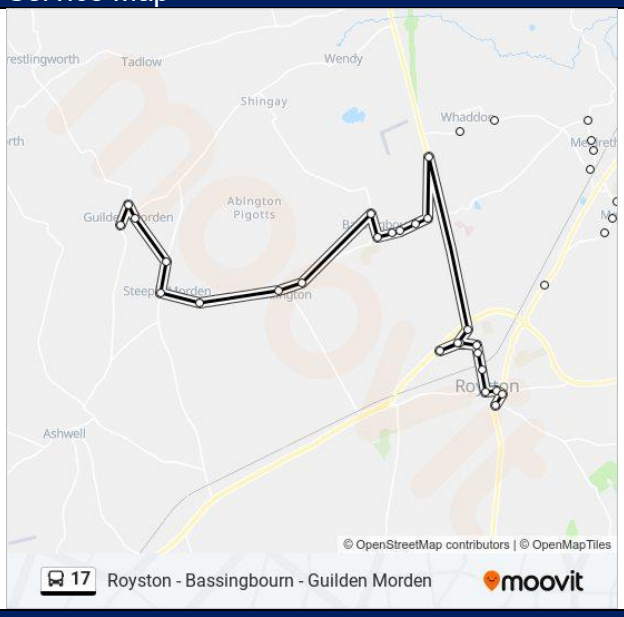
Reason for service to be reviewed
£13-£24 per passenger
Recommendation and Proposed change
Retain in current form with review to utilise the existing Dial-a-Ride.
Justification
The level of service provided through the tendered contract is low, therefore limited scope to recast the service, and no additional communities which could generate demand for the service. Therefore, there are limited alternatives to improve the service. The service should be retained, with further engagement on the potential to utilise a dial-a-ride service. The advantage of this option would be a more flexible service. The use of a dial-a-ride option would require people to register for the service, then pre-book. This option would need to be communicated to ensure users are able to access the service. Note that the service has a Cost per passenger per km under £1.
Next step
Review service performance to establish if an alternative approach is needed

Service number	33A	Patronage reported in 2022/23	4,130
Places service	March Town Service	Contract cost bracket	£50,001-£100,000
Catchment served	14,800	Length of route (km)	9.1
Number of amenities in catchment	37	Cost per passenger	£18.48
Current Operator	FACT	Cost per passenger per km banding	Over £2 per passenger per km

Service description	Service Map
Eight off-peak journeys between 9am and 5pm, Monday to Saturday, linking residential areas of March with the town centre, railway station and Tesco, for shopping, leisure, and medical appointments.	

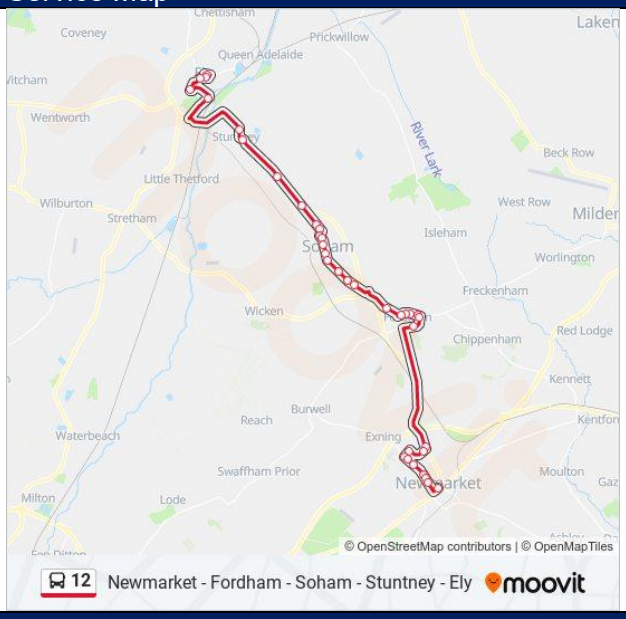
Reason for service to be reviewed
£13-£24 per passenger and Over £2 per passenger per km
Recommendation and Proposed change
Retain with improvement
Justification
This service has been taken over by a new operator and as part of this change service changes were made. Data for the service since the operator has started shows that the Cost per passenger journey has significantly decreased and is below the £12 benchmark. There is an opportunity to further improve the service with better alignment with the rail station in March, including enabling the bus to use the upgraded car park. The service is proposed to be retained, with further work between CPCA, Fenland District Council and the operators to achieve the improved access to rail services.
Next step
Engagement with Fenland Officers and FACT to define refined operation,

Service number	17	Patronage reported in 2022/23	6,840
Places service	Royston - Bassingbourn - Guilden Morden	Contract cost bracket	£100,001-£150,000
Catchment served	4,100	Length of route (km)	24.0
Number of amenities in catchment	33	Cost per passenger	£18.44
Current Operator	Myalls	Cost per passenger per km banding	Under £1 per passenger per km

Service description	Service Map
Provides five return journeys, including one peak return journey, linking South Cambridgeshire villages with Royston for work, education, shopping, leisure, and medical appointments. Operates Monday to Saturday.	

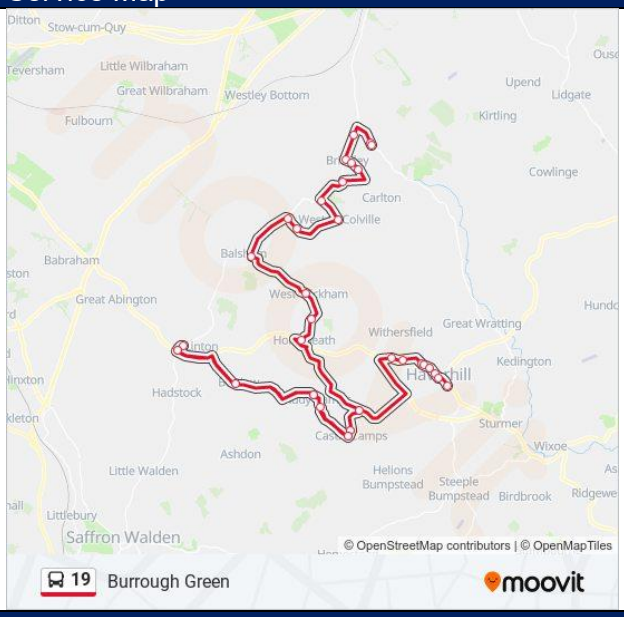
Reason for service to be reviewed
£13-£24 per passenger
Recommendation and Proposed change
Retain with improvement
Justification
Following engagement with the operator, the service will be slightly retimed to provide a more integrated and attractive service. The current timetable is poorly aligned with the more frequency 26 bus service, which connects the communities to onward destinations, including Cambridge. The operator as also identified improvements to the route which will retain access to all current communities and also provide an improved operational route. It is expected that with the improved link to the 26 and associated re-timing, that the service will become a more attractive option for more people. There is emerging evidence of service improvements and increased passenger use, largely due to improved reliability of the service. This emerging evidence should be reviewed to understand of the improvement in the cost per passenger is sustained over the next year. Note that the service has a Cost per passenger per km under £1.
Next step
Confirm service specification for change

Service number	12	Patronage reported in 2022/23	1,103
Places service	Newmarket - Fordham - Soham - Stuntney - Ely	Contract cost bracket	£10,000-£50,000
Catchment served	11,700	Length of route (km)	26.6
Number of amenities in catchment	52	Cost per passenger banding	£15.11
Current Operator	Star Cabs	Cost per passenger per km banding	Under £1 per passenger per km

Service description	Service Map
One early morning journey linking Newmarket with Ely, via East Cambridgeshire villages, Monday to Friday, for work and education.	

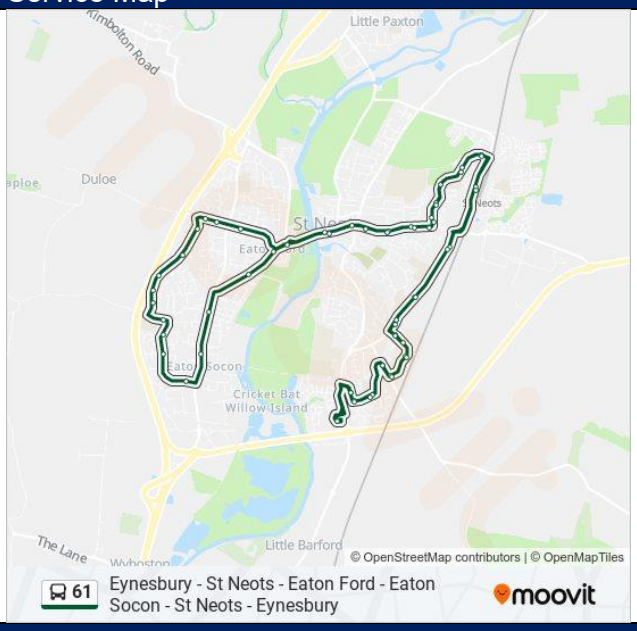
Reason for service to be reviewed
£13-£24 per passenger
Recommendation and Proposed change
Retain
Justification
This service is a single journey to provide an early morning peak trip to provide access for work. The contract has limited scope for change at it follows the commercial service 12, which operators for the rest of the day. This service should be retained but kept under review. Note that the service has a Cost per passenger per km under £1.
Next step
Review service performance to establish if an alternative approach is needed

Service number	19	Patronage reported in 2022/23	4,582
Places service	Haverhill - Linton - Burrough Green	Contract cost bracket	£50,001-£100,000
Catchment served	1,500	Length of route (km)	32.2
Number of amenities in catchment	34	Cost per passenger banding	£14.56
Current Operator	Star Cabs	Cost per passenger per km banding	Under £1 per passenger per km

Service description	Service Map
Service providing a mixture of peak journeys to Linton for onward journeys to Cambridge via commercial bus services, and off-peak journeys to Linton and Haverhill, Monday to Friday, for work, education, shopping, leisure, and medical appointments.	

Reason for service to be reviewed
£13-£24 per passenger
Recommendation and Proposed change
Retain, with further cross-boundary review
Justification
The service provides important access to employment and services and is performing reasonably well. While over the £12 cost per passenger benchmark, when taking the distance of the service into account it performs better. There are opportunities to better integrate the service with other cross boundary services into Newmarket. This will require collaboration with neighbouring authorities to ensure the needs for communities in each authority area are met. It is proposed that CPCA continue to engage with neighbouring authorities to explore further alignment with the cross-boundary services bus services to further improve the performance. Note that the service has a Cost per passenger per km under £1.
Next step
Confirm service specification for change

Service number	61	Patronage reported in 2022/23	11,180
Places service	Eynesbury - St Neots - Eaton Ford/Eaton Socon - St Neots - Eynesbury	Contract cost bracket	£100,001-£150,000
Catchment served	20,800	Length of route (km)	19.1
Number of amenities in catchment	60	Cost per passenger banding	£13.40
Current Operator	Dews	Cost per passenger per km banding	Under £1 per passenger per km

Service description	Service Map
Providing four off-peak journeys, Monday to Friday, and six off-peak journeys on Saturday which link residential areas of St Neots with the town centre, railway station, and Tesco supermarket, for shopping, leisure, and medical appointments.	

Reason for service to be reviewed
£13-£24 per passenger
Recommendation and Proposed change
Retain
Justification
This service has been taken over by a new operator and as part of this retender service changes were made. The improvement in the performance is a combination of improved reliability and customer experience. The more recent cost per passenger figure, is significantly below the £12 per passenger benchmark. Note that the service has a Cost per passenger per km under £1.
Next step
Progress contracting

CAMBRIDGESHIRE & PETERBOROUGH COMBINED AUTHORITY

Future role of DRT in Cambridgeshire and Peterborough

Research report

June 2023

itp a company of Royal HaskoningDHV

Future Role of DRT in Cambridgeshire & Peterborough

Revised Draft

June 2023

Produced by:

a company of Royal HaskoningDHV

For:

CAMBRIDGESHIRE & PETERBOROUGH COMBINED AUTHORITY

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Project Information Sheet

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Project name	Future Role of DRT in Cambridgeshire and Peterborough
Project Director	Peter Hardy
Project Manager	Clare Waldron
Quality Manager	Peter Hardy
Additional team members	Ryan Charlton
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Document control sheet

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v1.0	F:\Users\923340\Box\Integrated Transport Planning (ITP)\4100-4199\4140 CPCA DRT Research\Reports	Draft	RC	CW	PH	01/06/23

Notice

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Executive Summary

Cambridgeshire and Peterborough Combined Authority (CPCA) has an ambition to see a comprehensive, frequent and reliable bus network across its region, which will enable a high proportion of the population to travel by public transport in preference to the private car. The Local Transport and Connectivity Plan sets out an ambition to reduce private car mileage by 15% by 2030. Key to achieving this will be a significant uplift in public transport provision and usage.

CPCA recognises, however, that fixed route bus services are not necessarily the best way to serve all travel demands. Therefore, it wishes to understand where and when more flexible demand responsive transport (DRT) services might play a part within a wider comprehensive and coordinated public transport network.

This study seeks to provide an understanding of where DRT services work well and how they might play a part in serving areas of Cambridgeshire and Peterborough in the short, medium and longer terms.

In the context of the considerable work on bus reform work being undertaken by CPCA, along with newly adopted Bus Strategy and accompanying Bus Service Improvement Plan, this report considers DRT case studies from across the UK and beyond, identifying lessons learnt and pointers for DRT service development in Cambridgeshire and Peterborough.

There is no evidence to date that DRT is commercially viable. Local Transport Authorities, as well as transport operators and technology providers, have largely accepted this reality, but recognise the role of DRT in enabling social inclusion and providing access for areas which are hard to serve by conventional bus services.

Although a number of DRT services, particularly those funded by DfT's Rural Mobility Fund, have yet to be fully evaluated, it is anticipated that many will consider providing less coverage in the future as funding reduces and explore alternative operating models, such as 'many-to- few' rather than 'many-to-many', to enable greater levels of ride sharing and less dead mileage. Hybrid models of DRT, whereby peak time services are scheduled, potentially including school movements, with on-demand services between the peaks, are expected to become more common as authorities look to deliver more cost-effective provision.

The use of booking apps has influenced the profile of DRT users, with many being under 65, even though free concessionary travel is generally permitted on DRT services. A call centre

facility should be provided to supplement app bookings, both to help such services be more inclusive and to provide a human point of contact when problems occur.

The current Ting DRT service in West Huntingdonshire has been well received and is clearly enabling some trips that were not previously possible by public transport. That said, vehicles seem to get drawn towards the towns, meaning that they are not always as available in the rural areas. Whilst advanced bookings can be placed, they are not confirmed until 24 hours before travel, resulting in uncertainty for those users who need surety of their booking.

The beauty of DRT services is that they can evolve over time, based on patterns of demand and data. Algorithms in the software systems can be refined to improve operational efficiencies or user experience. Consequently, further experience from Ting can be used to develop and refine the service to reach an optimal position.

The report considers that a single booking and scheduling system should be implemented, either as a standalone system for the CPCA or by linking with another local authority.

There are recommendations for up to four new pilot services, along with some potential refinements to Ting. These pilots will trial different DRT elements to assess their relevance to the particular operating areas.

In the short term (over the next three years), it is suggested that CPCA implements, monitors and evaluates up to four DRT pilots. Based on two-vehicle operations (although this would need to be assessed more carefully on potential demand), the ballpark annual cost for a single DRT pilot would be £300,000, totalling £900,000 over the three-year life of the pilot. During this period, a feasibility study should be undertaken to understand the scale and scope of a potential Mobility as a Service (MaaS) application which combines DDRT with other sustainable travel modes.

From the end of year three to the end of year five, CPCA should explore integrating DRT with other dedicated services, such as community transport, to achieve economies of scale and other efficiencies. This might also go alongside the implementation of a MaaS application for the Combined Authority area as appropriate, based on the results of the feasibility study, incorporating other sustainable travel modes.

Finally, from year 10 (or sooner if new sources of funding can be identified), there may be potential to roll out DRT on an area-wide basis, focusing on areas which are difficult to serve by conventional bus services. It may be necessary to remove under-used supported services to fund their replacement in the form of DDRT.

In the longer term, from 2035 onwards the Combined Authority might be in a position to consider the application of autonomous vehicles to DRT, once trials have been completed on conventional fixed route services.

1. Introduction

1.1 This research was commissioned by Cambridgeshire and Peterborough Combined Authority (CPCA) to examine the application of Demand Responsive Transport (DRT) across the UK and provide an understanding of what the future position might look like for the provision of DRT services in Cambridgeshire and Peterborough, in the short (less than two years), medium (two to five years) and long term (10 to 20 years).

1.2 CPCA has an ambition to provide a comprehensive, frequent and reliable bus network across Cambridgeshire and Peterborough within the next few years. The network will enable a high proportion of the population to be able to travel by public transport in preference to the private car. However, it is recognised that fixed route bus services are not necessarily the best way to meet the aim in all circumstances and therefore there is an interest in understanding what part more flexible services might play as part of an overall coordinated bus network.

1.3 Demand Responsive Transport or 'DRT' is the collective name for bookable transport services that operate in response to expressed demand. Services offer varying degrees of flexibility to provide shared transport to users who specify or request their pick-up and/or drop-off times and locations.

1.4 Within the national, regional, and local policy context and against the backdrop of the changing local bus network, a series of recommendations has been prepared for how, where and when DRT might be introduced in the CPCA area. Research has focused on the application of DRT to date, how it has been introduced in different operating environments and the effectiveness of a range of models of DRT service in meeting different policy objectives.

Methodology

1.5 A desk-based review was conducted, exploring the development, application and performance of DRT locally, nationally and internationally. A range of models of DRT service provision were examined with a view to determining their replicability in different parts of the Combined Authority area. A cross section of case studies was collated and assessed, to identify lessons learnt and issues to be avoided in any future model for Cambridgeshire and Peterborough.

1.6 An assessment of the 'Ting' DRT service in operation in West Huntingdonshire was undertaken, based on the results of a user survey and engagement with the current operator.

1.7 Interpreting this information and drawing on wider understanding of effective DRT models, recommendations were prepared for the implementation of DRT in pilot areas across Cambridgeshire and Peterborough.

1.8 Following this introduction, Section 2 provides further detail regarding the features and models of DRT, as well as the strengths, weaknesses, opportunities and challenges of implementing DRT. Section 3 sets the national, regional, and local context for DRT as part of the wider public transport mix. Section 4 provides a series of past and present case studies of DRT from the UK and beyond, as well as key lessons learnt, while Section 5 provides a summary and assessment of the Ting DRT operation in West Huntingdonshire.

1.9 Section 6 provides an overview of the future direction for DRT. Finally, Section 7 provides recommendations for the rollout of DRT in the Combined Authority area, including the anticipated cost of a series of pilots and measures of success for DRT.

2. Demand Responsive Transport (DRT)

Development of DRT[1]

2.1 Whilst there had been interest in DRT from the 1970s, in the 1980s DRT was generally limited to niche markets (such as Dial-a-Ride or community transport), small scale services or replacements for expensive and poorly used supported conventional bus services (such as the innovative HomeHoppa taxibus service in Bedfordshire).[2]

2.2 DRT services saw growth in England with the advent of Rural Bus Challenge funding in 1998. The aim of these services was to see whether a different type of service could stem the decline of rural bus services. However, there were various problems:[3]

- High cost per passenger trip (due to the costs of drivers, call centres and IT systems)
- Low usage and revenue
- DRT not integrated into the wider policy context
- Challenge funding timescales didn't allow for detailed planning
- Services introduced in addition to conventional ones
- Lack of interest from operators in operating such services
- Perceptions that services were not public transport, but for certain groups, particularly as membership registration was needed
- People preferred fixed route services, even if they were infrequent

2.3 Despite these problems, Challenge funding did help develop, test and use new technology, including vehicle tracking and systems for routing and scheduling. It also highlighted the complexities of different regulations and licensing for the operation of smaller vehicles, which constrained the design and operation of services. Various DRT services introduced with Challenge funding started to be rationalised or withdrawn as external funding came to an end and pressure mounted on budgets to maintain main bus services.

2.4 Wiltshire introduced its Wigglybus in 1998, then developed other services, such as 'Hopper' and taxi-based DRT. Whilst critical of the ad-hoc development of these

[1] The-Future-of-Rural-Bus-Services.pdf (bettertransport.org.uk)
[2] Peter Hardy (2016): 'Rural public transport: does it have a future', https://www.systra.co.uk/index.php/news-items/latest-thinking/156-rural-public-transport-does-it-have-a-future , accessed 7 March 2018
[3] Loughborough University for Wiltshire County Council (July 2006): Evaluation study of demand responsive transport services in Wiltshire

services, randomly-organised booking arrangements, confused branding and marketing and complex fares structures, the evaluation report noted that Wiltshire's DRT services performed well in respect of usage and cost / passenger compared with services elsewhere; this may have been helped by the integration of some school transport requirements. It suggested that 16-seat vehicles were not ideal for DRT operation, as they were generally too small for school transport, but more expensive than 8-seat vehicles.

2.5 The study recommended that:

- Rural public transport (and DRT) needs to be integrated with wider policy areas.
- DRT needs to be developed more systematically (identifying needs clearly and establishing appropriate solutions).
- DRT services should be standardised and share a single call centre.
- Greater integration with other types of transport (SEN, social care, NEPT) should be investigated, without unduly compromising DRT.
- Where appropriate, DRT should act as a feeder to a mainline service.
- Operating arrangements should be as simple as possible.
- Vehicles should either be 8-seats or larger 24-seats.
- Government be lobbied to change restrictive legislation governing smaller vehicles.

2.6 An earlier national study of DRT recommended that licensing, financing and regulatory regimes be simplified; that institutional measures and policies be reformed to grow and support the public transport market as a whole; that more effective marketing and promotional methods be found; and that technology be further developed to more effectively match the right vehicle at the right time to the right place.[4]

2.7 An evaluation of 6 Local Link DRT services in Greater Manchester[5] concluded that ingredients of success included:

- Good understanding of needs, with the service designed with these in mind.
- Simplicity of operation and booking procedures, with targeted marketing and good customer care.
- Gaining economies of scale in the provision of the service.

[4] Marcus Enoch: UK Demand Responsive Transport: problems and potential pathways, paper presented to the DRT Public Transport Conference, Aston University, 16 November 2005

[5] Peter Hardy, Nicola Kane & Tom Sansom: Evaluating the success of DRT schemes, paper presented to the DRT Public Transport Conference, Aston University, 16 November 2005

- Integrated ticketing and charging realistic fares in recognition of the good service provided (recognising the value people place on the service).

2.8 The potential for DRT to play an important role in rural public transport has been recognised for some time. A 'thinkpiece' for the Commission for Rural Communities in 2009[6] suggested that there was considerable scope for DRT: "Whilst the experiences of DRT over the last 10 years have seen successes and failures, they have all helped to provide valuable insights into the circumstances and conditions where DRT can be successful. There is much evidence to support the view that there is a role for DRT; the challenge is knowing where, when and how to deploy it as an appropriate solution."

2.9 The paper noted that DRT offers various opportunities because of its flexibility and ability to integrate with other services, offer personalised services and be cost effective. It also noted there were several barriers that had been around for a while and still needed to be addressed. Whilst some of those still exist today, such as the complicated regulations and licensing arrangements, others have been addressed through the improvements in technology, which have allowed on-demand transport services to develop and bookings via apps.

2.10 The paper suggested that rural DRT services were amongst the most vulnerable of such services, due to the low demand. Therefore, it was considered necessary to develop services that achieved the right balance between three main components: service design, value for money and operational attributes. Services needed to be carefully designed, with clear and specific objectives in mind and kept as simple as possible. Good market knowledge was needed to understand actual needs and demands and relevant local circumstances. Services needed to be part of a wider picture and integrated with other services, combining different types of demand and need to gain economies of scale.

2.11 In recent years there has been significant development of DRT services, particularly encouraged by the Government's Rural Mobility Fund and National Bus Strategy. The more dynamic provision of DRT has been facilitated by the various app-based software platforms that handle passenger bookings and vehicle scheduling in real time and on-demand.

[6] JMP Consultants Ltd (2009): The potential for demand responsive transport to play an increasing role in revitalising rural public transport, for the Commission for Rural Communities

Features of DRT

2.12 DRT services encompass a wide variety of non-scheduled bookable services that might be planned and provided in many different ways, using various types and sizes of vehicles operated by a range of service providers across the commercial, public and voluntary sectors.

2.13 Furthermore, Dynamic Demand Responsive Transport (DDRT) services have developed, building on digital technologies and the growth in smartphone use.

2.14 CoMoUK defines DDRT as a flexible mode of shared transport focused on serving public demand that may be unsuited to conventional scheduled bus services. As the bus network has become increasingly focused on corridors for commercial reasons, DDRT enables access to public transport for people who live more than a short walk from these routes.[7]

2.15 DDRT services offer an App-based booking (and payment) option and include the following common features:

- Dynamic routing: unlike fixed-route services, DRT vehicles do not follow predefined routes. Instead, the routes are determined based on passenger demand
- On-demand booking: passengers can request a ride or make a booking through a dedicated app, website, or phone call. This allows them to specify their desired pick-up and drop-off locations, preferred time window, and any other specific requirements.
- Shared mobility: DRT encourages shared rides, aiming to maximise vehicle occupancy and reduce congestion. Multiple passengers with similar routes or overlapping pick-up and drop-off points can be grouped together in a single vehicle.
- Integration with technology: DDRT systems leverage technological advancements such as GPS tracking, real-time data analysis, to efficiently allocate and schedule vehicles based on demand. These technologies can help optimise route planning, reduce wait times, and improve overall operational efficiency.
- Supplement existing services: DDRT is often seen as a complementary service to traditional fixed-route services, filling gaps in coverage or providing first and last mile connectivity. It can improve accessibility for passengers in areas with limited or no public transport options.

[7] Digital Demand Responsive Transport – enabling local connections across the UK, CoMoUK (2023)

DRT service types and purpose

2.16 There are several models of DRT provision, including:

- Dial-a-Ride services allow passengers to request a pick-up and drop-off location within a defined service area. Passengers typically make reservations in advance or call a central call centre to book a ride. The operator then co-ordinates the routes to accommodate multiple passengers on the same vehicle.
- Shuttle services operate on fixed routes but offer flexibility in scheduling and stopping points, such as office parks, airports or university campuses. Shuttle services may have designated pick-up points or follow a "flag-down" system where passengers can hail a shuttle along the route. These services provide convenience and reduce congestion by serving multiple passengers making similar journeys.
- Shared mobility services, including DDRT, utilise mobile apps or online platforms to connect passengers travelling in the same direction. Passengers can request a ride and be matched with a driver or other passengers heading towards a similar destination. Shared mobility services reduce the number of individual vehicles on the road and enhance vehicle efficiency.
- Flexible Fixed-Route Services: Some DRT systems combine the flexibility of on-demand services with elements of fixed-route services. These systems have predefined routes, but the timetable or deviations from the route are adjusted based on passenger demand. The service may allow passengers to request pick-ups or drop-offs at designated stops along the fixed route or within a specific deviation range.

Models of DRT provision

Original DRT concepts

2.17 DRT had its origins in 'dial-a-ride' schemes and taxi-based DRT. These systems initially grew from the need to provide accessible transport to those who were unable to access a traditional bus service, particularly before low floor, accessible service buses became the norm. In urban areas, where good levels of scheduled services are available, such schemes require users to register to use the service, rather than it being open to anyone.

2.18 Taxi DRT (shared taxi) services operate in areas where no public transport provision is available and providing it would be cost prohibitive. Users can book a ride on selected

days of the week to defined destinations, usually their nearest local centre with a shop and primary health facilities. Leicestershire and Hampshire County Councils are amongst those authorities to arrange and subsidise such services, as a means of maintaining a basic level of public transport. Such services are simple and relatively low cost (as they offer very limited travel choice or opportunity), but more effective than subsidising a timetabled bus service.

Hybrid DRT

2.19 Hybrid DRT services combine the advantages of fixed route services and DRT services to create a more efficient and flexible transport service. The hybrid model typically establishes DRT flex zones around the fixed route(s). These flex zones or 'roaming' zones allow the bus to deviate anywhere within the zone but only when a booking has been made for it to do so. A route(s) will have several fixed stops and one or more roaming zones.

Digital DRT (DDRT)

2.20 DDRT systems originated in the United States with systems such as Chariot and Via operating initially urban DRT usually for workers of large organisations. Chariot was an urban ride sharing company which operated across multiple US cities[8], as well as London in the UK, which was acquired by Ford in 2016, but ceased operations in 2019[9] due to lower than anticipated patronage.

2.21 Many urban schemes have failed to reach commercial revenue numbers, in part due to the easy access of public service buses, but also from a new generation of ride sharing platforms such as 'Uber x' which offer ride sharing in cars and minibuses as part of their already well-established taxi apps.

Software system providers

2.22 DRT booking and scheduling software providers are part of a relatively small, international pool of private companies. With operations in the UK, those companies include:

- **Ioki** – Arriva Click (Watford)
- **Liftango** – FoxConnect (Leicestershire County Council)
- **Padam** – HertsLynx (Hertfordshire County Council); Novus Flex (Leicester)

[8] https://www.cnbc.com/2017/07/27/fords-chariot-aims-to-fill-nyc-transit-gaps-with-ride-sharing-shuttle-service.html
[9] https://www.busandcoachbuyer.com/fords-ride-sharing-chariot-closing/

- **The Routing Company** (Pingo platform/app) – Flexibus (East Sussex County Council)
- **Vectare** – Ting (Cambridgeshire and Peterborough Combined Authority); Flexibus+ (Norfolk County Council)
- **Via** – TeesFlex (Tees Valley Combined Authority); MK Connect (Milton Keynes City Council); WM On-Demand Coventry (Transport for West Midlands); Fflecsi (Transport for Wales); Flexibus+ (Norfolk County Council)
- **WeDRT** – WestLink (West of England Combined Authority)

DRT SWOC analysis

DRT Strengths, Weaknesses, Opportunities and Challenges

Strengths	**Weaknesses**
• Flexibility: DRT offers flexible routing and scheduling, allowing services to adapt to the needs of passengers in real-time. This flexibility makes it convenient for passengers with varying travel requirements and compliments fixed route buses. • Improved accessibility: DRT can enhance accessibility for individuals who have limited mobility, live in underserved areas, or have specific transport needs. It can provide door-to-door service, serving populations that may face challenges with traditional fixed-route buses.	• Efficiency challenges: while DRT can be efficient in an ideal environment, there can be challenges in optimising routes and scheduling, especially when dealing with high-demand areas or many simultaneous requests. Balancing efficiency and passenger demand can be complex and require sophisticated algorithms and technology. • Capacity limitations: DRT services, particularly those using smaller vehicles like cars/MPVs, may have capacity limitations compared to buses or trains. This can pose challenges during peak periods, or when serving a larger number of passengers. This could limit DRT as a worker or school service provision if demand exceeds capacity. • DRT can be a less personalised service than community transport which offers highly personalised support such as sitting friends together to combat social anxiety.
Opportunities	**Challenges**
• Integration with technology: the advancement of technology, particularly smartphone apps and GPS tracking,	• Balancing demand and supply: one of the challenges in DRT is maintaining a balance between passenger demand and the

presents opportunities for integration and management of DRT services. Mobile apps can allow passengers to request rides, track vehicles, and receive real-time updates, improving convenience and user experience. • Data-driven optimisation: DRT services generate vast amounts of data, such as passenger demand patterns and travel behaviour. By leveraging this data and using advanced analytics, local authorities can continue to adapt and optimise the DRT operation and identify demand patterns for new potential fixed route journeys.	available supply of vehicles and drivers. Balancing the dynamic nature of passenger requests with limited resources requires careful planning and optimisation algorithms. Cost balances are also evident with all schemes, balancing waiting times for a vehicle and the size of any DRT zone with the resource required to provide an acceptable level of service within that zone can be challenging, especially in large zones in rural areas • Funding and sustainability: establishing and sustaining DRT services may require significant investments, especially when considering the need for vehicles, infrastructure, technology, and staffing. Securing long-term funding and developing sustainable business models can be challenging for service providers, particularly in the UK where many are currently reliant on time limited funding streams such as rural mobility fund. • Public perception and adoption: introducing new transport models like DRT may face resistance or scepticism from the public who are accustomed to traditional fixed-route services. Raising awareness and demonstrating the benefits of DRT can be crucial in gaining acceptance and encouraging adoption. Some user groups may be more resistant to elements of DRT than others. UK research is currently showing that DRT services are seeing a higher uptake of younger users and less concessionary travellers than fixed route buses. This could be a resistance to technology in older groups and the familiarity with similar systems, such as Uber, by younger users.

3. DRT in context

National context

3.1 The UK Government has demonstrated its interest in trialling DRT, including reference in its Future of Mobility Strategy. DfT produced a DRT toolkit for those local authorities considering introducing schemes, including assistance in estimating demand, offering case study examples, and providing regulatory guidance of relevance to DRT operations.

3.2 DfT identified several benefits of DRT[10] including:

- Addressing suppressed travel demand – demand which exists but cannot be currently served by traditional fixed route travel economically and so are potential passengers currently forced into private car or taxi services
- Encouraging active travel – many users of active travel especially cycling are more likely to adopt this as their main mode of travel if longer-distance bus travel is available and in rural areas this is likely to be a DRT solution.
- Acting as a feeder service into fixed bus routes – bus services provide better journey times and are more efficient when operating more directly with less deviations. In rural locations having DRT services as feeder services can help facilitate this

3.3 In 2015, DfT awarded Total Transport funding to 36 authorities to implement pilots designed to identify where cost savings could be achieved by bringing together public transport, NHS transport and dial-a-ride services, to improve efficiency via integrated provision.

3.4 Specialist transport services, including non-urgent patient transport also offers opportunities to increase efficiency by integrating vehicles and providing a cost saving when combined with a countywide DRT operation. Challenges in this area stem from the NHS procurement methods and the often-fragmented nature of NHS trusts across the country. An NHS report[11] published in 2021 identified DRT as a means of providing non-specialised health journeys; this option could be explored as part of a CPCA DRT scheme. The cost of non-emergency transport to the NHS was £38 per journey - much higher than traditional public transport or DRT. Therefore, using NHS funding to help

[10] https://www.gov.uk/government/publications/demand-responsive-transport-local-authority-toolkit
[11] NHS England » Improving non-emergency patient transport services: Report of the non-emergency patient transport review

fund DRT could help to share overall costs and provide lower cost travel solutions for non-emergency patient transport.

3.5 In 2020, DfT launched a competitive bidding round for local transport authorities to apply for Rural Mobility Fund (RMF) funding to pilot DRT services in England. In March 2021, 17 authorities were advised of the success of their bids[12]. In total, £19.4m was awarded. Most RMF-funded schemes are three-year pilot schemes introducing new DRT services. There is a requirement for each scheme to collect and share data with DfT for national and local analysis during and at the end of the pilots.

Policy context

England's Economic Heartland Regional Strategy

3.6 The Strategy[13] challenges the region to achieve a net zero carbon transport system by 2040. Three of the five points contained within the Strategy's Plan of Action have relevance for the development of DRT:

- Focus on decarbonisation of the transport system by harnessing innovation and supporting solutions which create green economic opportunities
- Promote investment in digital infrastructure as a means of improving connectivity
- Champion increased investment in active travel and shared transport solutions to improve local connectivity to ensure that everyone has the opportunity to realise their potential

3.7 The Strategy also indicates that "Delivering new approaches, ownership and business models that facilitate access to transport will be a key part of the transition to net zero." DRT is named as an approach which will be supported where appropriate.

Cambridgeshire and Peterborough Local Transport and Connectivity Plan (LTCP)

3.8 The Local Transport and Connectivity Plan[14] outlines how the Combined Authority's long-term strategy can influence transport, considering ongoing regional developments. An Independent Commission on Climate set a target for CPCA of reducing car mileage by 15% by 2030, which will require modal shift away from cars to

[12] Rural mobility fund: successful bids - GOV.UK (www.gov.uk)
[13] Connecting People, Transforming Journeys: Regional Transport Strategy (eeh-prod-media.s3.amazonaws.com)
[14] https://cambridgeshirepeterborough-ca.gov.uk/what-we-deliver/transport/local-transport-plan/

bus, walk and cycle. The LTCP recognises and will seek to deliver a transport system that is efficient, improves access and life chances, is affordable and addresses pollution

3.9 The draft Plan[15] indicates that improvements will be tailored to local needs, including DRT in rural areas, feeding into the towns that are then connected by major routes to Cambridge and Peterborough.

CPCA Bus Strategy

3.10 CPCA approved an ambitious Bus Strategy in March 2023[16] outlining its long-term plan for buses in the region. The key priorities within the Strategy are:

- Significant enhancement of the bus network, with every aspect improved, to double bus patronage by 2030
- A bus network that is convenient, attractive, and easy to use
- A comprehensive, coordinated network that is understandable
- A fixed route network for cities, inter-urban areas and market towns, which is necessary to accommodate volume
- Service frequencies and co-ordination to facilitate interchange between services
- Areas of dispersed travel demand to be addressed by feeder or more flexible/responsive service

3.11 The Strategy[17] highlighted that public consultation revealed that 65% of bus users wanted to see more reliable bus services and 58% of non-bus users cited inconvenience as a reason for not using buses. The Strategy aims to improve reliability through bus priority measures and a refined network and to reduce inconvenience by providing much greater rural coverage and more direct bus links to major centres with reduced journey times.

Greater Cambridge Partnership (GCP) Making Connections

3.12 Greater Cambridge Partnership is the local delivery body for the Cambridge City Deal, which will see £500m of Government funding over 15 years targeting improvements to

[15] https://yourltcp.co.uk/wp-content/uploads/2022/05/Draft-Regional-Section.pdf
[16] https://cambridgeshirepeterborough-ca.gov.uk/wp-content/uploads/documents/transport/buses/Cambridgeshire-Peterborough-Combined-Authohttps://cambridgeshirepeterborough-ca.gov.uk/wp-content/uploads/documents/transport/buses/Cambridgeshire-Peterborough-Combined-Authority-Bus-Strategy-March-2023.pdfrity-Bus-Strategy-March-2023.pdf
[17] content/uploads/documents/transport/buses/Cambridgeshire-Peterborough-Combined-Authority-Bus-Strategy-March-2023.pdfrity-Bus-Strategy-March-2023.pdf

housing, infrastructure, transport and education, with the emphasis on improving the prosperity and quality of life for residents.

3.13 GCP has outlined plans for significant improvements in public transport and active travel across the Cambridge travel to work area, which would be funded by a proposed road user charge in Cambridge[18], which has been subject to public consultation in late 2022.

3.14 The vision for bus for Greater Cambridge produced by GCP includes an intensive fixed route network of urban, inter-urban, arterial, and orbital services, complemented by DRT in areas of lower demand to feed into the core network.

3.15 Greater Cambridge Partnership[19] has proposed six DRT zones focussed on:

- Coveney to Ely or Chatteris
- Rampton Cottenham, Longstanton, Chatteris or Haddenham
- Yelling to Cambourne, Huntingdon or St Neots
- Abbotsley to Cambourne or St Neots
- Horningsea to Newmarket Rd P+R, Bottisham, Ely and Newmarket
- Shudey Camps to Linton, Haverhill, and Saffron Waldon

3.16 Operating hours would be 06:00 to 22:00 Monday to Saturday and 08:00 to 22:00 on Sundays and bank holidays. Bookings, it is suggested, would be available between one week and five minutes in advance with fares covering, not only the DRT journey, but also onward travel to the end destination by connecting bus. CPCA's LTCP also supports this model of DRT, acting as feeder services into fixed bus for onward travel.

Cambridgeshire and Peterborough Bus Service Improvement Plan (BSIP)

3.17 In March 2021 Government published the National Bus Strategy (NBS)[20] 'Bus Back Better', which outlined long-term ambitions for the bus industry in the wake of challenges resulting from the Covid-19 pandemic. The NBS outlined the need for closer partnership working between operators and local authorities, including on infrastructure, network development, marketing and branding.

[18] https://www.cambridgeindependent.co.uk/news/58-oppose-cambridge-congestion-charge-gcp-consultation-res-9314541/
[19] Interactive bus map launched so people can see how journeys would be transformed by GCP proposals (contensis.cloud)
[20] Bus back better - GOV.UK (www.gov.uk)

3.18 A core element of the NBS is the requirement for every Local Transport Authority to adopt an Enhanced Partnership model for future bus operation, unless following a Bus Franchising approach.

3.19 CPCA had already indicated an intention to undertake an assessment of bus franchising, so has not adopted an Enhanced Partnership (EP). The assessment work is ongoing, and will consider how the aspirations of the BSIP might be achieved through bus franchising compared to an EP.

3.20 CPCA's BSIP outlines the following targets relevant to DRT operation:

- More comprehensive coverage especially in evenings and weekends – this is likely to include fixed route but in rural areas out of hours coverage may take the form of DRT or DRT feeders into main connections.
- Semi flexible and semi scheduled services being used as feeders from rural locations via key interchanges, and Mobility hubs into the main bus network with either £1 add on fares for through travel, or integrated ticketing for DRT plus onwards connections.
- Demand Responsive Transport (DRT) – learning from the trial in West Huntingdonshire, DRT services will be rolled out across other parts of the area outside of Cambridge and Peterborough, to ensure complete public transport coverage. Services will replace infrequent and market day only services, and be planned as an integral part of the overall public transport network"

3.21 A new BSIP is currently being formulated to replace the original produced in 2021. This will be the plan by which the aspirations of the Strategy will be delivered and will be subject to annual review.

Current travel trends

3.22 According to the Greater Cambridge Partnership[21], over the past ten years, traffic levels have increased by 10% and Cambridge's morning and afternoon peak periods, with peak traffic volumes and worst congestion, have lengthened by up to 2.5 hours.

3.23 Cambridge is currently the 16th most congested city in the country[22]. This not only impacts commuters by car but also increases the resource required to maintain bus service headways, decreases the attractiveness of public transport journey times which increase with congestion and decreases the reliability of bus services.

[21] Transport (greatercambridge.org.uk)
[22] Making Connections (amazonaws.com)

3.24 In 2021/22, across Cambridgeshire and Peterborough, 13.9 million vehicle miles were operated on local bus services (see

3.25 Table 3-1), of which 1.7 million miles (12.2%) were supported by local authorities[23].

Table 3-1 Commercial and supported vehicle miles in CPCA area in 2021 (millions)

Authority Area	Supported	Commercial	Total
Cambridgeshire	1.4	9.2	10.6
Peterborough	0.2	3.1	3.3
CPCA	1.6	12.3	13.9

3.26 **Error! Not a valid bookmark self-reference.** shows how the demand for bus travel has fallen considerably per head of population since before the pandemic[24], which similarly challenges the viability of commercial services and puts increasing pressure on local authorities to step in with support. Lower demand, however, can make DRT a more appropriate transport solution.

Table 3-2 Bus journeys per head of population in CPCA area in 2018/19 and 2021/22

Authority Area	2018/19	2021/22
Cambridgeshire	30.5	18.3
Peterborough	46.6	26.0

[23] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1141450/bus02_mi.ods
[24] bus01.ods (live.com)

4. Case studies

4.1 Currently, there are over 30[25] DDRT systems in operation in the UK, 17 of which are pilot schemes which were implemented with DfT's Rural Mobility Fund. This chapter considers a cross section of case studies of DRT in operational service in the UK and beyond, highlighting their relevance to Cambridgeshire and Peterborough and identifying lessons learnt.

Call Connect

4.2 Call Connect commenced operation in Lincolnshire in 2001. It has expanded its services beyond its county boundary to include Peterborough and Rutland, as well as Gainsborough in North Lincolnshire.

4.3 Call Connect operates across a number of zones, Monday to Friday 07:00 - 19:00 and Saturdays 08:00 - 18:00. Registration for the service is free and available to anyone. Bookings can be made online, via telephone, or by dedicated app. Bookings can be made from seven days to one hour in advance. Payment can be made on the vehicle.

4.4 Fares are based on distance. Children under 16 travel for half fare and concessionary travel pass holders travel free.

4.5 Lincolnshire has been using booking apps by both Padam and Via in various elements of its provision.

4.6 Alongside fully flexible services, Call Connect vehicles also include some timetabled services and ones that deviate on demand. Call Connect vehicles incorporate home to school transport runs into their schedules too, which help to increase utilisation and spreads the cost across different budgets.

4.7 A pilot with Padam in Gainsborough has used two vehicles to provide a flexible service, along with home to school transport. Within the software platform, an algorithm was set to ensure that both vehicles were not able to be directed into the same area within

[25] Digital demand responsive transport > Existing schemes and operators (como.org.uk)

45 minutes of one another. This ensured that vehicles weren't drawn to unfairly serve one area more than another, but also encouraged aggregation of journeys from the same area, helping to improve utilisation.

4.8 Call Connect has developed and adapted to changing circumstances over time and looked for opportunities to integrate with other services (social care transport, home to school transport and dial-a-ride) to achieve efficient provision, including the operation of vehicles by the County Council's own in-house company.

Lessons learnt: Continually adapt and develop services and look for opportunities to integrate different demands.

Oxford Pick Me Up

4.9 Oxford Pick Me Up was a commercially provided DRT service, operated by Oxford Bus Company, aimed at improving connectivity within the eastern arc of Oxford and the city centre. It was a two-year minibus pilot, implemented from 2018 to 2020.

4.10 The Pick Me Up service operated seven days a week, including public holidays, from 06:00 - 23:00 Monday to Friday, 07:00 to midnight on Saturday, and 09:00 to 21:00 on Sunday. The service offered an average response time of 10-15 minutes.

4.11 Fares were designed to be competitive, but above regular bus fares, particularly for journeys that could have been made on the fixed bus network. Single fares were £3 (peak) and £2.50 (off-peak), with a £1 surcharge for journeys after 21:00. If the same journey could be made using an existing Oxford Bus Company conventional bus route, an additional charge of £2.50 or £3 was applied. An extra £0.50 was added to journeys to and from the city centre. No discount was made for concessionary travel pass holders, as reimbursement rates were considered to be too low and would undermine the service's viability.

4.12 At peak times, vehicles faced delays, which reduced the capacity of the service. Furthermore, vehicles were drawn into the city centre, so then not available to meet

travel requests in the suburbs. These factors impacted negatively on the operational efficiency of the service and user experience.

4.13 The service did, however, highlight the willingness of users to pay a premium for convenient transport options. The app was very popular, with approximately 38,000 downloads and facilitated over 300,000 journeys. Despite this success, the service was not financially sustainable, and the operator withdrew the service.

Lessons learnt: Whilst it is clear that people are willing to pay a premium for a DRT service and use it rather than a cheaper conventional bus service, there are operational difficulties of trying to run DRT in congested urban areas. Overall, it demonstrated that it is difficult to achieve commercial viability.

Slide, Bristol

4.14 Operated by RATP as a fully commercial venture, the Slide[26] DRT service operated in Bristol between 2016 and 2018, providing a ride-sharing minibus service at peak times only (Monday to Friday 06:45 – 09:45 and 15:30 – 19:30). It was aimed at commuters and provided shared shuttles to railway stations and city centre locations. Fares ranged from £4 to £7, or £120 for a month.

4.15 The service saw 40,000 trips over 2 years, but could not reach commercial revenue levels.

4.16 Slide cited a reason for closure as the introduction of the Metrobus Bus Rapid Transit (BRT) system in Bristol moving people to mainstream public transport[27].

4.17 Slide also operated in Ealing in London[28] (as part of trial for Transport for London) from November 2019 until May 2020, when the trial was cut short by the Covid-19 pandemic. The service used ten accessible 10-seat minibuses, had a flat fare of £3.50 and operated 06:00 - 01:00 daily.

Arriva Click

4.18 Arriva Click was amongst the pioneering DRT services in the UK and deployed over time in different locations – Sittingbourne, Liverpool, Leicester and Watford. Each location had different characteristics and experiences with DRT.

4.19 Arriva Click was first trialled in Sittingbourne in 2017. During peak hours, the service carried up to 11 passengers per vehicle per hour, while off-peak hours saw only 1-2

[26] https://www.slidebristol.com/
[27] https://www.bbc.co.uk/news/uk-england-bristol-46360299
[28] https://content.tfl.gov.uk/drb-research-report-july-2021.pdf

passengers per vehicle per hour. It was estimated that there needed to be an average of about 8 passengers per vehicle per hour to achieve commercial viability.

4.20 During the pilot, over half the customers surveyed indicated that they had switched away from the car. 61% of users used the service a few times a week or more; 43% adopted the service for their daily commute and 90% said they would recommend it to a friend.[29]

4.21 Arriva Click commenced in Liverpool in 2018. Arriva worked with the transport authority to roll out the app-based service, initially with six 15-seat buses, but with a view to running 25 vehicles by summer 2019. Most of the service was withdrawn in 2020, except for the Speke area. The service operated Monday to Saturday 08:00 - 17:00, with fares varying based on time and distance. Payment was only available via the app, utilising Via technology.

4.22 Using developer funding, Arriva Click (with Via software platform for bookings and vehicle scheduling) was put in place to serve the new residential area of New Lubbesthorpe, on the edge of Leicester. This provided a flexible service for the area as it developed, when demand remained low. The contract has since passed to another provider, with some fixed service provision now possible as the development grows.

4.23 Arriva Click, using technology provider Ioki (based on similar partnership working in the Netherlands, introduced DRT into Watford in 2020, under a contract with Watford Borough Council. This was to provide a service for a new housing development and to enhance connections with the wider network.

4.24 The service, which utilises seven high specification 16-seat minibuses with features including Wi-Fi, USB charging and air conditioning, operates seven days a week between 06:00 and 22:00. A typical journey costs £3.50.

4.25 The service has so far failed to meet the anticipated demand. The first quarter of 2022 saw 5,000 passenger journeys, against a predicted 75,000.

[29] Future of mobility: urban strategy (publishing.service.gov.uk)

4.26 The various experiences of Arriva Click again highlight the challenges for DRT in achieving commercial viability, and in establishing appropriate provision alongside conventional services in urban settings.

> Lessons learnt: DRT has not achieved commercial viability to date, but can be a way of meeting needs in new developments where initially there is low demand.

Flexibus and IndieGo, Warwickshire

4.27 Flexibus services were introduced in Warwickshire over 20 years ago, replacing fixed route services where demand was no longer sufficient but it was considered important to maintain vital lifelines in rural areas.

4.28 Flexibus services are fixed line routes[30], which operate one return journey on a limited number of days per week. Roaming zones are included where the vehicle can deviate from the fixed route in a defined area. Bookings are required for the bus to deviate, but regardless of bookings each journey operates. However, return journeys may only run part of the route, then only beyond on demand.

4.29 Services can be used by anyone using cash fares, contactless or concession passes. Vehicles are used on school journeys before and after Flexibus services, achieving some economies in overall provision. Contracts are awarded on the basis of a vehicle having a full week's work.

4.30 Often, return journeys will operate a shorter route and then continue "'on request' and terminate early if no one remains on the vehicle.

4.31 Flexibuses[31], as registered local bus services, are available to all and can be used without pre-booking on certain elements; booking is only needed on the flexible sections of route. However, each service only operates on certain days of the week in certain targeted areas.

4.32 More recently, Warwickshire County Council has launched an on-demand DRT service (IndieGo PLUS), following a successful bid to the Rural Mobility Fund. Operated by Stagecoach, with 3 minibuses (plus a spare), and using the Liftango booking and scheduling platform, it operates in the Hatton area west of Warwick area.

4.33 Journeys can be made between any two points (virtual stops) in the rural zone or from the zone to/from destination points in Warwick and Kenilworth. Pick-up and drop-off

[30] https://www.flexi-bus.co.uk/Flexibus/flexibus.html
[31] https://www.warwickshire.gov.uk/flexibus

points should be within 250m walk of home or destination point, or nearer for people with mobility impairments.

4.34 The service operates Monday – Saturday 06:00 – 19:30. Journeys can be booked between 1 hour and 2 weeks in advance using the app or by phone. Single fares are £4 and concessionary travel holders may travel free after 09:00 on weekdays and all-day Saturday.

4.35 Early indications (April 2023) show that about 25% of bookings were being made by phone. The cost per passenger journey was running at £12-£13.[32]

HertsLynx

4.36 Hertfordshire County Council was awarded Rural Mobility Fund (RMF) support for its HertsLynx DRT service, operated under contract by Uno Bus and using the Padam back-office for bookings and scheduling. It offers fully flexible travel anywhere within an operating zone covering 400km^2, or to a number of defined locations in six surrounding towns. The zone includes a number of villages that previously had no bus service.

4.37 The service was launched in September 2021 with three 16-seat minibuses, each equipped with a wheelchair space. The fleet expanded to four vehicles in

[32] Presentation at DfT DRT Forum, 27 April 2023

September 2022, with plans to add an electric vehicle in the future.

4.38 Passengers are able to book up to 30 days in advance, or in real-time up to three minutes beforehand. The service operates 07:00 - 19:00 Monday to Saturday and 10:00 - 16:00 on Sundays and public holidays. More recently, the service has been extended into the evening on Fridays and Saturdays.

4.39 Fares are based on distance, ranging from £3 (up to 2 miles) to £6 (over 10 miles). The service accepts cashless payments, allowing passengers to pay via credit/debit card or purchase a credit bundle. Free travel is available for English National Concessionary Travel Scheme (ENCTS) pass holders.

4.40 In its first year, HertsLynx surpassed its target of 12,000 trips within 10 months[33]. Notably, 25% of passengers are Savercard holders (aged 11-25), with one of the top three pick-up and drop-off points being the college in Buntingford. The high level of use by students means that during college holidays the service is significantly quieter.

4.41 ENCTS pass holders account for 10% of passengers. 20% of all trips are made to or from transport hubs (bus/train), perhaps indicating transfer to other public transport services.

4.42 80% of passengers book trips via the app, 15% book online and 5% book via the call centre.

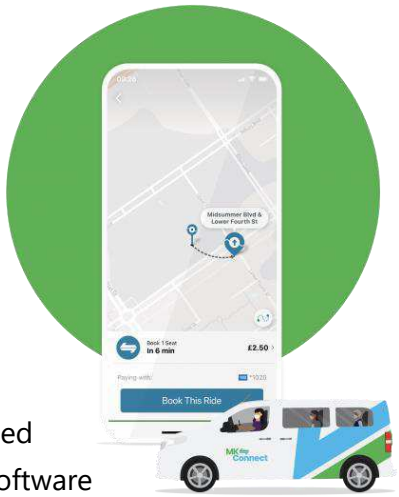
4.43 Over time, the algorithms that manage the booking and scheduling parameters of the service have been adjusted to optimise the operation, increasing average utilisation to 1.9 passengers per trip. However, journeys are quite long, which influences utilisation, and vehicles can be impacted by congestion.

4.44 Using the HertsLynx experience, it is intended to modernise the parallel dial-a-ride services, using the same platform for bookings and adopting a similar modern-looking livery on the vehicles. This would enable some use of vehicles across the two operations, assisting at busy times.

[33] HertsLynx case study: DRT serving local communities (transportxtra.com)

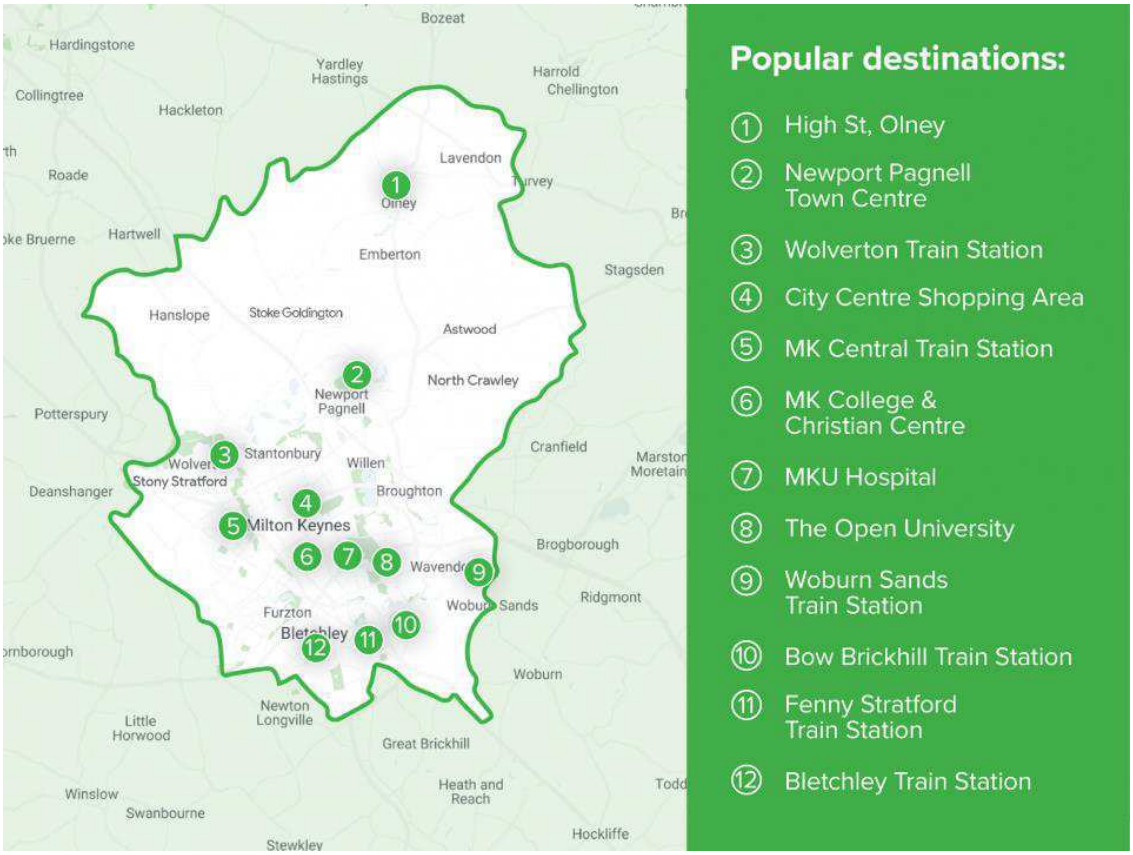
Lessons learnt: DRT services can appeal more to younger people if designed to meet their needs. Equally, reliance on a particular user group can lead to peaks and troughs in usage.

MK Connect



4.45 As a car-dominated place, with relatively low population density, Milton Keynes is a challenging place for fixed route commercial bus operation. With rising costs associated with the Council-supported bus services, the decision was taken to replace them with an area-wide DRT service.

4.46 MK Connect was introduced in April 2021, covering the entire area of Milton Keynes City Council. Via was awarded the contract to provide the entire operation, including software platform and vehicle operation using 26 Private Hire Vehicles (PHV) of up to 8 seats (some of which are electric).



4.47 The service operates 06:00 – 22:00 Monday – Saturday and 09:00 – 18:00 Sunday. Unlike other DRT services, MK Connect has no advance booking – all bookings are in real time with target wait times of no more than 30 minutes in urban areas and 60 minutes in rural areas. Whilst journeys may be made from anywhere to anywhere, bookings will not be accepted for trips that could be made on the conventional bus network, and the app will inform users of those available services.

4.48 At commencement, fares were £3.50 (peak) / £2.50 (off-peak). In April 2023, these rose to £3.85 and £2.75 respectively.

4.49 The contract for MK Connect required a service that met particular standards and requirements, rather than the provision of a certain number of vehicles. Therefore, it is left to the operator to meet those requirements. Therefore, at busy times, the operation might draw in other PHV resources, rather than just relying on MK Connect branded vehicles.

4.50 Provision of MK Connect costs £1.9m p.a., compared to the cost of the previous fixed route supported services of £2.9m p.a.

4.51 Bookings are mainly by app, with just 5% by phone. Between 1200 and 1500 passenger journeys are made each weekday. Average utilisation is above 3 passengers per vehicle hour.[34]

4.52 Service data is monitored closely to help adjust operational parameters to optimise the service. Trip data and usage patterns is made available to bus operators on request, to help identify new opportunities for fixed route bus services.

Lessons learnt: Specifying an outcome-based contract provides the flexibility for operators to decide how to deliver the service, including bringing in more capacity at peak times from other operators. It is important not to abstract use from the fixed route network and to promote bus use through the app. The grid road system of Milton Keynes is suited to DRT.

FoxConnect

4.53 Leicestershire is a rural county with an unstable commercial bus network following the pandemic and lower patronage. Many rural areas are served by supported bus services, which are facing rising costs, with increasing pressure on County Council budgets.

[34] Presentation to DfT DRT Forum, 27 April 2023

4.54 Launched in July 2022, FoxConnect is a three-year RMF pilot to improve access in suburban and rural areas between Narborough and Hinckley. It has an 85km^2 operating area with 17 different communities served.

4.55 The service is focussed on access to large employment sites, out-of-town shopping, rail stations and a Park & Ride site, for onward travel into Leicester. The service is available 06:00 - 19:30 Monday to Saturday. It operates cashless with flat fares of £3.50 adult single, half-fare for under-16 and free for concessionary travel pass holders.

Where available, passengers are referred to local bus services rather than being booked onto the DRT service, to avoid undermining those services. However, fixed route services are infrequent, meaning that journey opportunities are limited.

Lessons learnt: Whilst evaluation is still to be undertaken, the service aims to demonstrate the ability of DRT to complement the wider public transport network (train, bus and Park & Ride) and avoid operational inefficiencies of DRT vehicles going into congested urban areas, increasing service availability in the rural area.

WM On Demand - Coventry

4.56 WM On Demand was introduced in Coventry, funded by DfT's Future Transport Zones (FTZ), University of Warwick and section 106 funding. In January 2023, the service was integrated with the existing Ring & Ride service (a long-standing dedicated door to door service for people with mobility problems), with the aim of achieving operational efficiencies. With the 'co-mingling' of the services, the Ring & Ride brand has disappeared in Coventry and users of that service helped in moving to WM On Demand, with the ability to book in the same way as they always had by phone, but also on an app.

4.57 WM On Demand operates Monday to Friday 06:00 - 23:00, Saturday 08:00 - 23:00 and Sunday 08:00 - 15:30. Passengers can book journeys up to 7 days in advance through the Via app or dedicated call centre. Journeys can be made anywhere within the designated zone, and beyond to/from specific locations aimed at the needs of university students. Whilst journeys are 'corner to corner' (with a network of virtual stops), a door-to-door service is provided for former Ring & Ride users.

4.58 Whilst still early days since the services were integrated, overall patronage has increased by 30% compared with the two previous separate services.

Lessons Learnt: Demonstrates the ability to integrate DRT and long-standing Ring & Ride services to achieve overall operational efficiencies and improved vehicle utilisation.

Flecsi, Wales

4.59 Flecsi is a general brand applied to a number of different DRT schemes across Wales, supported by Transport for Wales and the local authorities in which each scheme operates. All the services are manged through a single operating platform provided by Via, with a single app and call centre. Transport provision is contracted to local operators. Some services aim to provide improved rural connectivity; some have replaced fixed timetabled services.

4.60 The primary objectives of Flecsi were:

- Improved accessibility – to enhance transport services in rural and underserved areas, enabling people to access essential services, employment opportunities and social activities.
- Cost-effectiveness – to optimise resource utilisation by dynamically allocating vehicles based on demand, reducing inefficiencies and operating costs.

4.61 Different services are achieving different levels of use. A highly utilised service operates in a relatively tightly defined area of Denbigh and neighbouring village of Henllan. Journeys are short and focused on a small number of attractors in the town, enabling good levels of passenger aggregation (8 passengers per vehicle hour).

4.62 A 3-vehicle Flecsi service in Conwy is achieving 2-3 passengers per vehicle hour.

4.63 During 2021-2022 a pilot Fflecsi service ran in Newport, with 9 vehicles. It offered guaranteed pre-booking as well as on-demand. 2,500 passenger trips per week were achieved, with an average of 4 passenger journeys per vehicle hour, reflecting shorter journeys across an urban area.

Lessons learnt: Establishing a strong brand for DRT can be important in creating an identity for the service. Equally, economies of scale can be achieved through using a centralised app, software system and call centre. Tight geographical areas of service can help achieve higher levels of utilisation.

Essex Dart 3

4.64 Dart 3 is a well-established DRT service in the North Braintree area, with bookings and scheduling using FlexiRoute. Replacing a fixed route supported service, it offers flexible and semi-scheduled elements, including timetabled journeys to/from Sudbury that divert on demand. Some semi-scheduled journeys are aimed at transporting students to/from interchange points to connect with fixed route services to/from college.

4.65 The service is operated under contract by Arrow Taxis, using 8-16 seat vehicles, with the operator interworking vehicles with other contract services, including home to school transport. The service operates Monday to Saturday 06:00 – 20:00. All journeys must be pre-booked up to 2 hours beforehand.

4.66 Fares are distance related and range from £2.50 (<2 miles) to £8 (>10 miles) or £3.50 - £12 return.

4.67 The service has built up regular travel patterns and the semi-scheduled elements that the service enjoys reasonable levels of utilisation, compared with completely flexible DRT services.

> Lessons learnt: When replacing fixed services with DRT, it can be advantageous to maintain some familiarity through semi-scheduled service elements, which also help achieve higher utilisation. Integration of different travel flows can also help with this and achieve overall operational efficiencies.

East Cambridgeshire Connect

4.68 East Cambridgeshire Connect[35] was a pilot DRT operating in the Soham and Ely area from 2017 to 2019, with funding under the DfT's Total Transport initiative. It aimed to improve local access to facilities and services, particularly where bus services were limited, but also achieve integration efficiencies by meeting general and specific demands (such as travel to adult day care and local dial-a-ride) together.

4.69 The service had a similar overall cost to the specialist and dial-a-ride services it replaced. However, it offered additional benefits of being open to all residents.

4.70 Despite having to pay a reduced fare of £2 per journey to use the service, 42% of users were concession holders, indicating the perceived value of such a service. Analysis of journeys suggested that users were travelling to a greater range of destinations than previously possible, indicating some latent demand for public transport in the area.

[35] Cambridgeshire community transport schemes | Care Choices

4.71 The service used the FlexiRoute software to optimise transport routes and schedules, improving efficiency and service provision.

4.72 After 11 months of operation, the DRT service had 868 registered users, with 487 utilising the DRT service and 381 using the day care service. The cost per passenger journey was estimated at £17. Whilst quite high, it was similar to that incurred in the provision of dedicated transport, plus the Connect service offered wider benefits to other users, enabling them to make trips that were not previously possible.

4.73 The project successfully showcased social benefits by integrating different types of transport and providing new travel opportunities that were not previously available through local bus services. Several case studies highlighted the positive impact on individuals, demonstrating the project's effectiveness in improving mobility and accessibility.

4.74 The service ceased when no operator could be found when the service was re-tendered.

Lessons learnt: Integration of different services can help achieve efficiencies and open up new journey opportunities.

DRT beyond the UK

TAD IDFM, Paris region

4.75 DRT has been operating in Paris since 2018 when a pilot scheme was introduced in partnership with bus operator Transdev in one area of the city. This scheme was expanded to a further region in 2018.

4.76 In 2019 a new system was introduced, utilising one app and a central call centre for future DRT development. Padam[36] was awarded the contract, working with local partners to deliver a unified back office, app and booking centre.

4.77 The system has since been rolled out to 40 areas covering almost the entire Paris city region, with eight local operators providing the vehicles and operational knowledge. A total of 120 vehicles are deployed.

[36] https://futuretransport-news.com/wp-content/uploads/sites/3/2022/03/Padam-Mobility-How-did-Paris-Launch-Demand-Responsive-Transport.pdf

4.78 The system is achieving an 80% pooling rate (i.e. more than 1 person per trip) and 95% of users are booking via the app with only 5% by phone. The app is downloaded approximately 400 times per month[37].

4.79 Data is collected through DRT bookings to identify trends and demand patterns, which is shared with other local transport providers and can be used to help shape the main fixed bus network.

MUVA, Berlin

4.80 In September 2022 BVG Muva[38] was introduced to cover a 60km^2 area of east Berlin. BVG is the municipal bus operator for the city of Berlin and wanted to extend the fixed route network with DRT options to incentivise modal shift and provide services to previously inaccessible areas.

4.81 Via was awarded the contract to provide technology solutions and the service operates 24 hours per day, seven days per week.

4.82 This service replaced the BerlKönig[39] pilot service also operated by Via and BVG which operated in Berlin from 2018 until 2022, a taxi-based ride sharing service which at its peak involved 150 taxis and carried 1.85 million passengers.

Netherlands

4.83 Public transport in the Netherlands is provided under a series of regional and/or provincial concessions. A single contract usually covers the provision of the entire bus network in a particular area, ensuring a fully integrated and consistent approach. There is a requirement for all areas of a region to have at least some level of service available. In more rural areas this tends to be through the provision of a DRT service, which may offer travel anywhere in a particular zone or to the nearest large village or town.

4.84 In the Groningen region, DRT allows people in designated operating zones to travel between any two points up to 15km, where no fixed service is available. It will also take people to designated hubs to transfer to mainline bus services. The provision of DRT has enabled the mainline bus services to take more direct routes and operate limited stop. This has increased their attractiveness and led to significant growth in patronage.

[37] Running the world's largest demand-responsive transport system around Paris (intelligenttransport.com)
[38] https://ridewithvia.com/news/via-provides-transittech-software-for-bvg-muva-berlins-new-and-innovative-public-transport-service?lang=en-gb
[39] https://www.berlin.de/en/news/7586619-5559700-collective-taxi-berlkoenig-ends-on-20-ju.en.html

4.85 In the same region, contracts for DRT services also include the provision of specialist door to door transport for people with mobility difficulties and home to school transport for pupils with special educational needs and difficulties. 7 area-based contract packages have been specified and awarded to local taxi operators, who are required to provide sufficient vehicle resources to meet the outputs/requirements set out in the contract. Such integrated contracts help achieve operational efficiencies overall and there is a desire to try and include travel for medical appointments as well.

4.86 One particularly successful DRT service is the TexelHopper, which operates on the island of Texel. This replaced a number of fixed route services in 2014, achieving a cost saving. It's focus on meeting the ferry from the mainland means that it operates more on a many to one or one to many basis, helping levels of utilisation with 4-5 passengers per trip. Journeys must be booked 30 minutes beforehand via app, website or phone, and cost 3 Euros.

Lessons learnt: Integration of different services helps achieve overall efficiencies. DRT should be planned to complement the main bus network. Outcome-focused contract specifications provide flexibility for operators to determine the best way of meeting them and to take responsibility for deciding on providing suitable vehicles.

Conclusions from case studies

4.87 The case studies summarise experiences and findings from the last 20 years of DRT development and implementation.

4.88 As yet, the more recent services implemented in the UK have yet to be evaluated, so it is difficult to draw conclusions. Indeed, an assessment of schemes funded by DfT and others over recent years questioned the lack of financial analysis and effectiveness.[40] In particular, the assessment was critical of the lack of detailed financial analysis and assessment of DRT schemes, as it is difficult to measure the value for money and cost-effectiveness of these initiatives.

4.89 The case studies show there is no single approach to providing DRT. It is important to carefully design services to meet identified needs and tailor them to local circumstances and situations. In all cases, being clear on the objectives that are to be met is useful, so the service can be developed accordingly.

[40] Failing DRT schemes will have cost £100m, analysis reveals (transportxtra.com)

4.90 A benefit of DRT is the ability to adjust and refine the service in the light of experience and usage data.

4.91 DRT use and operational efficiency can be influenced by many factors – size of area, journey distances, demand patterns, road layout and traffic levels. Service design will also have an impact – times of operation, number of vehicles and the level of flexibility offered. Furthermore, integration of different services can help achieve overall efficiencies and increase utilisation, as shown in the Coventry example and the Netherlands. However, it is important to recognise that DRT is not necessarily cheaper than other types of service, as vehicles and drivers cost much the same as for other types of service.

4.92 The Oxford Pick Me Up and Bristol Slide case studies demonstrate the challenges of operating in congested urban areas and the difficulty in trying to achieve commercial viability.

4.93 A number of the other case studies highlight the ability of DRT to improve rural connectivity and to effectively replace conventional bus services. Including some semi-scheduled elements or constraining journey options can help aggregate usage.

4.94 There are clear advantages in ensuring that DRT complements the overall public transport network, feeding into it and not competing with it.

4.95 Procuring services according to outcomes sought has advantages in providing flexibility for operators to determine the best way of providing a service. Again, it can facilitate integration with other services. Equally, it provides opportunities for flexible vehicle fleets, drawing on spare capacity in other vehicle fleets to meet times of greatest demand (as in Milton Keynes).

4.96 The various software platforms and apps have made DRT a modern and attractive service that can be attractive to all types of users. The digital algorithms can achieve real-time booking and scheduling, can drive the aggregation of demand and efficient vehicle deployment, as well as ensuring against competition with fixed route services where available.

4.97 There is clearly a need for different types of booking, but in time phone bookings will probably reduce even further.

4.98 As pilot schemes come to the end of their funding, there will be increasing interest in ways of achieving cost savings and other efficiencies. This might result in shorter periods of operation or lower levels of service. However, it may also drive greater integration across different service types and collaboration across areas, perhaps sharing the use of back-office systems and platforms.

4.99 Having brought DRT into the digital age, it is likely that there will be further developments, such as integration into wider MaaS initiatives, considering travel options across a range of modes.

4.100 Although the full integration of DRT into MaaS apps is in its infancy, the HiGo MaaS app launched in June 2021 by the Highlands and Islands Transport Partnership (HITRANS), integrates multiple transport and travel options into one application, providing more reliable journey planning capabilities, easier access to travel information, in-app ticketing and a hassle-free payment system. As well as DRT, the app includes access to buses, trains, ferries, taxis, car clubs, car rental, bike hire, flights and hotels to allow users to plan bespoke door-to-door journeys with ease.

4.101 In England, Solent Transport is leading the charge with Future Transport Zones backing, but the rapid technological developments in this area make it unlikely to be a fully integrated MaaS solution for wider implementation in the short to medium term.

5. Ting

5.1 Ting operates in across a wide rural area in West Huntingdonshire.

5.2 Vectare was awarded the contract to provide both the back-office system and the transport service – the contract for the trial service was previously held by Stagecoach using the Via software.

5.3 Introduced in November 2021, Ting covers a dispersed rural area, with an operating zone comprising 46 villages, plus the town of St Neots, Cambourne business park, and a limited number of stops in Huntingdon, including the railway station. The service is available 06:00 - 20:00, Monday to Saturday. Bookings are made via phone, or an app developed by Vectare. Provision is generally door-to-door.

5.4 There is a simple fare structure - £2 for adults and £1 for under 19s. ENCTS passes are accepted. Refunds are not available for cancelled bookings.

5.5 The service is provided with three branded vehicles - two 8-seat vehicles and one 16-seat minibus. An additional spare vehicle is available.

5.6 Although users can request a booking up to 30 days in advance, the booking system may only confirm the bookings 24 hours prior to the journey, which could create some uncertainty for users or limit their ability to make alternative arrangements if the booking cannot be met. It is likely that those people who try and book in advance are doing so to get some certainty that they can or cannot make a particular journey.

5.7 From Vectare's perspective, not guaranteeing advanced bookings, avoids the situation of people then cancelling the booking nearer the time, having, in the meantime, prevented others from booking journeys. It also provides more opportunity to

aggregate journeys, improving vehicle utilisation and the number of passengers carried per vehicle hour.

Ting survey

5.8 A survey of Ting users (295 respondents) and users of timetabled bus services 150, 400 and 401 (93 respondents) in the Huntingdon area was undertaken in February 2022, to understand relative usage and thoughts regarding fixed versus flexible service options.

5.9 The headline survey results were:

- 19% of Ting survey respondents were aged 60+, compared to 63% of the timetabled bus survey respondents.
- 20% of Ting respondents were aged 16-20, compared to 3% for timetabled bus
- 55% of Ting respondents had access to a car.
- 27% of trips made by Ting were for employment, compared to 9% for scheduled bus, reflecting the differing age profile of the two types of service.
- 22% of trips made by Ting were for daily errands, compared to 59% of trips for timetabled bus.
- 94% of Ting respondents would choose Ting if given the choice of Ting or a timetabled bus service.
- 80% of timetabled bus respondents would use Ting if it was the only option.
- 55% of Ting respondents lived in St. Neots; the rest lived in rural areas
- The majority of journeys are to Huntingdon, Cambourne or St Neots – this was verified through discussions with the operator. It was also suggested that quite a number of trips are made wholly in and around St Neots.

Ting operator data analysis

5.10 Some analysis was undertaken of data for the service in the period from 15 November 2022 to 1 April 2023. During that period, 3093 trips were completed, which would equate to about 7,750 passengers in a full year.

5.11 Based on the 122 operating days assessed, there was an average of about 25 passenger trips per day, suggesting relatively low usage at that time. However, this suggests there should be plenty of capacity to improve usage. Equally, currently Ting runs in parallel to other existing fixed route services. If these were amended or removed at any time, this might increase usage of Ting.

Future refinements

5.12 Ting is clearly filling gaps in the provision of public transport in the area. Equally, it seems to appeal to younger people. However, in the future, there may be opportunities to refine the Ting operation to try and improve utilisation and customer experience, as follows:

- Consider options to split the single area of operation into smaller zones (perhaps north and south), focused on more local travel opportunities.
- Move from door-to-door to corner-to-corner provision, to speed up operations.
- Where there is some evidence of common passenger flows, look to introduce some semi-scheduled elements of service.
- Where feasible, provide regular feeder services from villages into main bus services or rail stations.
- Ensure that bookings cannot be made for journeys that could be made by conventional bus.
- Look to incorporate some home to school transport onto the service.
- Consider whether the provision of guaranteed advanced booking might work, allowing other bookings for similar journeys to be encouraged alongside.

5.13 It is noted that there was some confusion amongst users when the service moved from Stagecoach to Vectare, also necessitating the need to move to a different app. This situation could be avoided in the future by CPCA taking responsibility for the back-office system. This could then remain constant throughout, regardless of transport operator.

6. Future DRT developments

6.1 DRT will continue to evolve with technological advances. As more schemes are rolled out, opportunities for further integration with other local transport schemes will emerge. Below are the key current DRT developments.

6.2 **Advancements in technology**: Technology will continue to play a crucial role in the future of DRT. The development of increasingly advanced algorithms, real-time data, and automation will enable more efficient route planning and optimisation of DRT services. Integration with emerging technologies such as autonomous vehicles and smart city infrastructure may further enhance the effectiveness of DRT systems.

6.3 **Sustainability and environmental considerations**: With growing concerns about climate change and sustainability, future DRT systems are expected to prioritise low-emission options. Electric vehicles, shared rides and optimised routing algorithms to reduce congestion and carbon emissions will become essential ingredients of DRT systems. UK Government legislation is imminent regarding the end date for the sale of buses which are not zero emission; future DRT services should move towards or launch with zero emission vehicles.

6.4 **Collaboration and partnerships**: Collaboration between public and private companies will be essential for the success of DRT in the future. Local authorities, technology providers and private transport operators will need to work together to design and implement efficient and sustainable DRT solutions. Further integration may come from ride sharing companies, such as Uber, where a DRT bus could be included on its system for shared journeys.

6.5 **Smart Roads**:[41] Smart roads could play a significant role in facilitating DRT in the following ways:

- Smart roads can incorporate intelligent traffic management systems that monitor real-time traffic conditions, including congestion, accidents, and road closures. This information can dynamically route the bus to an alternative route bypassing traffic, alter drop off and pick up points and develop algorithms further.
- Real-time data sharing - smart roads enable seamless communication between vehicles, infrastructure, and passengers. By integrating various sensors and communication technologies, real-time data on road conditions, traffic patterns, and passenger demand can be shared between

[41] https://www.tfwm.org.uk/who-we-are/our-strategy/innovation-and-future-transport/connected-and-autonomous-vehicles/

different stakeholders. This enables demand-responsive transport providers to gather accurate and timely information about passenger needs, allowing them to adjust their services accordingly.

- Intelligent charging infrastructure - for electric demand-responsive transport services, smart roads can incorporate intelligent charging infrastructure. This allows vehicles to receive information about nearby charging stations' availability, reducing downtime and ensuring efficient energy usage.

Mobility as a Service (MaaS)

6.6 MaaS[42] is widely recognised as the next step in DDRT. It brings together DDRT, traditional bus, cycle hire, scooter hire, car sharing and other modes into one subscription-based transport solution. MaaS works through one app providing all services and payment for all and offers a more complete transport offer than any individual mode could previously.

6.7 One of the first MaaS systems, introduced by Arriva, was Glimble in the Netherlands. Glimble combining bus, rail, DRT, car sharing and cycle hire.

6.8 The integration of DRT into MaaS platforms is likely to become more prevalent. DRT services are able to complement fixed-route public transport by offering flexible and on-demand options for first- and last-mile connectivity. Integration with other transport modes within a single platform will provide users with an easier and more intuitive experience. MaaS may help raise awareness of DRT services and what they offer.

Mobility hubs

6.9 Mobility hubs have the potential to increase the efficiency and cost-effectiveness of DRT operations[43], connecting passengers with other modes to complete their journeys. Additionally, mobility hubs may offer amenities such as secure waiting areas, shelters,

[42] https://www.intelligenttransport.com/transport-news/128065/arriva-maas-app/

[43] Mobility hubs – a transport planning concept whose time has (transportxtra.com)

ticketing facilities and bicycle parking, making public transport more comfortable and user-friendly for rural passengers.

6.10 Rural areas frequently face last-mile connectivity issues, where public transport options may not directly reach specific destinations. Mobility hubs can address this challenge by integrating demand-responsive transport (DRT) services or providing connections to community transport services. This helps bridge the gap between public transport stops and rural communities, ensuring that residents have access to reliable transport options for their entire journey.

6.11 Mobility hubs promote multi-modal integration by combining different modes of transport within a specific location. For example, rural bus services can be integrated with regional rail services at the hub, allowing for seamless transfers and coordinated schedules. This integration enhances the overall efficiency of rural public transport systems and provides passengers with more convenient and flexible travel options.

6.12 Mobility hubs can serve as community gathering spaces, fostering social interaction, and creating opportunities for local businesses. They can be designed to accommodate shops, cafes, and other services, generating economic activity in rural areas. This integrated approach to transport and community development can contribute to the overall vitality and sustainability of rural communities.

Autonomous vehicles

6.13 A significant cost in providing DRT services is the driver. Autonomous vehicles have the potential to reduce this cost. However, whilst trial autonomous bus services are being introduced currently, they are on fixed routes and still require a driver to be available to take over driving if needed, or at certain points of the journey.

6.14 It therefore seems many years away before there is the ability to have a fully autonomous DRT service in operation that would be capable of finding its way around a range of varying routes.

7. Recommendations for DRT in Cambridgeshire and Peterborough

7.1 The Cambridgeshire and Peterborough area is varied and includes rural, peri-urban and urban areas. As such, different models of DRT will be needed to respond to different needs.

7.2 There are significant rural areas with little or no public transport that could benefit from DRT. There are other areas with reducing bus services, as usage remains low following the pandemic, which might be better served by DRT.

7.3 There are also existing community transport services that offer transport to specific groups. There may be opportunities to build these into wider DRT services, as well as looking at integration possibilities with other dedicated forms of transport, such as home to school and social care transport.

7.4 Network planning for a future enhanced bus network is ongoing as part of the ambition for buses being expressed through the Bus Service Improvement Plan, in response to the new Bus Strategy The network will look to improve connectivity across the area and will also facilitate interchange to widen overall journey opportunities. DRT could clearly play a part in ensuring all areas are linked into the main network, in the same way as happens in the Netherlands.

How DRT could be used

7.5 Although much evaluation work is still to be undertaken across the UK to fully understand the value of DRT, it is recommended that CPCA look to implement further DRT pilot projects, to test different models. Given that Ting offers a many-to-many service, future pilots might focus on different models, such as feeder services, many to few, semi-scheduled services and the achievement of greater integration with other transport.

7.6 Given the experience of urban DRT services elsewhere, it is recommended that any pilots be introduced in either peri-urban or rural areas. Wherever, possible some level of integration should be sought with other transport.

7.7 Use of a single back-office system for DRT should be used that can be applied to all services and potentially rolled out to other types of service, such as community transport.

Future DRT pilots

Wittering area

7.8 Wittering and the villages of Wansford, Ailsworth, Castor and Long Thorpe are poorly served by public transport. Previous timetabled services have proved unviable and current provision is by Lincolnshire's Call Connect service, which offers a bookable DRT service, plus one timetabled journey into and out of Peterborough at peak times.

7.9 Despite this service being available, local concerns have been raised, suggesting that Call Connect does not meet needs. As such, there is a desire to see a fixed timetabled service reinstated.

7.10 The area could benefit from a more locally-focused DRT service, designed more around the needs of the communities in the area and identifying the potential demands. This could operate as a many to many or many to few service. If particular patterns of use emerged, the next step would be to introduce timetabled or semi-scheduled elements.

Wisbech area

7.11 Wisbech itself and the villages north of the A47 between Wisbech and Guyhirn are served by limited fixed route bus services. There is an opportunity to replace these existing services with a DRT service, with the aim of improving levels of availability and potentially choice of destinations. Limiting destinations in Wisbech or operating on a semi-scheduled basis in the town could help achieve good levels of utilisation.

7.12 The area is relatively compact with a road network that would facilitate alternative routing for DRT vehicles, depending on where bookings existed. There would be an ability to travel to connect with other bus services at Guyhirn or Wisbech to reach other more distant destinations, including March, Peterborough or King's Lynn.

East Cambridgeshire

7.13 Given the success of the previous pilot here and other initiatives, such as the Ely Zipper service, there is scope to investigate a DRT service for the area and to seek wider integration, as previously, with other types of service.

7.14 This could provide more flexible travel options than a fixed route service in and around Ely and nearby villages, along with connections with trains and buses to other destinations. The scope of the service would need to be considered alongside other network aspirations for the area being considered within the BSIP.

Longstanton area

7.15 Longstanton is situated about six miles northwest of Cambridge city centre. It benefits from good transport links, particularly with a Park & Ride facility on the Busway between St Ives and Cambridge. However, some of the surrounding communities are relatively poorly served and links within and between some of the new areas of housing development are limited.

7.16 It is suggested that a DRT service could include the settlements of Over, Swavesey, Boxworth, Dry Drayton, Madingley, Bar Hill, Oakington and Longstanton.

7.17 This service would demonstrate the principle of connecting peri-urban populations into the Busway, for onward connections at Longstanton, or to regular bus services at Bar Hill or Madingley Park & Ride.

7.18 To maximise take-up, the service could be branded and co-ordinated as an extension of the Busway itself, as a Busway feeder service, similar to Great Western Railway's bus branch line schemes in Devon and Gloucestershire.[44]

Implementation

7.19 DRT works most efficiently when plugging gaps or feeding passengers into existing public transport networks. Given the aspirations within the BSIP to significantly enhance the bus network, there will be opportunities to build in DRT services to serve areas either with sparse populations or to create specific links into the main bus network (i.e. feeder services).

7.20 Continuous monitoring and evaluation of DRT services is vital to understand patterns of usage and to consider ways of amending parameters of service operation to increase demand, change response times and/or improve utilisation and improve operating efficiency. Equally, app-based services enable data to be collected on where requests for the service outside of current parameters were made. Therefore, DRT services should not be seen as fixed entities; they should be under constant review and refinement.

7.21 Where regular patterns of use start to emerge, consideration can be given to the provision of fixed timetabled services at certain times, with more flexible operation at other times.

7.22 Baseline data should be collected prior to commencement and evaluation should commence six-months after the start of each pilot project, to determine the extent to

[44] https://news.gwr.com/news/new-partnership-helps-to-deliver-better-bus-and-rail-connections-in-south-devon

which the services are meeting their objectives. Table 7-1 provides an overview of the timescales for DRT implementation.

Table 7-1 Timescales for Implementation

Time period	Action
Within two to three years	• Procure an areawide DDRT back office • Implement up to four pilot schemes • Design and implement integrated ticketing between DRT and scheduled bus • Evaluate success of pilots at the end of year three • Undertake a feasibility study into the scope of a potential MaaS application for CPCA area
Within five years	• Integrate DDRT with community transport and home to school transport as appropriate • Implement further pilots based on the evaluation at the end of the previous period • Integrate DDRT into an areawide MaaS app as appropriate • Implement integrated ticketing across a range of modes as part of MaaS rollout • Evaluate success of integration with community transport, school transport and MaaS
Within 10 – 20 years	• Area-wide DRT coverage as appropriate • Explore option for driverless DRT vehicles in operational service – towards end of period

DRT costs

7.23 Table 7-2 provides ballpark costs for the provision of one DRT pilot. It is assumed that, owing to the relatively small geographical size of each pilot area, each pilot would require two vehicles which will cost £150,000 per vehicle per year to operate. The operator would be responsible for providing and operating the vehicles.

7.24 In some instances, it may be possible to not have to have fully dedicated vehicles to provide the service. A base level of one vehicle might be operated, supplemented at other times by spare capacity with other existing vehicles through a brokering arrangement.

7.25 There will be ongoing monthly costs to operate the back office and variable costs relating to a charge per journey booked. It is assumed that the back-office costs will include a passenger app, a driver app and a call centre facility to be available in the interpeak (i.e. between 09:30 and 15:00).

7.26 Project management costs are included, although following 'go live' contract management may become a 'business as usual' task within the local authority.

7.27 Promotion costs are included which will continue for the duration of the pilot, as will monitoring and evaluation.

7.28 It is assumed that 65% of passengers will be fare paying and 35% will be concessions with a flat fare of £2.50 and concessionary reimbursement of £2.

7.29 The net cost of operation over three years would be approximately £909,000, or £300,000 per year for three years. The pilots use two vehicles rather than the three (plus operational spare) vehicles which are used for Ting currently, hence the lower annual cost.

7.30 Back-office costs might be reduced by partnering with an existing DRT operating authority to pool back-office resources rather than procuring a CPCA-specific system. The front-end app could be tailored for CPCA purposes and CPCA would pay for the extension into new zones.

7.31 There may also be scope for the services to operate with community transport operators providing DRT journeys. Similarly, there may be options for community transport providers to be included in a brokerage arrangement with other operators rather than tendering for a single DRT transport service provider.

Table 7-2 Ballpark costs for one DRT pilot (£'000s)

Costs £k	Year 1	Year 2	Year 3	Total
Set-up costs	35	-	-	35.0
Transport operating costs	300	300	300	900.0
Back office - monthly	14.4	14.4	14.4	43.2
Back office - variable	3	4	4	11.4
Project management	8	5	5	18.3
Promotion	12	3	3	18.3
Monitoring/evaluation	5	5	3	13.3
Total gross costs	377.4	332	330	1039.6
Less fares revenue	35	43	52	130.0
Total net costs	342.4	289	278	909.6

Assessing DRT costs and benefits

7.32 The next phase of this process will be to assess the costs and benefits of DRT provision. The proposed approach to the economic appraisal of DRT in order to forecast and quantify the anticipated benefits will consist of the following elements:

7.33 **Improved access to employment –** economic benefits through increased access to employment

7.34 **Social value –** supporting health and wellbeing by enabling easier access to services, facilities, social networks, and community initiatives and promoting community cohesion through providing more opportunities for people to interact.

7.35 **Reduced car use –** reducing congestion through modal shift to shared transport from private cars

Measuring success of DRT

7.36 The success of DRT services can be measured using several metrics dependent on the scheme aims and objectives:

- Access to services: How many more households have access to a public transport service within 400m or 800m of their home compared to current provision.
- Passenger loadings per vehicle: The number of passengers utilising the service is a fundamental measure of success. Services should be aiming for higher vehicle loadings than a taxi would accommodate to demonstrate value for money provision.

- Service Efficiency: Assessing the service's ability to meet passenger demand is crucial. This includes measuring factors such as wait times, on-time performance, and overall service reliability.
- Customer Satisfaction: Gathering feedback from passengers through surveys provides insights into their level of satisfaction. Measuring satisfaction against previous fixed bus services or DRT schemes is essential.
- Cost-effectiveness: Evaluating the service's financial performance is important and an element that can be lacking as outlined earlier in this report. Comparing the operating costs of the service to the revenue generated. Efficient resource allocation by measuring passenger trips per vehicle hour and revenue generation vs alternative fixed bus services and the budget allocated.
- Environmental Impact: Assessing the service's contribution to reducing traffic congestion, greenhouse gas emissions, and overall environmental sustainability is important. The most principal factor here will be modal shift from car to DRT and any negative shift from alternative bus to DRT should be monitored.
- Community Impact: Considering the impact on the local community is valuable. This can involve evaluating accessibility improvements, social inclusion, and economic benefits generated by the service. Many DRT services cost more than traditional fixed bus services but can demonstrate social benefits which may outweigh this so careful consideration needs to be paid to non-financial benefits.

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CAMBRIDGESHIRE & PETERBOROUGH COMBINED AUTHORITY

Review of 'Ting' demand responsive transport service

December 2023

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Executive summary

ITP was appointed by Cambridgeshire and Peterborough Combined Authority (CPCA) to assess the performance of the Ting Demand Responsive Transport (DRT) service in relation to the service specification and Key Performance Indicators (KPIs), as well as wider performance measures.

The assessment was based on performance data gathered from the operator and analysed by ITP, discussions with Vectare (the service operator) and CPCA officers, as well as the results of two surveys of service users conducted in 2022 and 2023, plus mystery shopper surveys undertaken by ITP staff.

The headline findings from the data analysis for the period January to June 2023 were:

- 5023 passenger trips provided.
- Passenger trips increased by 23% over the analysis period.
- Cost per passenger trip of about £42.
- Vehicle occupancy approximately 0.7 (based on four vehicles).
- User profile was 58% adult, 22% under-19 and 20% concessionary pass holders.
- Total of 1500 registered users of the service.
- Trip cancellations and rejections are high, with only about 1 in 3 requests resulting in an actual trip being made.
- 92.7% of journey pick-ups were within 30 minutes of a real time booking request (against a KPI target of 95%).

The service in its current form is failing to meet the needs of some users and potential users. The service is trying to meet the travel demands of the population of a large geographical area to access a disparate range of destinations with a limited number of vehicles, resulting in many trip requests being declined.

The lack of clear objectives for the service and the scope for interpretation of the service specification has resulted in rural residents being less able to access the service than their urban counterparts.

The 'anywhere to anywhere' operating model, coupled with door-to-door pick-ups and drop-offs, means that Ting operates as a subsidised taxi rather than an integrated public transport service. The service is characterised by low vehicle occupancy and a much higher cost per passenger trip than most supported fixed route bus services. In addition, the success of the service is hampered by its booking system and the user application.

There is scope for Ting to be a more successful service that better meets the needs of the rural population of west Huntingdonshire. The main recommendations arising from the assessment include:

- Establishing clearly defined objectives for the service.
- Dividing the operating area into separate north and south zones and restricting certain journeys to avoid abstraction from parallel fixed route timetabled services.
- Introducing semi-scheduled elements that deviate to pick-up/drop-off on demand, in order to try and aggregate demand and increase occupancy.
- Improving the booking and application software, either by revisions to the existing or procuring a new system.
- Improving the provision of operational and performance data.
- Revisions to the fare structure and increasing fares.
- Producing a set of key performance indicators that hold the service to account and guide it towards success.
- Extending the contract duration to enable the service to grow and develop.

1. Introduction

1.1 ITP was appointed by Cambridgeshire and Peterborough Combined Authority (CPCA) to assess the performance of the Ting Demand Responsive Transport (DRT) service in relation to the service specification and Key Performance Indicators (KPIs), as well as wider performance measures. Based on the assessment, a series of recommendations has been prepared to enhance the performance of the current service and inform the future direction of DRT provision across the Combined Authority area.

1.2 CPCA has an ambition to provide a comprehensive, frequent and reliable bus network across Cambridgeshire and Peterborough within the next few years. The network will enable a high proportion of the population to travel by public transport in preference to the private car. It is recognised, however, that fixed route bus services are not necessarily the best way to meet the Authority's ambition in all circumstances and there is a desire to understand what role more flexible services might play as part of an overall coordinated bus network.

1.3 Demand Responsive Transport or 'DRT' is the collective name for bookable transport services that operate in response to expressed demand. Services offer varying degrees of flexibility to provide shared transport to users who specify or request their pick-up and/or drop-off times and locations. DRT services are often introduced in rural areas where fixed bus services are no longer deemed feasible, and act to guarantee connectivity for rural residents to local centres.

In this report we have reviewed the Ting service, from January to June 2023, to assess:

- The objectives of the service
- The service contract, Key Performance Indicators (KPIs) and the response by the operator to the original tender
- The current operating model for the service
- Potential opportunities for improvement
- Customer satisfaction with the service
- Demand for and travel patterns associated with the service
- The booking interface, booking method and the process of allocating trips and confirming bookings.

1.4 Discussions were held with representatives of the operator (Vectare) and CPCA officers to understand the perceived performance of the service and perspectives on where

improvements might be made in the light of experience. Comprehensive data was requested from the operator and analysed.

2. Ting DRT

2.1 Ting has been operating in west Huntingdonshire since October 2021. The service was originally operated by Stagecoach, with Vectare becoming the new provider of the service in November 2022. The service covers an operating area of 360km^2. The area is largely rural in nature, with an operating zone comprising 46 villages, the town of St. Neots, Cambourne Business Park and Thrapston Business Park, plus four stops in Huntingdon, including the railway station (see Figure 2-1).

Figure 2-1 Ting operating area

2.2 Vectare provides the following services, as per the contract:

- Software that provides both 'back and front end' services to allow customers to book a journey.
- A call centre to take bookings by phone.
- Collection of fares
- Provision of vehicles with a navigation system to respond to customers' journey requests.
- Staff to operate and maintain the service.

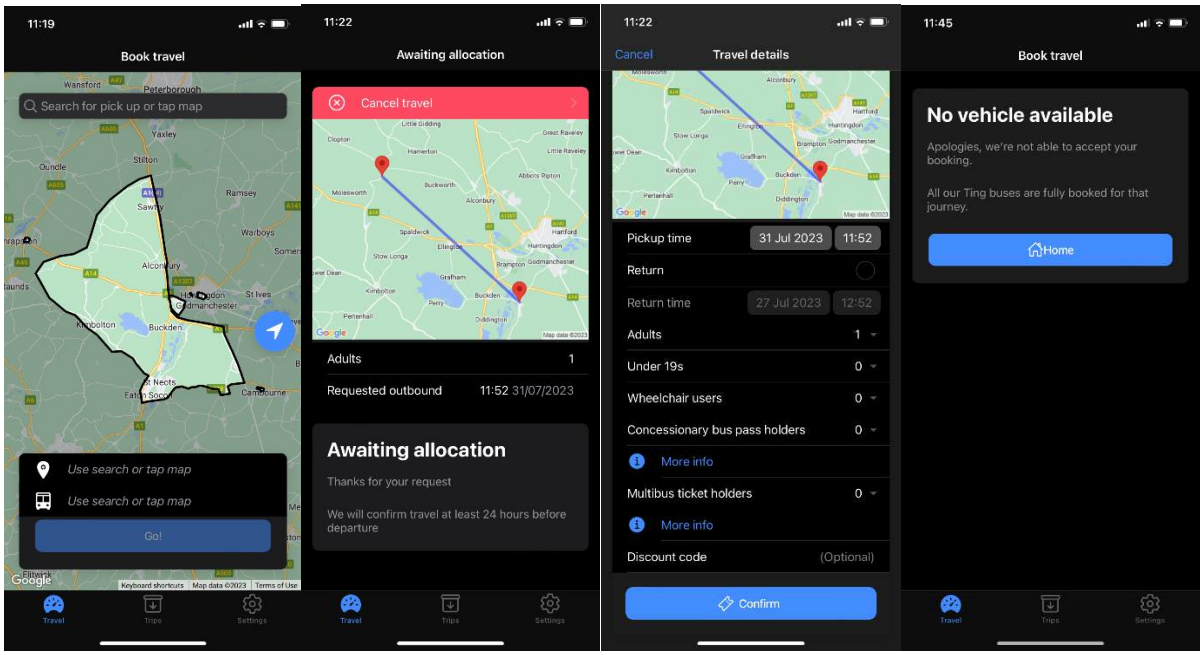
2.3 The service is provided with branded vehicles - two 8-seat vehicles and two 16-seat minibuses. An additional spare vehicle is also available. Discussions with the operator highlighted that two vehicles were available all day, with two further vehicles available for part of the day. From operational data provided, it was not possible to determine exactly how many vehicles were actually in service at any given time.

2.4 The service operates from 06:00 to 20:00, Monday to Saturday. An adult single fare is £2 (which was the same price before the £2 fare cap was introduced in England). All under-19 trips are charged at £1 and Cambridgeshire Multibus tickets are also accepted. Concessionary pass holders travel free after 09:30 Monday – Friday and anytime on Saturday.

2.5 Although Vectare operates DRT services in other parts of the country, Ting is the only one where the company provides both the transport service and booking and scheduling system to run the service, including a passenger app.

2.6 In order to use the app, users must first download it and register their details. They are then able to book trips directly via the app by entering the desired origin and destination and required pick-up time. If a booking request is made within 24 hours of a trip, a booking confirmation (or rejection) is offered within 1 hour. Bookings can be made up to 30 days in advance, however where a booking is made longer than 24 hours in advance, confirmation is not provided until 24 hours before the trip. Figure 2-2 shows sample screenshots of the app interface.

Figure 2-2 Screenshots of the Ting app



2.7 Bookings made by phone are directed to Vectare's office. Scheduling is digital, although it is possible for manual overrides to be undertaken. There are no digital algorithms to allocate trip requests to vehicles. Users are able to pay in advance or on boarding. Users are not refunded for any trip they cancel themselves.

Ting contract

2.8 A contract between CPCA and Vectare was signed in October 2022 for a period of 12 months, with options to extend for two further 12-month periods. The contract and response by Vectare define the service and expected outcomes and outputs to be achieved by the operator.

Objectives and service definition

2.9 The objectives of the service are not well defined in the contract. It is not clear whether the service is there to improve connectivity, complement existing public transport services, to provide access to market towns or to enable trips within St Neots. The contract specification merely states:

> *"A solution that allows members of the travelling public who live in a rural community to access a public transport system that operates in 'near real' time" (section 2.1)*

2.10 The contract implies that a door-to-door service should be provided, and Vectare interpreted it this way. Therefore, unlike many other DRT services which run corner to corner using a network of virtual stops, Ting operates door to door. The contract states:

"A user may request transport anywhere within the defined operating zone; from this booking, a bus will be directed to the customer and the requested time" (section 2.3.2)

2.11 The contract itself makes no reference to prohibited trips, except for the requirement to serve four specific destinations in Huntingdon that are outside of the main operating zone. As such, the service does not prevent:

- The abstraction of passengers from existing fixed route services.
- Relatively short internal trips within St. Neots, the largest population centre in the operating area.

KPIs

2.12 The Key Performance Indicators (KPIs) in the technical specification are minimal. The following KPIs were specified:

- There is a need to achieve 95% of pick-ups within 30 minutes of the request.
- 95% of telephone calls to the call centre answered in 1 minute; 99% answered in 5 minutes.
- Emails to be responded to within 24 hours.
- All revenue collected will be retained by the contractor, subject to providing a weekly report of revenue.

Data

2.13 In its response to the tender invitation, Vectare offered to supply the following data:

Data	KPI	Method of collection	Data format to help in achievement of KPI
Total revenue (per day, per week)	No fixed target	DRT booking system, ETM data	Weekly numerical statistic
Total patronage (per day, per week)	No fixed target	DRT booking system, ETM data	Weekly numerical statistic
Total ENCTS (per day, per week)	No fixed target	DRT booking system, ETM data	Weekly numerical statistic
Time between receipt of booking and bus arriving	95% of captured data points to be less than 30 mins	DRT booking system	
Booking requests refused	% calculated as a total lifetime service requests less than 1%	DRT booking system	
Vehicle uptime	Percentage, calculated against a reference	DRT booking system	

2.14 Although the KPIs do not include a requirement to provide operational performance data, the contract specifies that a full set of time stamped origin-destination data should be supplied each month.

2.15 In its tender response, Vectare suggested, subject to agreement with CPCA, to provide postcode heat mapping, trip modelling, specific local analysis at town/parish level, and detailed big data assessment on trends, demographics and performance with KPIs. It also indicated that raw data would also be made available for the client to undertake its own analysis, and that additional reports may be requested by CPCA.

2.16 During the course of the contract, this data has not been supplied to CPCA or analysed.

3. Data analysis

3.1 Vectare supplied ITP with operational data for the Ting service from January to June 2023. This data was supplied in two datasets. The first contained information on booking requests (including a user ID), trip status and ticket type, and the second contained origin-destination details. Though requested, no information could be provided on the allocation of vehicles within this dataset, nor the availability of vehicles. As such, it has not been possible to verify how many vehicles have been operational at any given time.

Usage

3.2 The first dataset allowed various indicators on usage to be identified. These are discussed below.

Completed trips

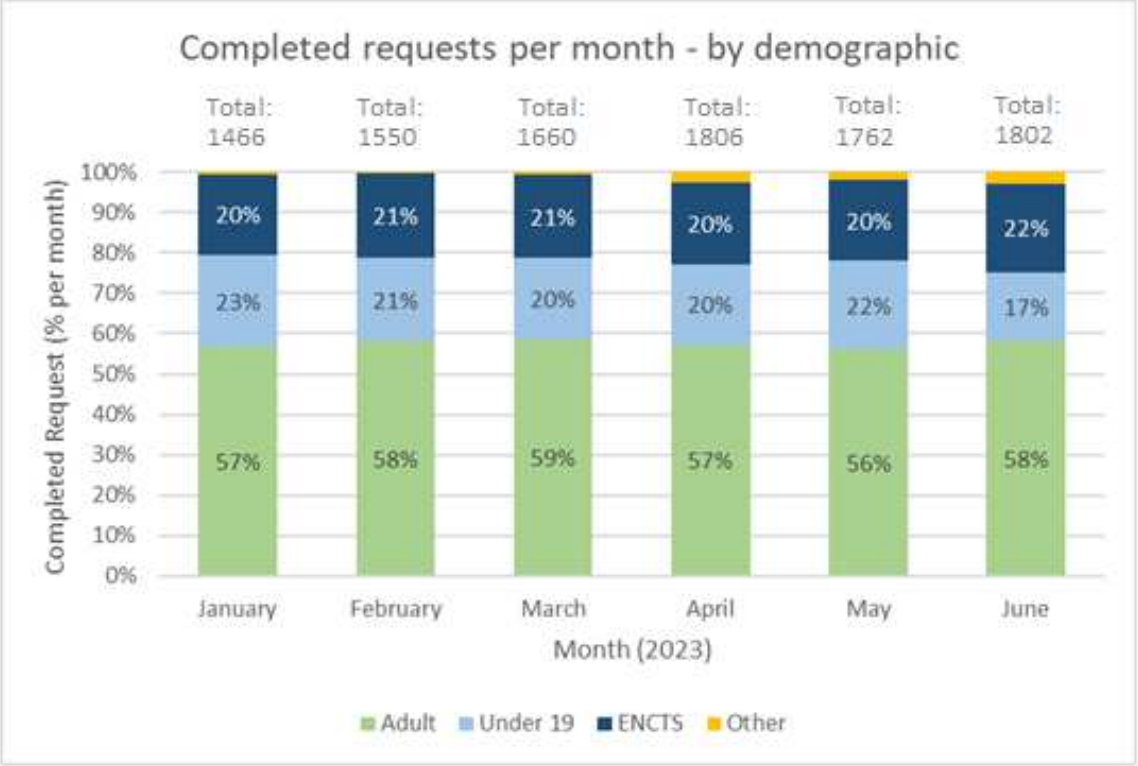
3.3 5023 trips were completed between January and June 2023 (Figure 3-1). Based on the contract cost of £424,998, the annualised cost per passenger trip would be £42.31.

Figure 3-1 Completed journey requests

3.4 Between January and June, patronage increased by 23%. Throughout the period, the share of adult (~58%), under 19s (22%) and concessionary travellers or 'ENCTS' passengers (~20%) remained broadly consistent (Figure 3-2). The 'other' category

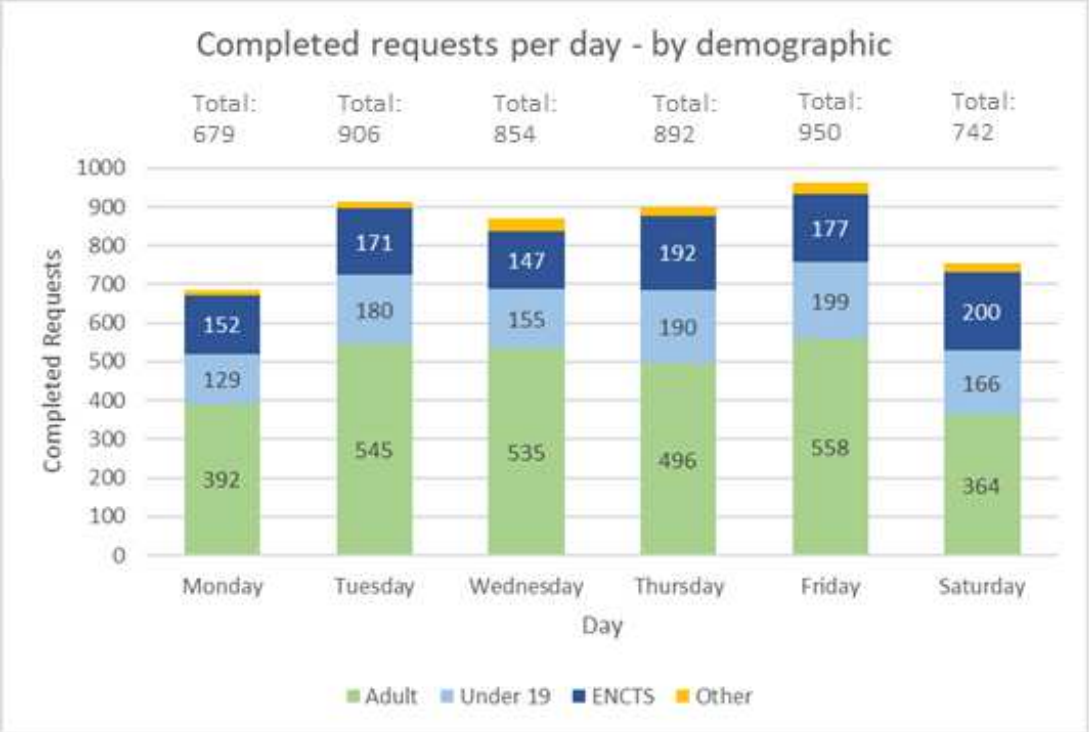
represents trips where the passenger type cannot be identified because the passenger was a wheelchair user or a Multibus ticket holder.

Figure 3-2 Completed requests per month



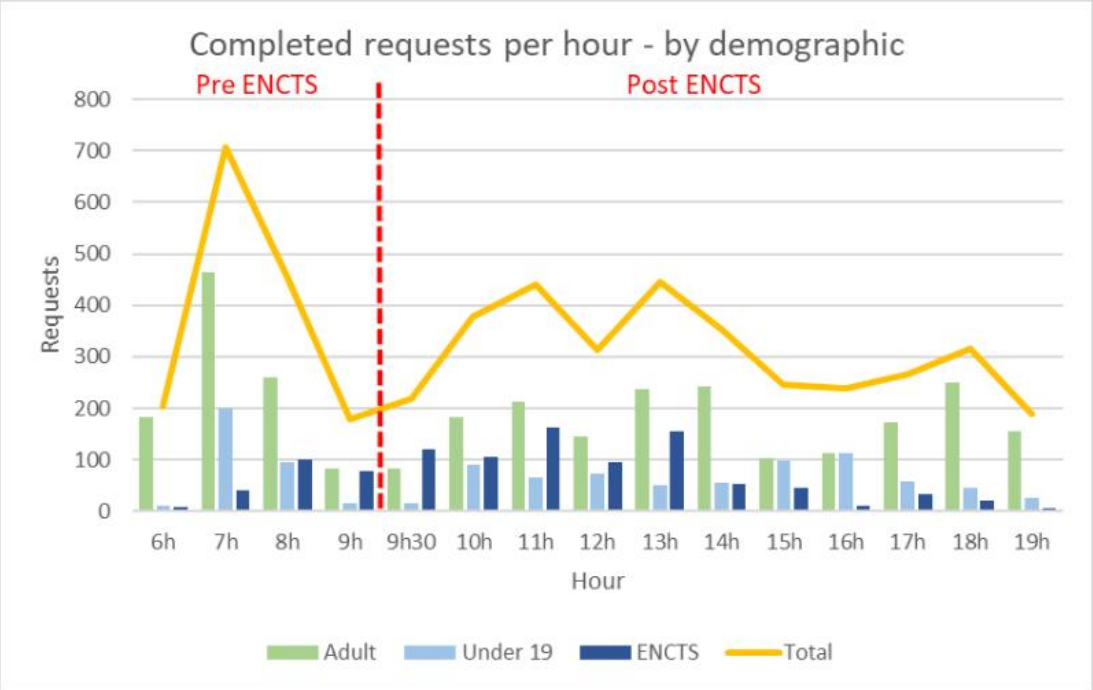
3.5 Friday was the most popular day for trip-making overall, comprising 19% of all completed trips, followed by Tuesday and Thursday at 18% each. Monday was the least popular travel day (see Figure 3-3).

Figure 3-3 Completed requests by day



3.6 Figure 3-4 shows that 07:00 – 08:00 was the busiest time for travel among adults and under 19s. A similar peak was not evident around 17:00. There was evidence of concessionary travel holders using the service before 09:30, when a fare would be payable, although this increased after 09:30 once free travel was available.

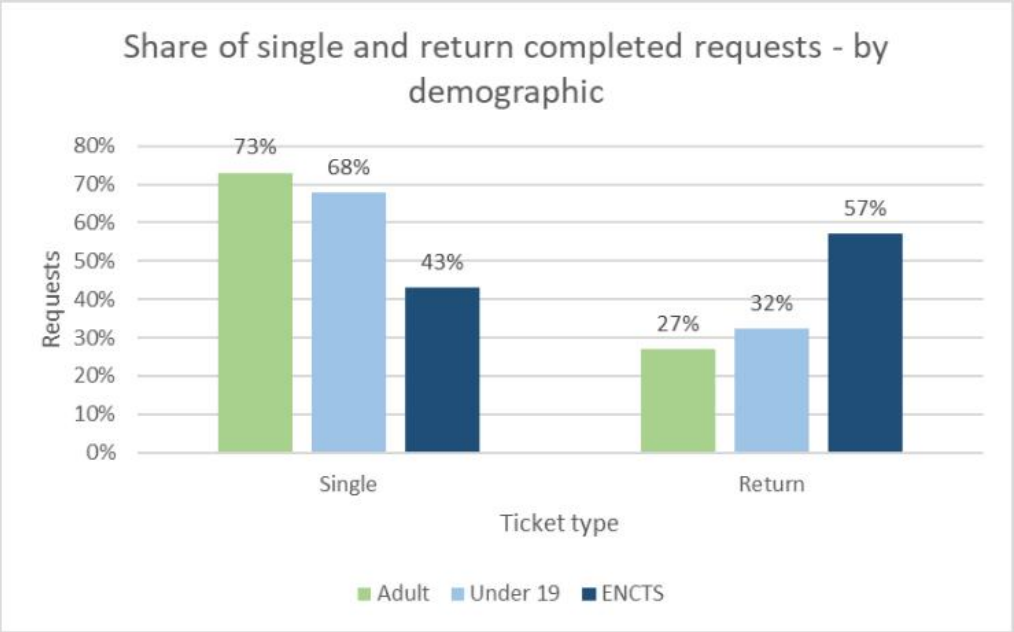
Figure 3-4 Completed requests per hour



3.7 Users have the option to book single or return trips through the app or call centre. Data was not available from the operator on the proportion of trips made via the app or over the phone.

3.8 Single trips were the most common, accounting for 65% of all completed requests. ENCTS was the only group that consistently made more return bookings than singles (see Figure 3-5).

Figure 3-5 Single and return completed requests



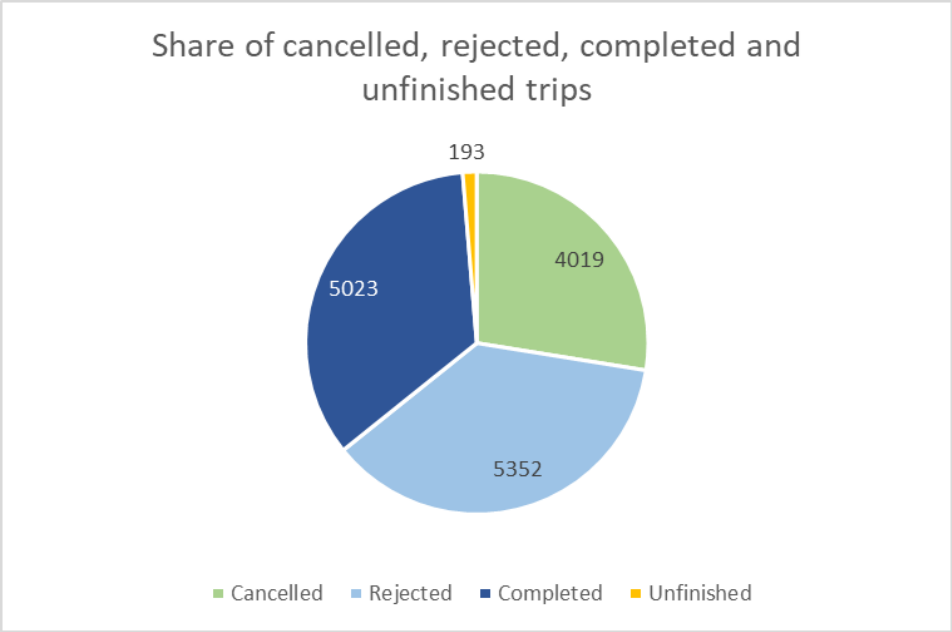
Cancelled, rejected and unfinished trips

3.9 Of all trips requested, only 34% were fully completed. The other requests were either:

- **Cancelled** – the customer had chosen to cancel the trip, which can happen either pre or post allocation.
- **Rejected** – there was no availability on the service at the time requested.
- **Unfinished** – a trip where, for whatever reason, the passenger had not been marked by the driver as having alighted the vehicle (potentially because the person had not turned up for the vehicle).

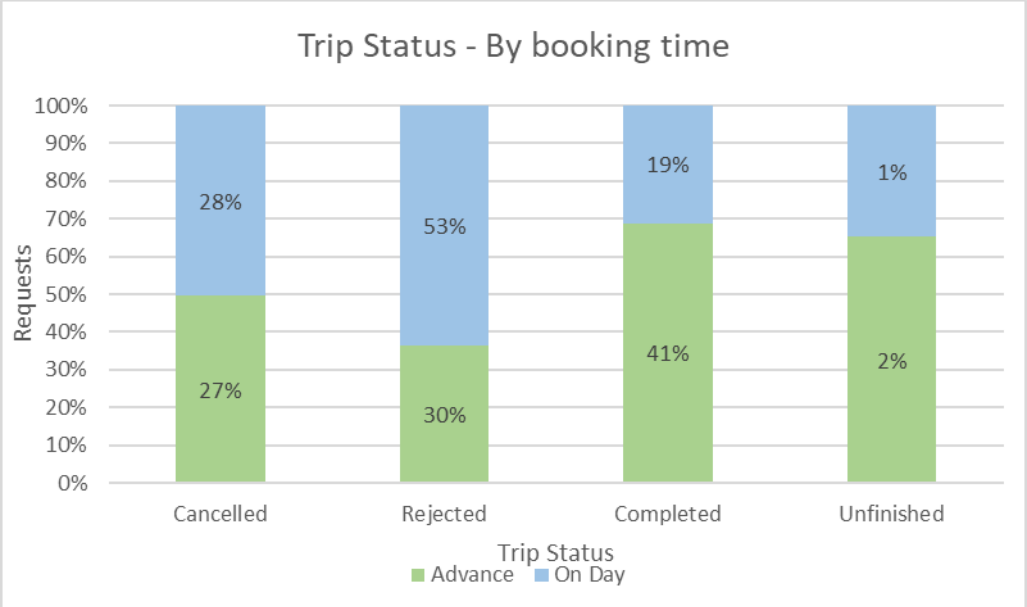
3.10 The share of trips cancelled, rejected, completed and unfinished is shown in Figure 3-6. Cancelled trips represented 28% of all requests, rejected trips 37% and unfinished trips 1%.

Figure 3-6 Share of cancelled, rejected, completed and unfinished trips



3.11 Those booking on the day are more likely to have their trip rejected by the booking system, with those booking in advance being more likely to complete a trip. 33% of trips were cancelled before a trip had been allocated, suggesting that the booking service offering a time that was undesirable was a key reason for cancellations.

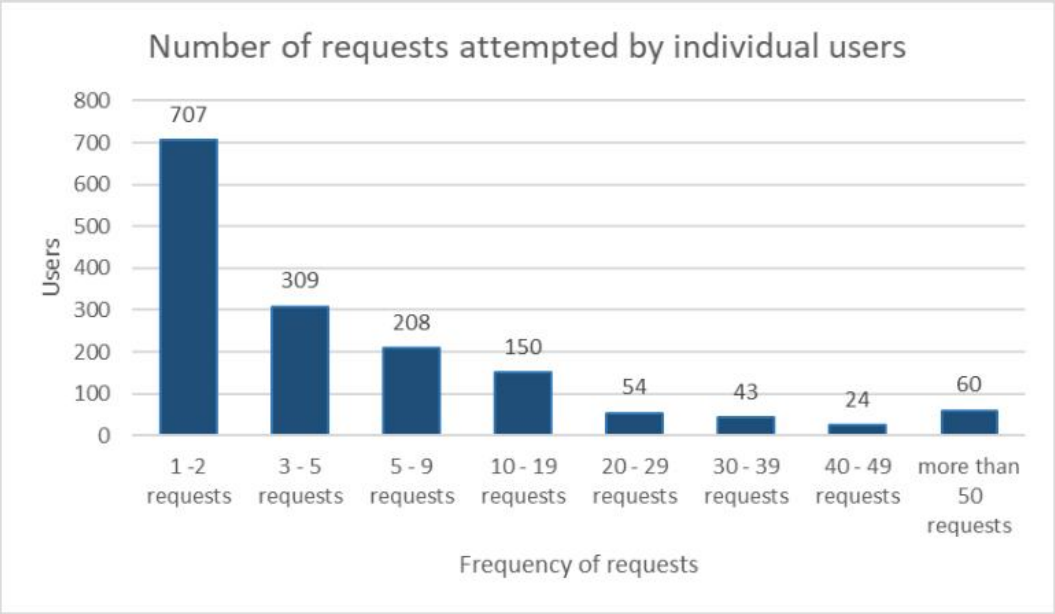
Figure 3-7 Share of cancelled, rejected, completed and unfinished trips by booking time



3.12 It appears that not being able to book a trip resulted in many users 'giving up' on using the service. 1555 registered users made a trip request between January and June

2023, of which 45% only made one or two requests. Only 21% of registered users made more than 10 trip requests throughout the period. The full breakdown is shown in Figure 3-8.

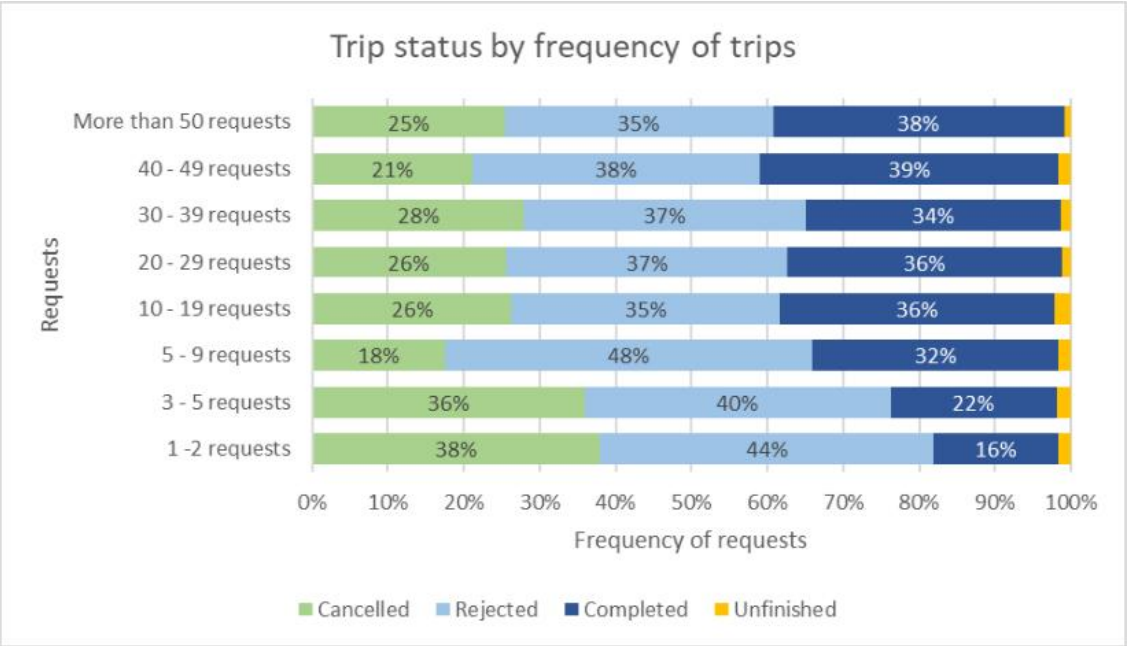
Figure 3-8 Number of trip bookings attempted by user



3.13 Figure 3-9 compares how many requests people made and the levels of cancellations, rejections and completions that each one of these users experienced as a proportion of all requests.

3.14 Those that made the least number of requests experienced a higher proportion of cancellations and rejections, which suggests that the users were trying to book the service but without success and therefore chose not to return. Whilst this problem is strongest amongst infrequent users, it remains present even for regular users. Even amongst those who make many requests, on average they have no more than 40% of trip requests resulting in completed trips.

Figure 3-9 Trip status by the frequency of trip requests made per user



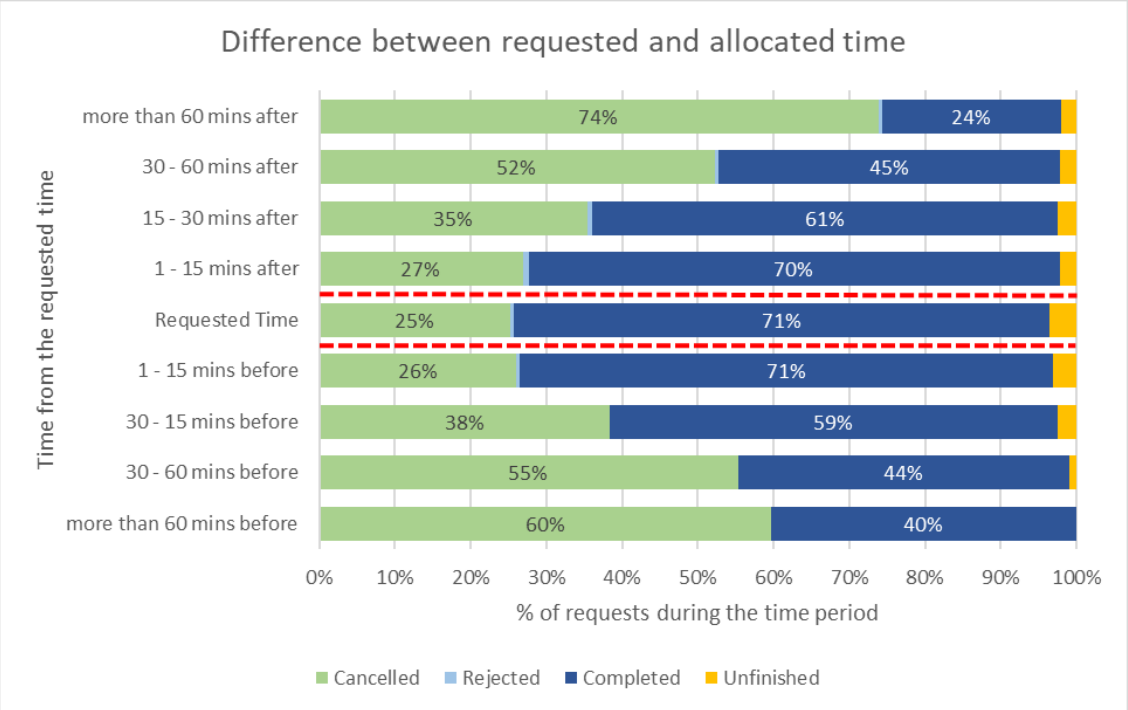
3.15 When customers book, they request a pick-up time, which the system tries to match. Of all requested trips, just under 80% were allocated within 15 minutes of the requested time. 12% of allocations were beyond 30 minutes of the requested pick-up time. Taking an average of all requests, the service allocated a service on average six minutes later than the customer requested.

3.16 Figure 3-10 shows the share of cancelled, rejected and allocated trip requests, split by the time difference between a requested time and an allocated time. The data shows that generally users had a tolerance of 15 minutes before and after allocated time where cancellations did not increase. Beyond 30 minutes the number of cancellations rose above 50%.

3.17 The share of rejected bookings was much lower in this graph. This is because a rejection was generally made before allocation, and less than 0.5% of requests were rejected post allocation.

3.18 The main KPI indicated that 95% of successful requests should be given an allocated time that is within 30 minutes before/after the time that the user requested for pick up. Overall, the service is close to achieving this KPI, with 92.7% of completed trips being allocated to a time within 30 minutes of the request.

Figure 3-10 Difference between requested and allocated time



Vehicle occupancy

3.19 Vehicle occupancy remained below one passenger throughout the period, averaging 0.6. This figure assumes that all four vehicles were running throughout the day, which was not actually the case according to Vectare. If it is assumed that an average of two vehicles were operating during the day, the average vehicle occupancy per hour would be less than 1.5 passengers.

Table 3-1 Vehicle occupancy

Month	Patronage per day	Patronage per hour	Occupancy per vehicle per hour
January	28.1	2.0	0.5
February	32.3	2.3	0.6
March	30.6	2.2	0.5
April	36.7	2.6	0.7
May	39.2	2.8	0.7
June	33.7	2.4	0.6

Origin-Destination

3.20 Figures 3-11 and 3-12 show the origins and destinations of completed trips from January to June 2023. Overall, St. Neots was the strongest centre for trip requests and completions. Over 65% of completed trips either started or finished in the town. Generally, the most common drop off point in St. Neots was the town centre or the railway station, whilst origin points were more dispersed around the town and the surrounding villages. Of the top ten strongest origin-destination pairs (Table 3-2), St. Neots was an origin or a destination in nine of these.

Figure 3-11 Origins of completed trips

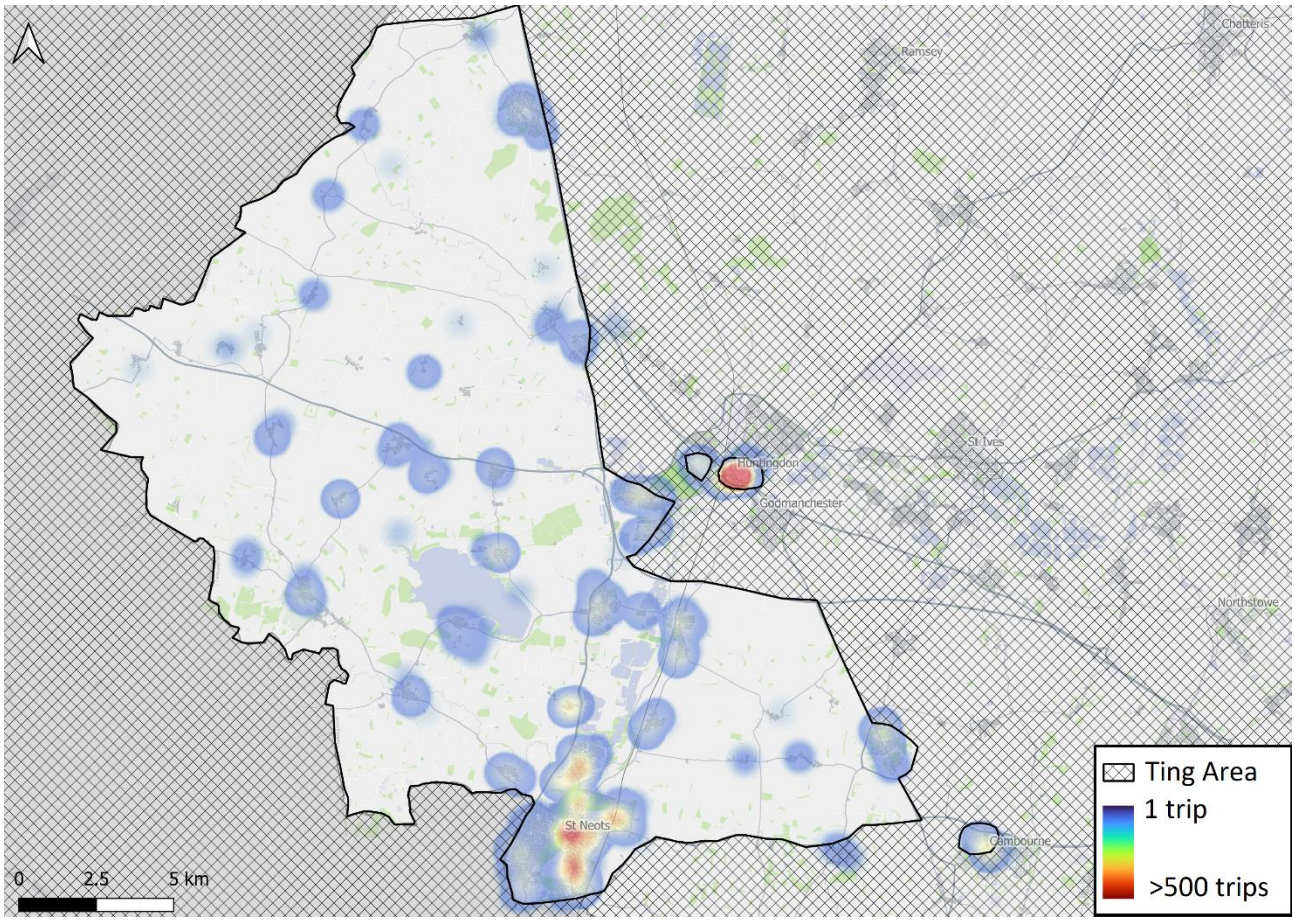
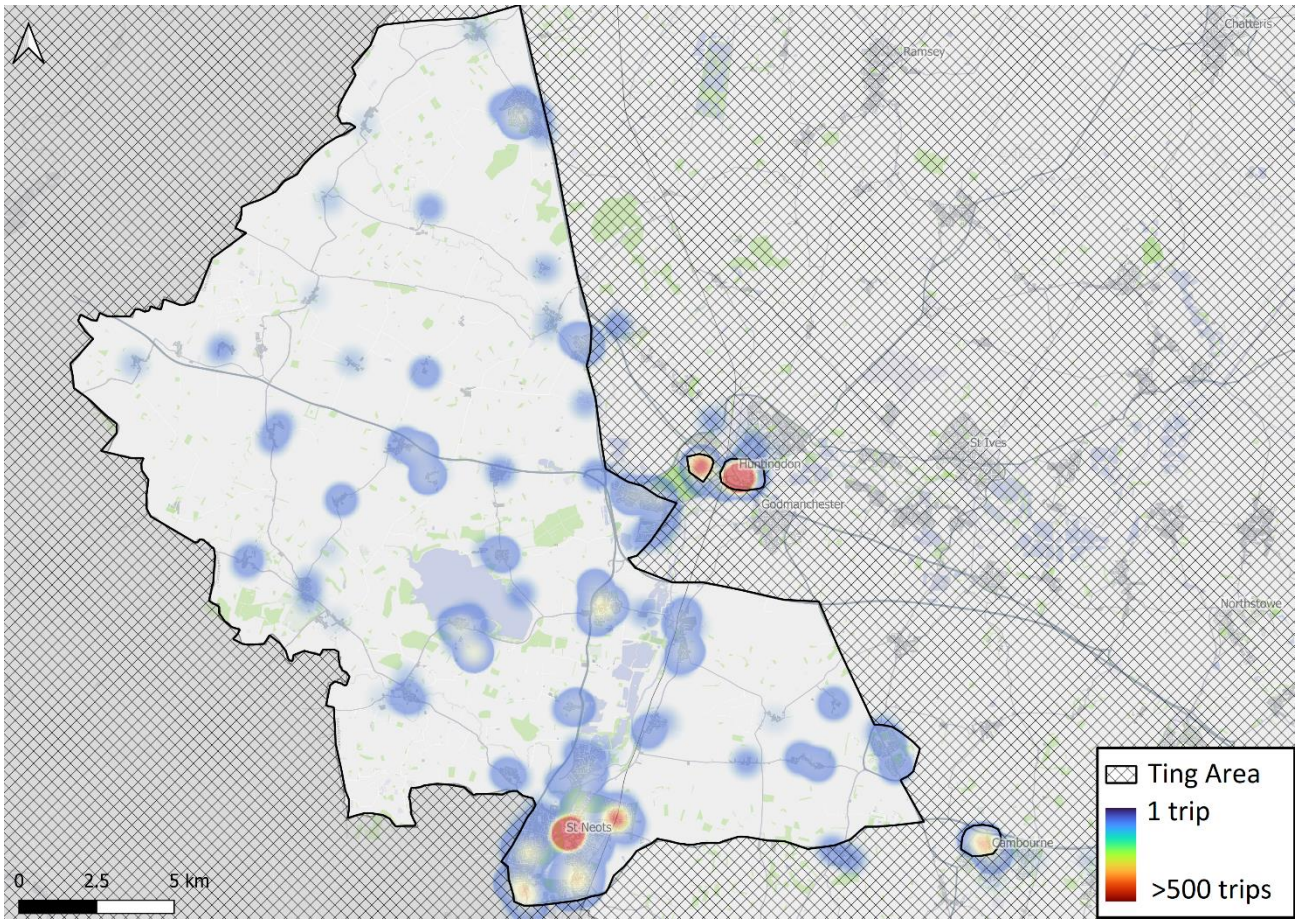


Figure 3-12 Destinations of completed trips



3.21 Table 3-2 shows the extent to which internal trips within St. Neots dominated the service.

3.22 It is possible that the service could be abstracting some passengers from conventional bus services or the train for journeys made between Buckden, Little Paxton and St Neots, Kimbolton and St Neots and St Neots and Huntingdon.

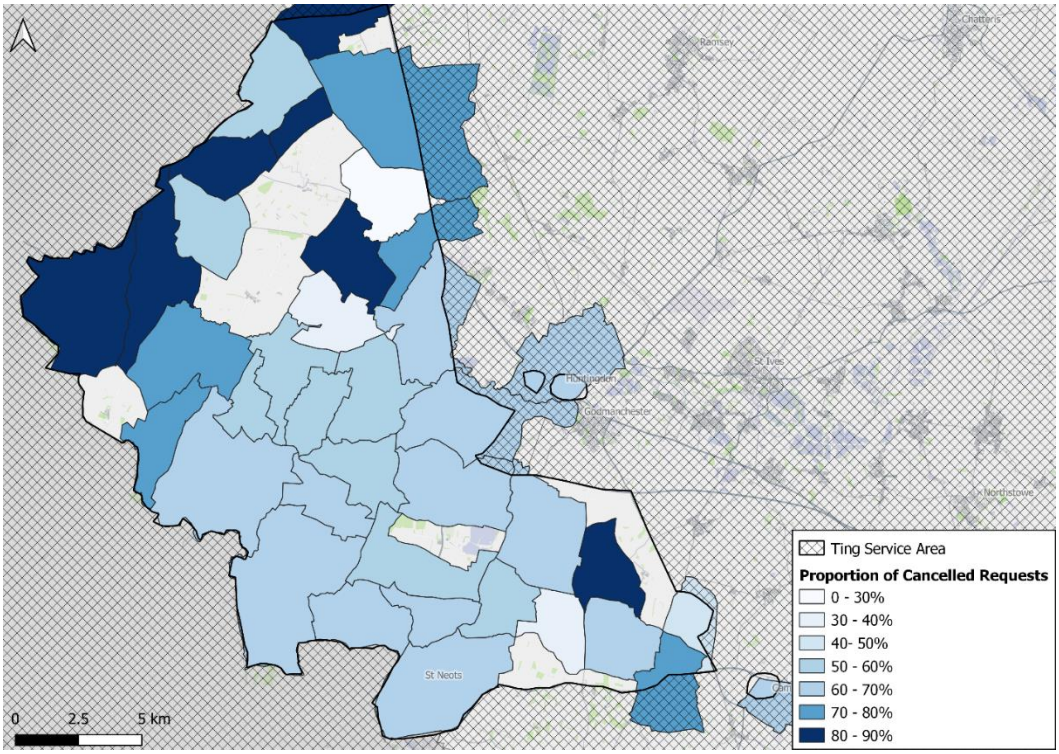
Table 3-2 Ten most popular Origin-Destination pairs

Origin	Destination	% of all completed trips
St. Neots	St. Neots	14.5%
St. Neots	Huntingdon	6.8%
Little Paxton	St. Neots	6.0%
Huntingdon	St. Neots	4.6%

St. Neots	Cambourne[1]	4.2%
Huntingdon	Perry	3.8%
Southoe and Midloe	St. Neots	3.2%
Buckden	St. Neots	2.5%
Cambourne[1]	St. Neots	2.4%
Brampton	St. Neots	2.2%

3.23 With trips generally concentrated around St. Neots and in the St. Neots to Huntingdon corridor, villages in the periphery of the operating area tended to have more requests rejected or cancelled than those in and around the two towns, which suggests there was difficulty serving these villages. This is reinforced by Figure 3-13, which shows that few trips were completed in the outer areas of the zone (however, account needs to be taken of the smaller population and consequent lower demand in these areas).

Figure 3-13 Proportion of cancelled and rejected trips versus completed requests by parish



[1] Cambourne is Cambourne Business Park

4. Feedback on the service

4.1 Discussions were held with a representative of Vectare to understand the operational challenges and opportunities associated with Ting. In addition, market research was undertaken by CPCA in February 2022 and again in June 2023 to explore customer satisfaction with the service. Finally, mystery user surveys were undertaken by ITP staff who tried to book and make trips on the service during the study period. The outputs from these activities are presented below.

Operator feedback

4.2 Vectare's Commercial and Operations Director shared views on various aspects of Ting.

Contract

4.3 The contract and service specification were recognised as being limited, compared with others elsewhere in which Vectare were involved. A lack of definition of the service objectives was perceived as a reason for the limitations of the service, rather than the technical specification itself.

4.4 Awarding a one-year contract, albeit with options to extend for a further two 12-month periods, meant that there was little incentive to build and refine the service based upon feedback and performance.

Operations

4.5 The technical specification was non-specific regarding the vehicle requirement for the service. There are four vehicles allocated to the service - two 16-seat wheelchair-accessible vehicles plus two eight-seat vehicles. Each vehicle runs at least once per day, but vehicles are taken out of service at times throughout the day in response to perceived lower levels of demand. Generally, the maximum vehicle provision is provided in the peak periods and it is the 16-seat vehicles that are taken out of service, unless a wheelchair booking is made.

Service zone

4.6 A door-to-door operating model is offered, which provides customers with the opportunity to travel from their home to anywhere within the operating zone, as well as to/from four specific points in Huntingdon. Bookings often draw Ting towards St. Neots, in part due to the curtailment of the St. Neots town bus service 61. The operator considered that this view would be borne out by the data.

4.7 The operator believed that the current service area, which is 360km^2, was too large and the service was trying to serve too many competing demands. The operator suggested that the zone should be split in two, with internal trips within St. Neots and direct trips between St. Neots and Huntingdon prevented. This would be similar to the DRT service in Swaffham that Vectare also operates, which focusses on trips from surrounding villages to/from Swaffham only.

4.8 Locating a dedicated vehicle in rural areas where there are no fixed services would help to avoid high levels of empty running and dead mileage. Elsewhere, the operator suggested that a semi-flexible service could be provided based around the service 66, with which Ting currently competes.

Bookings

4.9 Customers are able to make a booking via the app, which was developed by the operator, or by phone. Call handlers are able to make manual interventions to the booking system. If the system is able to accept the booking, a confirmation is provided within 'a few hours' rather than instantly.

4.10 Originally, the Vectare booking system was designed to accept real-time bookings only; the advance bookings functionality was added after the service was introduced because it was previously offered when Stagecoach provided the service (using the Via bookings/scheduling platform and app). Further revisions to the app were made recently by the operator to allow multiple bookings to be made, after customers commented that it was difficult to book the service to make regular journeys, such as for travel to/from work.

4.11 Generally, the booking system accepts bookings in St. Neots over those in the rural area, as it tries to maximise vehicle occupancy throughout the day, which is more achievable for short hop trips within the town. In addition, the KPI that requires 95% of real-time bookings to be met within 30 minutes hampers the service's ability to meet travel demands from peripheral areas.

4.12 The operator agreed that allowing users to specify a drop-off time would be a useful functionality to include in the booking system, particularly where people want to connect with a bus or train.

Fares

4.13 Fares are retained by the operator and currently stand at £2 for adults and £1 for under 19s. These fare levels were inherited from the previous operator, Stagecoach, rather than being adopted under the Government's £2 capped fares scheme. The operator

suggested that fares would need to be raised to improve the service's financial performance. The operator also suggested that a zonal approach to fares might also be helpful.

Customer feedback

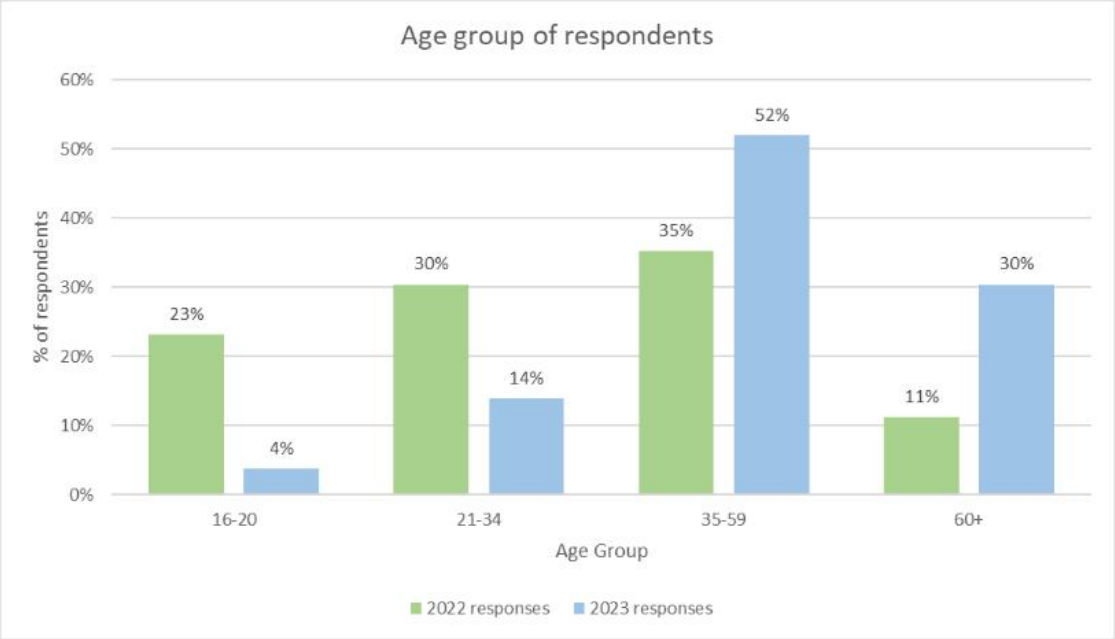
4.14 Two market research exercises had been undertaken by CPCA independently of ITP's research. The first survey was undertaken in February 2022 (when Stagecoach operated the service) and repeated in June 2023 (when operated by Vectare). The questions used in both surveys were identical, to allow direct comparison and any changes in customer views.

4.15 It should be borne in mind that the survey respondents were those who were using the service and did not include those who may have tried and been unable to book a trip.

Respondent profile

4.16 The age group most represented in both Ting surveys was the 35 – 59 age group. The number of respondents aged under 34 was almost 20% lower in the June 2023 survey than in the February 2022 survey, as shown in Figure 4-1.

Figure 4-1 Age of respondents in 2022 and 2023

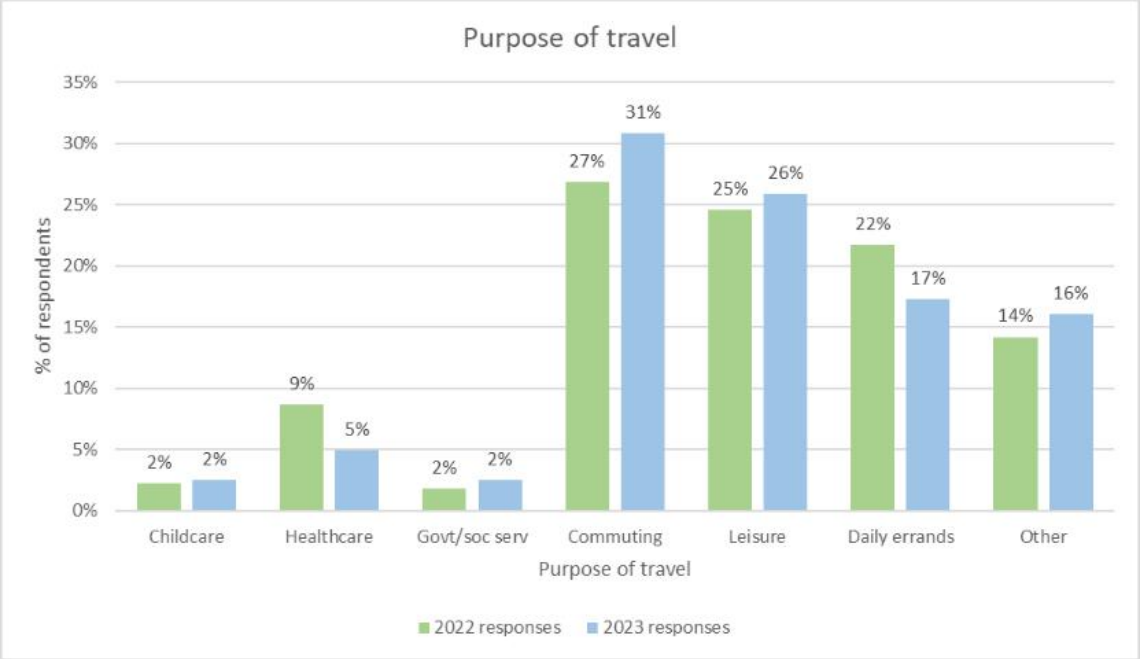


4.17 It was not exclusively those without access to a car who chose to use the service. In 2023, 40% of respondents had access to a car, however this was lower than in 2022 when 56% of respondents had access to a car.

Purpose of travel

4.18 Respondents' trip purposes are shown in Figure 4-2. Commuting, leisure and daily errands were the most common reasons for travel on Ting under both iterations of the scheme. The high proportion of 'other' trips may be due to the fact that travel for educational reasons was included within that category in the survey.

Figure 4-2 Purpose of travel on Ting in 2022 and 2023



User satisfaction

4.19 Respondents were asked to rank their satisfaction with the service, based on a score of one star to five stars. Figure 4-3 details the responses of those surveyed in both years.

4.20 Overall, most respondents were satisfied with the service, with satisfaction being higher in 2023 than in 2022; more than four out of five respondents ranked the service 5 stars in 2023.

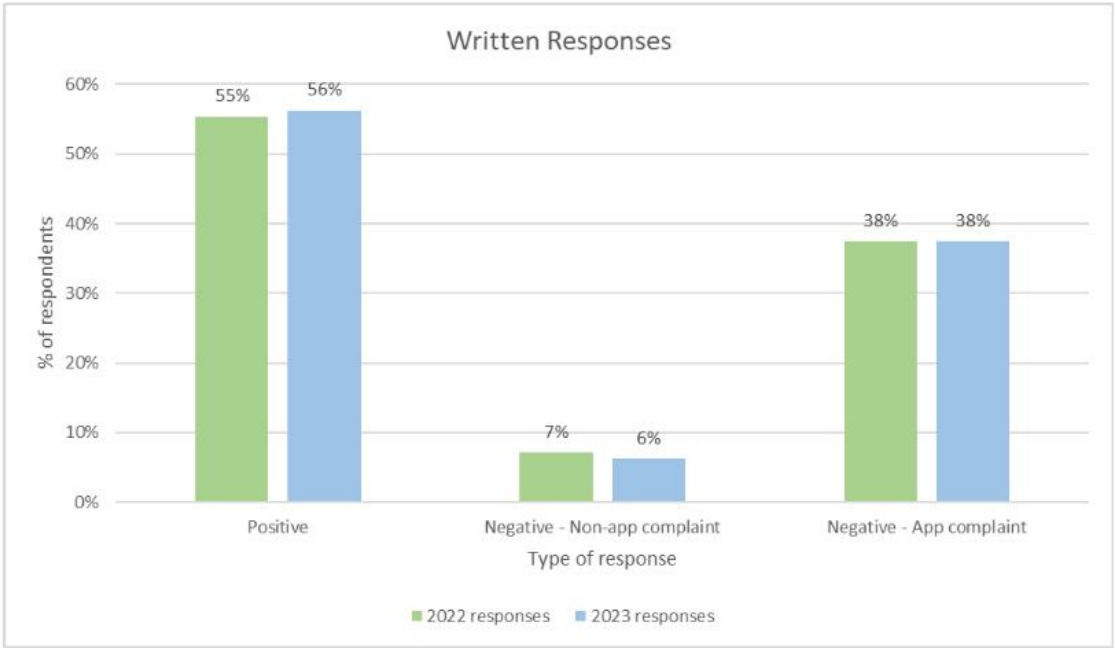
4.21 A second indicator of customer satisfaction was measured by the question 'do you prefer travelling by Ting or by bus'. In 2022, 94% of respondents indicated that they preferred Ting to a regular bus, though this was slightly lower in 2023 at 88%.

Figure 4-3 User satisfaction in 2022 and 2023

Written responses

4.22 Respondents were also invited to provide additional written responses to the survey. A breakdown of the written responses is shown below in Figure 4-4.

Figure 4-4 Breakdown of written responses in 2022 and 2023



4.23 In both surveys, the majority of respondents were positive about the service. Written responses from the 2023 survey highlighted the following:

- Vectare drivers were praised for being friendly, chatty, courteous and informative.
- Respondents raised issues with the app, with many experiencing bugs that made it difficult to book a trip.
- Respondents suggested that introducing notifications providing real-time updates would be valuable to them - some indicated that this facility was available on the Via app, when Stagecoach operated the service.
- A common response in the 2023 survey was a request for multiple bookings within a seven-day period, as booking regular trips was challenging.
- Some expressed a desire for an increase in the availability of the service, as buses were unavailable to users at times as they were occupied in other areas.

Mystery traveller findings

4.24 ITP staff tested the booking system by trying to book journeys on Ting during the course of early August 2023. On numerous occasions in the middle of the day, staff were unable to book 'in advance' trips. Staff experiences demonstrated that there were glitches in the app which crashed when they were attempting to register, book a trip and make a payment.

4.25 The mystery traveller who made an advance booking (one week beforehand) for a trip, never received final confirmation that the trip was booked or an actual pick-up time for the trip – the app merely displayed estimated pick-up and drop-off times right up to boarding the vehicle (which did not provide confidence in the service).

4.26 The lack of closely defined virtual stops (the system is reliant on home addresses or postcodes) meant that the mystery shopper was unclear until they saw the vehicle approaching in a village where they were expected to join the service. Equally, the driver was unsure where they were to collect the passenger as they were working from a postcode. The actual journey made was fine; the vehicle was well presented and the driver pleasant.

4.27 There was clear evidence of the service abstracting from fixed bus provision. The journey booked by one mystery shopper could have been made by the 150 service 20 minutes later. Similarly, the next pick-up on the journey in Hail Weston could have been made on service 150.

4.28 After the trip had been made, it became apparent from a bank statement that the journey had been charged twice. Following up with a call to the company's call centre and a subsequent email (which was responded to within 24 hours), a refund was made and an explanation that the system was being refined to avoid the possibility of two payments being taken in future.

5. Conclusions

5.1 Although patronage has grown in the period since Vectare took over operation of Ting, and those who are able to access the service are largely complementary about it, the service in its current form is failing to meet the needs of many users and potential users. The service is trying to meet the travel demands of the population of a large geographical area to access a disparate range of destinations with a limited number of vehicles, resulting in many trip requests being declined.

5.2 The lack of clear objectives for the service and the scope for interpretation of the service specification has resulted in a situation where the rural residents which Ting was originally intended to serve compete, often unsuccessfully, for access to the service with urban residents, particularly those in St. Neots who may already have access to scheduled bus services. The Key Performance Indicator for 95% of real-time bookings to be picked up within 30-minutes of the booking serves to further penalise the more remote parts of the operating area.

5.3 The 'anywhere to anywhere' operating model, coupled with door-to-door pick-ups and drop-offs, means that Ting operates as a subsidised taxi rather than an integrated public transport service. The service is characterised by low vehicle occupancy and a higher cost per passenger trip than most supported bus services. Introducing some semi-scheduled elements of service (with the ability for vehicles to deviate off-route to pick-up and drop-off) along some of the more commonly requested corridors, might help improve occupancy levels.

5.4 The success of the service is also hampered by its booking system and the user interface. The current app and booking platform do not offer an experience that the travelling public expects; only one in three requests actually results in a trip being made. The delay in confirmation of advance bookings until the day before travel, does not inspire confidence in users that their trip will actually be provided, which is likely to deter people from using the service.

5.5 Despite the shortcomings of the current service, there is scope for Ting to be a more successful service that meets the needs of the rural population of west Huntingdonshire. A number of revisions would be required to the back office booking system, the app and the operating area, to enable the service to operate more efficiently and offer an attractive service that would be available to a greater number of users.

6. Recommendations

6.1 There is clear scope to improve the Ting service to grow patronage, increase useability, provide value for money for the taxpayer and set a basis from which the Ting concept could be rolled out in other parts of the CPCA area. Through the review of the service, data analysis, customer feedback, mystery traveller surveys and discussions with both the operator and CPCA, there are a series of recommendations to improve the service.

Clear objectives

6.2 There needs to be clear objectives of what the service is seeking to achieve, beyond the current objective which seeks to provide access to 'rural communities' in 'near-real time'. A more workable objective would be 'to provide connectivity from rural villages without access to other forms of public transport into the nearest local centre or key employment site.' The objective should be accompanied by specific rules with regard to issues such as:

- Avoidance of abstracting passengers from fixed bus services
- Expectations regarding walking to a fixed or virtual bus stop (for those who are able)
- Operating area(s) as distinct from end destinations
- Basing a journey on a desired arrival time at a destination, to support onward travel by other modes, or to enable appointments to be met.

6.3 A revised, more focused objective would then guide the service towards a future where it provides rural accessibility that complements, rather than competes with, the fixed bus network.

Revised service offer and operating area

6.4 Redefinition of the area served and what the service offers would help to achieve greater efficiency and increase opportunities for aggregating passenger flows.

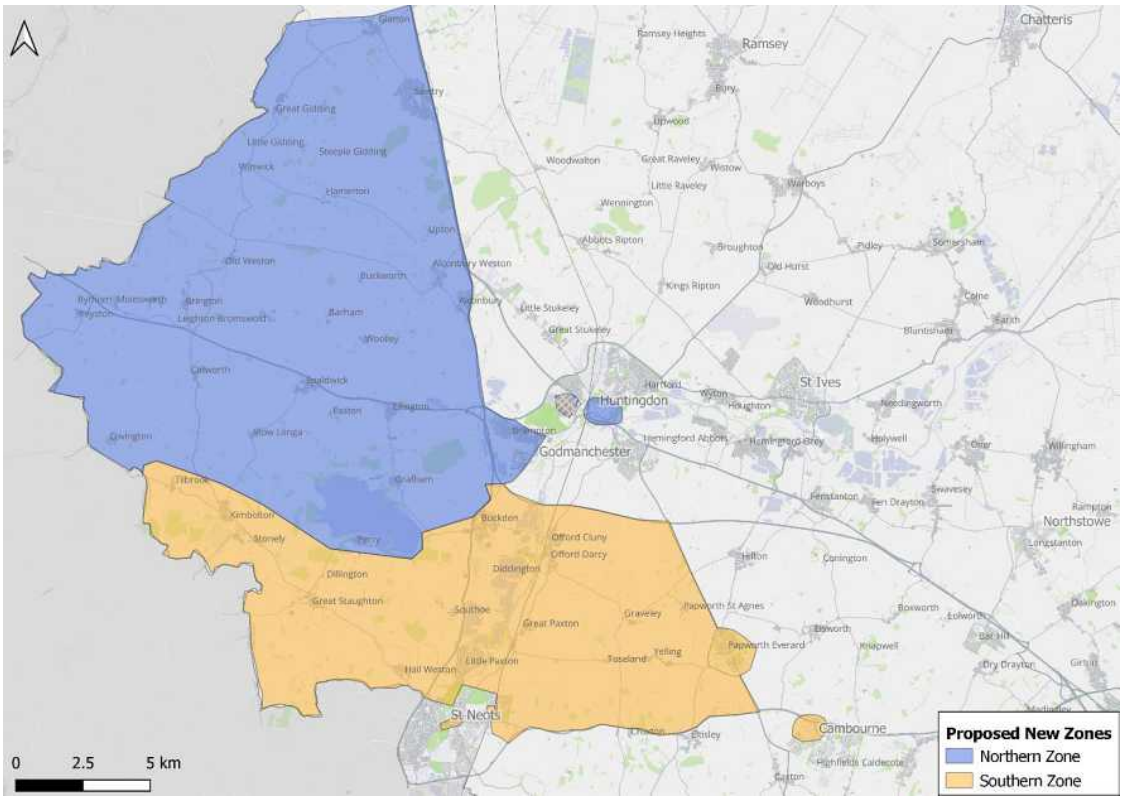
6.5 For some corridors where there could be similar passenger demands, it would be possible to have semi-scheduled journeys that deviate off-route on-demand. Passengers would then gravitate towards those journeys, knowing that they would have a better chance of their booking being accepted. One such corridor might be Tilbrook – Kimbolton – St Neots, where semi-scheduled DRT journeys could be integrated with fixed route service 150.

6.6 Currently, the large service area (360km^2), coupled with the need to service two population centres, spreads the service very thinly, which results in vehicles becoming unavailable and travel demands not met. Dividing the operating area in two would create one zone centred on access to Huntingdon and one focussed on access to St. Neots (see Figure 6-1). The northern zone would serve villages north of the Brampton Hut to Covington axis, where the service would have quick access along the A14 to Huntingdon. This would cover approximately 225km^2. The service would run to Grafham Water and Perry (for access to HMP Littlehey), given there are regular flows from these sites into Huntingdon. The current end destinations in Huntingdon would be retained.

6.7 The southern zone, from Tilbrook to the A14/A1 interchange and then south of the new A14 bypass, would be centred around St. Neots. This would cover approximately 135km^2. Unlike the current operating area, internal trips within St. Neots would not be allowed - trips could either originate or terminate within St. Neots but not both. Two drop off/pick up zones would be introduced - St. Neots town centre and St. Neots railway station - which are the points where most pick-ups/drop-offs are made in the town.

6.8 Trips should remain possible between the southern zone and Hinchingbrooke Hospital, given its importance as the key healthcare centre in the area. Similarly, provision could also be made from both zones for access to the prison, as a large rural employer which also generates trips for visitors, which is located close to the border between the two zones.

Figure 6-1 Proposed new operating zones



6.9 Within each zone, one eight-seater vehicle and one sixteen seat vehicle could be allocated, ensuring good availability for users whilst also guaranteeing accessible transport in each zone.

Booking system

6.10 There are various shortcomings with the booking system which should be addressed, particularly:

- The option to book a drop-off time (to make an onward journey or appointment) or a pick-up time.
- Automated scheduling such that preloaded algorithms determine the routing of the service, pick-ups and drop-offs.
- Instant booking notifications being issued to users for advance and real-time bookings, whether in-app or via SMS.
- Reminder messages for advanced bookings.
- Clear identification of pick-up locations that are not the user's home address, most likely by the definition of a network of virtual bus stops.

6.11 There may be scope to amend the current back office booking system and upgrade the app, but it is anticipated that there would be a cost involved in doing so. An alternative

approach would be to retender the service with a more closely defined technical specification. The tendering approach would open up the market to achieve a booking system, end user and driver apps which are well established and more akin to other DRT services in the UK and the rest of Europe.

6.12 If further DRT services might be introduced across Cambridgeshire and Peterborough, there may be merit in CPCA separately procuring a bookings/scheduling platform that can be used across all services, rather than relying on the operator to provide a system. This may also encourage more operators to tender for the provision of the transport service.

Data supply

6.13 With an enhanced back-office system and app, there should also come an improvement in the data supplied through the service. One of the biggest advantages of DRT in terms of data, is that a full matrix of origin-destinations, demographics and demand can be extracted and analysed to refine and improve the service. Currently this advantage is not being exploited.

6.14 Other than headline passenger numbers per month, basic operational and performance data has not been routinely shared with CPCA by the operator. The requirement to supply data on a monthly basis to accompany an invoice should be included within the technical specification and would ensure that the performance of the service can be continually monitored. The technical specification should also indicate the type of data to be collected, including on a per vehicle basis to enable efficiency of vehicle usage to be assessed.

6.15 It should be specified that the following data is provided, given that most other DRT booking systems provide this information as standard:

- Anonymised user IDs
- Method of trip request (i.e. app or phone)
- Date and time of request
- Date and time of requested pick-up or drop-off
- The date and time of pick-up or drop-off that the user is allocated
- Ticket type (e.g. adult, youth, ENCTS)
- Whether the trip was accepted, rejected or cancelled and the reason for this
- Specific origin and destination point of the trip, including co-ordinates, to allow quick data analysis.

- Journey time and length
- Actual pick up and drop off time
- ID of the vehicle allocated to the trip
- Fare paid and method of payment

6.16 Indeed, where other systems are in place, local authority officers have the ability to log-in and view or download performance data themselves to gain insights into service performance.

6.17 Alongside basic reliability issues, the following should also be expected from any back-office service and application for DRT:

- Rejection of booking requests that abstract from the existing public transport offering. In other applications, as is the case with other services elsewhere in the country, a customer that tries to book a trip that can be undertaken by a fixed bus will be provided with details of that service – route, nearest stop and departure time. In this way, DRT and fixed route services complement one another rather than compete.
- Offering alternative journey times if the vehicle is not available at the requested time, to account for the fact that some journeys are not time critical.
- A customer feedback option, where customers can rate the service out of 5 and provide written feedback if there were any problems.

Fares

6.18 The current flat fare system of £2 for adults and £1 for under 19s should be reviewed. For the individualised, door to door service provided, the fare is too low. Those successfully using the service are essentially benefitting from a cheap taxi service. Equally, the service isn't valued, with evidence of people not cancelling journeys when they no longer require them. This means the vehicle still travels to the pick-up point for no-one, when it could have been available for someone else.

6.19 A zonal fare system could be an option, reflecting the possibility to take shorter trips along the A1 corridor or from villages surrounding the towns, and longer trips from the villages in the west.

Measurable KPIs

6.20 To ensure the improvements to the service that are possible, the operator needs to be bound by a series of detailed KPIs beyond the three that are currently listed. The KPIs chosen would need to ensure that customers are able to access the service, they are

able to travel broadly within the time periods they requested, the vehicles are in operation to meet demand and regular monitoring and evaluation is undertaken. Example KPIs might include:

- Proportion of journeys carrying an agreed minimum number of passengers
- Proportion of users who are satisfied with their trip
- Proportion of users who are usually able to book a trip
- Number of operational vehicle hours available each day

Contract duration

6.21 The award of a twelve-month contract, even with optional extensions, provides little scope for an operator to fully invest in a DRT service. Given that it takes a number of months to build up a customer base, even with intensive marketing and publicity efforts, the operator needs more surety that the service will not be retendered at the end of the first year of operation.

6.22 It is recommended that the CPCA awards a minimum three-year contract for the provision of Ting in the future, to give the operator time to develop and improve the system and the service. This, coupled with active contract management and data monitoring, will help to ensure that the service meets its objectives and the needs of its target market.

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Transport & Infrastructure Committee

17 January 2023

Agenda Item **8**

Title:	Transport Funding Decisions
Report of:	Steve Cox, Executive Director – Place & Connectivity (Interim)
Lead Member:	Cllr Anna Smith, Lead Member for Transport
Public Report:	Yes
Key Decision:	No
Voting Arrangements:	Recommendations A, and C: No vote required Recommendations B, and D: A vote in favour by at least two thirds of all Members (or their Substitute Members) appointed by the Constituent Councils who are present and voting, to include the Members appointed by Cambridgeshire County Council and Peterborough City Council, or their Substitute Members

Recommendations:	
A	Note the Royston and Granta Park study and progress undertaken by Cambridgeshire County Council.
B	Approve the drawdown of £135,000 from the Transforming City Funds (TCF) from subject to approval funding to approved funding, to contribute towards the A505 Royston to Granta Park Study by Cambridgeshire County Council
C	Note the progress on the Regional Transport Model.
D	Approve the drawdown of £78,430 from the Regional Transport Model subject to approval to approved to aid the delivery of works by Peterborough City Council on the Peterborough Transport Model (PTM4) as part of works for the Regional Transport Model project

Strategic Objective(s):	
The proposals within this report fit under the following strategic objective(s):	
x	Achieving good growth
x	Increased connectivity
x	Enabling resilient communities

1. Purpose

1.1	This paper and its appendices on the Regional Transport Model and the Royston to Granta Park Study set out the funding decisions that officers are asking the Committee to approve.

2. Proposal	
2.1	That the drawdown of funds for the projects be approved.

3. Background	
3.1	The background to the projects are detailed in the appendices.

4. Appendices	
4.1	Appendix A: Royston and Granta Park Corridor Study Appendix B: Regional Transport Model

5. Implications	
Financial Implications	
5.1	No financial implications other than those identified in the appendices.
Legal Implications	
6.1	No legal implications other than those identified in the appendices.
Public Health Implications	
7.1	No public health implications other than those identified in the appendices.
Environmental & Climate Change Implications	
8.1	No environmental and climate change implications other than those identified in the appendices.
Other Significant Implications	
9.1	N/A
Background Papers	
10.1	N/A

Transport & Infrastructure Committee

17 January 2023

Agenda Item: **8**

Appendix A

Title:	Royston and Granta Park corridor study
Report of:	Matthew Lutz, Transport Programme
Lead Member:	Cllr Anna Smith, Chair of Transport and Infrastructure Committee
Public Report:	Yes
Key Decision:	No
Voting Arrangements:	A. No vote required B. A vote in favour by at least two thirds of all Members (or their Substitute Members) appointed by the Constituent Councils who are present and voting, to include the Members appointed by Cambridgeshire County Council and Peterborough City Council, or their Substitute Members

Recommendations:	
A	Note the Royston and Granta Park corridor study and progress undertaken by Cambridgeshire County Council.
B	Approve the drawdown of £135,000 from the Transforming City Funds (TCF) from subject to approval funding to approved funding, to contribute towards the Royston to Granta Park Study by Cambridgeshire County Council.

Strategic Objective(s):

The proposals within this report fit under the following strategic objective(s):

x	Achieving ambitious skills and employment opportunities
x	Achieving good growth
x	Increased connectivity

Cambridgeshire County Council are currently undertaking a multi-modal study into transport issues and potential solutions in a corridor along the A505 between Royston and the Granta Park cluster. The schemes and packages of schemes proposed within the draft Strategic Outline Case (SOC) will meet the 3 strategic objectives above. The focus of the packages being proposed to be taken forward is on increasing connectivity along, to and within the Royston to Granta Park corridor, which includes a number of key employment areas, namely the science parks at Granta Park, Wellcome Genome (Hinxton), Gt Chesterford Research Park and also by linking into Greater Cambridge Partnership proposals to connect the corridor with the South and East of Cambridge, home to the Cambridge Biomedical Campus. This is vital in helping to achieve the various employment and residential growth proposals at these sites and in the wider area.

The study includes a detailed and conclusive evidence base report, which has helped to identify 10 key problems faced on the Royston to Granta Park corridor. The need to improve connectivity to the numerous key employment and growth sites, particularly by public transport and active travel, is a primary focus.

1. Purpose	
1.1	This paper seeks to provide an update on the A505 work Cambridgeshire County Council (CCC) are undertaking and recommend to the Combined Authority Board the drawdown of £135,000 for completion of this work.

2. Proposal	
2.1	This paper provides an update on the work undertaken to date on the Royston to Granta Park Study by CCC and a recommendation to the Combined Authority Board to approve the drawdown of £135,000 from the Transforming City Funds (TCF) from subject to approval to approved to contribute towards the project. In addition, there is a recommendation to delegate authority to the Acting Assistant Director of Transport in consultation with the Chief Finance Officer and Monitoring Officer to enter into Grant Funding Agreements with Cambridgeshire County Council

3. Background	
3.1	CCC are currently undertaking a multi-modal study into transport issues and potential solutions in a corridor along the A505 between Royston and the Granta Park cluster, with a study area that includes a number of the research campuses. The work will produce a Strategic Outline Case setting out the evidence base, analysing the problems, and setting out transport interventions that could support and improve connectivity. The work is being undertaken to best practice Green Book guidance and is scheduled to complete this financial year and it will then initially be reported to Cambridgeshire's Highways and Transport Committee.
3.2	An officer working group, and a member group have been established by the County Council to provide input and oversight of the work.
3.3	The study rebases the previous initial phase of work carried out with Combined Authority funding and brings it up to date with current national and local policy covering transport and decarbonisation, and refreshing the evidence base to take account of emerging post-pandemic changes to travel patterns and behaviour. The work aligns with the Combined Authority's recently adopted Local Transport and Connectivity Plan.
3.4	The Combined Authority propose to have an independent review of the work also undertaken and the Strategic Outline Business Case will be updated to address any outcomes of this.
3.5	Currently, the project is being project managed and financed by the County Council. The Transforming Cities Fund has a spend deadline of March 2024 and has £135,000 allocated for the A505. These funds would be at risk if not spent by the deadline so ensuring their use ahead of less time-limited non-CPCA funding will allow CCC to carry-forward a significant portion of less time-limited funding originally allocated to the study to deliver other strategy work in the next financial year 2024-2025.

4. Appendices	
4.1	N/A.

5. Implications	
Financial Implications	
5.1	Drawdown £135,000 of Transforming Cities Funds (TCF) from subject to approval to approved from the A505 budget line. This TCF funding has a deadline to be spent by March 2024.
Legal Implications	
6.1	A standard CPCA Grant Funding Agreement will be completed with CCC.
Public Health Implications	
7.1	The study has considered numerous schemes aimed at improving connectivity by public transport and active travel, as well as reducing severance caused by the A505. These have road safety benefits as well as general health benefits that result from increased opportunities for active travel.
Environmental & Climate Change Implications	
8.1	The study has considered measures that promote public transport and active travel schemes in an area which is currently heavily car and vehicle dominant.
Other Significant Implications	
9.1	N/A.
Background Papers	
10.1	Combined Authority Transport and Infrastructure Committee 8 Sept 2021

Transport & Infrastructure Committee

17 January 2023

Agenda Item: **8**

Appendix B

Title:	Regional Transport Model
Report of:	Emma White, Acting Transport Strategy and Policy Manager
Lead Member:	Cllr Anna Smith, Chair of Transport and Infrastructure Committee
Public Report:	Yes
Key Decision:	Yes
Voting Arrangements:	A No vote required B A vote in favour by at least two thirds of all Members (or their Substitute Members) appointed by the Constituent Councils who are present and voting, to include the Members appointed by Cambridgeshire County Council and Peterborough City Council, or their Substitute Members

Recommendations:	
A	Note the progress on the Regional Transport Model.
B	Approve the drawdown of £78,430 from the Regional Transport Model subject to approval to approved to of aid the delivery of works by Peterborough City Council on the Peterborough Transport Model (PTM4) as part of works for the Regional Transport Model project

Strategic Objective(s):

The proposals within this report fit under the following strategic objective(s):

x	Achieving good growth
x	Increased connectivity
x	Enabling resilient communities

The Regional Transport Model scope fits under all the strategic objectives as it aims to:

- Support with developing business cases for highway and public transport schemes that are consistent with the Department for Transport's TAG guidelines;
- Support Local Plan development, testing both different land use scenarios, and the transport measures to support them;
- Support the development and testing of transport and environmental strategies and policies to consider the growth predicted for the region and recommendations of the Independent Commission on Climate Change;
- Provide evidence for scheme development and funding bids, and • Support undertaking quick high-level scheme tests.

Cambridgeshire and Peterborough Combined Authority Strategy and Business Plan 2023 / 24

1. Purpose	
1.1	This paper seeks to provide an update on the Reginal Transport Model and recommend to the Combined Authority Board the drawdown of £78,430 to aid the delivery of works by Peterborough City Council on the Peterborough Transport Model (PTM4) as part of works for the Regional Transport Model project.

2. Proposal	
2.1	The proposal is the drawdown of £78,430 to aid the modelling of PTM4 as part of works for the Regional Transport Model project.

3. Background	
3.1	During the assessment of recent transport studies, the DfT have suggested that the use of the existing suite of models will not be suitable going forward for use in scheme business cases due to the age of the data and the area of coverage. There are currently a significant number of the Combined Authority's and other organisations' transport schemes that are either at the proposal stage or in early business case stage requiring a valid transport model to test the scheme impact and benefits. The proposed new model of the whole Combined Authority region will enable the testing of multiple schemes for a wide range of end users, including (but not limited to): • Cambridgeshire and Peterborough Combined Authority; • Peterborough City Council (PCC); • Cambridgeshire County Council (CCC); • Greater Cambridge Partnership; • District Council Local Plans; and • Developers.
3.2	There are several advantages from building a single model covering the whole of the Combined Authority region instead of a range of smaller scheme specific models, namely: • The larger model will be more efficient to build and use; and • Will ensure consistency of results across all schemes that would not be possible if the current model system continued. In addition, the use of a single large model will enable the true level of benefits from a package of schemes to be assessed and will also enable an accurate assessment of where the benefits sit. It is important to note that without a fully TAG compliant model it will be harder for identified transport interventions to demonstrate their impact and benefits and gain government funding. The proposed model will also facilitate the testing of the impact of a wide range of modes of transport and will also facilitate the testing of the interchange between modes. Making a significant contribution to testing policies aimed at achieving change in mode share, increasing sustainable modes of travel, and tackling climate change.
3.3	Progress to date includes: • The model build is progressing; • Highway, bus and rail networks are now complete to first draft stage and initial checks were complete. Further checks will be made during calibration/validation; • Mobile Network Data demand matrices are now received; and • All other survey data has been received and processed/analysed and a draft Data Collection Report is being reviewed.

3.4	In June 2023, the Combined Authority Board approved the drawdown of £421,000 for the delivery of works by Peterborough City Council on the Peterborough Transport Model (PTM4) as part of works for the Regional Transport Model project. The PTM4 needs updating as it far more detailed than the CaPCAM model. The CaPCAM model is not intended to assess urban areas to the level of detail as increasing the level of detail would require a more detailed zoning system and network that would significantly increase processing time for CaPCAM model runs and economic appraisals. Both models will use the same data and be aligned.
3.5	The further request for £78,430 for Peterborough City Council is due to desire to use a different modelling software that has a much greater benefit. The original proposal was based on developing the model in SATURN as per previous iterations of PTM. However, both CaPCAM and CaPABM models have now moved forward with PTV VISUM and there is an opportunity for PTM4 to be better aligned with these models by also using PTV. A summary of the benefits and efficiencies that come with using the same platform, include: • Having access to CaPABM's highway network from Model2Go rather than coding a new network from scratch. It would be more desirable and beneficial to provide straightforward comparisons with CaPABM or there is an alternative of directly importing the PTM SATURN network into PTV VISUM, which again would save time on network building. • PTV VISUM comes with public transport (PT) modelling capabilities, which SATURN does not have. PCC are not proposing to undertake PT modelling as part of PTM4 but it would assist Peterborough-related projects as the models could be run internally. • There was a desire to have a Peterborough-specific PT model in the future, PTV VISUM would be able to support that rather than having to use alternative software to supplement SATURN. • PTV VISUM contains travel demand modelling functionality built in which will help streamline travel demand modelling tasks that have previously been undertaken outside of SATURN. • PTV VISUM has a much more modern and relatable interface compared to Saturn that can be easily interpreted by non-modellers – therefore beneficial for consultation and engagement. • PTV VISUM is widely used, and any models developed using it could be easily utilised by other well-known transport planning organisations within the UK. • The software is well supported with PTV often at the forefront of new innovations in modelling and data analysis. • SATURN limiting within its various licence levels in terms of the number of links, nodes, and zones that can be modelled, and this can limit our ability to easily work with larger models without requesting licence upgrades therefore offering a cost saving long term. • Annual software maintenance is not a significant increase compared to SATURN. • The licence proposal comes with free-of-charge training for two professionals. PCC are seeking to identify potential to make cost savings and efficiencies using PTV Software as the project progresses.

4. Appendices	
4.1	N/A.

5. Implications	
Financial Implications	
5.1	Drawdown of £78,430 from the Regional Transport Model subject to approval (currently £563,948 in subject to approval) to approved to of aid the delivery of works by Peterborough City Council on the Peterborough Transport Model (PTM4) as part of works for the Regional Transport Model project.

Legal Implications	
6.1	The Combined Authority will amend the Grant Funding Agreement via a deed of variation for the Transport Model Project with Peterborough City Council
Public Health Implications	
7.1	The Regional Transport Model will allow modelling of schemes and testing of transport and environmental policies and strategies that can improve public health.
Environmental & Climate Change Implications	
8.1	The Regional Transport Model will allow modelling of schemes and testing of transport and environmental strategies and policies.
Other Significant Implications	
9.1	N/A.
Background Papers	
10.1	Combined Authority Board 26th July 2023.

Transport & Infrastructure Committee

17 January 2024

Agenda Item **10**

Title:	Peterborough Station Update
Report of:	Anna Graham, Transport Programme Manager
Lead Member:	Cllr Anna Smith, Chair of Transport and Infrastructure Committee
Public Report:	Yes
Key Decision:	Yes
Voting Arrangements:	A simple majority of voting Members

Recommendations:	
A	Subject to the approval from the Department for Transport of the Outline Business Case, recommend to the Combined Authority Board to approve the Outline Business Case and approve the commencement of the Full Business Case.
B	Note that the Director of Place and Connectivity has the delegation to enter into a Grant Funding Agreement up to £1 million in consultation with the Chief Finance Officer and the Monitoring Officer.

Strategic Objective(s):	
The proposals within this report fit under the following strategic objective(s):	
x	Achieving ambitious skills and employment opportunities • Attracting more businesses to grow or relocate to Cambridgeshire and Peterborough. • Improved community connection.
x	Achieving good growth • The project aims to make land available for both commercial and residential development
x	Increased connectivity • Improved station facilities will attract greater rail patronage • Better access to the station by pedestrians, cyclists and buses will improve connectivity between the station and the city

1. Purpose

1.1	At its meeting of the 22 March 2023 the Combined Authority Board formally accepted the Levelling Up Funding for Peterborough Station Quarter (PSQ) and approved the release of funding to enable Peterborough City Council (PCC) to progress the Outline Business Case (OBC).
1.2	With assistance of strategic partners such as Network Rail (NR) and London North Eastern Railway (LNER), PCC has developed the OBC for submission to the Department for Transport (DfT) for approval.

1.3	Subject to DfT approval of the OBC this paper seeks the Transport and Infrastructure Committee's approval of the OBC and commencement of the Full Business Case (FBC) to the Combined Authority Board.

2. Proposal

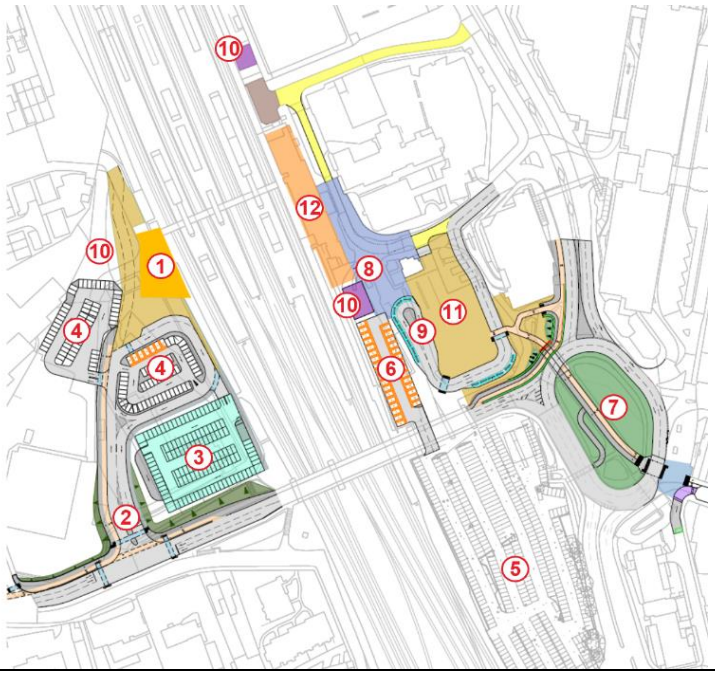
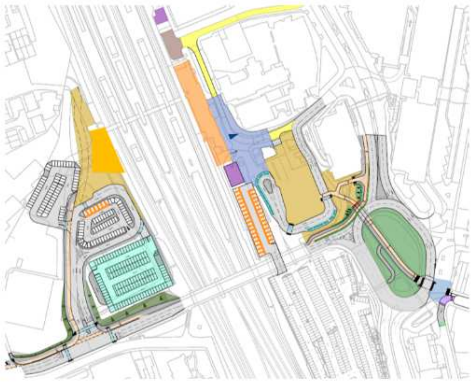
2.1	Building on the Masterplan developed in 2021 which considered the high-level feasibility of a phased redevelopment of Peterborough Station. The update to the Masterplan has confirmed the essence of the PSQ programme with three key high-level areas, • Catalyse a new city quarter, • Connect the station to the city, and • Create an interchange fit for the future. These key areas are supplemented with, • Connectivity, • Public Realm, and • Development.
2.2	The Strategic Outline Business Case developed an Options Assessment Report identifying a range of proposals that could address the objectives of the PSQ programme. The OBC considered all the components of the PSQ programme, viewing them as jigsaw pieces to determine the final scope of the first phase of the project, which would provide the catalytic effect for the PSQ programme, but which could also be delivered within the funding envelope and the timescales required by the LUF allocation. Figure 1 illustrates the overview of the key components *Figure 1 (Credit ARUP)* 1. Western Station Entrance 2. Western Access 3. Multi-Storey Car Park 4. Surface Car Parking 5. Surface Car Parking (existing) 6. Accessible Parking (5%) 7. City Link (Queensgate Roundabout) 8. Station Square 9. Taxi / Pick-up & Drop Off 10. Cycle Parking 11. Meanwhile Use 12. Refurbished Eastern Station Entrance 
2.3	The OBC refined the proposals to a single option development that would deliver, • A new station square, linking to a high quality and accessible route to the city centre for active modes • Provision of a new Western Entrance and a multi storey car park (MSCP), improving access to the station for all modes and alleviating highway passenger congestion • A refurbished Eastern station building with more space and a relocated entrance to provide a better customer experience and to reduce passenger congestion, and • Freeing up land for redevelopment as part of the wider PSQ Programme. It should be noted that Network Rail are funding and managing the relocation of the Maintenance Depot Unit (MDU)
2.4	This aligns with the strategic objectives previously agreed for the PSQ programme, as Figure 2 illustrates,

Figure 2 (Credit ARUP)

Strategic Objectives

1) Capitalise on rail connectivity
2) Maximise growth by releasing land for development
3) Improve range & quality of facilities at station
4) Re-imagine the function and presentation of the station
5) Improve station-city connections in all directions
6) Enhance multi-modal connections
7) Address safety & personal security concerns
8) Social & environmental sustainability

Activity	Alignment with Objectives
Western Station Entrance	① ③ ④
Western Access & Surface Parking	② ⑤
MSCP on West	③ ⑤ ⑧
City Link (Queensgate Roundabout)	⑤ ⑦ ⑧
Station Square & Interchange	② ③ ⑤ ⑥ ⑦ ⑧
Eastern Station Entrance Upgrade	① ③ ④ ⑦ ⑧



2.5	In developing the OBC, the Commercial and Management Cases have been considered. In a workshop in November 2023 the steering group, made up of LNER, Network Rail, PCC and the Combined Authority considered whether separate delivery routes and contracts for each element of the project or a combination of elements, would secure better value for money, allow phased approach to delivery, and minimise risk.
2.6	The partners agreed that the most effective and efficient route to delivery would be to separate out the project into four distinct delivery packages, based on issues such as land ownership and type of works, experience of similar projects with a partner identified to lead each: • Highways and Active Travel - junction improvements on Thorpe Road to provide access to the new station entrance/building/parking areas, amendments to the existing access on the eastern side for taxis and a high quality and accessible route to the city centre for active modes through Crescent Bridge Roundabout – to be led by PCC; • Rail Station – the new station entrance/building on the west side and extension/improvements to the existing station – to be led by the rail industry (either LNER or Network Rail) • Multi-Storey Car Park – the new MSCP adjacent to Crescent Bridge – to be led by Network Rail; and • Public Realm and Station "Floormats" - the station frontage for the new entrance, with access for all modes from the new junction on Thorpe Road and surface car parking, and public realm and the new station square on the east with revised pick up/drop-off facilities, accessible car parking and enhanced public realm – to be led by PCC. Within these four main delivery packages, there may be sub-divisions (primarily based around the location of the work on either side of the rail line), but in essence these are the four principal delivery packages, in addition to the relocation of the MDU which is required to provide all the necessary space on the western side of the rail line.
2.7	Up to completion and acceptance of the OBC, PCC has taken the lead in procuring the necessary development work using established procurement routes, including existing framework arrangements. In order to maintain momentum and with a mind to the March 2026 deadline for the LUF allocation, it has been agreed that PCC will continue to lead the next stage of development work for the whole project, seeking to confirm a possible extension to existing contract arrangements and bring in specialist skills as necessary. This will include preparation of the Full Business Case (FBC), once the delivery phase commences the project will be split into the packages as set out in paragraph 2.6.
2.8	The cost estimates for the project have been updated in the OBC and remain in budget for the LUF2 and Towns Fund allocations identified – a total of £49.5 million
2.9	The Benefit Cost Ratio (BCR) is 2.6 – High Value for Money

2.10	The OBC was submitted by the end of December to DfT for their review and approval. The PSQ project team has met with members of DfT, DLUHC and Active Travel England providing an overview of the project, and to discuss progress so far and next steps. DfT has seen and provided comment on the draft OBC prior to submission to minimise any potential delays in reviewing the submitted OBC.
2.11	In parallel the OBC will be assessed by the Combined Authority's third-party independent business case reviewer in compliance with the Combined Authority's governance process.
2.11	More detailed design work leading to the preparation of a FBC is programmed to start in early 2024 and is expected to be completed in Autumn 2024 at an expected cost of £510,000 The programme provides 3 months for DfT to review and approve the OBC prior to substantial work commencing.
2.12	The FBC will be bought to the Transport and Infrastructure Committee and Combined Authority Board when completed.

3. Background

3.1	Through close working with PCC, the Combined Authority sought and secured funding for the first phase of the Peterborough Station Quarter Programme via the second-round bid to the Department for Levelling Up, Housing and Communities.
3.2	The near £48 million will be match funded by partners, Network Rail and through PCC's Towns Funding bringing the total up to approximately £65 million. This enables the first phase of the Peterborough Station Quarter regeneration, releasing land for commercial and residential development as a further future phase.
3.3	In the context of the Levelling Up Agenda, Peterborough is categorised by the Government as a 'Priority One' area. The allocation of 'Priority One' status specifies that the Government deems Peterborough as a region in most need of investment through Levelling Up funding. This categorisation is primarily driven by the region's poor performance against the "Need for Economic Recovery and Growth" indicator, as Peterborough falls significantly below the national average in relation to Unemployment and Skills.
3.4	The bid outlined the need for better connectivity between the station and the city centre, improving the station square layout and active travel route, ensuring visitors can easily find their way when exiting the station. A new western entrance to the station with a car park to create a double-sided station and alleviating pressure on city centre roads.
3.5	The project meets the overarching aims of the Local Transport and Connectivity Plan, including having significant economic impact on the city and regionally, as the city is already well connected to key areas of Eastern England and the rest of the UK. In addition, it will support Peterborough City to attract more knowledge intensive and high-level employers through its transport links and potential commercial and residential space.

4. Appendices

4.1	Appendix A: Peterborough Station Quarter Outline Business Case

5. Implications

Financial Implications	
5.1	On 22 March 2023 the Combined Authority Board approved the release of funding of £47,850,000 for PSQ to be spent between 2023 and 2026. However, the project only has approval to spend up to £5 million, before returning to agree future spend profile.
5.2	The OBC cost a total of £560,000 and the FBC is expected to cost £510,000 within the existing £5 million approved funding envelope.

5.3	The current financial profile over the financial years is detailed below

Financial Year	2022/23	2023/24	2024/25	2025/26	Total
	£20,670	£659,330	£15,678,000	£31,492,000	£47,850,000

Legal Implications	
6.1	Each phase of the project is supported by a Grant Funding Agreement between the Combined Authority and PCC. The Director of Place and Connectivity, in consultation with the Chief Finance Officer and the Monitoring Officer, can enter into a Grant Funding Agreement up to the value of £1 million as per the updated Scheme of Delegation, as set out at Chapter 18, para 18.1.3.1 (g).
6.2	Delivery of the project will entail PCC entering into either the standard Network Rail Asset Protection Agreement or a Development Services and Implementation Agreement with Network Rail
Public Health Implications	
7.1	The percentage of adults who smoke and who are overweight or obese are both higher than the national average in Peterborough. Rates of preventable deaths from cardiovascular disease in Peterborough are significantly above the national average, with high level of local inequality between our most and least deprived communities.
7.2	The proposed improvements, including a new station entrance to the northwest will facilitate greater access to and from the improved Railway station infrastructure. Alleviating the pressure on the road network and reducing journey times. Safer and more accessible active travel connections between the station and the city centre will increase active travel mode share with people benefiting from the subsequent health and wellbeing benefits.
7.3	The project is expected to reduce carbon emissions through an increase in rail patronage and reduction in private vehicle use. The increase in rail patronage will be driven by improved station facilities, better access to the station by pedestrians, cyclists and buses, enhanced car parking, and new active travel connections between the station and the rest of Peterborough.
Environmental & Climate Change Implications	
8.1	Peterborough Station Quarter is expected to reduce carbon emissions through an increase in rail patronage and reduction in private vehicle use. The increase in rail patronage will be driven by improved station facilities, better access to the station by pedestrians, cyclists and buses, enhanced car parking, and new active travel connections between the station and the rest of Peterborough.
8.2	A key part of the project is the provision of a new western station entrance and associated car parking facilities. The station is currently only accessed directly from the eastern side of the rail lines, including all car parking provision. This means that passengers accessing the rail station often need to travel further than is necessary, discouraging walking and cycling (due to added distances) and increasing highway congestion and carbon emissions.
8.3	Within the public realm elements of the project there is opportunity for tree/vegetation provision to support greening the area.
Other Significant Implications	
9.1	Extensive work has been undertaken to identify risks and interdependencies. A key risk and interdependency is the relocation of the Network Rail MDU. The relocation of the MDU enables the western entrance and car parking to be delivered but is reliant on sensitively managing the relocation of staff and Network Rail having positive discussions with unions.
9.2	In addition, whilst the Eastern station is refurbished this is likely to require the temporary relocation of train operator staff and again would need sensitive management, and discussion with the unions by LNER
9.3	A key requirement for the project from LNER and supported by the DfT is the maintenance of the number of parking spaces. It is understood that the current level of car parking capacity needs to be retained as it would otherwise have an adverse impact on the revenue and leasing arrangements currently in place.

Background Papers	Item 10
10.1	Link to previous Strategic Outline Business Case (SOBC) stage funding approval to the Business and Skills team. Document.ashx (cmis.uk.com)
10.2	Transport and Infrastructure Committee Paper – 15 March 2023

Peterborough City Council
Peterborough Station Improvements

Outline Business Case

21 December 2023
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Issue


Fore

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Appendix J: Integrated Assurance and Approvals Plan
Appendix K: Project Plan
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1 Introduction

1.1 Context

Peterborough is one of the UK's fastest growing and best-connected cities in the UK. The City has one of the youngest populations in the UK and a diverse range of industries including manufacturing, distribution and technology. The City is forward thinking, with a compelling portfolio of regeneration projects already being delivered, including:

- ARU Peterborough – Phase Three (Living Lab) - A £30 million publicly accessible science centre is under construction and will deliver a 'Living Lab' designed to help stimulate and inspire more people into STEM (science, technology, engineering and maths) sectors.

- River Nene Pedestrian Bridge - £2 million of Government funding has been secured to help deliver a new footbridge which, by 2025, will link Peterborough's Embankment and Fletton Quay, providing a new local landmark and improving links for pedestrians and cyclists from Fletton Quays to the new University campus and Embankment area.

- The Vine - A £13 million development spread across two sites, delivering a refurbished library with space for exhibitions and business, alongside a new food, beverage and communal dining venue for the City.

- Activity Centre - A multi-million pound state-of-the-art Olympic standard climbing facility located in a country park, attracting visitors from the local area and beyond.

- Green Technology Centre - A new building at Peterborough College delivering an innovative curriculum to get students career ready in areas such as sustainable construction and electric vehicle manufacturing, sectors that are calling out for qualified future employees and offer high wages.

- Digital Incubator - A business incubator helping digital start-up companies thrive by delivering coaching, networking and access to investment.

In 2021, a Masterplan for the Peterborough Station Quarter (PSQ) area was commissioned to consider the high level feasibility of a phased redevelopment of Peterborough Station to establish a potential vision for the area and consider the wider landholding in and around the station.

Figure 1.1 shows the PSQ area as one seven key future development opportunities around the City.

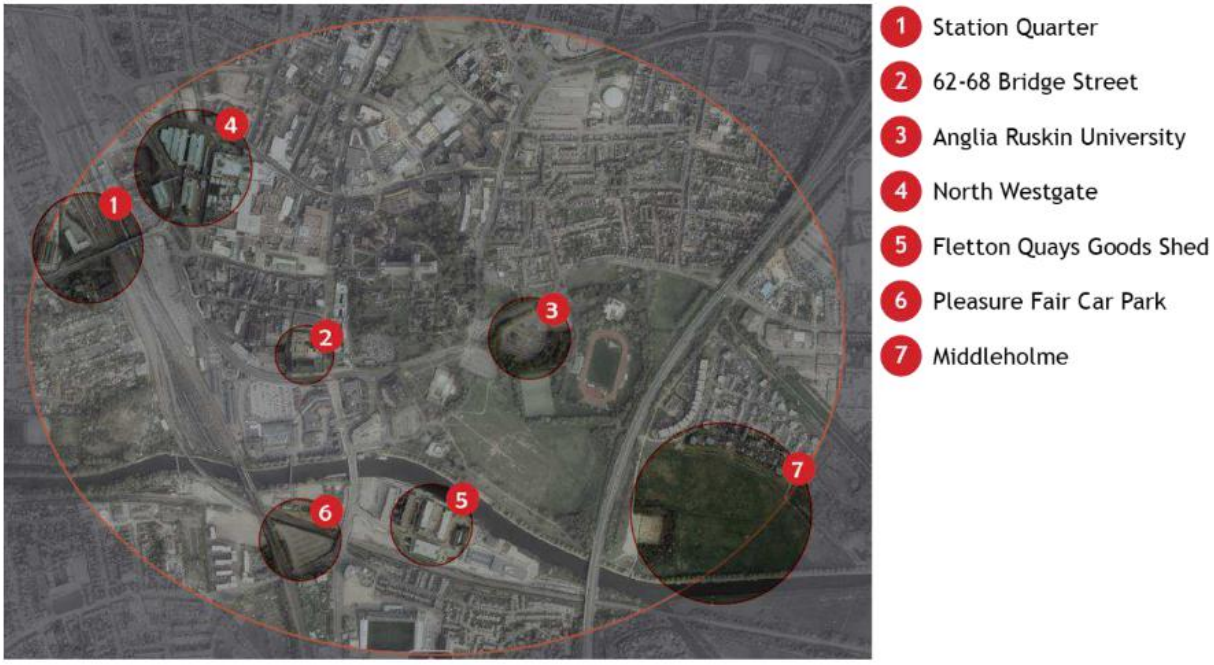

Figure 1.1: Key Peterborough Future Development Opportunities

Despite these opportunities, the district of Peterborough is identified as a 'Priority One' area in relation to the Government's Levelling Up Agenda and, following the COVID-19 pandemic, the dispersal of economic activity and hybrid working patterns have strengthened the case for investment in the City, as a geographic hub for access to London, the Midlands, the North East and Scotland. A recent survey of 500 UK businesses has found that 54% now have office or co-working space outside city centres, while 38% now have secondary locations in commuter areas such as Peterborough[1].

1.2 Station Quarter

The City is currently served by **Peterborough Station**, an important rail interchange on the East Coast Main Line (ECML), with an annual throughput of 5 million passengers pre-COVID-19 pandemic, including 960,000 passengers who use Peterborough as an interchange for services to other destinations[2].

Peterborough has twice hourly main line rail services to London Kings Cross in just under 50 minutes, York in 1 hour 15 minutes and Leeds in 1 hour and 30 minutes, thereby offering excellent connections for commuters and for businesses with customers and suppliers in London or the North and Scotland.

[1] https://www.theguardian.com/business/2023/oct/02/half-of-uk-firms-open-offices-outside-city-centres-study-claims
[2] Office of Rail and Road, Estimates of Station Usage, 2021

Peterborough is also a critical National Interchange (as defined by the 'Better Rail Stations' report in 2009), supporting the Government's Union Connectivity objectives of connecting the UK, for passengers seeking to travel to Scotland, Wales/West of England via Birmingham, North West England via Birmingham, East Anglia and East/West Midlands.

There is the opportunity to capitalise on the connectivity that the station offers, alongside the wider regeneration plans of the public and private sector, by investing in the PSQ area to improve the customer experience and accessibility of the station, unlock underutilised surface car parking land for development and enhance this key gateway.

This was the reasoning behind the production of the PSQ Masterplan, which was developed in partnership by Peterborough City Council (PCC), Cambridgeshire and Peterborough Combined Authority (CPCA), Network Rail and London North Eastern Railway (LNER). The Masterplan highlights the role of the station in underpinning a new quarter of the City surrounding it and improving access to, and facilities at, the station itself.

It was published in May 2021 and formed the basis for a bid to Round 2 of the Government's Levelling Up Fund (LUF) in August 2022 for funding for a first phase of the overall PSQ programme. The funding bid, for £47.85 million, was subsequently announced as being successful later in January 2023, subject to the completion of a successful business case for the investment.

Subsequent to the conditional award of funding, PCC has commissioned an update to the Masterplan and more development work on the initial phase of the PSQ programme that will be the subject of the LUF contribution, along with other complementary local funding contributions.

The updated Masterplan Framework, included at Appendix A, has confirmed that the essence of the PSQ programme is based on three key "moves" achieve the agreed strategic objectives, namely:

- Catalyse a new city quarter;
- Connect the station to the city; and
- Create an interchange fit for the future.

These "moves" are then supplemented by a series of "layers" that facilitate the desired outcomes:

- Connectivity (both active travel and vehicles);
- Public realm; and

- Development.

These concepts are illustrated in Figures 1.2 and 1.3.

Figure 1.2: PSQ Masterplan "Moves"

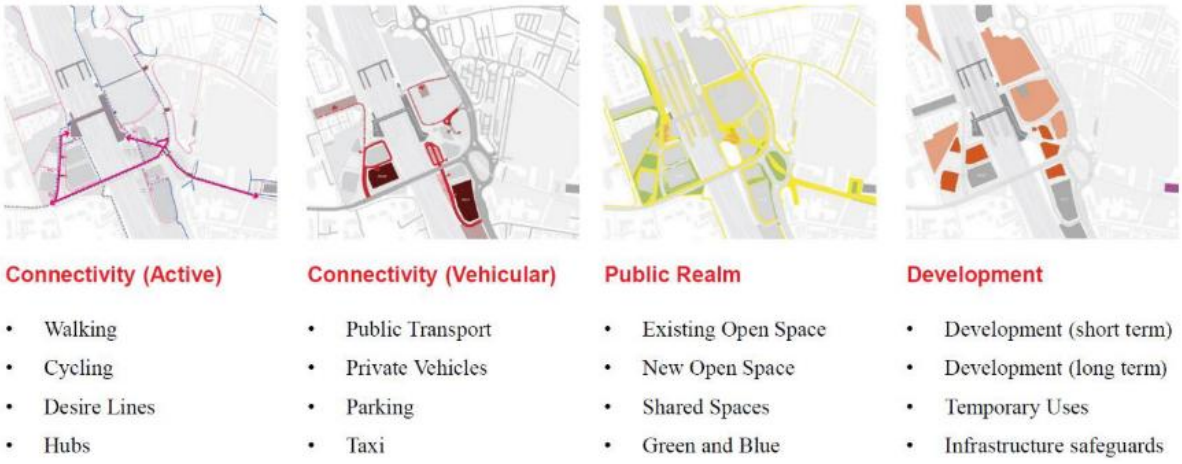

Figure 1.3: PSQ Masterplan "Layers"

The Masterplan Framework includes a schedule that sets out illustrative capacity of each of the development plots created across the PSQ programme area. Taken as a whole, the area has the potential to create around 4,000 new jobs, support at least 700 new homes and create just under 1 ha of new public realm.

The resulting vision for the Masterplan Framework is shown in Figure 1.4. Key to starting the delivery of this vision will be a catalytic set of interventions centred around Peterborough Station.

Figure 1.4: PSQ Masterplan Vision

1.3 Business Case

This document and its series of appendices comprise the Outline Business Case (OBC) for major enhancements and connectivity improvements to Peterborough Station as a first phase in delivering the PSQ programme.

The **Peterborough Station Improvements** project will as a minimum deliver:

- Provision of a new western entrance and a multi-storey car park (MSCP), improving access to the station for all modes and alleviating highway and passenger congestion;
- A refurbished eastern station building with more circulation space and a relocated entrance to provide a better customer experience and to reduce passenger congestion; and
- A new station square, linking to a high quality and accessible route to the City centre for active modes.

Figure 1.6 provides an overview the key components of the project. More detail is provided on Drawing Number PSQ-ARU-ZZ-ZZ-DR-C-00015, provided separately.

1. Western Station Entrance
2. Western Access
3. Multi-Storey Car Park
4. Surface Car Parking
5. Surface Car Parking (existing)
6. Accessible Parking (5%)
7. City Link (Queensgate Roundabout)
8. Station Square
9. Taxi / Pick-up & Drop Off
10. Cycle Parking
11. Meanwhile Use
12. Refurbished Eastern Station Entrance

Figure 1.6: Key Components of the Project

As a result of the project, some initial parcels of land will be freed up land for redevelopment, providing a start on the delivery of the wider PSQ programme.

1.4 Document Content and Structure

This document has been prepared in accordance with Transport Business Case guidance, the Levelling Up Toolkit and the Transport Appraisal Guidance (TAG) issued by the Department for Transport (DfT), as well as guidance issued by Network Rail. It also recognises the requirements of the Rail Network Enhancements Pipeline (RNEP), HM Treasury's Green Book and associated supplementary guidance on public sector business cases.

The remainder of the document is structured as follows:

- **Chapter 2: The Strategic Dimension**, which presents the rationale for undertaking the project by demonstrating the need for change, and how the intervention furthers the aims and objectives of not only PCC, CPCA and Network Rail, but also the Department for Levelling Up, Housing and Communities (DLUHC) and the DfT;

- **Chapter 3: The Economic Dimension**, which demonstrates the effects of the project in terms of value for money in relation to economic, social and environmental impacts;

- **Chapter 4: The Financial Dimension**, which explains how the project costs have been derived and illustrates how the project is affordable and fundable;

- **Chapter 5: The Commercial Dimension**, which demonstrates that the preferred way forward will result in a viable procurement and a well-structured set of contracts between the public sector and its service providers;

- **Chapter 6: The Management Dimension**, which demonstrates that robust arrangements are in place for the delivery, monitoring and evaluation of the project and that the necessary arrangements are in place for change control, risk management and benefits realisation.

2 The Strategic Dimension

This chapter of the OBC confirms the policy and business strategy alignment; examines the existing characteristics of the local area; identifies current and future issues; identifies a series of project objectives and sets out the options that have been considered.

The chapter draws on the latest Transport Business Case guidance (February 2022) and is structured as follows:

- **The Strategic Context (Sections 2.1 to 2.3)** – These sections consider the wider social and economic context, using evidence, to demonstrate how the project fits with the strategic priorities of the relevant organisations, wider government ambitions and local and regional strategies. They also describe how the investment interacts with planned and existing strategic portfolios, programmes and projects of the relevant organisations and for the local area.

- **The Case for Change (Sections 2.4 to 2.10)** – These sections outline the current situation, identifies a clear rationale for the project and provides a logical, objectively supported and evidence-based theory of change to illustrate how the SMART spending objectives will be achieved.

Figure 2.1 summarises the justification for the project, with each element explored in more detail in the following sections of this chapter.

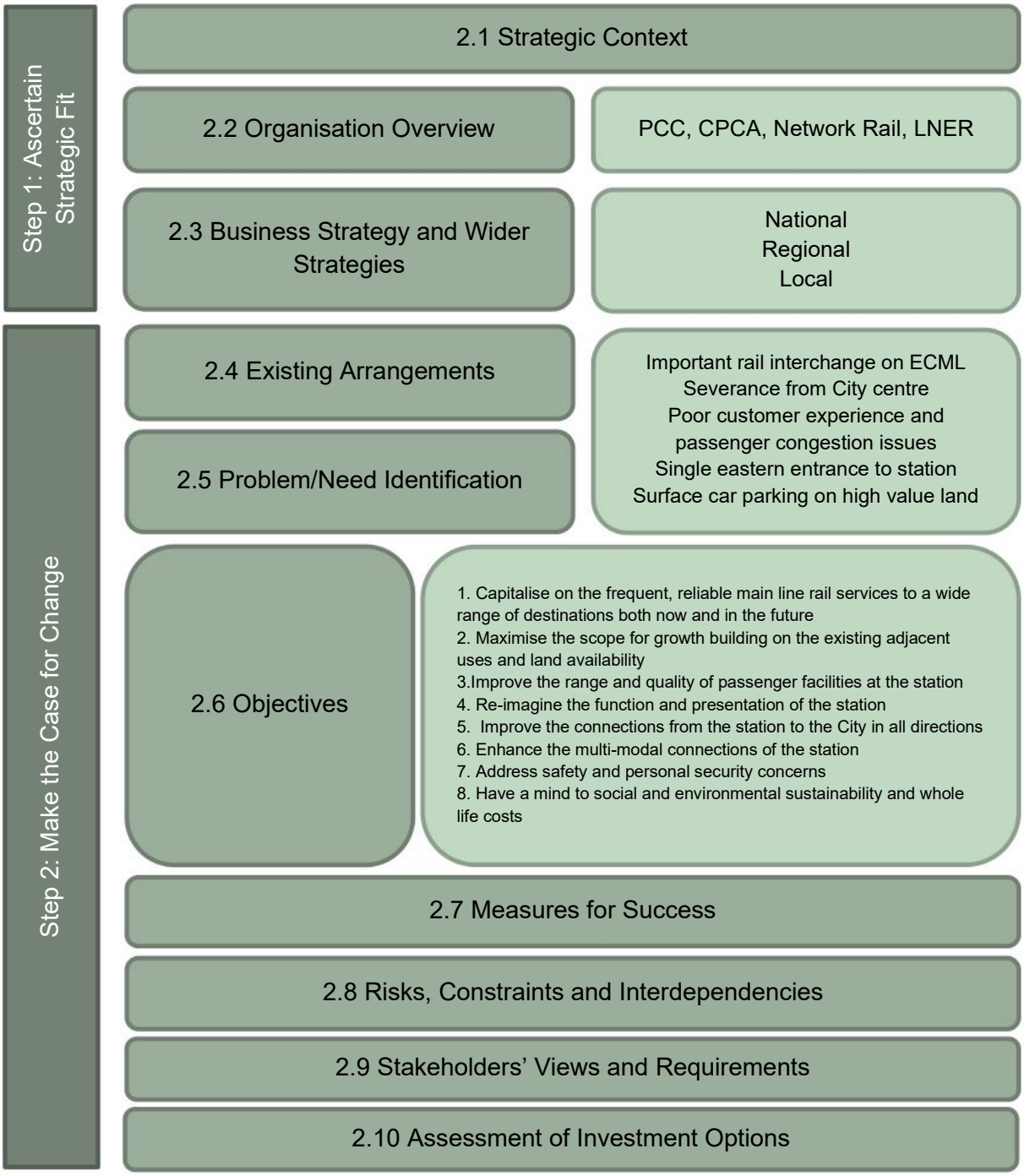

Figure 2.1: Summary of Strategic Dimension

2.1 Strategic Context

2.1.1 Cambridgeshire and Peterborough Context

The CPCA area is home to 850,000 people and covers an area of 340,000 hectares. It consists of six local authority districts – the cities of Cambridge and Peterborough, and the rural districts of East Cambridgeshire, Fenland, Huntingdonshire, and South Cambridgeshire. Its largest settlements include Cambridge in the south, Peterborough in the north-west, Wisbech to the north-east, Huntingdon to the west and Ely to the east[3].

Peterborough is the largest city in the CPCA area and is located approximately 125 kilometres (80 miles) north of London. Peterborough is an important regional centre, providing employment, shopping, health, education and leisure facilities for people across a wide catchment area.

Since 1998, Peterborough has also been designated as a Unitary Authority, which comprises the City of Peterborough itself and 25 villages set in countryside extending over an area of approximately 344 sq km.

Figure 2.2 shows the geographical location of Peterborough Unitary Authority area within the context of the CPCA area – in which Peterborough Unitary Authority area is represented by the red shaded area in the northwest corner. The indented image further shows the CPCA area within the context of England, with CPCA represented by the red shaded area.

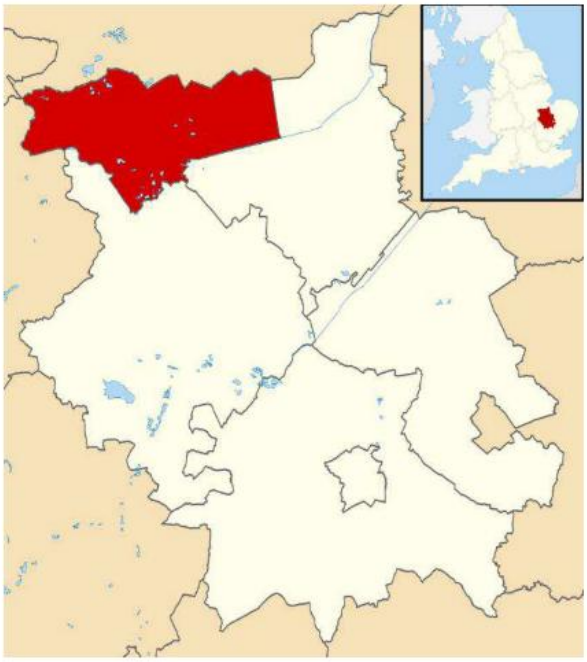

Figure 2.2: Geographical Location of Peterborough within a Regional and National Context

[3] Cambridgeshire & Peterborough Combined Authority, ALL AREAS: CAMBRIDGESHIRE, 2022

The city and its surrounding area have an important place in the history of Britain, with the Cathedral (shown in Figure 2.3) dating back nearly 1,000 years. Becoming a designated "New Town" in 1967, industrial and economic growth has driven Peterborough's expansion.

Figure 2.3: Peterborough Cathedral

The heart of the city is Peterborough Town Square, as shown in Figure 2.4. This square is the centre point of access to the Cathedral to the east, Cowgate/Peterborough Station to the west, Queensgate Shopping Centre to the north, and the River Nene to the south.

Figure 2.4: Peterborough Town Square

Peterborough is located on the River Nene, which flows west to east through the southern portion of the city. As shown in Figure 2.5, this river offers riverside walks and waterfront developments.

Figure 2.5: Peterborough Riverside

With predicted population growth, excellent positioning (a 50 minute commute to London King's Cross via the ECML and sitting in between the 'Golden Triangle' of the UK economy), and some of the most affordable land and property in the country, it has the potential to flourish.

2.1.2 Socio-Demographic Context

The total usual resident population of the Peterborough Unitary Authority area from the 2021 Census, is 215,700. This translates to an increase of 17.5% (32,100 residents) from the 2011 Census, when the usual resident population was 183,600[4].

Table 2.1 shows the population growth from 2011 to 2021 for Peterborough and other regions. It is notable that population growth in Peterborough is significantly higher than both the national average and regional average for the East of England, and it is recognised as one of the country's fastest growing areas. Cambridgeshire County Council (CCC) forecasts that the population of Peterborough will reach 230,650 by 2036[5].

[4] Office for National Statistics, Phase one of Census 2021 results – First Results, 2022
[5] Cambridge County Council, Population and Dwelling Stock Estimates, 2019, and 2019-Based Population and Dwelling Stock Forecasts, 2019-2036

Table 2.1: Population Growth for Peterborough and Other Regions

Geographical Region	Population Growth (2011-2021)
Peterborough	17.5%
Cambridgeshire	9.2%
East of England	8.3%
England	6.3%

The average age of a citizen in Peterborough is 43, with men averaging 42 years of age while women average 45 years of age. Only 14.6% of the population falls below the age of 15 compared to the national average of 17.4%[6], with most of the population of Peterborough between the ages of 15 and 64.

Figure 2.6 shows the age distribution for Peterborough as of 2021.

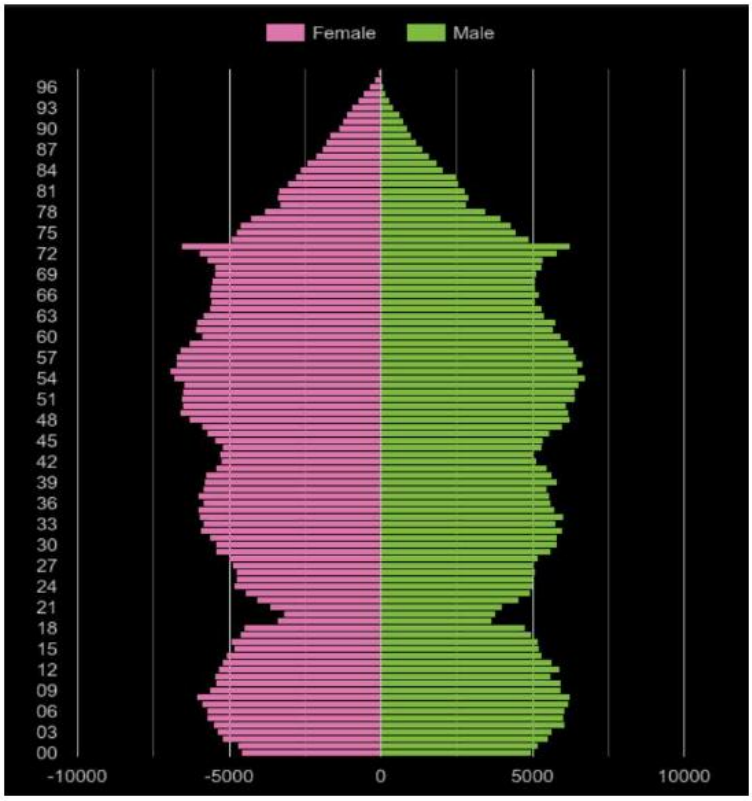

Figure 2.6: Peterborough Age Distribution[7]

[6] Office for National Statistics, Age Groups, 2021
[7] Plumplot, Peterborough Population Statistics, 2021

Table 2.2 shows the income deprivation of Peterborough compared with regional and national averages – this relates to the proportion of households encountering low income, and Peterborough performs poorly for this indicator in comparison with Cambridgeshire, the East of England and England nationally.

Table 2.2: Peterborough Income Profile[8]

Geographical Region	Income Deprivation
Peterborough	15.6%
Cambridgeshire	8.0%
East of England	11.4%
England	10.8%

According to the Index of Multiple Deprivation 2019, Peterborough is the most deprived area within the CPCA area. Barriers to Housing and Education, Skills & Training are defined as the most significant categories of deprivation for the area.

Figure 2.7 shows the breakdown of multiple deprivation in Peterborough according to each individual domain category.

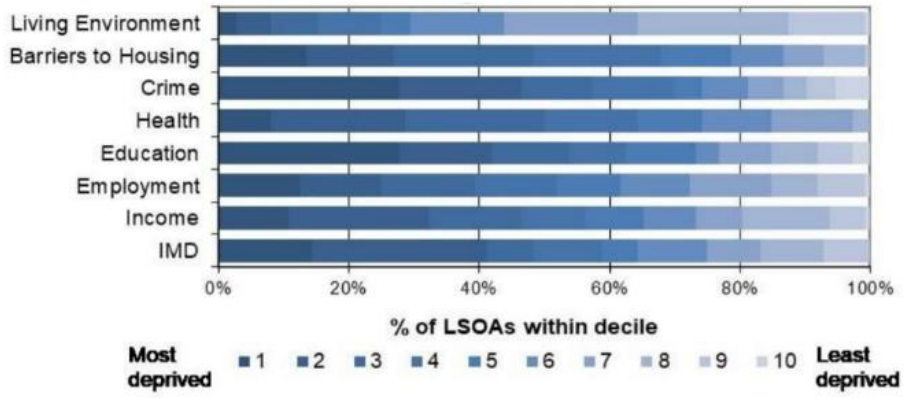

Figure 2.7: Peterborough LSOA National Decile Distribution by Individual Domain

In the context of the Levelling Up Agenda, Peterborough was categorised by the Government as a 'Priority One' area in the LUF Index used in Rounds 1 and 2 of the Levelling Up Fund specifically. The allocation of 'Priority One' status indicates that the Government deems Peterborough as a region in most need of investment through Levelling

[8] Office for National Statistics, English indices of deprivation, 2019

Up funding. This categorisation is primarily driven by the region's poor performance against the "Need for Economic Recovery and Growth" indicator, as Peterborough falls significantly below the national average in relation to Unemployment and Skills.

Whilst improving, the region lags behind the national average at every level of qualifications and educational attainment putting further pressure on meeting future demand for high skilled jobs – leaving significant future productivity gaps and hindering efforts to attract good paying jobs to the area. These issues are seeking to be addressed by the opening of the new Anglia Ruskin University (ARU) campus in Peterborough, which is a significant scheme that gained funding through the first round of LUF and complements this project.

In terms of the whole CPCA area, Peterborough is defined as having the second poorest health amongst its inhabitants with 5.1% in bad or very bad health[9]. Life expectancy is 78.2 years for men and 82.3 years for females, both of which are lower than the national average, which is 79.0 years for males and 82.9 years for females[10]. Additionally, the mortality rate from cardiovascular diseases and suicide rate is notably above the national average, both scoring in the highest quartiles[11].

Table 2.3 shows the breakdown of mode share for people travelling to work within Peterborough from the 2021 Census. Private vehicles comprise the largest proportion of mode share, with 64% of individuals declaring that they travel to work via this means. Public transport (train and bus trips) and active travel walking and cycling trips) respectively comprise only 6% and 15% of the total mode share.

Table 2.3: Peterborough Travelling to Work Mode Share[12]

Method of Travel to Work	Mode Share (%)
Private Vehicle	64
Private Vehicle Passenger / Car Share / Taxi	12
Train	1
Bus	5
Motorcycle	1
Bicycle	5
Walk	10
Other	2

[9] Office for National Statistics, TS037 - General health, 2021
[10] Office for National Statistics, National life tables – life expectancy in the UK: 2018 to 2020, 2021
[11] Public Health England, Local Authority Health Profiles, 2020
[12] Office for National Statistics, TS061 - Method used to travel to work, 2021

2.1.3 Economic Context

In 2018, the Cambridgeshire and Peterborough Independent Economic Review (CPIER) identified three interdependent subeconomies the CPCA area[13]. One of these is Peterborough which features a diverse mix of sectors and is made up of 6,840 enterprises (as of 2018). As of 2021, the local Peterborough economy produced a Gross Added Value (GVA) per head of £31,748, compared to a national average of £30,443[14].

Peterborough's city centre economy is classified by Centre for Cities as weak because of low levels of high-skilled employment in exporting industries. Peterborough has a relatively low share of office space in its core (which is dominated by the retail sector), especially when compared to strong cities with strong centres. There is an evidenced shortage of office supply within Peterborough. Barnack Estates UK Ltd published the "Peterborough Employment Land Review" in 2021, which found that more site opportunities are essential to meet market demand. This review found that two years after the adoption of the Peterborough Local Plan 2019, only 29% of the allocated supply remains available.

Additionally, this lack of office supply creates the risk of inward investment and business expansion opportunities being lost to Peterborough. It is in this context that Centre for Cities have noted that to improve Peterborough's core, "policy should focus on creating more attractive places where high-skilled, high-wage businesses can be based". The land close to the station is a prime place to deliver this given its connectivity as long as the station itself can provide the capacity and facilities required of a modern gateway.

Over the last 10 years Peterborough has grown from the bottom quarter to become the top four player within the UK's "Golden Logistics Triangle" attracting thousands of new jobs into and around the city. But not everybody in the city has benefitted from this growth as most of the service jobs (>50%) are still low skilled and today Peterborough has the highest number of people in employment and also receiving universal credit.

More than a third of all children in Peterborough are in poverty (their household is living on less than 60% of the median wage after housing costs). This is nearly 18,000 households and the current pressures on household finances as a result of inflation are also likely to exacerbate the situation.

In 2019, Peterborough operated at a productivity level of £34.5 per hour worked, falling below the national productivity average of £36.3 per hour worked[15]. Additionally, in 2021 the median gross weekly pay in Peterborough was £569.50, falling below the national average of £608.50[16]. However, this is somewhat countered by the lower average housing prices in Peterborough as compared to the national average and the East of England.

[13] Cambridgeshire and Peterborough Independent Economic Review, Final Report, September 2018
[14] Office for National Statics, Regional gross value added (balanced) per head and income components, 2023
[15] Office for National Statistics, Subregional Productivity July 2021, 2021
[16] Local Government Associate, Median gross weekly pay of employees working in the area (workplace-based) in Peterborough, 2021

By employment, Peterborough's largest sector is Business Administration and Support Services, with Professional, Scientific and Technical the largest sector by number of businesses[17]. It has been identified as a fast-growing hub of green engineering and manufacturing, part of the supply chains of the Midlands and the energy and agri-food sectors of the East of England. It also ranks 13th among UK cities for patents registered per capita. Additionally, Peterborough experienced a business population growth of 22% from 2016 to 2021, as compared with the national average of 9%[18]. This suggests the potential of the region as a burgeoning economic hub.

Despite these positives, Peterborough has lost over 500,000 sq ft of office stock since the 2007 recession through permitted residential development. The remaining available stock is often outdated, and Grade A supply is extremely limited, which impacts on the ability of Peterborough to attract high skilled jobs. Peterborough has been hard hit by the COVID-19 pandemic. Retail anchor John Lewis has departed from the city, leaving an imprint on the economic and social landscape. The Queensgate Shopping Centre underwent a £60 million extension, completed in 2022.

Unemployment levels in Peterborough tend to be marginally higher than those for the UK as a whole, but average figures mask particularly high pockets of unemployment, with a concentration in some inner city wards where other measures of deprivation are also higher than average.

Peterborough has 104,000 economically active people (defined as those between the ages of 16 and 64). Of these, approximately 98,900 are in employment and 4,600 are unemployed. Table 2.4 shows the unemployment rate of Peterborough as compared with Cambridgeshire, East England, and Great Britain as a whole. Peterborough has a slightly higher unemployment rate than these regions.

Table 2.4: Peterborough Unemployment Profile[19]

Geographical Region	Unemployment Rate
Peterborough	4.4%
Cambridgeshire	2.5%
East of England	3%
Great Britain	3.6%

[17] Opportunity Peterborough, Peterborough Economic Intelligence Report, January 2019
[18] Nomis Official Labour Market Statistics, UK Business Counts - enterprises by industry and employment size band, 2022
[19] Nomis Official Labour Market Statistics, Labour Market Profile – Peterborough, 2023

As of 2021, there were approximately 110,000 employee jobs in Peterborough. During this same period, Peterborough recorded a job vacancy rate (for local government jobs) of 30%, as compared to the national average of 9%[20]. This suggests that there is a need to attract talent into the region. Additionally, 58.6% of residents in Peterborough have attained qualification of HVQ3 and above, falling slightly short of the national average of 61.5%.

The Government Hubs Programme, which promotes regional growth through basing civil servants outside London, has seen the relocation of some government services to Peterborough. In March 2023, a new Government Hub opened with space to house 1,000 civil servants from HM Passport Office and the Department for Environment, Food and Rural Affairs, at the Fletton Quays development in the city centre. This is a significant step in instigating further relocation of services and businesses from London to Peterborough.

In addition, ARU Campus Peterborough, a CPCA and PCC initiative, is a new £30 million 2,000 student university that opened in September 2022, with an ambition to offer courses for up to 12,500 students by 2032. The aim of ARU Peterborough is to work with employers as co-creators in developing and delivering the curriculum, which will be led by student and employer demand. The vision is to deliver a step-change in life chances for people in Peterborough and beyond, helping to improve and retain the skills of people in the region while also bringing additional opportunity and prosperity to the area. These aforementioned projects will complement each other and the PSQ programme as they all strive to significantly raise the quality of facilities in Peterborough and attract talent to the region.

2.1.4 Environmental Context

Economic welfare and social wellbeing are closely linked to the quality of the environment. PCC has a long-standing environmental track record since it was named as one of four UK 'Environment Cities' in the early 1990s. In May 2017, PCC developed Environment Action Plans (EAP) for both the Council's own activities and those of the city and subsequently in July 2019, PCC declared a climate emergency, committing to make the council's activities net-zero carbon by 2030, and to also help Peterborough become a net-zero carbon city by 2030.

Despite these ambitious plans, the region suffers from various environmental issues. Air quality is a significant environmental threat to human health in Peterborough. $PM_{2.5}$, fine particulate matter of 2.5 micrometres or less in diameter, is the most dangerous pollutant because it can penetrate the lung barrier and enter the blood system, causing cardiovascular and respiratory disease and cancers. The World Health Organisation (WHO) states that annual average concentrations of $PM_{2.5}$ should not exceed 5 $\mu g/m^3$, while 24-hour average exposures should not exceed 15 $\mu g/m^3$ for more than 3-4 days per year[21].

[20] Local Government Association, Vacancy rate in Peterborough, 2022
[21] World Health Organization. WHO global air quality guidelines. Particulate matter ($PM_{2.5}$ and PM_{10}), ozone,

In 2019, the area surrounding Peterborough Station recorded an average annual $PM_{2.5}$ level of 10.13 µg/m^3 [22]. This value dropped to 7.56 µg/m^3 in 2020, largely due to the reduction in activity due to the COVID-19 pandemic. While these values fall under the UK legal annual limit of 25 µg/m^3, both years recorded $PM_{2.5}$ values exceeding WHO recommended safe guidelines.

Climate change is one of the main environmental threats currently facing the UK. While it is notable that overall emissions in Peterborough have been on a downward trend in recent decades, the Local Authority had estimated greenhouse gas emissions of 1,178kt CO_2e in 2021[23]. This is an increase from 2020, a year where figures were affected by COVID-19, but a slight decrease from pre-pandemic levels in 2019. Emissions are largely driven by high road transport activity and four large industrial installations in the region. Road transport alone contributes 32.5% of Peterborough's total emissions.

Table 2.5 shows a comparison of Per Capita Emissions (in tonnes) for Peterborough and other regions in England. Peterborough exhibits higher Per Capita Emissions than London and is around the same as the national average. While these discrepancies can be attributed to differing population densities, the presence of industry, and the varying availability of urban transport systems, it is apparent that Peterborough is in a position to improve its standing against the national benchmark. Making improvements is also vital to meet PCC's target of making Peterborough a net-zero carbon city by 2030.

Table 2.5: Comparison of Per Capita Emissions

Geographical Region	Per Capita Emissions (tonnes CO_2e)
Peterborough	5.4
Cambridgeshire	10.0
London	3.4
England	5.5

In light of these challenges, CPCA commissioned an independent report on climate change in the region. This highlights the higher than average per person emissions in the region and recognises that the region is at a higher risk of climate change related events such as flooding, high summer temperatures, and water shortages. As such, the report

nitrogen dioxide, sulphur dioxide and carbon monoxide. 2021.
[22] Department for Environment Food & Rural Affairs. UK AIR, Air Information Resource. 2021.
[23] Department for Energy Security and Net Zero, UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021

recommends urgent action is taken to reduce the impacts through measures such as investment in green infrastructure and sustainable transport[24].

2.2 Organisation Overview

The project and wider PSQ programme has been developed by a partnership of organisations. These organisations are summarised in Table 2.6, along with their general functional responsibilities and strategic priorities.

Table 2.6: Organisation Overview for the PSQ Programme

Organisation	Role	Responsibilities	Strategic Priorities
Peterborough City Council (PCC)	• Project promoter	• Local Authority	• Drive growth, regeneration and economic development in Peterborough • Keep communities safe, cohesive and healthy • Achieve the best health and wellbeing for the city
Cambridgeshire and Peterborough Combined Authority (CPCA)	• Project promoter/ funding conduit	• Combined Authority	• Double the size of the local economy • Accelerating house building rates to meet local and UK need • Deliver outstanding and much needed connectivity in terms of transport and digital links • Provide the UK's most technically skilled workforce • Transform public service delivery to be much more seamless and responsive to local need • Grow international recognition for our knowledge based economy • Improve the quality of life by tackling areas suffering from deprivation
Network Rail	• Project supporter/ technical assurance	• Railway infrastructure owner, operator and infrastructure manager	• Deliver best possible service to passengers and freight customers

[24] Cambridgeshire and Peterborough Independent Commission on Climate, Fairness, nature and communities: addressing climate change in Cambridgeshire and Peterborough, 2021

Organisation	Role	Responsibilities	Strategic Priorities
London North Eastern Railway (LNER)	• Project supporter/ operational assurance	• Railway service operator and Station Facility Owner under FRI lease	• Provide the highest customer service to passengers
Department for Levelling Up, Housing and Communities (DLUHC)	• Policy Lead	• Supports communities across the UK to thrive, making them great places to live and work.	• Raise productivity and empower places so that everyone across the country can benefit from levelling up (cross-cutting outcome) • More, better quality, safer, greener and more affordable homes
Department for Transport (DfT)	• Project Funder/ Project Assurance/ Policy Lead	• Sets the strategic direction for the rail industry in England and Wales – funding investment in infrastructure through Network Rail	• Boosting economic growth and opportunity • Building a One Nation Britain • Improving journeys • Safe, secure and sustainable transport

2.3 Business Strategy and Wider Strategies

The project and wider PSQ programme fits within a wider national, regional, and local strategic context. It is important to identify and explore the relevant policy documents relating to the project, as this sets the strategic focus and helps support the need for the project.

Figure 2.8 summarises these relevant strategy documents, at a national, regional, and local scale, along with the relevant document owner for the former. The project is aligned with the aspirations of these documents.

In the following sections, the relevance of these strategy documents is summarised in relation to the project and wider PSQ programme.

Figure 2.8: Relevant Strategic Documents at National, Regional and Local Levels

2.3.1 National

UK Central Government

The project supports the UK's **'Build Back Better: our plan for growth'**, which superseded the post Brexit Industrial strategy. This new strategy, released in 2021, is primarily centred around ensuring that no region is left behind as the Government plans to deliver growth and high-quality jobs.

This project is also closely linked to the **Levelling Up** policy. Levelling Up is Government policy that primarily relates to the spreading of economic and social opportunities more evenly across the country. A Levelling Up White Paper published in February 2022 sets out how the Government will spread opportunity more equally across the UK and this is now in the Bill stage in Parliament. Round 2 of the Levelling Up Fund has awarded a share of £2.1

billion to 111 areas, including around £48 million to Peterborough for this project. This report outlines 12 key missions that set the medium-term ambition of the UK Government and are an anchor for the expectations and plans of the private sector and civil society.

Table 2.7 outlines four of these missions which are most relevant to the PSQ programme. This project would support a levelling up of opportunities both in the locale of Peterborough and wider commuting catchment but also more broadly through the importance of Peterborough in terms of rail connectivity.

Table 2.7: Relevant Levelling Up Missions to PSQ Programme

Focus Area	Mission	Relevance to PSQ Programme
Living Standards	By 2030, pay, employment and productivity will have risen in every area of the UK, with each area containing a globally competitive city, and the gap between the top performing and other areas closing	This project will support economic growth and levelling up in Peterborough through the creation of a revitalised public transport gateway to the city (complementing other key investments) and the unlocking of land around the station for commercial and residential development – the proximity by rail to London will provide the opportunity for higher value jobs to be created in the city, improving of life chances of those in neighbouring deprived communities.
Transport Infrastructure	By 2030, local public transport connectivity across the country will be significantly closer to the standards of London, with improved services, simpler fares and integrated ticketing	This project is primarily aimed around improvements to Peterborough's transport infrastructure and raising the standards of the facilities in and around Peterborough station to the sort of levels seen at London rail stations such as King's Cross, whereas without intervention, certain parts of the station will be operating at the lowest possible level of service by 2042, due to passenger congestion, whereas this project will improve journey quality, passenger facilities, sustainable transport connections and provide a new western access to the station.
Health	By 2030, the gap in Healthy Life Expectancy (HLE) between local areas where it is highest and lowest will have narrowed, and by 2035 HLE will rise by five years	This project will deliver improvements to active travel infrastructure and reduce local congestion around the station, which will result in health benefits arising increased levels of exercise and improved air quality.
Wellbeing	By 2030, well-being will have improved in every area of the UK, with the gap between top performing and other areas closing	The improved active travel connections and public realm around the station will result in wellbeing and quality of life benefits expected for users of the station and the residents of Peterborough, relating to improved journey quality, safety and accessibility and a reduction

Focus Area	Mission	Relevance to PSQ Programme
		in severance between the rail station and the city centre.
Pride in Place	By 2030, pride in place, such as people's satisfaction with their town centre and engagement in local culture and community, will have risen in every area of the UK, with the gap between top performing and other areas closing	This project will provide a new gateway to Peterborough, through the way of improved station facilities, improved public realm surrounding the station, and improved active travel connections to the city centre, contributing to an increased pride in place for the residents of Peterborough, whilst the station buildings (both new and existing) will be more modern in design and representative of a modern, youthful city such as Peterborough.

Additionally, Figure 2.9 sets out a logic map demonstrating the strategic alignment of levelling up priorities from policies through to the PSQ programme. This highlights the further reach of the levelling up agenda beyond the Levelling Up Bill, and how it integrates with wider policies and programmes.

Land values for housing within the PSQ area are lower than the city average, the retail market has been hit hard due to the pandemic resulting in retail anchor John Lewis leaving the city and office rents are circa £17/sq ft making speculative development unviable. As previously mentioned, Peterborough has lost over 500,000 sq ft of office stock since the 2007 recession through permitted residential development conversion. The remaining available stock is circa 20 years old and Grade A supply is extremely limited, which is perpetuating the city's failure to attract high skilled jobs.

The delivery of an enhanced rail station, public realm and improved multi-modal connectivity will act as a catalyst to address the current market failures and support further development phases and inward investment to the city.

It also aligns with the objectives set out in the '**Homes England Strategic Plan 2023 to 2028',** centring around supporting levelling up and regeneration. As well as creating the homes people need, it focuses on the creation of vibrant and successful places through regeneration. A key part of this plan is through the unlocking of strategic sites that can allow for the delivery of mixed-used development. It supports achieving these aims through the development of masterplans, such as that developed for the PSQ programme.

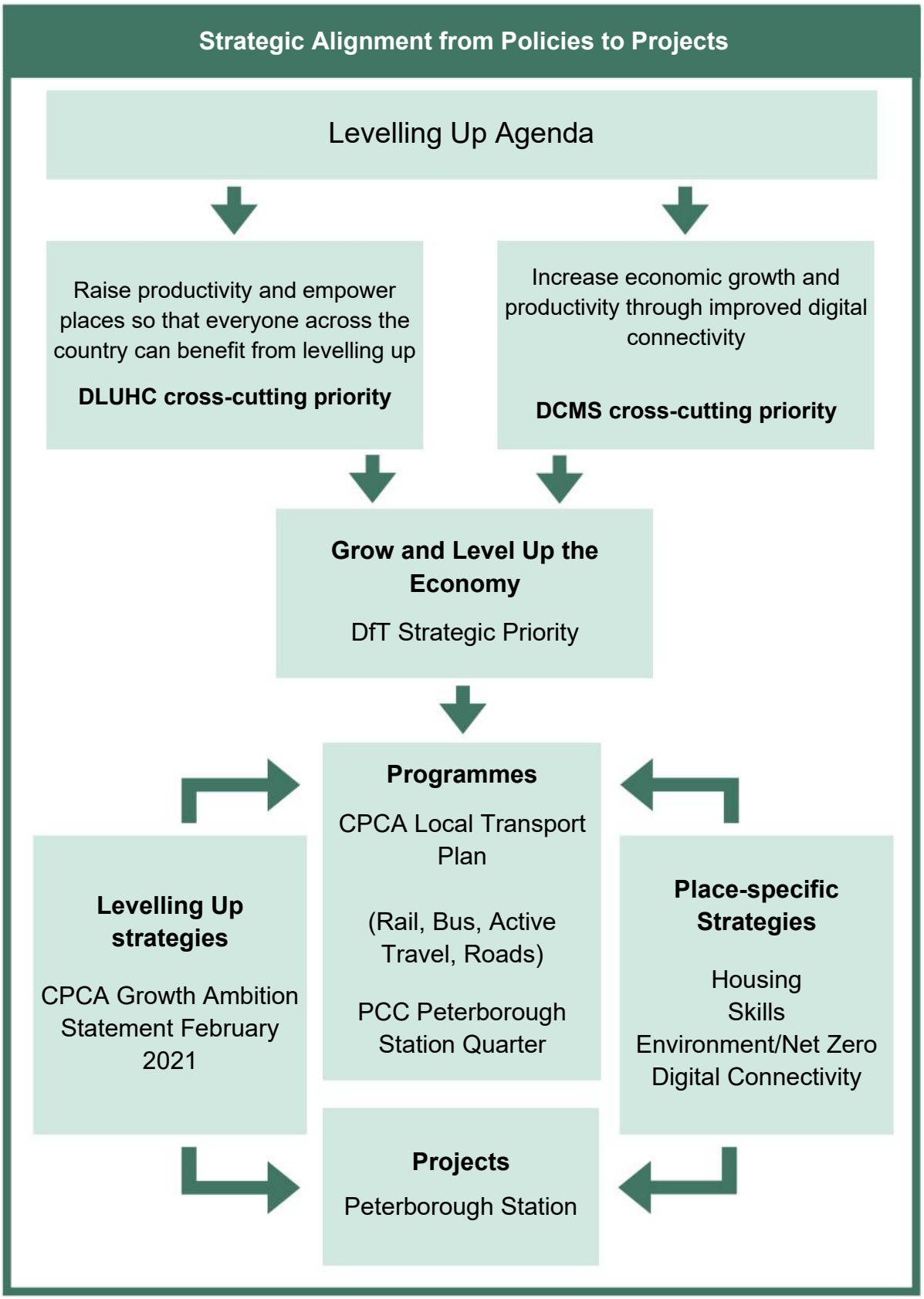

Figure 2.9: Strategic Alignment of Levelling Up Priorities to PSQ Programme

This project further supports the UK's pledge to bring all greenhouse gas emissions to **net zero by 2050** through encouraging modal shift to rail. The **'Net Zero Strategy: Build Back Greener'**, released in 2021, further iterates this pledge and establishes a strategy for its success. This document outlines numerous commitments as a part of this strategy, the following of which are directly related to this project:

- Increase the share of journeys taken by public transport, cycling and walking;
- Support decarbonisation by investing more than £12 billion in local transport systems over the current Parliament;
- Invest £2 billion in cycling and walking, building first hundreds, then thousands of miles of segregated cycle lane and more low-traffic neighbourhoods with the aim that half of all journeys in towns and cities will be cycled or walked by 2030.

This project is aligned with the **Clean Growth Strategy**, published in 2017, outlining the Government's strategy towards growing the national income while cutting greenhouse gas emissions. It is particularly aligned with the policy of "Encouraging Low Carbon Alternatives to Car Journeys", as the Government proposes to continue to "invest in public transport, and help people to cycle, walk or travel by bus or train."

Additionally, this project has been developed in alignment with the **Clean Air Strategy**, published in 2019, outlining how the Government will tackle all sources of air pollution. This project supports the strategic direction for transport, which accelerates the shift from road to rail, supports more active modes of travel, and improves local air quality.

Department for Transport

The **'DfT Outcome Delivery Plan: 2021 to 2022'** sets out how DfT will achieve their strategic priorities as the country recovers from the COVID-19 pandemic.

Table 2.8 outlines the key priority outcomes from this plan along with their alignment to the PSQ programme.

Table 2.8: Priority Outcomes from 'DfT Outcome Delivery Plan: 2021 to 2022'

Priority Outcomes	Relevance to the PSQ Programme
Grow and Level Up the Economy: Improving connectivity across the UK and growing the economy by enhancing the transport network, on time and on budget	This project supports levelling up through the overarching aim to revitalise the economy of Peterborough, facilitated by an improved transport gateway to the City and District
Building confidence in the transport network as the country recovers from COVID-19 and	This project enhances the journey experience for users of Peterborough Station through the significant improvements of facilities, with a

Priority Outcomes	Relevance to the PSQ Programme
improving transport users' experience, ensuring that the network is safe, reliable, and inclusive	focus on safety, inclusivity and connections with active travel infrastructure
Tackling climate change and improving air quality by decarbonising transport	The PSQ programme can help tackle climate change through the promotion of local and national rail transportation and incorporation of low carbon building technologies. Local air quality can be improved through the optimisation of the adjacent traffic network and improved interfaces with sustainable modes of transport

The **'Decarbonising Transport Plan: A Better, Greener Britain'**, released in 2021, is an overarching document outlining how the UK plans to reduce the environmental impact of transport, primarily through contributions to climate change and air pollution.

The Peterborough Station Enhancements and Connectivity Improvements Project relates to Part 2a 'Decarbonising our railways', through the following commitments:

- We are building extra capacity on our rail network to meet growing passenger and freight demand and support significant shifts from road and air to rail.

- We will improve rail journey connectivity with walking, cycling and other modes of transport in line with the transport hierarchy incorporating recent changes to the Hierarchy of Road Users for changes applied from January 2022.

The project will achieve these commitments through the increased passenger capacity within the station and platforms, and also through the provision of improved cycle and walking facilities and the connections from the city centre to the station.

The project also significantly relates to Part 2b 'Delivering decarbonisation through places'. This section of the document outlines plans to support *'levelling up across the UK, reducing congestion in areas where it is a barrier to productivity, bringing extra capacity to greener public transport, improving health and wellbeing by making places more pleasant to live and work in and supporting jobs to deliver future transport needs.'* Through the reduction of local congestion in Peterborough city centre, local air quality will improve, providing health and wellbeing benefits to residents and commuters. Additionally, improved bus and active travel connections will encourage modal shift from cars.

Furthermore, the project is supported by following commitment:

'We will support decarbonisation by investing more than £12 billion in local transport systems over the current Parliament, enabling local authorities to invest in local priorities including those related to decarbonisation such as reducing congestion and improving air quality.'

In relation to the policy document **'Connecting people: A Strategic Vision for Rail'**, this project directly relates to 'Section 2 - An expanded network: Opening routes to unlock housing and development'. Section 2.24 identifies a renewed strategy where *'the focus is on innovative opportunities around stations, where regeneration schemes can improve the passenger experience with high quality urban design of appropriate density, and integration of different transport modes. This could also potentially generate additional housing opportunities in high-demand locations.'* This is closely tied to the vision of the Peterborough Station project.

Additionally, in section 2.49, DfT recognises it can be challenging to make a case for transport projects that enable new housing developments compared to projects where the national economic benefits may well be higher. To accommodate the decision making process for these projects, DfT have requested clear strategic focus and good evidence about the opportunities being created and the benefits delivered.

This project can further be subject to 'Section 3 – A better deal for passengers'. Section 3.23 under 'A more accessible railway' acknowledges the needs of individuals with disabilities and outlines how the railway system should provide maximum accessibility for the various types of disabilities. This project will address this through minimising the effort that all people will require to make a journey, from the ease of connections to the city centre through to the additional entrances and expansion of space/facilities within the station complex.

The **'Integrated Rail Plan (IRP) for the North and Midlands'** published in November 2021 sets out a blueprint for the development of train services across the Midlands and North and towards Scotland and London. Much of the content of the plan has been superseded by the announcement in October 2023 that HS2 north of Birmingham has been cancelled by Government, with funding being diverted to other transport projects in the North and Midlands (see Network North below).

However, the IRP is still relevant in the context of Peterborough as it identifies a comprehensive package of upgrades on the ECML to further improve line speed increases and seat capacity. These plans remain despite the cancellation of the remainder of northern leg of HS2. The Government states that they will ensure digital signalling is delivered as well as an upgrade of the power supply to allow longer and more frequent trains, increase maximum speeds up to 140mph in some places, improve the capacity of stations, and remove bottlenecks such as flat junctions and crossings. This is expected to reduce journey times from London to York and Darlington by up to 15 minutes and to other parts of the North East and Edinburgh (subject to stopping patterns) by around 25 minutes.

It will also reduce journey times from London to Leeds by around 20 minutes. The project therefore aligns with the IRP proposals.

Published in October 2023, the **'Network North'** policy paper sets out a £36 billion plan for improvements to the rail network following the cancellation of the Birmingham to Manchester leg of HS2. Included in this package is an upgrade to the bottleneck at Ely Junction, with this improvement allowing for a doubling of passenger services on the Ipswich to Peterborough routes.

The project also aligns with the approach set out in DfT's **'Rail Network Enhancements Pipeline (RNEP)'**, which outlines the requirements for rail enhancements requiring government funding. The project is directly aligned with three of the RNEP's key priorities, as shown in Table 2.9.

Table 2.9: Key Priorities from 'Rail Network Enhancements Pipeline'

Priority	Relevance to Peterborough Station Enhancements
Priority 1 'Keeping people and goods moving smoothly and safely'	This project will ease crowding at Peterborough station and reduce local journey times to access the station.
Priority 3 'Offering more: new and better journeys and opportunities for the future'	This project enhances the journey experience for users of Peterborough station and will also support economic and housing growth within Peterborough.
Priority 4 'Changing the way the rail sector works for the better'	This project will support multifunctionality at Peterborough station through the addition of new commercial office spaces and creation of new jobs for railway staff. It is expected that 45 new jobs will be generated within the station complex.

In 2021, the UK government released the document **'Great British Railways: The Williams-Shapps Plan for Rail'**. This document announced the creation of a new public body, Great British Railways, which will own rail infrastructure, receive the fare revenue, run and plan the network and set most fares and timetables. Network Rail will be absorbed into this organisation, as will many functions from the Rail Delivery Group, DfT and certain aspects of the existing Train Operators. This document further outlines the future strategy for Great British Railways. Table 2.10 shows the particular relevance of key strategic elements from this report to the project.

Table 2.10: Strategic Elements from 'Great British Railways: The Williams-Shapps Plan for Rail'

Strategic Element	Relevance to Peterborough Station Enhancements and Connectivity Improvements
Chapter 3 – Integrating the railways	
15. Opportunities to better unlock housing, local economic growth and social value will be explored. Our railways also provide connections that are fundamental to good placemaking and rail links can be a catalyst for regeneration and development. Great British Railways will work with partners to support better development near stations and share best practice, using the essential understanding of how to develop sites alongside operational railways that it will take on from Network Rail.	The project is largely centred around regenerating the urban area of Peterborough/surrounds and unlocking housing development on underutilised land.
Chapter 5 – A new deal for Passengers	
34. Customer service at stations will be modernised, with one-team working expanded across the network.	The modernisation of Peterborough station is aligned with Great British Railways vision for enhanced customer service. This station plan aims to embrace new styles of multi-skilled workforces that not just provides efficiency in delivery but also flexibility for changes in customer for those using Peterborough station as an interchange point in their ongoing journeys..
39. Journeys across rail, bus, tram and bike will become seamless in the future.	The project will improve rail connections to the bus network (through ease of pedestrian access) and active transport connections (through improving cycle/foot paths and cycling parking) while retaining the ability for the use of the network to grow.
40. Getting to the station on a bike and taking it on a train will be made easier.	The project will provide improved cycle connections to the station, and cycle parking at all station entrances.

DfT released the **'Inclusive Transport Strategy'** in 2018, which sets out the Government's plans to make the transport system more inclusive, and to make travel easier for disabled people.

The project will offer the opportunity to address Objective 4 of this strategy - 'Inclusive Physical Infrastructure – taking steps to ensure that vehicles, stations and streetscapes are designed and built so they are inclusive and easy to use'. The expansion of passenger space within the station will accommodate the needs of all passengers and will meet with the Network Rail Station Planning Guidance Section 3.4 (March 2021).

DfT released the **'Cycling and Walking Investment Strategy'** in 2017. This strategy sets out the Government's ambition to make walking and cycling the natural choices for shorter journeys, or as part of longer journeys. The project will support the key objectives to increase cycling and walking activity, through the provision of cycling infrastructure, the new civic realm and enhanced connections to the city centre.

This project aligns to the DfT strategy document, **Gear Change: A bold vision for cycling and walking**, released in 2020. A key commitment from this document is to *"make sure the railways work better with cyclists"*, highlighting how the Government will improve the connections between the railway and bicycles, matching the convenience of the car. This project strives toward this commitment, as bicycle connections between the station and surrounding areas are improved.

DfT released **'Bus Back Better: National Bus Strategy for England'** in 2021. This strategy outlines how bus services should be 'integrated with other types of transport in their area such as connectivity to train stations, making journeys simple and stress-free for customers. This strategy will be reflected in this project through the consideration of bus interchange opportunities as part of the design process.

Network Rail

The Peterborough Station Enhancements and Connectivity Improvements project aligns with the findings from the **'East Coast Main Line Route Study'**, published in 2018. Peterborough is identified as a significant interchange between 'ECML South: London to Peterborough' and 'ECML Central: Peterborough to Doncaster and Leeds'. Additionally, the route study cites the importance of *'supporting growth in the long-distance market by enabling better connectivity, and more opportunities to travel'*.

From this study, Network Rail recommended down slow speed improvements at Peterborough station to provide benefits through increasing the line speed on the approaches to the station, allowing trains to access and clear the station more quickly. This was assessed as a low cost investment (a categorisation for investments up to £20 million).

Within relative proximity to Peterborough station, Network Rail also recommended investment in the Huntingdon to Woodwalton four-tracking scheme (to the south of Peterborough) and the Werrington Grade Separation scheme (to the north of Peterborough). The Huntingdon to Woodwalton four-tracking scheme involves increasing the line capacity from Huntingdon to Woodwalton from three to four tracks. The Werrington Grade Separation involves the construction of a dive under route for freight traffic travelling from the west side of the ECML to the GNGE joint line, to avoid conflict with mainline services. Of these schemes, the Werrington Grade Separation has now been completed to provide the first stage of network improvements in the area .

Since the COVID-19 pandemic, Network Rail re-examined the conclusions of the East Coast Main Line Route Study through the **'Peterborough Area Strategic Advice Study'** to understand whether further operational railway enhancements may be needed in the future in and around Peterborough, such as new platforms and/or track modifications, as well as potential diversions for increased rail freight demands. This work involved consultation with all applicable Train Operating Companies.

The project will consider the recommendations of the **'Peterborough Area Strategic Advice Study'** and **'Continuous Modular Strategic Planning - Eastern Region Depot and Stabling Strategy'** by Network Rail. The former has recommended that passive provision for an additional through platform on the western side as well as a north facing bay platform either on the east or west. The Depot and Stabling Strategy was developed for the North East, East Coast and East Midlands routes to understand whether depot and stabling (D&S) locations are in the right places and provide enough capacity to service the future passenger rolling stock fleet. The study determined that Peterborough could be a significant area to relieve some of the pressure from London due to the higher availability of land. Additional D&S facilities in the Peterborough Station region may also be deemed necessary to accommodate growth on the ECML.

It should also be mentioned that the project will be developed with reference to Arup and Network Rail's report **'Tomorrow's Living Station'**, released in October 2019. This document sets out a way of thinking that incorporates the fundamental role of stations and railways in moving people safely but also explores broader issues and opportunities for stations. Fundamentally, it proposes developing stations that act as the centre of movement of people, support inclusive growth, and form the heart of communities. The Peterborough Station project closely aligns with these values as it plans to revitalise the social and economic environment of Peterborough and wider area.

2.3.2 Regional

The key ambitions for CPCA are set out below, which are defined in greater detail through a range of policy documents as discussed in the following section:

- Doubling the size of the local economy;

- Delivering outstanding and much needed connectivity in terms of transport and digital links;
- Providing the UK's most technically skilled workforce;
- Growing international recognition for our knowledge-based economy;
- Improving the quality of life by tackling areas suffering from deprivation

CPCA released their **'Sustainable Growth Ambition Statement'** in March 2022, which restates the Devolution Deal commitment to double the size of the Cambridgeshire and Peterborough economy over the 25 years from the date of the Devolution Deal. It also describes six themes which inform the Combined Authority's investment programme. These reflect an economic approach anchored in growth theory, aiming to maximise not only annual headline growth in the economy, but also achieving growth in people – skills and health, climate and nature, infrastructure, innovation, reducing inequalities and improving institutional capital. The project directly and indirectly strives to meet all of these ambitions, through changing the physical environment and activating the region.

The **'Local Industry Strategy (LIS)',** released in 2019, links closely to this statement, delving into the specific plan to support the region's various industries. It cites that delivering transformational transport projects will improve the long-term capacity for growth. This strategy provides reference to the PSQ programme as a means to attract high quality jobs and deliver business space to the region.

CPCA also released their **'Local Economic Recovery Strategy (LERS)'** in 2021. This plan sets out how the region will accelerate the recovery and renewal of the economy in light of the COVID-19 pandemic. It consolidates how the region can get back on path to achieving its goals set in the 2019 LIS, while dealing with newer issues that have arisen over the past year. This strategy highlights the PSQ programme as a significant intervention for recovery and future growth.

The **'Local Transport Plan'**, released in 2020 and currently being updated, outlines how transport interventions can be used to address current and future challenges for Cambridgeshire and Peterborough. This overarching document sets out the policies and strategies needed to secure growth. The project is referenced in this plan, and particularly relates to the guiding principles of:

- Supporting economic growth and distributing prosperity;
- Providing attractive alternatives to driving – 'mode shift';
- Preparing for the future of mobility;

- Greening our transport infrastructure; and
- Supporting social mobility and access to opportunity for all.

CPCA released their **'Draft Local Transport & Connectivity Plan (LTCP)'** in 2022. The project contributes towards the key vision of the LTCP, which is provide a transport network which secures a future in which the region and its people can thrive. Additionally, it is aligned with the six LTCP goals relating to Productivity, Connectivity, Climate, Environment, Health, and Safety.

The **'Bus Service Improvement Plan'**, released by CPCA in 2021, was developed in accordance with the National Bus Strategy to set out the region's plan and align this on the national scale. It specifies how bus services will link to rail stations and hubs, providing integration with active modes. The relocation of the Peterborough Station bus stop as a part of the project will coincide with this improvement plan. In addition, feasibility funding has been allocated to consider relocation of the existing bus depot to assist in electrifying the fleet.

In March 2023, CPCA released their **'Bus Strategy'**, setting out the principles of how CPCA intends to reach its ambition of reducing car miles in the region by 15%, and doubling bus patronage by 2030. Methods to achieve this include improvements to convenience, speeding up journeys by implementing more effective bus priority measures, and simplifying ticketing to create a "London-style network" across the region. Infrastructure improvements are also planned such as transitioning to low emission vehicles and providing high quality passenger waiting facilities with more real-time information. This aims to make bus travel more attractive, leading to a higher percentage of mode share.

A draft **'Alternative Fuels Strategy'** for CPCA and New Anglia LEP was produced in February 2022, setting out a detailed plan for actions to support clean growth, support decarbonisation, improve air quality, and accelerate the uptake of alternative fuel vehicles in the region. Key priority actions include working with local authorities to disincentivise private car use, expanding bus and rail capacity, and supporting an increase in active travel. This helps to improve public health through the combination of increased levels of exercise and improved air quality.

The Cambridgeshire & Peterborough Independent Commission on Climate released their strategy document, **'Fairness, nature and communities: addressing climate change in Cambridgeshire and Peterborough'** in 2021. The Peterborough Station project aligns with this climate strategy, through supporting the target of a 'reduction in car miles driven by 15% by 2030 relative to baseline'. Furthermore, the commission identifies the need to explore the following:

- Options to improve cycling infrastructure both within urban areas, and to encourage the use of e-bikes for longer trips to and from market towns and cities;

- Alternatives to road investment to be prioritised for appraisal and investment, from active travel and public transport options, to opportunities for light rail and bus rapid transit or options to enhance rail connections.

England's Economic Heartland (EEH), the sub-national transport body for the region covering Peterborough, released their **'Rail Strategic Objectives'** in July 2023. This sets out strategic objectives for several train routes including the East Coast Main Line. For Peterborough, these include short-term plans (up to 5 years) to provide a multi-transport interchange at Peterborough and Stevenage. Medium-term plans (5-20 years) include improving the resilience of the network between Peterborough and London to provide more reliable journeys.

2.3.3 Local

The **'Peterborough Local Plan 2016-36'** contains the adopted planning policies for the growth and regeneration of Peterborough and the surrounding villages up to 2036, although work has begun on updating the plan. The Peterborough Station project directly relates to Policy LP48: Railway Station Policy Area, '*where council will support and encourage high quality mixed-use developments which create an attractive and legible gateway into the rest of the city centre.*' The Peterborough Station Enhancements and Connectivity Improvements project will form a key part in the delivering of the place based policy ambitions of the area.

PCC has championed the development of the Peterborough station and the PSQ programme. The **'PSQ Feasibility and Masterplan'**, produced in 2021 by NORR, is a high-level feasibility document for the redevelopment of Peterborough Station. This document was the starting point that established the vision for the project, and has since been updated in line with this OBC.

The **'Town Investment Plan'**, released by Peterborough Town Board and PCC in 2020, outlines the priorities for future investment in the region. This document sets the PSQ programme as a focus in relation to land use, planning and infrastructure.

In 2020, PCC also produced **'Peterborough City Centre: Transport Vision 2040'** as a guide to inform future planning policy, largely centred around Peterborough station. Whilst the document is in need of revision and further development, the project supports the key outcomes from this vision including:

- A substantial reduction in vehicle trips through the city centre, and the location of one of the identified travel hubs;

- A well-connected network of public realm corridors, providing a safe and pleasant space for sustainable modes of transport;

- A vibrant and thriving city centre economy, accessible to all users;
- An urban environment where nature has a home, and urban greening is used to soften the visual impact of infrastructure.

Additionally allied to the transport vision are the following documents:

- A draft 'Peterborough Public Realm Strategy', which develops a plan for public realm improvements. The PSQ programme plays a significant role in this document, which has the strategic aim of creating a cultural, connected, natural city.
- The draft 'Local Cycling and Walking Infrastructure Plan 2020 – 2029' developed in response to the DfT's Cycling and Walking Investment Strategy to provide a proactive approach to future investments. This plan highlights the council's commitment to encouraging active travel modal shift throughout the wider Peterborough municipality area. The improvements to cycling and walking connections in association with the project will strongly align with the priorities in this document.

2.4 Existing Arrangements

Peterborough station is an important rail interchange on the ECML. It holds national significance as being the interchange point between 'ECML South: London to Peterborough' and 'ECML Central: Peterborough to Doncaster and Leeds', as well as long distance and local east-west services. As previously mentioned, Peterborough Station offers twice hourly express train access to London Kings Cross in just under 50 minutes, to York in 1 hour 15 minutes and Leeds in 1 hour 30 minutes. The station is managed by LNER, who are currently publicly owned.

In the 2018/19 period, the station saw an annual throughput of 5 million passengers, including 960,000 who used Peterborough as an interchange for services to other destinations. While numbers declined during the COVID-19 pandemic, by 2021/22 there was a partial recovery with 4.2 million passengers, reflecting the continued recovery of rail travel to pre-pandemic levels in the UK.[25]

LNER overall have been one of the leading Train Operating Companies (TOCs) in terms of this recovery, with January to March 2023 passenger numbers reaching 111% of the levels seen in the same period in 2019. East Midlands Railway, another TOC serving Peterborough, has also exceeded passenger numbers in 2019, carrying 101% of the passengers from pre-pandemic levels four years ago[26].

[25] Office of Rail and Road, Passenger entries and exits and interchanges by station, 2022
[26] Office of Rail and Road, Passenger journeys by operator January to March, 2023

To accommodate this significant capacity, the station features 7 platforms, last upgraded as part of a series of improvements in 2013.

2.4.1 Station and City Centre Active Mode Connectivity

Peterborough station is located approximately 500 metres west of the city centre (defined as Peterborough Town Square) and 200 metres west of the Queensgate Shopping Centre and Peterborough Bus Station.

The station is physically severed from the city centre by Bourges Boulevard (A15) and Queensgate Roundabout as well as visually by the multi-storey car parks of Queensgate Shopping Centre that block views of the Cathedral. Phase 1 of the Bourges Boulevard improvement scheme (the area between the station and Queensgate) was completed in July 2015, and provided two at-grade pedestrian crossings, a right turn junction out of the station and significant enhancements to public realm although it has been acknowledged that further improvements could still be made to increase permeability and better stitch the station into the fabric of the city centre.

Some signage is provided as illustrated by Figures 2.10 and 2.11.

There is a designated walking and cycling path towards the city from the station, as shown in Figures 2.12 and 2.13. This pathway starts from behind the British Transport Police building on Station Road and continues through an underpass to Cowgate, which is a main street leading into Peterborough Town Square.

Figure 2.10: Directional Signage from Station to City Centre

Figure 2.11: Directional Signage from Station to City Centre

Figure 2.12: Walking and Cycling Path from Station to City Centre

Figure 2.13: Walking and Cycling Path from Station to City Centre

Figures 2.14 and 2.15 show two of the three underpasses leading from the station to the City centre, crossing through Queensgate Roundabout. These paths feature a number of inclines in order to reach the underpass level, and cyclists and wheelchair users are required to take a circular ramp to reach pavement level at Cowgate.

Figure 2.14: Underpass from Station to Queensgate Roundabout

Figure 2.15: Underpass to Queensgate

Figure 2.16 shows the privately owned pedestrian footbridge linking the station to Queensgate Shopping Centre and Queensgate Bus Station, the main bus station in the City centre. This structure allows pedestrians to pass over Bourges Boulevard but is not Equality Act compliant. The ramp has steps, as shown in Figure 2.17, and there is no lift provision connected to the bridge - although there is in the adjacent car park. Those with accessibility requirements are currently required to use an at-grade crossing across Bourges Boulevard.

Figure 2.16: Pedestrian Footbridge to Queensgate Shopping Centre

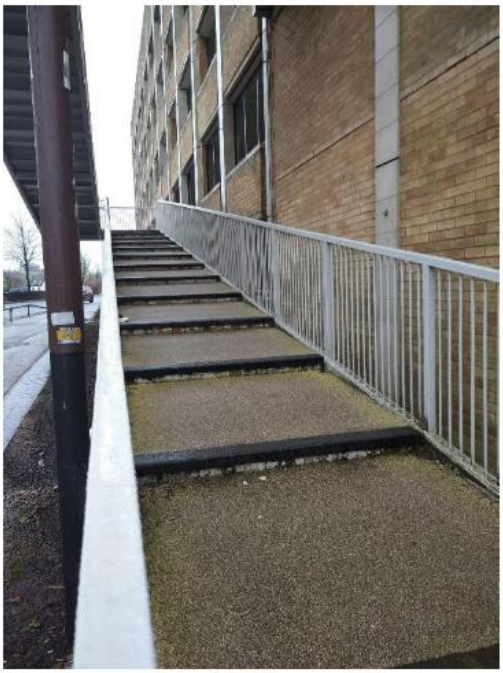

Figure 2.17: Stair Access on Pedestrian Footbridge to Queensgate Shopping Centre

2.4.2 Station Vehicular Connectivity

Queensgate Roundabout, as shown in Figure 2,18, is a 5-arm roundabout junction to the south east of Peterborough station. This is a significant junction for the local area, being directly adjacent to the Peterborough station, Queensgate Bus Station, Crescent Bridge and Cowgate. As previously outlined, pedestrian and cycling connections from the station to the City centre are facilitated through this roundabout by means of underpasses.

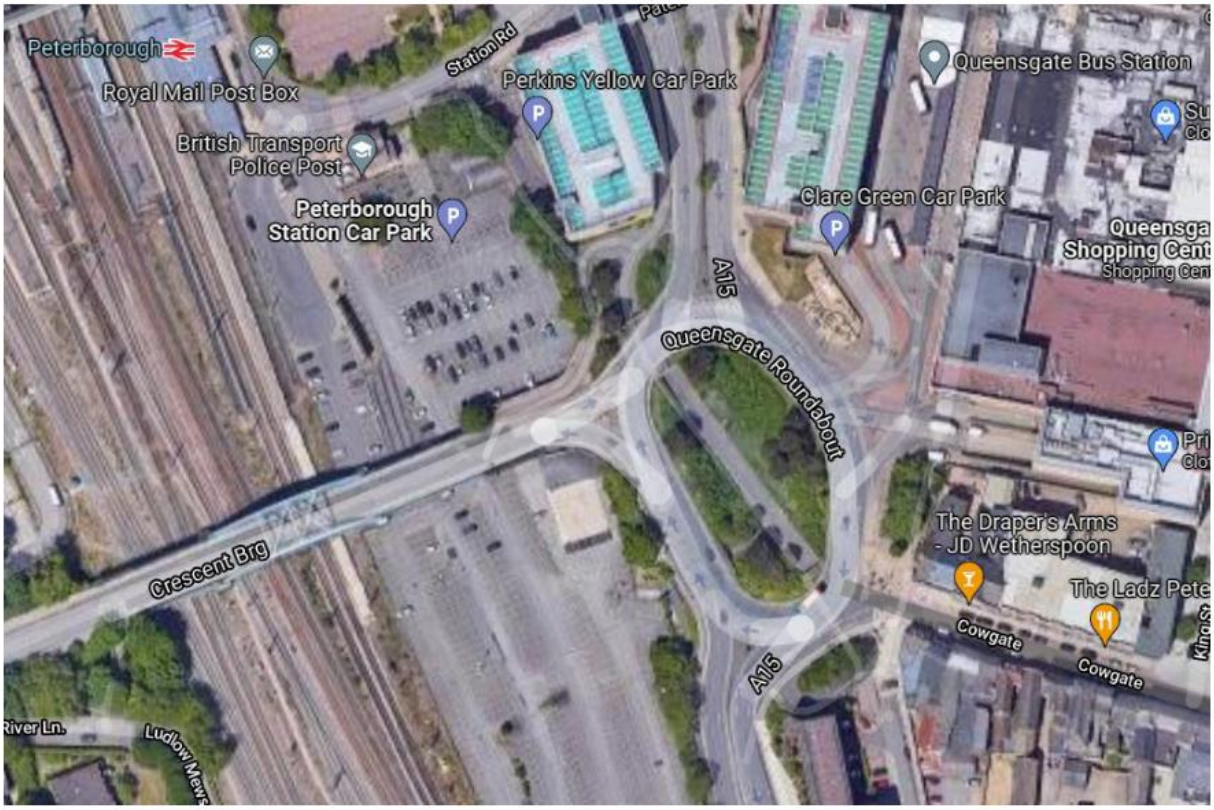

Figure 2.18: Queensgate Roundabout

There is often significant congestion on Crescent Bridge in the peak periods. The queuing in partly caused by the vehicles on Crescent Bridge having to give way to northbound vehicles on Bourges Boulevard, travelling through the roundabout.

Figures 2.19 and 2.20 show 2017 traffic speed data from Trafficmaster. It is evident that there is significant congestion along Bourges Boulevard and Crescent Bridge during both AM and PM peak hours, signified by the low average speeds. A large portion of this traffic can be attributed to the concentration of movements to/from the station given that all of the existing car parks and entrances are on the eastern side of the rail lines.

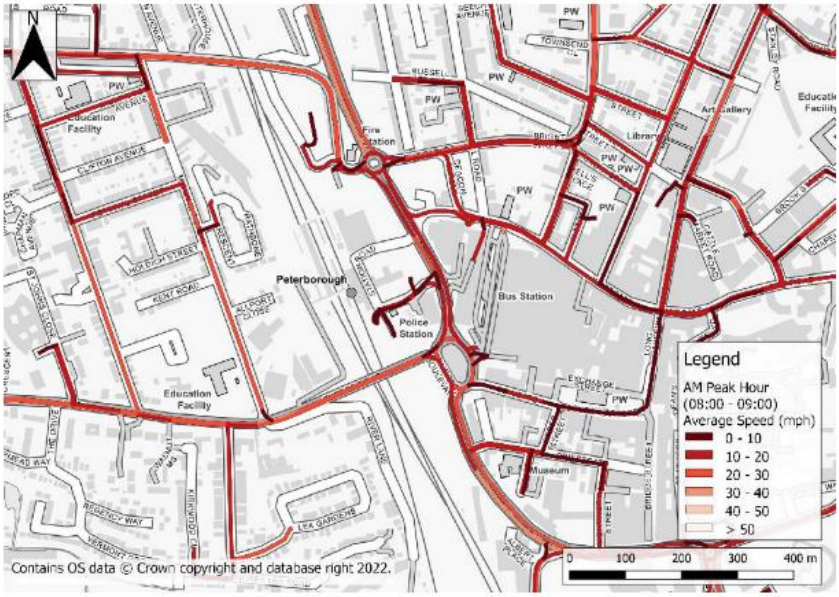

Figure 2.19: AM Peak Hour Traffic Speed Data surrounding Peterborough Station

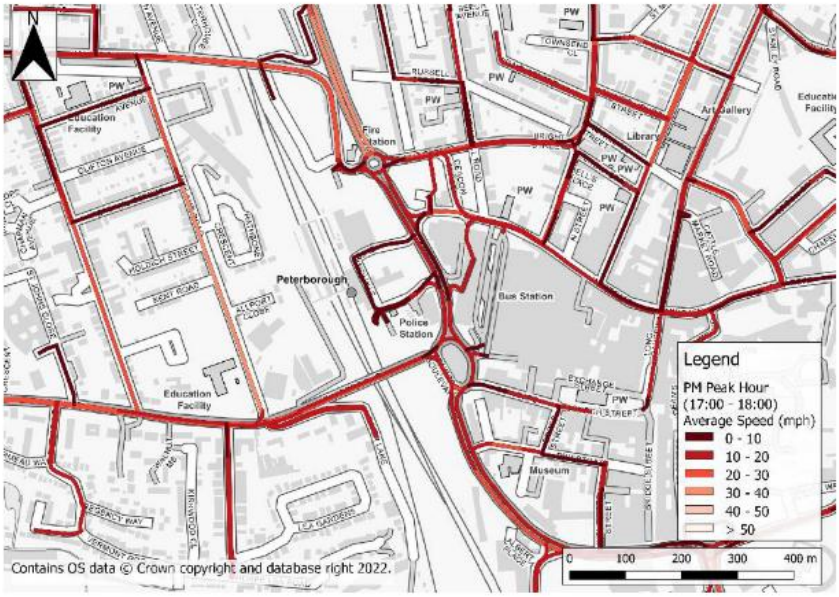

Figure 2.20: PM Peak Hour Traffic Speed Data surrounding Peterborough Station

2.4.3 Station Forecourt

The station forecourt, immediately outside of the station entrance comprises of a passenger drop off zone, taxi rank, delivery zone and bus stop.

The passenger drop-off zone is to the south of the main station building, as shown in Figure 2.21.

Figure 2.21: Drop-off Zone to the South of the Station Building

Figure 2.22 shows the taxi rank outside the station entrance. In its current configuration, four taxis can fit in this space at one time. Slightly to the north of the taxi rank, there is a delivery zone and a small bus stop, as shown in Figure 2.23. In the event of disrupted train services, this area also serves as the waiting and boarding bay for replacement bus services. It is apparent that there are a range of conflicting activities taking place in this confined space.

Figure 2.22: Taxi Rank outside Station Entrance

Figure 2.23: Bus Stop and Delivery Zone outside Station Entrance

2.4.4 Parking

There are a number of dedicated rail station car parking areas for rail users all of which are located on the eastern side of the station, as shown in Figure 2.24. There are also nearby car parks associated with the Queensgate Shopping Centre and Waitrose supermarket, located to the east of the station.

Existing			
Parking Type	Location	Spaces	
		No	Total
Long stay	Spittal Bank	191	1,178
	Mayors Walk	266	
	North of Crescent Bridge	120 (including 25 premium spaces)	
	South of Crescent Bridge	601	
Accessible	North of Crescent Bridge (within Main Car Park)	3	37 (3% of total spaces)
	North of Crescent Bridge (adjacent to rail boundary)	20	
	On Station Road (adjacent Station and opposite Waitrose)	14	
Hire Car	Station Front	1	1
TOTAL			1,216

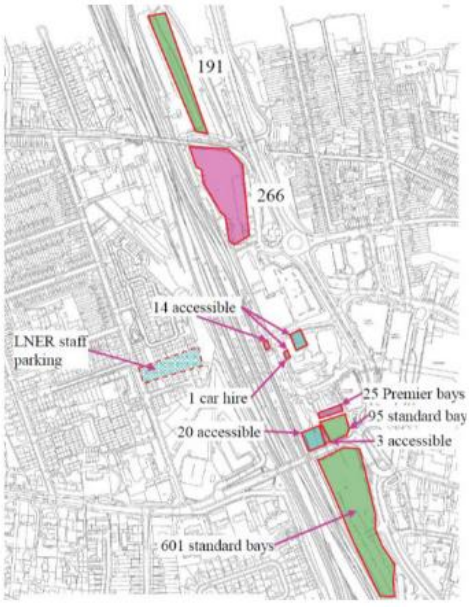

Figure 2.24: Surface Car Parking servicing Peterborough Station

All station car parking is concentrated to the east of the station, with the exception of the staff car park to the west. Table 2.12 details the various surface car parking areas

operated by LNER (under lease from Network Rail) that currently service Peterborough station. These surface car parking areas constitute a total land area of 4.8 hectares and 1,216 general parking spaces (plus a further 105 rail staff only parking spaces on the western side). Additionally, the maximum distance and walking time from these car parks to the station entrance is documented.

Table 2.12: Car Parking Areas servicing Peterborough Station

Car Park	Size	Number of Parking Spaces	Maximum Distance to Station Entrance	Maximum Walking Time to Station Entrance
Peterborough Station Car Park	2.1 hectares	744	400m	5 min
Mayor's Walk Car Park	1.1 hectares	266	450m	6 min
Spittle Bank Car Park	0.9 hectares	191	730m	10 min
Vicinity of Great Northern Hotel	N/A	15	100m	2 min
Sub-total	**4.1 hectares**	**1,216**	-	-
Staff Car Park	0.7 hectares	105	190 m (to western staff access)	2.5 min
Total	**4.8 hectares**	**1,321**	-	-

In terms of cycle parking, 458 spaces are provided in racks and stands in an area alongside the station access road and adjacent to the British Transport Police building. These are sheltered spaces covered by CCTV.

2.4.5 Station Facilities

Peterborough Station's passenger entrance is on the eastern side of the rail lines and is shown in Figure 2.25. This is currently the only entrance for rail passengers, and it leads into the main station building. Figure 2.26 shows the full extent of the current food and beverage facilities in the main station building. These facilities include both a small newsagents and cafe, however these are both currently closed for refurbishment as of October 2023. Also within the station concourse is a Customer Information Point (shown in Figure 2.27) and the LNER Travel Centre. There is an additional customer service office located on the island platform 4/5.

Figure 2.25: Peterborough Station Entrance

Figure 2.26: Facilities in Station Concourse

Figure 2.27: Customer Information Point in Station Concourse

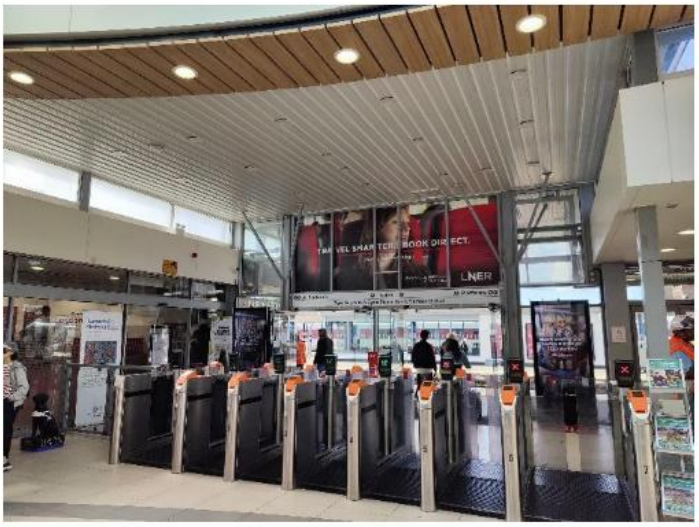

Figure 2.28: Station Concourse Gateline

Figure 2.28 shows the gateline in the station concourse. There are currently seven Automatic ticket gates (ATGs) to accommodate the passengers using Peterborough Station. Figure 2.29 shows the food and beverage facilities outside of the station entrance, while still connected to the station building.

No First Class Lounge is available for passengers at the present time – this was previously located in the Great Northern Hotel until 2022.

Figure 2.29: Cafe outside the Station Entrance

This single eastern entrance means that passengers need to use an overbridge to access most of the platforms. The primary footbridge is shown in Figures 2.30 and 2.31. This footbridge is adjacent to the station entrance and provides lifts to from each platform. The footbridge extends to the western side of the rail lines but access beyond platform 7 is for staff only.

There is also a goods bridge with ramp access located at the northern end of each platform, as shown in Figure 2.31. This bridge, known as the "parcel bridge" is coming to the end of its operational life and has a maintenance regime in place to manage the risks associated with it being constructed of asbestos. It is not compliant with modern access requirements.

Figure 2.30: Station Footbridge

Figure 2.31: Goods Bridge with Ramp Access

The station can be accessed via a footbridge on the western side, shown in Figure 2.33. As previously mentioned, this access is not for passenger use and is used by staff to access LNER staff car parking facilities on the west.

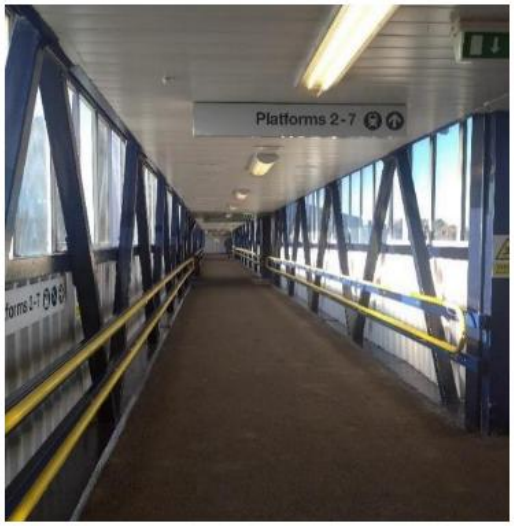

Figure 2.32: Station Footbridge

Figure 2.33: Current Western Staff Access

There is no centralised waiting area for the station. Passengers that are interchanging or waiting at Peterborough Station are required to utilise the limited facilities in the station building or wait on the platforms. Each platform has small waiting rooms such as that shown in Figure 2.34. Each platform also has a small food and beverage facility, which vary in size and quality. Figure 2.35 shows the food and beverage facility on platform 1.

Figure 2.34: Typical Waiting Room on Station Platforms

Figure 2.35: Food and Beverage Facilities on Station Platform

2.4.6 Station Capacity

In 2022, Network Rail conducted their **'Peterborough Station Options Modelling Station Capacity Assessment'** to determine areas of concern in terms of passenger congestion and understand the implications of not increasing the capacity at Peterborough station.

An initial base model was created using passenger demand data from 2019. This model was extrapolated to the year 2042, applying a 31% growth from 2019, to understand the implications into the future. This model was run for both the AM and PM periods. Figure 2.36 shows Fruin's Level of Service (LOS) scale, which has been used to evaluate passenger congestion and crowding. This scale ranges from LOS A, indicating free circulation, to LOS F, indicating complete breakdown of flow with frequency stoppages.

Figure 2.36: Fruin's Level of Service (LOS)

The initial base model used the current Peterborough station layout and was modelled for 2019 and 2042 scenarios. This model had issues with LoS E/F at the gateline during peak times, LoS E on platform staircases which caused clearance times to exceed 2 minutes and congestion on the bridge. The queues at the gateline in the base model were up to 3.79 m on the unpaid side and 6.23 m on the paid side. Platform clearance times were under 2 minutes for the AM model, and between 2-3 minutes for the PM model.

The report recommended that this station layout be improved by widening the stairs or providing an escalator for faster platform clearance and to reduce queuing. It was further suggested that expanding the gateline would reduce queuing and the need for orientation switches.

Figure 2.37 shows a snapshot of the capacity modelling results for the 2042 scenario in the PM peak hour (starting at 1900). This shows the gateline, stairwell, station platforms, and also displays the pedestrian footbridges at the top of the figure. While platform crowding is depending on the timing of alighting services, this figure shows LOS E/F at the base of the stairs on platforms 4/5, and LOS E on platforms 6/7. It additionally demonstrates LOS F on the paid side of the gateline (with related crowding that spills onto platform 1) and LOS E on the stairs leading to the southern footbridge.

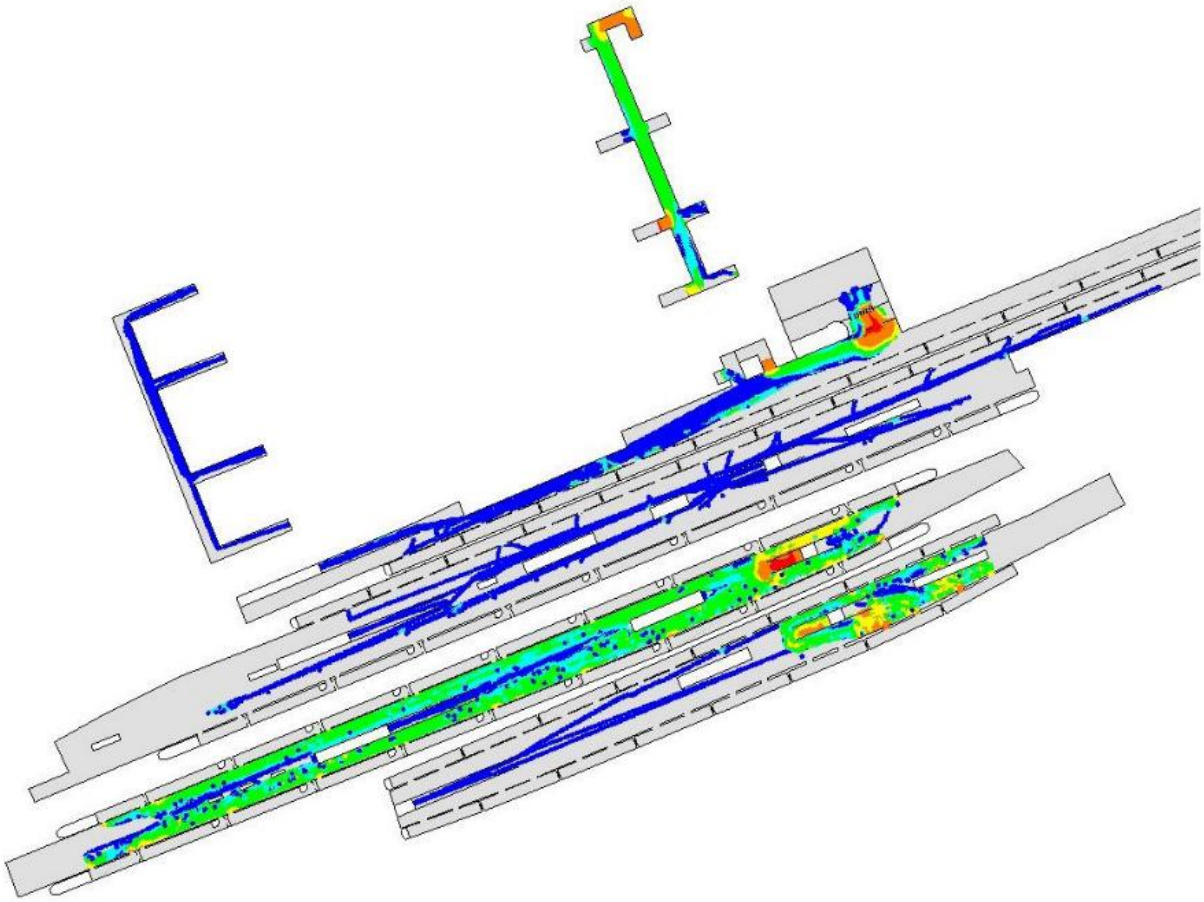

Figure 2.37: Passenger Congestion in 2042 Scenario in PM Peak Hour (1900) for Base Model

2.4.7 Maintenance Delivery Unit

Network Rail currently occupies a Maintenance Delivery Unit (MDU) over several plots of land to the west of Peterborough station, as shown in Figure 2.38. This purpose of this unit is to provide a physical base for maintaining the railways. Part of this site includes the Grade II* listed Crescent Wagon Repair Shop, said to be the only surviving all timber wagon shop in Britain.

The MDU sits on high value land, in close proximity to Peterborough Station, Crescent Bridge and West Town Primary Academy, and currently consists of a number of temporary office accommodation buildings as well as areas given over for plant and machinery.

Network Rail has been considering options for the relocation of the MDU to better utilise its existing landholdings around Peterborough Station, and this fed into the development of the original PSQ Masterplan.

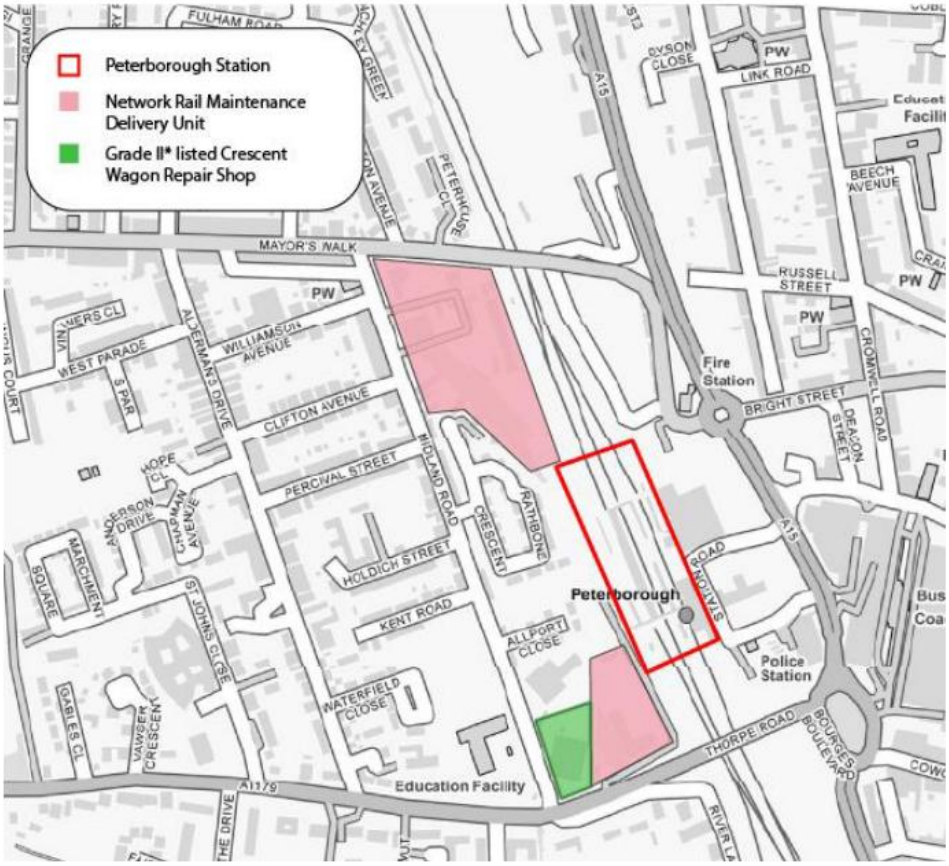

Figure 2.38: Location of Network Rail Maintenance Delivery Unit

2.5 Problem/Need Identification

2.5.1 Surface Car Parking, Employment Land and Housing

Stations are far more than just transport interchanges – they act as gateways into their immediate surroundings and the wider area. Identifying the problems and issues that exist in the area around the station is therefore vital to allow for meaningful improvement to made.

Surface level car parking occupies approximately 5 hectares of land around the station. This high value land has the potential to transform the local area and could be unlocked for greater commercial and housing development. This is particularly significant as there is a substantial lack of high quality commercial and office space in Peterborough and particularly in the proximity of Peterborough station. This discourages businesses to conduct operations in Peterborough and serves to reduce the productivity of the region.

The Peterborough Employment Land Review (May 2021) states:

'Peterborough has become a victim of its own success and employment land supply, particularly in the short term, is not sufficient to meet demand. There is a very real danger that investment will be lost to adjacent districts unless a more flexible, evidence-based approach is adopted which recognises and supports new sustainable employment land and development proposals beyond those sites allocated in the Local Plan.'

However, Peterborough offers lower business costs and is less than a 50 minute train journey to London King's Cross (with direct trains to Gatwick Airport). In order for Peterborough to capitalise on its strategic location to London, it needs to provide the resources necessary for businesses to operate. High quality Grade A commercial space is needed to be a real alternative to London and attract businesses to the region. With the relocation of various government services to Fletton Quays opened in 2023, Peterborough is in a prime position to continue this trend with other types of businesses.

The project will boost Peterborough's ability to attract more knowledge intensive high-level employment and to take advantage of the City's connectivity to London and other key cities in the UK by rail. It will also have benefits for the tourism market where the station may be the first impression a visitor has as they arrive.

Between 2010 and 2017, over 5,000 homes were built across the City at the Hamptons, the Ortons and Fengate, providing amenities and open areas for growing families. As growth continues across the City, PCC is now focusing on enhancing the City centre and riverside following the release of a 2022 masterplan. The City centre has historically relatively few houses and flats, when compared to other towns and cities of a similar size and scale. In order to address this, local planning policy has identified that the local housing need for Peterborough is for 19,440 homes to be built between 2016 and 2036, a total of 972 per year[27]. The City centre is now therefore being promoted as a location for substantial new residential development at a range of densities according to location.

The PSQ programme, of which this project is a first phase, offers the opportunity to build upon the confidence created by Fletton Quays development and be a key foundation in the City's aim to attract and retain young people that want to stay and play their part in the community. Peterborough is the most affordable city in the Greater South East (including the South East, East of England, and London), with average homes costing 7.2 times average wages. This is more affordable than average in England of 8.3[28]. Railway stations offer perfect opportunities to support new homes, as they provide access to jobs for new residents with minimal need for cars. This is illustrated by other examples within the CPCA area, for example, Waterbeach station, Cambridge North station and Soham.

A revitalised station gateway could also complement other key developments such as the Fletton Quays riverside development, the recently opened Anglia Ruskin University (ARU) campus, the Queensgate shopping centre extension, and more long-term plans such as

[27] Peterborough City Council, Peterborough Local Plan, 2019
[28] Office for National Statistics, Housing affordability in England and Wales, 2022

those set out in the Peterborough Embankment Masterplan Framework. Fletton Quays involves the development of 350 luxury apartments, a Hilton Garden Inn Hotel, a gin distillery, and modern office spaces - housing 1,000 civil servants from HM Passport Office and the Department for Environment, Food and Rural Affairs.

The success of the Fletton Quays government relocation can encourage and strengthen the case for further business relocation. The recently opened ARU Peterborough campus, supported by £20 million of LUF investment, plans to enrol 12,500 students by 2030. The Queensgate shopping centre extension involves £60 million worth of investment, and the Peterborough Embankment Masterplan Framework sets out ambitious plans to develop a new cultural centre along the riverside through investment in a new university campus and arena. Strong and attractive transport links are vital to the success of these developments, with all of these assets complementing each other to realise Peterborough's ambitions to become one of the most innovative and creative areas of the UK.

In summary, the delivery of an improved railway station, public realm and better connectivity could act as a catalyst to support regeneration and later development initiatives in the City and wider CPCA area. It could also contribute to the City's 'place making' agenda through the creation of new housing, commercial, retail and leisure uses, built around a sustainable transport hub that attracts new visitors and inward investment to the City centre and adjacent opportunity areas such as North West Gate, Rivergate and beyond.

2.5.2 Severance from City Centre

Despite the proximity of the City centre and Queensgate Shopping Centre the station feels isolated from the City centre, both visually and from an active modes perspective. This is demonstrated by the severance created by the dual carriageway, Bourges Boulevard, and Crescent Bridge Roundabout. There is also a lack of accessible and level pedestrian and cycle links between the heart of the City and Peterborough Station.

From the station entrance, passengers arrive into Peterborough on Station Road facing the Great Northern Hotel as shown in Figure 2.39. While there are signs that direct pedestrians and cyclists to turn right to go towards the City centre, visual aids such as the Cathedral are obscured by the multi-storey car park. The route itself is not obvious, going behind the British Transport Police Building, as shown in Figure 2.40. For those travelling to the Queensgate Shopping Centre, the path is also not immediately clear, with a footbridge elevated above Bourges Boulevard and positioned between two of the car parks.

Figure 2.39: Station Road from Peterborough Station Entrance

Figure 2.40: Station Road facing Yellow Perkins Car Park and City Centre

Figure 2.41 shows the most direct pedestrian route from the station to Peterborough Town Square. This figure demonstrates the way the route weaves around buildings, underpasses, and alongside security fencing. In addition to not being direct, the footpaths themselves are enclosed and sometimes narrow. Few visual aids are offered in terms of wayfinding and whilst some signage is present, there is sometimes no clear guidance for pedestrians and cyclists on the direction to take, or a clear visual reference point to aim towards.

In addition, there are personal security concerns. Limited passive surveillance is offered by surrounding buildings and whilst street lighting is provided, this is limited and partially obscured by trees on the path as shown in Figures 2.42 and 2.43. The underpasses also present similar issues, with paths being recessed into the centre of a roundabout, shown in Figure 2.44. Furthermore, due to level differences this route can be challenging for those with mobility issues. Figure 2.45 shows stairs that can be used by pedestrians, while cyclists and wheelchair users are required to take a circular path that can be seen in Figure 2.41 as a dotted white line.

A connection between the railway station entrance and Cowgate via a single, more intuitive and fully accessible route is required that better utilises existing buildings as reference points and is less ambiguous. Such a route could introduce visitors to the City through a series of legible spaces with a natural flow, finally culminating in the west face of the Cathedral. The simplification of this route could therefore improve the first impression of the City and significantly strengthens Peterborough's active travel offer. It would also offer the opportunity to provide higher quality public realm that offers a stronger first impression of Peterborough.

Figure 2.41: Route to the City Centre

Figure 2.42: Path from Station to City Centre

Figure 2.43: Walking and Cycling Path from Station to City Centre

Figure 2.44: Walking and Cycling Path in Queensgate Roundabout

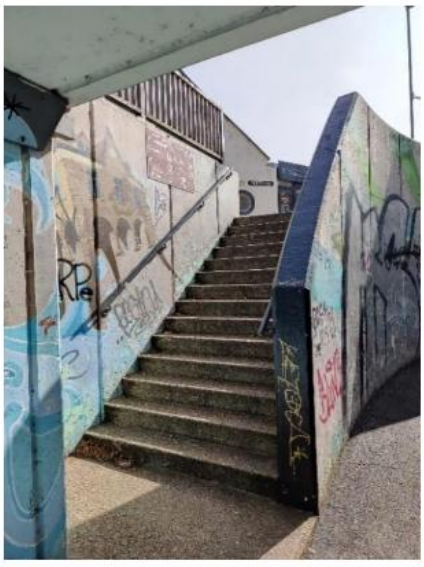

Figure 2.45: Stairs from Crescent Bridge Subway East Underpass

2.5.3 Single Eastern Entrance and Forecourt

In its current configuration, passengers can only access the station from the eastern side meaning that using a footbridge is necessary to access all platforms except Platform 1. Passenger car parking provision is also concentrated entirely on the eastern side, where there is approximately 4.5 hectares of surface car parking. The single station access combined with the expansive nature of the surface car parking means that some passengers experience additional journey times in excess of 15 minutes from car park to platform edge.

The fact that the station can only be accessed from the east also creates additional pressures on the road network at the Crescent Bridge roundabout. Previous feasibility work confirmed that 30% of station users travel from the west along Thorpe Road. If the station could be accessed from the west with adequate car parking provision, it would ease pressure on the City's road network at Crescent Bridge/Bourges Boulevard, reducing congestion as well as vehicular/pedestrian interface risk and air pollution.

2.5.4 Station Capacity

Within the station itself, the single entrance can result in passenger congestion during peak times. As shown in Figure 2.28, only 7 automatic ticket gates (ATGs) serve the high volumes of passengers in the station. Passengers needing to reach platforms 2-7 are required to exit the main station building and access stairs or a lift via platform 1. With this area being home to retail, toilet facilities, and a staff area, limited space is available on this already narrow platform to accommodate all these uses.

Figure 2.46: illustrates this problem, showing the main station building entrance on to Platform 1 where all passengers pass through regardless of their platform, with station facilities present on both sides. Stairs to the footbridge allowing access other platforms can be seen on the left. Figure 2.47 also shows the narrow space between the entrance and platform edge. This area is therefore subject to congestion, and this is reflected in modelling shown in Figure 2.37.

The lack of space in the station building, forecourt and on the platforms mean that unexpected or disruption events have the potential to be potentially dangerous. Most recently in January 2022, a large gathering of football fans was required to wait two hours for connecting trains. This created significant disruption to station operations, with these passengers gathering outside the station entrance and occupying the platforms. Station staff reported platforms exceeding capacity and some passengers momentarily falling onto train tracks, leading to delayed services.

Figure 2.46: Station Entrance on Platform 1

Figure 2.47: Platform 1

Peterborough Station is also often used as a point to turn trains around when there are serious incidents on the network. During these incidents it is not uncommon for passengers to be required to gather outside of the station building in the car park area. This highlights how a lack of space and limited access to the station is a real and prevalent issue impacting passengers and station staff. Furthermore, it emphasises the need to make improvements to accessing the station and its platforms. With a new point of access to the station and an improved internal configuration it is possible that the type of events described could be easier to manage.

Initial station capacity modelling work undertaken by Network Rail indicates that the provision of a new western entrance and reconfiguring access to the footbridge could help to relieve passenger congestion within the station. This could have a positive impact on passenger experience through improvements to the efficiency and safety of the station.

2.5.5 Poor Station Facilities and Customer Satisfaction

There is a lack of quality facilities within Peterborough Station, which is exemplified by 2023 Customer Satisfaction surveys for the LNER route (2023 Post Journey Survey). Table 2.11 shows the results of this survey, for which the Peterborough station is compared to average of the entire LNER route including Peterborough station. This data includes all customers, disrupted and routine, and the percentage represents customers who selected Extremely Satisfied or Very Satisfied (which are the top 2 of 7 options available) and is an average score over the rail year to date (2023/24).

Table 2.11: LNER 2023 Customer Satisfaction Survey Results

Measure	Peterborough (PBO)	Route As A Whole (inc PBO)	Difference
Overall Satisfaction	61.7%	65.7%	-4.0pp
Car Parking Facilities	49.3%	51.4%	-2.1pp
Cleanliness of Station	57.6%	64.4%	-6.8pp
Cleanliness of Toilets at the Station	48.0%	54.5%	-6.5pp
Station Navigation	68.9%	71.1%	-2.2pp
Updates on Journey	72.0%	72.3%	-0.3pp
First Class Lounge*	40.2%	57.9%	-17.7pp
Personal Safety	72.1%	74.1%	-2.0pp
Retailing Options	31.2%	47.9%	-16.7pp
Helpfulness of Staff	69.6%	70.1%	-0.5pp
Availability of Station Staff	59.6%	59.9%	-0.3pp
Waiting Facilities	49.6%	52.6%	-3.0pp

*

Of the 11 survey categories, Peterborough Station scored most poorly in relation to Retailing Options and First Class Lounge facilities, with a 31.2% satisfaction for Retailing Options (compared to a 47.9% average for the entire LNER route) and a 40.2% satisfaction for First Class Lounge facilities (compared to a 57.9% average). This shows the station is underperforming on the LNER route, largely due to its inadequate facilities.

The station currently comprises lacks a centralised point for waiting and interchanging passengers, which significantly impacts upon passenger satisfaction. Also, there is a lack of complete canopy covering several platforms, which is particularly problematic, especially in times of inclement weather, considering the large numbers of passengers using the station.

There is also a shortage of quality food and beverage, meeting and conferencing facilities around the station compromising the overall customer experience. Post-COVID-19 work and leisure patterns are likely to see migration from centres such as London to a more dispersed model, and Peterborough is ideally suited to continue its upward population growth in addition to acting as a focus for local commuters in East Northamptonshire, South Lincolnshire, Rutland and North West Cambridgeshire.

Station staff are also impacted by the station facilities. The station office facilities are limited in size and barely meet the needs of the current work force. The lack of quality facilities limits staff in delivering their operational responsibilities and providing the highest experience to passengers as well as having a negative influence on the ability to recruit and retain talent.

This similarly relates to the Great Northern Hotel, which previously functioned as a staff break room and First Class lounge for passengers, but now no longer provides these facilities since the hotel's change of use to become a hostel for asylum seekers, although it expected to be returned to regular use by the end of January 2024. However, it is clear that an upgrade is required in relation to both customer and staff facilities, in order to meet these basic occupational standards.

2.5.6 Market Failure

Market failure relating to the overall PSQ programme is a result of the piecemeal approach to the development of Peterborough station as well as some of the more common market failures associated with the way in which the rail industry is funded and the lack of alignment with wider regeneration projects.

Planning for future needs within the rail industry is predominantly focused on operational rail requirements and also usually within the land holding of Network Rail. Previous franchise models led to stations being operated and maintained by private companies with relatively short concessions, which stifled innovation and long term thinking about how they may develop within the surrounding area. This has resulted in a narrow focus at Peterborough station in terms of recent investment and hence some of the problems identified.

The area surrounding the station suffers from poor public realm, with limited amenity for active travel users to access the station and to travel between the station and the City centre. Large areas of surface level car parking have been provided to meet increasing demand from rail users using land available within rail ownership, but without a larger view on how this impacts on the local road network, the visibility of the station and the opportunity to create transit-orientated development.

The approach to the future development of the station, its immediate setting and the connections to the City centre require a more holistic approach to encourage greater use of public transport and active modes and to address the market failure to date – this is a key objective of the PSQ programme.

Where the benefits of investment lie beyond the direct individual users of the intervention, investment is commonly under-delivered through private markets alone. This is particularly the case for projects involving new public realm and placemaking, where individual investments are made into areas of public realm, not only benefits users of

these areas but individuals and businesses in the wider area. This is even more evident with rail projects, where the incentives for the private sector to invest in the areas beyond rail land holdings and the station lease area are limited.

The Peterborough Station Enhancements and Connectivity Improvements project will provide a substantial increase in amenity at the station and in the surrounding area, creating further activity that does not occur as a result of this market failure and contributing positively to wider growth and welfare benefits in the City.

2.6 Objectives

The agreed aim of the PSQ programme is:

"To stimulate the local economic, social, and cultural landscape of Peterborough through the delivery of a new Peterborough Station and Station Quarter precinct."

2.6.1 Strategic Objectives

Following a workshop held in Peterborough in November 2021, the following strategic objectives for the PSQ programme were agreed:

1. Capitalise on the frequent, reliable main line rail services to a wide range of destinations both now and in the future.
2. Maximise the scope for growth building on the existing adjacent uses and land availability
3. Improve the range and quality of passenger facilities at the station
4. Re-imagine the function and presentation of the station
5. Improve the connections from the station to the City in all directions
6. Enhance the multi-modal connections of the station
7. Address safety and personal security concerns
8. Have a mind to social and environmental sustainability (including carbon emissions) and whole life costs

2.6.2 SMART Objectives

Based on the above strategic objectives for the PSQ programme, it is valuable to further establish Specific, Measurable, Achievable, Relevant and Time-constrained (SMART)

spending objectives for the project itself, to act as measures of success and provide a clear basis for post-implementation evaluation. The following SMART objectives have therefore been defined for the project:

1. Improve access journey times to and from the station through a reduction in average pedestrian, cyclist and vehicle journey times as follows by 2026:
    - Vehicles from east to west: 2 minute average saving
    - Pedestrians and Cyclists from the west of the station: 5 minute average saving
    - Pedestrians and Cyclists from the east of the station: 2 minute average saving
2. Increase the opportunity for economic growth by facilitating the release of at least 3 ha of surface car parking for development by 2026.
3. Make the station an effective "gateway" to the City supporting an improvement in LNER Customer Satisfaction levels by 2026.
4. Support the creation and retention of 500 new jobs through the relocation of the MDU into a new, modern and sustainable operational facility.
5. Enhance environmental sustainability within the station lease area through improving the public realm and energy efficiency of the existing station building by 2026.

2.7 Measures for Success

Measures for success are the attributes essential for successful delivery of the project. They include not only measurable impacts on travel conditions but also consider the strategic fit, value for money and affordability, achievability and commercial aspects of the project.

Success will be through the delivery of a project that fully meets the objectives set, which means:

- A fit for purpose station that catalyses investment in the Peterborough Station Quarter and supports the city's and wider region economic and job growth ambitions;
- Meets the needs of all users, improves local non-motorised user connectivity and supports sustainable development (housing and employment);
- Maximises return on investment, striking a balance between the cost of delivery and the cost to the economy of non-delivery;
- Cognisant of rail safety/operational considerations;

- Deliverable within the likely capital funding available and timescales; and
- Maintenance liabilities are affordable within current budgets.

These success factors are closely aligned to the outline benefits realisation/monitoring and evaluation plan included in the Management Dimension.

2.7.1 Strategic Benefits/Impacts

The objectives and measures for success form an important element of the theory of change logic map for the project, as set out in Figure 2.48. This theory of change logic map that has been developed in line with DfT and DLUHC appraisal guidance to show how the SMART objectives will be achieved and lead to the strategic benefits.

The core impacts and strategic benefits of the project are summarised below, along with how these result from the project's inputs, outputs and outcomes.

Impact: Economic Growth and Levelling Up in Peterborough (including a reduction in inequalities)

- *Context:* Peterborough is ranked 51/317 of all local authorities nationally, by local authority score, where 1 is most deprived (IMD 2019). It is a Priority 1 area for Levelling Up. A recent Centre for Cities study declared Peterborough as the fifth most 'at risk' city in the UK from the economic impacts of the COVID-19 pandemic.
- *The Western Entrance and MSCP (outputs)* are facilitated by Network Rail *relocating the southern part of their Maintenance Delivery Unit (MDU) (output)*. This relocation will be delivered separately by Network Rail. The preferred location of the MDU is the space currently occupied by the Mayors Walk and Spittle Bank car parks. The car parking spaces will be re-provided elsewhere in the station lease area through *consolidation of surface car parking around the station, including the new MSCP (output)*.
- *Reduced journey times to the station (output)* will come about for users travelling from the west (approaching via Thorpe Road) as they will be able to use the new western entrance and car park. Station users from the West will not have to cross the Crescent Bridge and negotiate the Queensgate roundabout to access one of the existing car parks. In addition, the new western car parks will be much nearer to the station entrance than Mayors Walk and Spittle Bank car parks.
- *Commercial and housing development* (*people, businesses & place outcome)* will be unlocked by the *consolidation of surface car parking around the station (output) and the MDU relocation (output)*. In line with Local Plan policy, mixed-used development will be supported by PCC in this area to support growth and create an attractive and

legible gateway into the rest of the City. Over 90 investors have already expressed an interest in this location. The land that will be released for development by the LUF funded project is that currently occupied by the northern part of the MDU. The release of the land is facilitated by the relocation of the MDU and car parking consolidation.

- The *new station square as well as investment in the existing (Eastern) station building (outputs)* will provide *improved journey quality/experience and enhanced passenger capacity in the station (transport outcome).*

- Investment in the *new station square and existing station building/facilities (output)* integrated with *development proposals (output)* will complement and build upon the confidence of other developments such as the new ARU Peterborough Campus (supported by £12.3m of capital investment from CPCA, £12.5m of Local Growth Funding and £1.6m in land investment from PCC) and Fletton Quays riverside development to create a *gateway to new and expanded markets for Peterborough (People, Businesses & Place Outcome)*. Fletton Quays has seen the relocation of civil servants from HM Passport Office and the Department for Environment, Food and Rural Affairs – paving the way for the similar relocation of business into Peterborough offering high paid jobs.

- *The new station square and a safer & more accessible active travel connection between the station and city centre (outputs)* will encourage *modal shift to active travel (transport outcome)* and enhance the setting of the station *(placemaking benefits)* and its perceptions as a gateway (*People, Businesses & Place outcome):*

- *Safer, accessible and more enticing active travel connections to the city centre (output)* will also lead to *increased city centre footfall* (*People, Businesses & Place outcome*) benefitting Peterborough businesses. Pre-COVID-19 pandemic data shows that 960,000 passengers used Peterborough as an interchange for services to other destinations - there is a significant market to capitalise upon in attracting these passengers towards the business offerings of Peterborough City centre.

Evidence

Transport and inequality: An evidence review for the DfT (2019) indicates that transport is an integral yet intermediary component of the wider picture of socio-economic inequality. The main way that transport and inequality is linked is through providing affordable access to a range of opportunities. These not only include access to education, training and employment opportunities, but also family and social networks, housing, recreation and amenities, community engagement activities, and key goods and services.

The Rail Delivery Group demonstrates how investing in station improvements can stimulate economic growth, support local businesses and create jobs. Recent station enhancements at Nottingham Station led to an increase in the number of developments within a mile of

the station from 10 to 133 a year, a yearly rise of 3.7% in employment in nearby areas, and an average yearly increase in local house prices of 7.6%[29].

Station enhancements at Manchester Piccadilly and Sheffield also provide evidence of a 'ripple effect', whereby initial development prompted partly by station improvements increased investor confidence and encouraged further development across the city[30].

Impact: Health and Wellbeing Improvements

- *Context:* The percentage of adults who smoke and who are overweight or obese are both higher than the national average in Peterborough, and if not addressed, this will lead to higher rates of cardiovascular disease (heart disease and stroke), diabetes and some cancers in our population. Rates of preventable deaths from cardiovascular disease in Peterborough are significantly above the national average, with a high level of local inequality between our most and least deprived communities. In addition, there are a number of well know health impacts related to levels of traffic congestion e.g. air quality and noise.

- *Safer and more accessible active travel connections between the station and City centre (output)* will increase active travel mode share and encourage m*odal shift from cars to rail and active travel (transport outcome)*. This has proven benefits in relation to health and wellbeing improvements.

- *Modal shift from cars to rail and active travel (transport outcome)* as a result of *safer and more accessible active travel connections to station and City centre (output) and the western entrance (output)* and will provide environmental benefits. The *new western station entrance, investment in existing station buildings/facilities and the station square (outputs),* integrated with *development proposals (output)* will also allow for environmental *(Transport Outcome: Noise, Carbon, Air Quality and Biodiversity Benefits)* enhancements through sensitive design.

- *Transport Outcome: Reduced journey time to station:* Strategic highway modelling indicates that there is likely to be an increase in congestion by 2036 in all time periods and that interventions will be needed to accommodate future development and growth. The creation of a *western station entrance and MSCP (outputs)* will alleviate pressure on the City's road network and reduce journey times, particularly along Crescent Bridge and Bourges Boulevard, particularly as 30% of rail demand is generated from the west.

[29] Rail Delivery Group, Station Investment: A catalyst for local economic growth, 2021
[30] Steer Davies Gleave, The Value of Station Investment, 2011

Evidence

Rail Delivery Group research shows that active travel enhancements surrounding Nottingham Station led to a 44% increase in cycling around the City, demonstrating the link between improved infrastructure and the uptake of active travel modes[31].

The economic analysis undertaken as part of the Strategic Outline Business Case (SOBC) for the project suggested benefits of up to £19.8 million (2010 prices) for the appraisal period of 60 years, which indicates considerable benefits for road users in relation to congestion and improved journey times.

Network Rail's Railway Sustainability Design Guide shows how urban habitats within the lineside can be created and managed, supported by templates; habitat specifications; identification aids; toolbox talks; and case studies. Investment in the station facilities and public realm provides opportunities for the provision of sustainability measure for both energy generation as well as the creation of urban habitats through consideration of elements like solar panels, rainwater capture and green walls and roofs.

[31] Rail Delivery Group, Station Investment: A catalyst for local economic growth, 2021

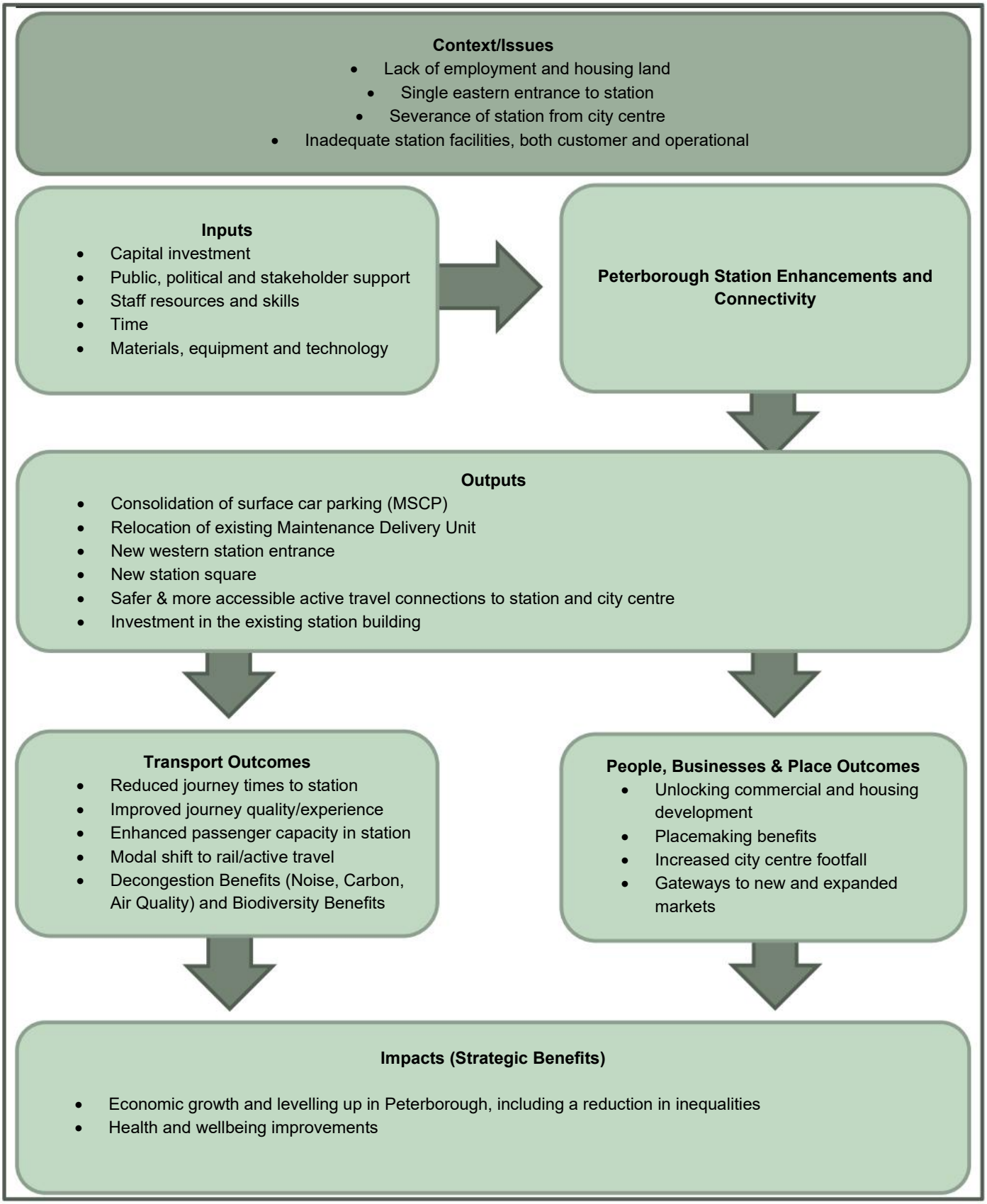

Figure 2.48: Theory of Change Logic Map

2.8 Risks, Constraints and Interdependencies

In order to take the PSQ programme and this project forward as a first phase, it is vital to understand the various risks and external constraints and interdependencies, so that issues can be acknowledged and addressed, and opportunities can be identified.

2.8.1 Key Risks

Table 2.13 includes some of the high level risks currently identified for delivery of the PSQ programme.

Table 2.13: Key Risks

Key Risk	Impact of Risk	Risk Control
Lack of clarity over relocation of Maintenance Delivery Unit	Preferred option could be stymied by decisions taken about relocation and timing may impact on programme	Network Rail to make early decision as to preferred location for MDU and confirm timing
Inability to agree with LNER amended arrangements for car parking	Reduced space for commercial/office developments that are a core part of the wider PSQ programme	Developing options that are not dependent on a change to the existing lease arrangements and minimise any loss f parking spaces in the short term
Increased competition for resources and funding	Lack of available resources means preferred option may not be achievable and/or a reduced ability to deliver	Ongoing liaison with DLUHC team regarding LUF bid
Compressed funding timescales may impact on programme	Some elements of preferred option may need to be amended	Ongoing monitoring of project against constraints of any agreed funding route
Complex governance arrangements between and within partners	Delay to programme. Potential issues with funding contributions for project	Clear understanding of governance processes of all partners. Prepare outline delivery strategy that takes account of these processes
Additional works required to existing building due to poorer existing condition than anticipated	Increase in project costs and potential delay to programme	Undertake site survey at appropriate time
Additional works required to existing structures due to poorer existing condition than anticipated	Increase in project costs and potential delay to programme	Early review of available information with regard to ability of existing structures to support additional loading proposed in preferred option. Undertake site survey at appropriate time

Key Risk	Impact of Risk	Risk Control
Unknown/unexpected utility diversions required	Increase in project costs and potential delay to programme	Obtain details of statutory undertakers' equipment, particularly in critical areas

More detail on the approach to risk management, and how these specifically relate to this project, is provided in the Management Dimension.

2.8.2 Key Constraints

The delivery of the first phase of the PSQ programme is dependent on the relocation of the MDU, currently located to the west of the station, which is an aspiration of Network Rail. The relocation of Network Rail's MDU will allow the western entrance proposals to come forward in their entirety, unlock commercial and housing development, and allow for the optimisation of land use within the station area. Network Rail's latest Business Plan includes a commitment to deliver the relocation of the MDU in the early part of Control Period 7.

The relocation of the MDU will provide quality accommodation for front line operational maintenance staff, guaranteeing existing employment in the City and creating opportunity to increase Network Rail jobs in Peterborough, indeed, it is estimated 45 new FTE jobs could be generated at the new MDU.

2.8.3 Key Interdependencies

At the current time, the following project interdependencies have been identified:

- Peterborough Area Strategic Advice
    - Network Rail has undertaken a 'Peterborough Area Strategic Advice Study' to understand whether further operational railway enhancements may be needed in the future in and around Peterborough, such as new platforms and/or track modifications, as well as potential diversions for increased rail freight demands. This study identified key constraints relating to platform capacity at Peterborough station and flexibility on the northern and southern approaches to Peterborough station. As such, the study has recommended various interventions relating to 2 new platforms and new crossovers.
- Towns Fund Investment Plan
    - The Towns Fund is a scheme of funding launched by the Government for towns such as Peterborough to boost economic productivity and support sustainable

growth. The overarching aim of the Towns Fund is to drive the sustainable economic regeneration of towns to deliver long term economic and productivity growth. Peterborough's Investment Plan was submitted 31 July 2020 and the Heads of Terms for £22.9m was signed in January 2021. This includes the implementation of several small active travel infrastructure enhancements projects in the City centre. These schemes will both complement and overlap with this project as they strive to create a welcoming entrance to the City for visitors from the station. £1.5 million has been secured from the Towns Fund that will go towards this project.

- Great Northern Hotel Redevelopment – a planning application was approved in 2020 to redevelop the Great Northern Hotel. The consented plans include:
    - Demolition of the poor quality 1970s extension to the hotel and some single level outbuildings to the north;
    - A new hotel extension is proposed to the north with a carefully detailed junction to the existing hotel;
    - A new office building is proposed on the site of the extension with active retail frontage at ground floor.
    - Parking is concealed on the ground floor, with the entrance off Station Road.

  This redevelopment has not yet been started since the approval of planning permission, and this is linked to the hotel currently being used as temporary accommodation for asylum seekers. However, the Home Office announced in October 2023 that the hotel would no longer be used for this purpose and that asylum seekers will be relocated from the site by the end of January 2024.

- ARU Peterborough
    - ARU Peterborough is a new £30 million university with an ambition to offer courses for up to 12,500 students, by 2032. It will help to improve and retain the skills of people in the region, while bringing additional opportunity and prosperity to the area. The new university will support the CPCA and PCC vision to deliver a step-change in life chances for people in Peterborough and beyond. ARU Peterborough is providing a practical solution to the problem of low employment and skills levels across Peterborough and the Peterborough Station and Connectivity Project will be key in supporting access to the opportunities it offers to students and businesses alike.

- East Coast Digital Signalling Programme
    - Phase 9 of this Programme will affect the Peterborough area. This involves ETCS brought in with conventional signalling retained due to rolling stock not fitted with ETCS continuing to operate in the area. This phase will involve renewing legacy interlockings and trackside signalling infrastructure, including life-expired signalling structures. Proposed dates detail design through to commissioning and handover are currently October 2024 – April 2027.

- ECML Improvements
    - The IRP for the North and Midlands 21 identifies a comprehensive package of upgrades on the ECML as it has significant potential to further improve line speed increases and seat capacity. The Government states that they will ensure digital signalling is delivered as well as an upgrade of the power supply to allow longer and more frequent trains, increase maximum speeds up to 140mph in some places, improve the capacity of stations, and remove bottlenecks such as flat junctions and crossings. In August 2022, Network Rail commenced a body of work to meet the various conditional outputs related to the IRP and where necessary present DfT with investment choices. Enhancements to Peterborough station complement and align with the IRP proposals as they both strive for improvements on the ECML.

- England's Economic Heartland (EEH) Passenger Rail Study Phase 2
    - This study has applied multiple levels of economic analysis to identify the valuable flows both internally and externally that connect EEH key locations. Thirty-six flows were identified as having the potential to generate a significant return on investment as a result of improved rail connectivity. These flows were converted into service level aspirations to express what is required to unlock the partial or full value of the flows. EEH, on behalf of its partners, will consider which flows to take forward as a programme of feasibility studies and business cases to understand how best to realise the value of the service level aspirations set out in this report.

2.9 Stakeholders' Views and Requirements

A stakeholder mapping exercise has been undertaken for the project. Stakeholders were identified and split into three groups to allow a more focussed approach to each:

- Informed: those stakeholders who are kept up to date on progress or outcomes;

- Consulted: those stakeholders whose opinions and solutions are sought throughout or at particular points; and

- Actively Involved: those stakeholders who will responsible or accountable for achieving the outcome.

Table 2.14 sets out the key stakeholders in each of these three groups and their needs identified to date.

Table 2.14: Key Stakeholders

Group	Sub-Group	Stakeholder	Needs
Actively Involved	Local Authority	Peterborough City Council	Town regeneration, economic return on investment, improved connectivity, improved quality of infrastructure, creation of jobs
	Combined Authority	Cambridgeshire & Peterborough Combined Authority	Regeneration, economic growth, return on investment
	Rail Industry	Network Rail/LNER	Value for money, improved passenger experience, adherence to standards, creation of an improved asset
	Statutory Transport Body	England's Economic Heartland	Economic return on investment, improved connectivity, creation of jobs, delivery of Transport Strategy
Consulted	Politicians	Local Council Members, MPs, CPCA Mayor	Investment in local area
	Transport Operators	Train/Freight Operating Companies	Improved rail services including performance improvements and increased revenue
		Bus Operators	Improved bus services including performance improvements and increased revenue
	Special Interest Groups	Cycle User Groups	Improve cycle infrastructure and accessibility

Group	Sub-Group	Stakeholder	Needs
		Disability Access Groups	Improve mobility/accessibility for those with disabilities.
		Railway Heritage Trust	Protection of former railway infrastructure
	Potential Investors/Developers	Property developers, car park operators	Economic return on investment Attractive commercial sites, good transport links, access to labour New development opportunities adjacent to key rail gateway
	Rail Industry	Office of Rail and Road	Adherence to regulations and protecting the interests of rail users
Informed	Local Residents / Passengers	Local Residents / Passengers	For the project to be a responsible citizen and improved quality of life and opportunities
	Rail User Groups	Transport Focus	Improved rail services
	Press (National, Local & Rail)	Press (National, Local & Rail)	Information

More detail on the approach to stakeholder and communications management is provided in the Management Dimension and demonstrates the support for the project and how engagement with different stakeholders has influenced the proposals.

2.10 Assessment of Investment Options

The assessment of investment options for the project has been undertaken in two phases, linked to the production of the previous SOBC and then a refinement of the preferred option as part of the preparation of this OBC.

2.10.1 Initial Option Assessment

In developing the SOBC for the project, an Option Assessment Report (OAR) was produced describing the work undertaken to identify a range of proposals that could address the problems and issues associated with the station.

The OAR defines the process by which a number of options were generated and sifted in order to identify potential option packages likely to achieve the project-specific objectives.

The option generation and sifting process involved:

- Generating a long list of options - a working group, comprising representatives from CPCA, PCC, Network Rail and LNER was established to carry out a detailed analysis of potential options for Peterborough station. The option generation process identified an initial long list of interventions;

- Initial Sift - all of the interventions were considered at a high level and considered in relation to the project-specific objectives and whether they were considered potentially deliverable against other key criteria. At this point some options were discarded. The other key criteria included the following:

    - Engineering Feasibility: The level/complexity of engineering required.

    - Operational Feasibility: The extent to which delivery is dependent on operational issues for both the railway and local highway network, plus those of supporting parties.

    - Complexity: The statutory processes that will affect the delivery of the project (for example, planning permission, lease /station change process, new or revised traffic regulation orders, stakeholder engagement).

    - Stakeholder Acceptance/Support: The likelihood of whether the project would be able to secure stakeholder and public acceptance/support.

    - Affordability: Whether the likely scale of funding sought is within acceptable parameters/budgets and whether alternative sources are available.

    - Timescale Feasibility: The extent to which the delivery programme is achievable.

- Of the retained options, these were then amalgamated into option packages to form a sensible number of shortlisted options for further appraisal. The creation of these option packages was an iterative process conducted through a number of workshops.

The option generation and sifting process led to the development of five option packages presented at the SOBC stage. These can be summarised as:

- Do Minimum: Passive provision for new platforms, minimal station/forecourt enhancements, minimal active travel improvements.

- Do Something Option 1: A new western station entrance, passive provision for new platforms, refurbishment of existing footbridge, removal and replacement of parcel bridge, medium station/forecourt enhancements, medium active travel improvements, relocation of Network Rail MDU to GNGE site, residential development on the existing MDU site.

- Do Something Option 2: As Option 1, but with consolidation of car parking nearer to the two station entrances, allowing further development on existing surface car parking sites.

- Do Something Option 3: As Option 2, but with maximum station/forecourt enhancements, maximum active travel improvements, a new western MSCP and commercial and residential development south of Crescent Bridge.

- Do Something Option 4: As Option 3, but with a new eastern MSCP, and further commercial and residential development south of Crescent Bridge set around the extended eastern station.

Option 2 was identified as the preferred way forward and was the subject of the LUF bid in July 2022. The OAR was presented as part of the supporting information for the LUF bid.

2.10.2 Single Option Design Development

Since the conditional award of the LUF allocation, work has progressed on the development of single option design, in line with established rail industry practices.

This process is summarised in the OBC Option Development Report, included at Appendix B and the more specific Station Option Development Report, included at Appendix C.

The refinement of the preferred option has been undertaken with a view to the achievement of the strategic objectives for the PSQ programme, but with a clear focus on the LUF allocation, committed local contributions and the timing over which the funding is available. The alignment of the various elements of the preferred option against the agreed strategic objectives is summarised in Figure 2.49.

Strategic Objectives

1) Capitalise on rail connectivity
2) Maximise growth by releasing land for development
3) Improve range & quality of facilities at station
4) Re-imagine the function and presentation of the station
5) Improve station-city connections in all directions
6) Enhance multi-modal connections
7) Address safety & personal security concerns
8) Social & environmental sustainability

Activity	Alignment with Objectives
Western Station Entrance	①③④
Western Access & Surface Parking	②⑤
MSCP on West	③⑤⑧
City Link (Queensgate Roundabout)	⑤⑦⑧
Station Square & Interchange	②③⑤⑥⑦⑧
Eastern Station Entrance Upgrade	①③④⑦⑧

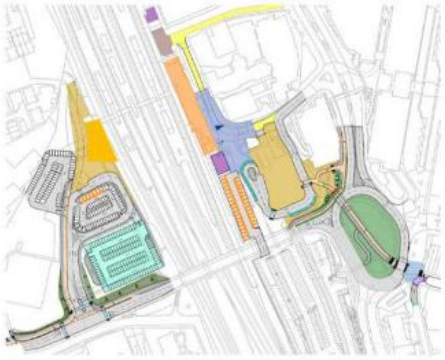

Figure 2.49: Alignment of Preferred Option with Strategic Objectives

It is intended to provide a catalyst for the remainder of the PSQ programme and clearly aligns with the ethos of the Masterplan Framework vision that was shown in Figure 1.4.

The following paragraphs summarise each main work package within the preferred option.

Station West

Building on the SOBC preferred option, the proposal is for a new western station entrance and station building, mostly facilitated by the relocation of Network Rail's MDU.

The construction of a new western entrance will reduce journey times for the 30% of users accessing the station from the west, reduce congestion levels at Queensgate Roundabout and the surrounding road network, as well as improving issues of customer satisfaction and passenger congestion.

By providing a new station entrance, development opportunities will also become available as will the ability to create new high quality public spaces contributing to the creation of a new characterful city quarter for the residents of Peterborough.

The new entrance will be accessed by a new traffic signal junction on Thorpe Road and will lead to a small area of surface car parking as well as a new MSCP.

The setting of the historic goods shed will be enhanced by the creation of a small public space in front of the new station building.

The principal elements are shown in the visualisation in Figure 2.50.

Figure 2.50: Station West Proposals

Station East

The aim of this work package is to provide a significantly enhanced gateway to the City by:

- Improvements to the existing station building and extending it to the south;
- Delivering a new station square allowing for easier onward journeys and enhancing the public realm and creating a clear interchange between rail and other modes of travel; and
- Catalyse the delivery of development plots in the vicinity of the station, with a priority on creating a strong sense of place.

To achieve this, two main changes are proposed. First, the relocation of taxis, drop-off, and disabled parking to an area within the current car park, freeing up space in front of the station for the new station square and allowing for better connections (tying into the Staton to City Link work package).

Second, the refurbishment and extension of the existing station building, reconfiguration of the gateline and relocation of the stairs to the footbridge. These elements will address passenger congestion issues on platform 1 and provides passengers with a better station experience.

Improvements to the footbridge as well as the removal and replacement of the parcel bridge, as identified in the preferred option in the SOBC, were excluded due to deliverability and affordability concerns and their impact on the overall value for money of the project.

The principal elements are shown in the visualisation in Figure 2.51.

Figure 2.51: Station East Proposals

Station to City Link

Also building on the SOBC preferred option, the Station to City Link work package aims to significantly improve the experience of travelling between Peterborough Station and the City centre. The new station square mentioned above will go some way in achieving this, but further improvements along this route are also required beyond the station frontage.

Most significantly, this will involve amending the underpasses at Queensgate Roundabout to create a more pleasant and open walking and cycling path that would connect to an at-grade pedestrian crossing to Cowgate.

This will allow a new public space within this roundabout to be created and remove the separation between the station area and the City caused by the A15 dual carriageway. The path will be designed so that a clear line of sight is created from the station entrance to the City centre, making the route easy to navigate. These measures also make the path more accessible for those with mobility issues. The upgrades to this route will also improve the connection to the Queensgate Bus Station, located adjacent to the A15 dual carriageway. This will allow for a more intuitive and accessible route to onward public transport connections.

Figure 2.52 shows a map of the proposed route that the new path would take, with Figures 2.53 and 2.54 showing visualisations of two key points of improvement. Figure 2.52 can be compared against the current configuration shown in Figure 2.41 to show the significant difference between the existing and proposed connection.

Car Parking

The provision of adequate station car parking is a key part of the preferred option, not only to meet the need of current and future rail users, but also to reflect the current station lease arrangements.

Consideration has been given to how rail station parking provision can be maintained overall and managed through the delivery of the project – this is summarised in the Car Parking Strategy, included at Appendix D. Use of PCC's parking assets will be considered on a temporary basis to ensure that sufficient car parking is provided as the project is delivered.

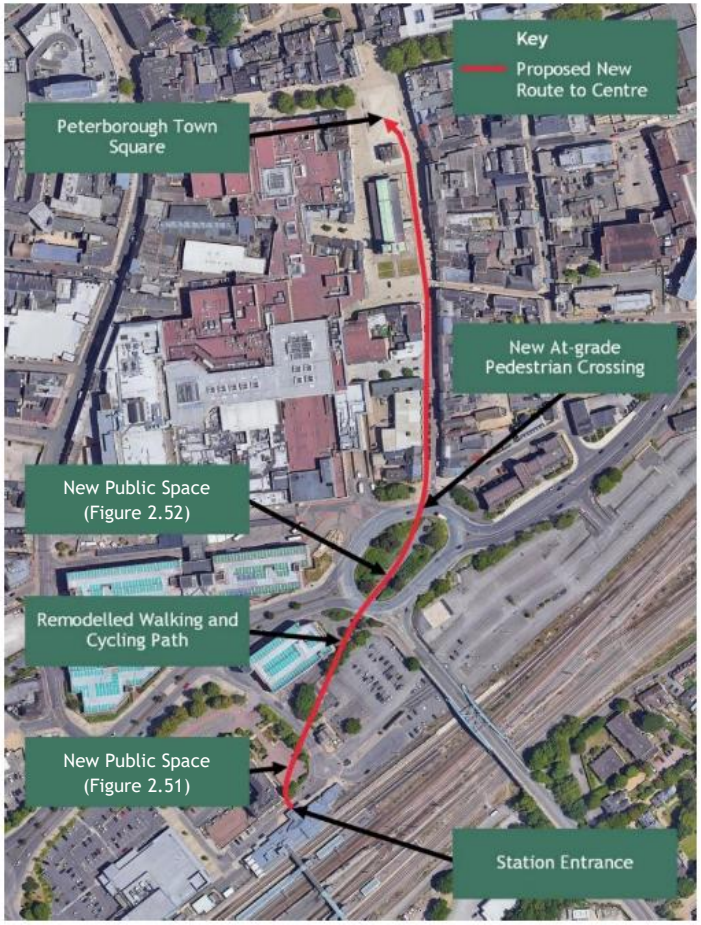

Figure 2.52: Map of Proposed New Route to the City Centre

Figure 2.53: Proposed Station Square (Station East)

Figure 2.54: Proposed Public Space at Queensgate Roundabout (Station to City Link)

3 The Economic Dimension

This chapter of the OBC identifies the impacts of the preferred option and the resulting value for money. The economic, environmental, social and distributional impacts of the project are all examined, using qualitative, quantitative and monetised information to determine the extent to which the project's benefits outweigh its costs.

3.1 Options Appraised

A robust process was adopted for the generation and shortlisting of options, as well as the identification of the preferred option, as set out in the OBC Option Development Report that can be found in Appendix B.

HM Treasury Green Book guidance recommends that the economic appraisal at OBC stage should be undertaken of the preferred option set against a "business as usual" option, so this approach has been taken. Given the lack of any improvements currently programmed for Peterborough Station, the "business as usual" option is that there is no change to the station, save for some minor improvements to station access and pedestrian routes and station cycle parking, with a continuation of all of the issues described in the Strategic Dimension.

However, passenger growth in the future has been based on Network Rail's projections as set out in their 'Peterborough Station Options Modelling Station Capacity Assessment'.

3.2 Methodology and Assumptions

The economic assessment undertaken considered the DfT's TAG guidelines, with specific reference to the following documentation:

- TAG Unit A1.1 – Cost-Benefit Analysis
- TAG Unit A1.2 – Scheme Costs
- TAG Unit A1.3 – User and Provider Impacts
- TAG Unit A4.1 – Social Impact Appraisal
- TAG Unit A5.1 – Active Mode Appraisal
- TAG Unit M1.1 – Principles of Modelling and Forecasting

- TAG Unit M4 – Forecasting and Uncertainty

The methodology used also references the DfT Value for Money Framework (July 2021) and guidance issued by Network Rail.

Given that the project includes a number of elements that will be bringing benefits from a range of different sources, the approach to estimating benefits has varied across the different components.

More details on the methodology and assumptions can be found in the Appraisal Specification Report, included at Appendix E.

3.3 Present Value of Costs

3.3.1 Capital Costs

The estimated cost of the project (excluding the MDU relocation) was used to develop the Present Value of Costs (PVC) through a series of steps, namely:

- Start with the 2023 estimate for each project element and profile between now and the opening year (2023-2026);;
- Remove allowances for risk contingencies and construction price inflation;
- Adjust for real price inflation and convert to market prices;
- Apply optimism bias – this was undertaken at the rate set out in TAG for an OBC, but with different rates applied to different elements, as suggested by the guidance;
- Discount to 2010 prices using GDP deflator and apply the discounting factor provided in the TAG Databook.

The calculation of the PVC for the different project elements is shown in more detail in the Economic Appraisal Technical Note include at Appendix F. The resulting PVC for the preferred option is £31.8 million (2010 prices).

The costs of relocating the Network Rail MDU and the Active Travel Fund Round 4 improvements have been excluded from the PVC calculation as they will be covered by Network Rail and CPCA/PCC as a complementary contribution, and so would essentially be netted off in any calculation of value for money.

3.3.2 Operating Costs

As described in the Financial Dimension, it is anticipated that costs of maintaining any new rail assets will be incorporated in Network Rail's settlement for the next Control Period. The operational costs for the new station facility (staffing and day to day running) will form part of the Station Change proposal and will be addressed through the regulated regime. At this time, it is assumed that the costs of operating and maintaining the proposed new and improved rail assets are £500,000 per annum.

PCC will absorb the maintenance costs of the new transport infrastructure that it provides, utilising its existing highway maintenance budgets.

For the value for money calculation, the assumed additional operating costs have been converted to 2010 prices by:

- Setting up operating costs over the appraisal period (2026-2085);
- Adjusting for real price inflation and market prices by using real GDP growth, and market price adjustment factor, respectively;
- Applying optimism bias of 21% for operational expenditure based on Table 3, TAG Unit A5.3; and
- Discounting to 2010 prices using GDP deflator and applying the discounting factor provided in the TAG Databook.

The resulting PVC of operating costs is £7.2 million (2010 prices).

3.4 Present Value of Benefits

As set out in the Strategic Dimension, the project consists of a number of elements, all of which will contribute to the overall benefits of the project, but in different ways.

For example, a new western station entrance will reduce journey lengths for those trips accessing the station from the west, both now and in the future. This will have journey time savings for those trips and associated reduction in highway congestion and related accidents on the local road network as a result of those trips.

Rail passengers will have a further benefit in their walking time from the new car park locations to the station platforms, adding to the overall reduction in journeys. Active modes will benefit from the new facilities both at the station, but also the enhanced connections to the City centre.

However, there is not one single appraisal tool that can pick up all of these benefits, and so the approach has been to use a range of different appraisal tools to assess the benefits of the various project elements to provide an aggregate of the overall benefits.

Table 3.1 summarises the approach taken to estimate the benefits for each of the project elements, using the most appropriate appraisal tool available.

Table 3.1. Summary of Approach to Estimating Benefits for Preferred Option

Benefit / Approach	Highways & Accidents	Active Modes	Station Facilities	Access Journey Time	Mode Shift
Project Element	TUBA	AMAT	PDFH	Value of walking time	Reduction in vehicle-km
Consolidation of Surface Car Parking	✓			✓	
New Western Station Entrance		✓	✓	✓	✓
Eastern Station Square and Interchange	✓				
Station to City Connectivity Enhancements	✓	✓		✓	
Existing Eastern Station Works			✓		✓

The resulting Present Value of Benefits (PVB) arising from the preferred option are shown in Table 3.2.

More detail on the approach to estimating the project's benefits is included in the Economic Appraisal Technical Note.

Table 3.2: Present Value of Benefits for Preferred Option

Benefits	Value (£,000s) 2010 prices, discounted to 2010
Highways	23,200
Station Access	29,000
Station Facilities	8,800
Mode Shift	1,100
Active Modes	2,000
Indirect Tax Impact (from station demand uplift)	-1,400
Present Value of Benefits (PVB)	**62,700**

3.5 Wider Economic Impacts

The starting assumption of all transport appraisals is that the welfare effects of economic impacts are captured by benefits to users. However, it is recognised in TAG that if there are market failures that means the economy is not functioning efficiently and user benefits will not fully capture all of the welfare effects associated with economic impacts. This has the result that wider economic impacts will occur beyond those monetised under user benefits alone.

TAG identifies that where wider economic benefits are incorporated into economic appraisal, the presence of market failures should be identified and justified. There are a number of market failures present in Peterborough that justify the need for, and benefits associated with, regenerative investment.

Throughout the City centre, there are issues of imperfect competition in land markets and the rationing of land have led to underinvestment in new floorspace and facilities for businesses and residents. This can be seen in the very low rental rates for commercial floorspace in the city centre, and in a large number of underutilised sites. Most visibly, the sites surrounding Peterborough Station have remained highly underutilised for a number of years in spite of commercial and residential interest.

Alongside the impact that imperfect competition has had on land markets and development, the project will generate significant positive externalities through the provision of public goods and improved amenity of public spaces and sites in the area surrounding Peterborough Station.

Based on the potential land uses identified in the Station Masterplan and using DLUHC guidance, the potential wider economic impacts of the project have been assessed, noting that these relate to the wider PSQ programme area and not just to this project, hence they have not been included in the value for money calculation set out in this OBC.

More detail on this assessment is included in the Economic Appraisal Report, but the outcome is an estimated net Land Value Uplift of around £875,000 (PV, 2010 prices).

3.6 Environmental Impacts

The environmental risks and opportunities relating to the project have been identified and the key findings issues are summarised in the following tables for each of the criteria set out in TAG, utilising a RAG (Red/Amber/Green) ratings system, as follows:

- Red: policy conflicts and environmental constraints that cannot be addressed using established and readily deliverable design solutions or mitigation thereby posing a threat to project delivery;
- Amber: policy conflicts and environmental constraints that, whilst potentially significant, can likely be resolved / mitigated with potential implications for program and budget; and
- Green: policy compliant environmental constraints that are likely be resolved/mitigated within programme and budget.

The RAG rating allows for professional judgement and the overall RAG rating reflects the 'most adverse category' identified in the assessment.

3.6.1 Noise

Amber
The scheme does not traverse or lie adjacent to any Noise Important Areas (NIAs), however there are eleven NIAs within a 2km radius and some sensitive receptors include residential properties and West Town Primary Academy. *Construction* There are likely to be significant construction-phase noise impacts considering the proximity of nearby residential properties to the development. This is likely to require a Section 61 consent. Noise arising from demolition and construction has the potential to give rise to adverse impacts, especially at the receptors located nearby. However, the potential impacts are likely to be temporary and are also likely to be relatively short term. With the implementation of appropriate mitigation and best practice measures, which should be outlined within a Construction Environmental Management Plan (CEMP), potential impacts

associated with noise and vibration of demolition and construction can be mitigated, although it is noted that working hours are likely to be limited to the daytime. At this stage it is not known whether night-time works will be required.

Operation

Any increase of operational train noise levels may not be too dissimilar to the current levels. The proposed car park of the western side of the station has the potential to give rise to adverse impacts as a results of increased vehicle movements. Consequently, there may be increased noise levels at adjacent residential receptors and the local school. However, overall it is not anticipated that there will be any constraints associated with operational noise levels requiring installation of additional mitigation measures such as acoustic barriers. If anything, it is expected that traffic noise levels will be reduced as a result of modal shift to more sustainable modes of transport once active travel connections are improved.

Risks

There is the potential for an increase in noise levels at nearby noise sensitive receptors due to demolition, construction and operation of the scheme, arising from mobile and stationary sources. No noise and vibration modelling has been undertaken at this stage, and the potential impact on noise and vibration is currently not known. At this stage, noise surveys have also not been carried out, which would normally determine a baseline noise level for the area.

Opportunities

Mitigation and enhancements to noise protections with the scheme, such as layout, orientation and noise barriers could be considered as part of a sustainable design.

Quantified Assessment

The impacts on noise have been estimated using AMAT outputs(£1.2k) and part of the MECs as a result of modal shift from highways to rail (£7.3k). Further detail can be found in the Appraisal Summary Table at Appendix G.

3.6.2 Air Quality

Amber

The scheme is not situated within an Air Quality Management Area (AQMA) and there are no AQMAs within a 2km radius. There are sensitive receptors located close to the scheme, including residential properties and a school.

Construction

In the short term, construction activities have the potential to generate dust due to earthworks, construction and demolition. A construction dust assessment should be carried out, to determine the potential risk of dust to dust soiling and human health, along with mitigation measures, if required.

At this stage, construction traffic volumes are not expected to be large enough to cause a perceptible change in air quality. Any changes in air quality would be short term and temporary in nature, lasting only the duration of the demolition and construction phase. At the time of writing, no construction traffic data is available to screen traffic movements against the Environmental Protection UK (EPUK)/Institute of Air Quality Management (IAQM) land use guidance. This should be carried out once data are available, to determine if an air quality assessment would be required.

With the implementation of appropriate mitigation and best practice measures, which should be outlined within a Construction Environmental Management Plan (CEMP), significant air quality effects are not anticipated during construction.

Temporary diversion routes during the construction phase of the scheme are likely to be localised but need to be monitored and reviewed regularly to minimise impacts associated with congestion and idling traffic.

Operation

As with most urban areas, road transport is a prime source of the NO2 and particulate matter across the City. The scheme is expected to improve air quality and reduce NO2 and particulate matter levels through the optimisation of the local traffic network surrounding Peterborough Station and the increase in rail patronage. These improvements to air quality will particularly benefit vulnerable groups who have been found to be living within proximity to the station, such as children and low-income households.

The optimisation of the local traffic network is facilitated by the construction of a new western station entrance and car parking provision. Previous studies have revealed that 30% of station users travel from the west along Thorpe Road. Providing station access from the west with adequate car parking provision will ease pressure on the city's road network at Crescent Bridge/Bourges Boulevard, reduce congestion, and subsequently air pollution. The overall reduction in private vehicle use through the increased rail patronage for longer journeys will additionally present air quality benefits for the wider region – not just the immediate area surrounding the station.

Overall, the scheme is likely to promote modal shifts to more sustainable modes of transport and support air quality improvement in the longer-term through reduced motorised vehicular journey distances.

Risks

Air quality modelling has not been undertaken at this stage and therefore potential impacts of the scheme on nearby sensitive receptors are not known. Similarly, likely predicted concentrations are therefore not available for comparison with critical loads to determine impacts on ecological receptors sensitive to nitrogen or sulphur deposition. Although it is considered that the scheme presents a low risk to air quality, this cannot be confirmed at this time. This could present a cost and programme risk at later stages of scheme development.

Opportunities

The scheme could lead to improvements in local air quality in the longer term, by enabling mode shift through active travel improvements and reduced journey distances by motorised vehicles and congestion due to the provision of the western access and car parking.

Quantified Assessment

The impacts on air quality are estimated using AMAT outputs (£0.8k) and part of the MECs as a result of modal shifts from highways to rail (£7.2k).

3.6.3 Greenhouse Gases

Green

In July 2019, PCC declared a climate emergency and have committed to make the Council's activities net-zero carbon by 2030, and to make Peterborough a net-zero carbon city by 2030.

The scheme is expected to reduce carbon emissions through an increase in rail patronage and reduction in private vehicle use. The increase in rail patronage will be driven by improved station facilities, better access to the station by pedestrians, cyclists and buses, enhanced car parking, and new active travel connections between the station and the rest of Peterborough.

A key part of the scheme is the provision of a new western station entrance and associated car parking facilities. The station is currently only accessed directly from the eastern side of the rail lines, including all car parking provision. This means that passengers accessing the rail station often need to travel further than is necessary, adding to walking and cycling distances and increasing highway congestion and carbon emissions. The scheme has the potential to broaden access and car parking choices whilst providing new facilities for electric vehicle charging and enhanced integration with other modes in line with PCC's City Centre Transport Vision, and improving active travel infrastructure, reducing rail users' dependency on private cars to reach the station.

As a result of this expected reduction in private vehicle use/mileage, there are expected benefits related to carbon emission reductions.

Construction

There is potential for Greenhouse Gas (GHG) emissions during the construction of the project. A Construction Environmental Management Plan (CEMP) will be produced and used during the construction of the interventions to ensure that best practice measures are adopted to minimise GHG emissions associated with the construction activities and materials used, where practicable.

Operation

Low carbon technology will be used through the scheme's design, construction, and operational phases. The intention is to ensure that carbon emissions throughout the design stage are carefully considered and designed out where possible embracing the principles of the circular economy. In addition, the Peterborough Integrated Renewables Infrastructure project (PIRI), launched in July 2020, aims to design a low carbon, smart energy system, which heats and powers the city via a web of integrated smart energy systems. The PIRI design combines a heat network, electricity network and electric vehicle infrastructure under one smart holistic scheme. PIRI brings together energy generation, demand management and storage, unlocking efficiencies and serving as a blueprint for other cities. Through a separate £2m feasibility project, funded by Innovate UK and supported by Cranfield and SSE, there are plans to extend the City's renewable energy infrastructure to the Station Quarter.

Through design and compliance with railway standards, it is also unlikely that the proposed scheme would pose a greater risk of impacts from climate change, such as flooding or temperature extremes, than the existing station.

Risks

The materials that will be used in the scheme are currently unknown. Where possible, however, the scheme will look to promote the use of low carbon materials. There is the potential for a large amount of concrete to be required for the proposed scheme, which is considered to be a carbon intense material.

It is also unknown at this time as to where the construction materials would be sourced from as this could incur emissions in transporting the material to site. This could also be considered as an opportunity to reduce emissions, by sourcing materials locally where possible.

Opportunities

The operation of the scheme will encourage more journeys to be taken by public transport using the rail network. This could reduce the number of longer car journeys and therefore the volume of emissions emitted.

Assessment of the impact of a changing climate on the drainage of the scheme will likely be required within the drainage assessment. This will identify what design measures are required to increase the resilience of the proposed option due to climatic changes.

It is recommended that an initial carbon assessment is undertaken at the earliest opportunity during the preliminary design stage. This will allow identification of carbon hotspots and facilitate effective carbon reduction in accordance with PAS2080 carbon management principles and DfT guidance. This initial assessment can be updated during future stages of the project lifecycle to demonstrate the benefits of adopting this approach. This will help to minimise any climate impacts associated with undertaking the development.

Quantified Assessment

The impacts on greenhouse gases have been estimated using TUBA outputs (£0.36m), AMAT outputs(£8k) and the marginal external costs (MECs) as a result of modal shifts from highways to rail (£63k).

3.6.4 Landscape and Townscape

Green

The scheme lies within National Character Area (NCA) 88, Bedfordshire and Cambridgeshire Claylands, which is a broad, gently undulating, lowland plateau dissected by shallow river valleys that gradually widen as they approach The Fens NCA in the east. Thorpe Meadows & Peterborough Sculpture Park is located circa 300m south-west of the scheme's footprint and is recognised for providing important habitat for wildlife as well as its heritage assets and amenity value. This is managed by the Nene Park Trust – a registered charity ensuring its protection. It is recommended that consideration is given to how this local landmark interacts with the wider PSQ programme.

Construction

In the short term, construction activities have potential to impact upon the townscape and landscape surrounding the site, lasting the duration of demolition and construction. However, any impacts from construction vehicles and materials are likely to be short term and temporary. However, with the implementation of appropriate mitigation and best practice measures, which should be outlined within a Construction Environmental Management Plan (CEMP), significant landscape and townscape effects are not anticipated during construction.

Operation

In addition to the issues raised within the Historic Environment assessment, A Landscape Visual Impact Scoping Assessment will be required, and likely appraisal/ assessment following from this scoping exercise. This assessment will identify any potential longer-term impacts and

potential mitigation measures. The assessment will inform the overall design, scale and massing of the scheme.

Risks

The scheme's development should be mindful of the sensitivities of NCA 88, Thorpe Meadows & Peterborough Sculpture Park and the listed Wagon Shed on site. Impacts on these stemming from design could present a cost and programme risk as the project progresses.

Opportunities

The scheme could lead to improvements in townscape and landscape, providing high design quality additions to the City of Peterborough and the wider region.

3.6.5 Biodiversity

Green

Currently, surface car parking facilities make up approximately 48,000m2 of space in the vicinity of Peterborough Station. This constitutes a large area of paved surfaces, void of any aspects of natural capital. The scheme aims to consolidate these surface car parks to unlock this land for other uses. This will allow the incorporation of natural capital elements into the design – particularly into the proposed public realm features.

The closest ecological site to the scheme is Nene Washes, an internationally designated RAMSAR site, Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) and Special Protection Area (SPA). It is located 1.6 km south-east of the scheme. The scheme is unlikely to impact on the site, however, consultation with Natural England is recommended if case assent is required. There are no Tree Preservation Orders or Conservation Areas within the study area.

Construction

The potential impact is likely to be low, however no ecological surveys have been carried out to confirm this definitively at this stage.

As works are planned for the existing station building itself, there is the potential to impact on bats, should the station be being used by roosting bats. An ecological impact assessment including bat scoping and potentially bat surveys should be undertaken to better understand this risk.

There may be other ecological constraints depending on the specific design of the new highway and active travel connections. For example, there may be structures/buildings used as nesting/roosting sites which could be impacted by the development through demolition/modification and/or disturbance from noise/vibration/artificial lighting.

Operation

Although the area within the scheme's footprint is primarily urban, there is potential for isolated urban trees and localised vegetated areas to be impacted by the scheme. There is potential for protected species to use the existing rail corridor as a green corridor, and the potential for bats to use the station building itself.

The scheme will seek to ensure at least a 10% measurable increase in biodiversity post development through elements such as the planting of trees/vegetation and provision of landscaped green spaces specifically designed to benefit the biodiversity in the vicinity of this location.

Risks

Consideration also needs to be given to any new drainage arrangements and connectivity to the nearby waterbodies/watercourses such as the River Nene, as any volume, flow or water quality changes could impact negatively on biodiversity. This is especially important considering the high sensitivity of nearby receptors such as Nene Washes.

Opportunities

Opportunities to improve biodiversity should be implemented during the next stage of scheme development, such as the maximising green scape (as described in the Landscape section below) and providing habitat such as nesting boxes. A Biodiversity Net Gain Assessment should be undertaken for the project during the preliminary design phase in line with client and legal requirements to quantify the benefits of such initiatives.

3.6.6 Historic Environment

Green

The Peterborough City Centre conservation area is located <0.1km east of the scheme. The conservation area has a number of key landmark buildings that are iconic across the City centre and make a key contribution to its identity including the Cathedral, the Guildhall and the Church of St John the Baptist. In addition, it has a number of important civic spaces and squares, including Cathedral Square, St John's Square, the Cathedral Precincts, and spaces along Bridge Street and Long Causeway. Commercial activities are most prominent throughout reflecting its city centre location.

There are four Scheduled Monuments within a 2km radius. It is anticipated that the proposed development could only really impact upon two of these:

- Peterborough Cathedral Precincts, including Table Hall and Infirmary Arcade – 0.8km east
- Touthill and site of Castle Bailey - 1km east

Peterborough Cathedral Precincts is a registered park. Careful consideration should be given to how the new active travel connections interact with these heritage parks ensuring that any direct or indirect impacts are mitigated as much as practicably possible. A Scheduled Monument Consent may be required depending on the scope of the proposed design.

There are 131 listed features within a 2km radius of the scheme, of which a significant proportion are concentrated within close proximity, including the Grade II listed Wagon Repair Shed. These features need to be considered when developing the design of the new highway and active travel connections into the station. Specific mitigation measures will also need to be implemented during the construction phase to ensure that these features are not negatively impacted. Listed Building Consents may be required depending on the likely impacts.

Construction

Construction activities associated with both the station and the setting of the listed buildings has the potential to impact upon the assets and what makes them 'special'.

It is essential that a sensitive approach is taken to the design to ensure that the existing listed assets are protected. Similarly, any new development must be sympathetic to the adjacent listed assets and their setting.

With the implementation of appropriate design consideration, mitigation and best practice measures, it is anticipated that a scheme can be developed which would protect and potentially enhance the listed buildings and their setting.

Historic records highlight that Queensgate Roundabout is located on the historic graveyard of St John's Church. During the original construction of the roundabout, graveyard remains were exhumed and reburied in the grounds of the Cathedral. Accordingly, consultation with the local planning authority should be taken at the outset of the design and care must be taken to ensure that all legal requirements are understood, and necessary consents obtained.

Operation

It is considered unlikely to that there would be impacts from the operation of the proposed scheme once constructed – the scale of these impacts will become clear as scheme development progresses.

Risks

The design of the scheme should facilitate best practice and sensitive appreciation of the historic assets - poor design and a lack of understanding of the assets and their quality could result in a loss if 'specialness' and compromise the overall listing of the assets.

Opportunities

There are opportunities to improve the setting of the existing historic assets. Public realm improvements have the potential to rationalise the setting of the Grade II listed Wagon Repair Shed, enhancing the environment.

3.6.7 Water Environment

Amber

The scheme lies within Flood Zone 1.

Construction

Construction activities will result in the disturbance of soil. This could lead to the mobilisation of sediment within surface run-off, which could be transported into a surface watercourse.

Flood risk can increase if permeable areas are increased. However, the area of works associated with the proposed scheme are already hardstanding so there would not be an increase in permeable surfaces given the current design. As such, surface water flood risk is unlikely to be impacted.

With the implementation of appropriate mitigation and best practice measures, which should be outlined within a Construction Environmental Management Plan (CEMP), significant road drainage and water environment effects are not anticipated during construction.

Operation

Consideration of drainage mitigation for the scheme and potential for interaction with flood storage may be required at the next stages of environmental assessment. Any impacts of additional discharges from new drainage into nearby waterbodies/watercourses such as the River Nene also need to be assessed in more detail, including the requirement to obtain any particular consents from regulators.

Risks

The mitigation for water quality and hydrology impacts arising from road/rail drainage is well researched and understood, therefore any impacts identified would be mitigated through good design to ensure no conflict with policy or legislation. The design of the scheme should facilitate good pollution control practice.

However, at this stage, a drainage strategy is not available and conclusions cannot be drawn as to whether an Flood Risk Assessment (FRA) would be required.

Opportunities

There is the potential to implement Sustainable Drainage Systems (SuDS) as part of the drainage design for the scheme. SuDS can reduce flood risk (often arising from permeable surfaces in areas not at risk from river flooding), improve amenity and biodiversity by providing habitat.

In addition to the assessment of environmental impacts, delivery of the project should ensure that all measures are taken to minimise waste with recycling of materials and opportunities for a circular economy used at all times.

3.7 Social and Distributional Impacts

The social impacts of the project have been identified qualitatively at this stage for each social impact covered by TAG, utilising the scoring system set out within it. The current assessment of social impacts is summarised in Table 3.3.

Table 3.3: Summary of Social Impacts

Indicator	Assessment	Comments
Accidents	Slight Beneficial	Through the changes in traffic on the local road network and modal shift from car to rail, it can be expected that accidents will generally decrease in the vicinity of the station. However, the new western entrance to the station may locally increase the number of cars trying to access the car parking facilities in this location. This could lead to a higher risk of accidents in the immediate vicinity of the new junction. COBALT outputs have been used to appraise the impacts of the project and the project is forecast to reduce accidents by small extent over the appraisal period. The qualitative assessment has outputted an NPV of £122,000.
Physical Activity	Slight Beneficial	The project has the potential to reduce car use by encouraging increased rail travel and, through the new western entrance, reduce journey distances. The project incorporates active transport (cycling and walking) into the station from all directions to promote physical activity.

Indicator	Assessment	Comments
		In particular, the active link improvements from the City centre would result in slight beneficial physical activity impacts as suggested by the AMAT outputs of £1.2m.
Security	Slight Beneficial	As the new station building has not yet been designed in detail and constructed, it is difficult to determine potential security impacts. Through best practice and informed design, it is expected that personal security concerns will be minimised in and around the new western entrance to the station. Additionally, the new and refurbished station buildings will be designed in accordance with relevant security compliances. The current walking routes to the City centre will be improved, addressing existing security concerns. The project will also have positive impacts on informal surveillance, landscaping, and slight positive impacts on emergency calls, giving a slight beneficial impact overall.
Severance	Neutral	The provision of the new western entrance and additional active mode facilities will assist in reducing the severance caused by the existing rail lines and so the project will reduce severance to wider users. However, there is a forecast traffic increase to the west of the station, potentially have negative impact on pedestrian movement but not considered significant, so the overall analysis indicates a neutral impact.
Journey Quality	Large Beneficial	The new western station entrance will be a new-build construction and although detailed design has not yet been undertaken, it can be assumed that the station facilities will meet the latest quality standards. Pedestrian modelling of the existing station has also been undertaken and the outputs considered so as to reduce congestion hotspots and aide movement throughout the station. Additional passenger facilities, retail and beverage opportunities will be provided. As the station design is further progressed, consideration will be given to ensure a high quality passenger experience. Key journey quality indicators have been assessed, suggesting positive impact around traveller care, views and stress as a result of new and refurbished station buildings, the new station square and the consolidation of car parking.

Indicator	Assessment	Comments
		Impacts on journey quality have been estimated using AMAT outputs (£0.6m) and station facilities WTP benefits (£8.8m) for a total NPV of £9.429m.
Option Values	Scoped out	Scoped out of this assessment as the project does not involve the provision or loss of transport services
Accessibility	Slight Beneficial	Overall, the station has the potential to be well connected to the rest of Peterborough via the proposed transport improvements and proximity of the existing bus station. It is important to make sure these facilities are properly designed and implemented to accommodate for the accessibility issues in relation to walking connectivity. The assessment has been carried out based on the key barriers impacting on accessibility indicators. The project is expected to mainly improve the availability and physical accessibility of transport, and maybe travel horizons.
Affordability	Slight Beneficial	It is expected that the scheme will provide positive impacts to deprived areas that surround the station. The improved connectivity will directly benefit those without access to a car and provide a more equitable transport network. The project also results in forecast reduction in vehicle operating costs.

A distributional impact appraisal has been conducted by applying the three-step approach defined in TAG Unit A4.2.

A screening exercise has been carried out to identify likely impacts derived from the project on specific vulnerable groups including children, ethnic minorities, elderly, women and low-income people. Each indicator has been assessed individually. From the screening exercise, the following indicators were progressed to Stage 2:

- User Benefits - Travel time benefits and the vehicle operating costs for the proposed scheme have been assessed using TUBA outputs from the main economic appraisal. Results show that all income quintiles would expect beneficial impacts from the project. Groups of income quintiles 1 and 2 are scored as slight beneficial, group income quintile 5 is scored as moderate beneficial and groups of income quintiles 3 and 4 are scored as large beneficial. People in the lowest two quintile groups, however, would receive a disproportionately small share of the benefits.

- Accidents – Accident benefits have only been considered as part of MECs, resulting from modal shift from car to rail and active travel trips. The total benefits amount to around 0.4% of the total estimate of benefits. Based on this result, in the interest of proportionality, it was deemed appropriate to undertake a qualitative assessment. This resulted in the assessment of impacts on children as neutral, older people as slight adverse, pedestrians as slight beneficial, cyclists as neutral and motorcyclists as slight beneficial;

- Severance - The assessment of social impacts of severance focuses on causing or removing physical barriers, principally resulting from traffic flow changes resulting from the project. Road links with a significant change in traffic flow (+/-10%) are mapped together with the vulnerable groups in terms of severance as well as the key amenities identified. This resulted in the assessment of impacts on children as slight adverse, older people as slight adverse, people with disability as slight beneficial and no car households as slight beneficial.

Further details of the methodology for the social and distributional assessments can be found in the Economic Appraisal Report.

Given that the project involves new rail infrastructure, primarily in terms of the station building and western access, social impacts can also be considered using the Network Rail Aspects and Impacts Guidance Note, and include:

- Supporting Britain’s economic development.
- Respecting cultural history and rail heritage;
- Making rail a great experience;
- Inspiring tomorrow’s workforce;
- Keeping communities safe;
- Creating positive industry partnerships;
- Making travel accessible;
- Creating engaged employees;
- Connecting communities with the environment; and
- Being a caring neighbour.

An evaluation of these social impacts for the project is presented in Table 3.4.

Table 3.4: Further Social Impact Assessment

Theme	What Does This Mean?	Proposed Impacts
Supporting Britain's economic development	Harnessing the power of rail to create social and economic opportunities for people and businesses	The project will act as an enhanced connectivity gateway for Peterborough and the wider region with improved connections from the local area. Construction of the station will provide construction jobs, supply chain boosts etc.
Respecting cultural heritage and rail history	Appreciating cultural history and rail heritage – both the physical heritage and the people's history	The project and surrounding development are proposed to respect and complement existing historic assets and offer improvements and enhancements where possible.
Making rail a great experience	Creating a life-enhancing railway experience for all who use it	The project will improve access journey times, station accessibility and facilities, increasing the overall experience of travel for passengers.
Inspiring tomorrow's workforce	Enabling access to the right skills, at the right time, from the UK's diverse talent pool	Projects such as Peterborough Station show practical examples of technical skills offering inspiration to future engineers, but, potentially through engagement, practical STEM project experience.
Keeping communities safe	Keeping everyone safe around the railway, every day	The redevelopment of the area around the station and transport enhancements will promote inclusivity and perceived safety. Appropriate surveys will be undertaken in relation to noise and lighting to ensure that the proposed development does not detrimentally impact upon the surrounding community.
Creating positive industry partnerships	Developing relationships, in the supply chain and beyond, that are ethical, responsible and have a positive social impact	The construction of the project may bolster the supply chain linkages and create work for SMEs.
Making travel accessible	Making rail infrastructure and information available to everyone	Accessibility improvements will open the rail network up to those who have previously experienced issues accessing it e.g. through the provision of the western access and active mode improvements.

Theme	What Does This Mean?	Proposed Impacts
		Station design will ensure that the site is easier to navigate.
Creating engaged employees	Be a business that people are proud to work for	Employment opportunities are likely to be generated during construction of the project and following increased operations associated with the proposed new station. An improved working environment and gateway to the City will help to instil pride of place in workers.
Connecting communities with the environment	Working to protect and enhance our lineside surroundings and the wider environment	The project will increase access to high quality public realm for the town of Peterborough and all those who use the station.
Being a caring neighbour	Promoting positive relationships with our lineside communities	Provision of new services within the station may benefit neighbouring occupiers. Visual amenity and public realm improvements associated with the project will improve amenity for neighbouring occupiers. Management during construction and operation will be required to prevent adverse impact upon neighbouring occupiers.

3.8 Value for Money

Table 3.5 summarises the value for money assessment for the preferred option setting out the calculated benefit : cost ratio (BCR) for the core scenario described in the Economic Appraisal Technical Note.

Table 3.5: Core BCR of the Preferred Option

	Assessment	Comments/Notes
PVB (£,000s, 2010 prices)	62,700	Cumulative value of user benefits
Capital Costs PVC (£,000s, 2010 prices)	31,800	Derived from the information in the Financial Dimension and assuming required level of Optimism Bias at OBC stage
Operating Costs PVC (£,000s, 2010 prices)	7,200	Derived from the information in the Financial Dimension
Infrastructure Maintenance PVC (£,000s, 2010 prices)	-5	Derived from reduced maintenance costs arising from mode shift from road to rail
Revenue Transfer PVC (£,000s, 2010 prices)	7,700	Increased revenue arising from an increase in rail patronage – this is subtracted from the overall PVC
Net Present Value (NPV) (£,000s, 2010 prices)	31,400	PVB-PVC
BCR	**2.0**	**PVB/PVC**

According to the DfT Value for Money Framework (July 2017) Value for Money (VfM) categories are defined as follows:

- Poor VfM if BCR is below 1.0;
- Low VfM if the BCR is between 1.0 and 1.5;
- Medium VfM if the BCR is between 1.5 and 2;
- High VfM if the BCR is between 2.0 and 4.0; and
- Very High VfM if the BCR is greater than 4.0.

Therefore, it is clear that as currently calculated the preferred option provides **High** VfM in accordance with TAG criteria.

3.9 Sensitivity and Uncertainty Analysis

In addition to the core growth scenario assumed (which uses Network Rail growth forecast to 2042 and then TAG Databook v1.21 growth forecasts beyond that date), two further growth scenarios were tested:

- No growth beyond 2042; and
- Provisional TAG Databook v1.22 growth beyond 2042.

In both cases, the BCR remains at 2.0 – High VfM.

A further set of sensitivity tests were carried out to test the value for money results shown in Table 3.5, including:

- Reduce journey quality benefits by half: this shows the impact of low willingness to pay to the respective station facility improvements;
- Limit station uplift factor at 1%: this examines the impact of limiting the station demand uplift factor at 1% to estimate the induced demand from the station facility improvements;
- No cycling demand uplift assumed in AMAT: this examines the impact of no cycle demand uplift as a result of the new western access and City link as AMAT inputs;
- Increase additional operating costs to £750,000: this shows the impact of possible cost increases for staffing and maintenance of the station in the future; and
- Reduce the Network Rail growth rate between 2019 and 2042 by half (15.5%): this examines the impact of a reduced demand growth between 2019 and 2042.

The impacts of these sensitivity tests are as follows:

- There is 50% reduction in station facilities benefits, resulting in 7% reduction for total benefits as a result of reducing the journey quality (willingness to pay values) by half;
- Limiting the station uplift factor at 1% has a significant impact on modal shift benefits and direct taxation from the uplift, which would be reduced by 45% and 46% respectively, however, the reduction in total benefits would be minor given the scales of the individual benefits, but there is an increase in total PVC by 15% due to reduced revenue transfer from the demand uplift;

- When no cycling demand uplift is considered in the AMAT analysis, there would be a reduction of 78% in active modes benefits, resulting in a 2% reduction of the total benefits and the infrastructure maintenance cost savings would also be reduced by 5%;

- An increase in annual operational costs leads to 12% increase in total costs; and

- Reducing the growth rate in rail demand between 2019 and 2042 has some impacts on access journey time, station facilities and mode shift benefits, which would be reduced by around 10% respectively; the indirect tax impact from station demand uplift and the revenue transfer would also be reduced by 9%-14%.

In all cases, the BCRs decrease but still remain between 1.8 and 2.0, continuing to indicate High VfM or, at worst, Medium VfM.

TAG Unit A1.2 contains advice on how the deal with cost uncertainty and the potential for cost overruns to change the value for money category. Based on the information in Table 3.5, the change required to the PVC in order reduce the value for money category to the next lowest (giving a BCR of below 1.5) is an increase of 34%.

Using the Optimism Bias Workbook shows that there is approximately a 40% chance that costs of the project will overrun sufficiently to lower the value for money category.

Considering an even more pessimistic scenario, there is only a 13% chance that the costs of the project will overrun sufficiently to mean that the BCR would be below 1.0.

Finally, it should be noted that the forecast increase in passenger revenue due to the project exceeds the assumed increase in operating and maintenance costs, meaning that the project creates a positive financial return for the rail industry. Operating costs would need to increase by 7% for this not to be the case, although the estimated increase in operating and maintenance costs has been provided by the relevant partners and so is considered robust in the core scenario.

3.10 Appraisal Summary Table

The Appraisal Summary Table (AST) presents all the evidence from the economic assessment in a single table. It records all the impacts which have been assessed and described above using monetised, quantitative or qualitative information as appropriate. The latest AST for the preferred option is included at Appendix G.

4 The Financial Dimension

This chapter of the OBC provides information on the affordability of the project and its funding arrangement, setting out the most recent cost estimates and corresponding spend profile.

4.1 Project Costs

4.1.1 Capital Costs

An updated cost estimate has been produced for the various elements of the project, as set out in the cost plan included at Appendix H. The updated cost estimate is £49,350,000 (2023 prices) as, broken down as shown in Table 4.1.

Table 4.1. Summary of Costs for Preferred Option

Project Element	Cost Estimate
New Western MSCP	£11,455,000
New Western Station Entrance	£5,576,000
Western Access and Surface Car Parking	£7,119,000
Existing Eastern Station Works	£11,943,000
Eastern Station Square and Interchange	£6,884,000
Station to City Connectivity Enhancements	£4,481,000
Project Management	£1,892,000
TOTAL	**£49,350,000**

Details on the assumptions used in compiling the latest cost estimate are included in the cost plan. In particular, the cost plan includes a description of the approach taken to key uncertainties, such as risk and inflation, when developing the latest cost estimate. The approach taken to account for financial risks varies across the different elements of the project.

The contingency included for the new junction on Thorpe Road and for the Station to City Link follows the allowance used in the PSQ Masterplan Feasibility Estimate Rev 3 (February 2020) on which the LUF bid was based. This allows 15% on all construction costs before inflation for design development/client instructed change and unforeseen events/unquantifiable knowns which client the client is responsible for under the

construction contract and an additional 1% for sundries which may arise from planning conditions/sectional agreements. Contractor's construction risk is included in the 10% contractor's overheads and profit allowance.

For the station building works, a higher level of contingency was assumed due to the complexity of their phasing and working adjacent live railway lines. 20% design risk contingency is included for both station buildings and 5% and 7.5% for sundry risk for the west and east station buildings respectively to cover night working and the fees associated with obtaining permits to work on Network Rail land. The eastern station building works include a higher sundry risk as it is envisaged more night working will be required to keep the existing station operational.

The new MSCP and station square packages include a lower percentage of risk (8% design risk and 1% sundry) as the nature of these works is simpler and less risky, either being subcontracted out to a single specialist or comprising more traditional public realm civil engineering works.

The cost plan will be updated at the completion of the next stage of development work and the process for the draw down of any contingencies is to be agreed with all stakeholders and the parameters clearly defined.

4.1.2 Operating and Maintenance Costs

Although there is minimal new rail infrastructure proposed through the project at Peterborough Station, there are some additional operating and maintenance costs that would be required for the new western entrance and MSCP that Network Rail would need to accept as the landowner and that LNER would incur as SFO.

It is anticipated that costs of maintaining any new rail assets will be incorporated in Network Rail's settlement for the next Control Period. The operational costs for the new station facility (staffing and day to day running) will form part of the Station Change proposal and will be addressed through the regulated regime.

At this time, however, it is assumed that the costs of operating and maintaining the proposed new and improved rail assets are £500,000 per annum, based on information provided by LNER drawing on similar costs either planned or actually incurred as a result of other station improvements on the ECML.

Whilst running costs for the station as a whole may increase due to the provision of a larger station footprint, these may be partially offset in the future by greater revenue generating opportunities (retail, food and beverage and advertising income). The newer station may also be more cost effective to run compared to the existing station, for example, the design will incorporate consideration of energy saving opportunities to reduce utility costs, such as rainwater harvesting.

PCC will absorb the maintenance costs of the new transport infrastructure that it provides, utilising its existing highway maintenance budgets. The new transport infrastructure provided as part of the project will become highway assets, and the ongoing maintenance of these highway assets will follow the strategy outlined in PCC's Highway Asset Management Plan.

4.2 Spend Profile

Table 4.2 shows the updated cost estimate for the preferred option, split over time between the start of the OBC development and the projected opening year.

Table 4.2: Breakdown of Outturn Project Costs

Year	Anticipated Spend
2023/24	£1,240,000
2024/25	£17,708,000
2025/26	£28,061,000
2026/27	£2,341,000
TOTAL	**£49,350,000**

4.3 Budgets/Funding Cover

As part of the development of the PSQ programme, a review was undertaken of the potential funding sources for the project. From this review, the Government's LUF allocation was identified the prime focus for funding the main elements of the project, and a subsequent bid for Round 2 of LUF was developed, for a total contribution of £47.85 million. This funding bid was announced as successful in January 2023, hence LUF remains the primary funding source for the project, subject to a satisfactory business case being presented and accepted.

CPCA is the accountable body for the LUF allocation, but this funding is passed directly to PCC by agreement. The letter confirming the LUF allocation to CPCA confirms that CPCA (and therefore PCC) will be responsible for any cost overruns or additional expenditure required for the successful delivery of the project. It is expected that, on acceptance of this OBC, DfT would normally fix its contribution at that time, subject to extraordinary circumstances and a revised value for money assessment.

Beyond OBC, PCC would accept responsibility for any cost overruns over and above the LUF contribution of £47.85 million. For the elements of the project that are to be led

by other partners (Network Rail and LNER), PCC will seek to agree a mechanism to port the responsibility to the lead partner and/or retain a level of contingency for that element of the project to cover their liability under the funding agreement with DfT.

In addition to the LUF contribution, PCC is contributing £1.5 million from its Towns Fund allocation to the project. Peterborough was allocated £22.9 million from the Towns Fund in 2021 following the submission of their Town Investment Plan, which proposed a range of projects within the City centre, including £1.5 earmarked to enhance connectivity to Peterborough Station.

PCC manages this programme on behalf of DLUHC and the amount identified for the project is capped at that level unless formal agreement to an increase is received from the Towns Fund Board, which has responsibility for the governance of that programme.

All of this planned expenditure is included in the public sector balance sheet given the funding bodies involved and the project partners.

The current anticipated cost for the relocation of the MDU is around £15 million, and this will act as a complementary investment to the project, with Network Rail responsible for the cost of the move.

CPCA and PCC secured just under £3 million in May 2023 through Active Travel Fund Round 4, centred on plans for four projects around the City. Some £300,000 was earmarked for improved cycling infrastructure and junction upgrades along Thorpe Road between Thorpe Meadows and Midland Road, linking in with the proposed new western station entrance junction on Thorpe Road, providing further complementary investment to the LUF contribution.

The breakdown of funding contributions to the project itself and complementary investment over the same time period by funding source is shown in Table 4.3.

Table 4.3: Breakdown of Funding Contributions

Funding Source	Funding Contribution
LUF Round 2	£47,850,000
Towns Fund Programme (PCC)	£1,500,000
Network Rail	£15,000,000
Active Travel Fund Round 4 (CPCA/PCC)	£300,000
TOTAL	**£64,650,000**

5 The Commercial Dimension

This chapter of the OBC provides evidence on the commercial viability of the project, and the procurement strategy which will be used to engage the market. It provides the intended approach to risk allocation and transfer, contract and implementation timescales, as well as how the capability and technical expertise of the team delivering the project will be secured.

5.1 Commercial Viability

All the elements of the Peterborough Station Improvements scheme are considered to be commercially viable as both capital and operating and maintenance costs have been considered in the Economic and Financial Dimensions.

The project predominantly comprises new or upgraded transport infrastructure that will be operated and maintained by Network Rail, the Station Facility Operator (SFO) – LNER - and the Highway Authority - PCC. There are no other ongoing costs that will affect the commercial viability of the project.

Network Rail as rail system owner and operator would adopt all the works within their land ownership as part of their existing freehold.

Under its Full Repairing and Insuring lease with Network Rail as landlord, LNER is responsible for operation and maintenance of Peterborough Station for a period of 99 years. It is party to various existing contracts to execute these obligations. The new station entrance to the west, along with the extension/improvements to the existing station building, would be added to this portfolio.

There will be new revenue generating opportunities provided by the additional circulation space with the new station building to the west and the extension/improvements to the existing station building, as well as the creation of the station square to the east. LNER will consider what these opportunities may entail in the next stage of development work as more detail is provided on the total space available and what this could mean for additional food and beverage facilities across the station.

The amended parking arrangements will be aligned with the existing operating models and commercial arrangements, rather than setting up separate provision. LNER operates and maintains the existing car park facilities at Peterborough under its lease with Network Rail as landlord and franchise agreement with DfT for the ECML. It is anticipated that the new parking areas should function on similar terms, given that the total number of spaces available will remain the same, providing for a single customer experience across all parts of the station.

No specific market engagement has yet taken place on the preferred option. However, given the nature of the works involved, it is expected that there will be a high demand and strong competition amongst engineering contractors to secure the contract for this project given previous experience of such schemes delivered previously on the ECML and in Network Rail's Eastern Region.

The nature of some elements of the project means that the construction and engineering resources which could deliver it would not necessarily be constrained to major Tier 1 railway contractors or specialist resource, providing opportunities for locally-based SMEs within the supply chain.

5.2 Output-based Specification

The minimum anticipated outputs of the project are described in the Strategic and Economic Dimensions and are summarised below:

- Provision of a new station entrance/building on the west side of the rail line;
- The new western station entrance to be complemented by cycle parking, pick-up/drop-off facilities, accessible car parking and new areas of public realm;
- Provision of access for all modes to the new western station entrance including junction improvements on Thorpe Road;
- New rail station user parking on the western side comprising of a MSCP and a small area of additional surface car parking;
- A refurbished eastern station building with more customer circulation space and a relocated entrance;
- A new station square on the east with additional cycle parking, servicing provision, revised pick-up/drop-off facilities, accessible car parking and an enhanced area of public realm (North of Crescent Bridge); and
- A high quality and accessible route to the City centre for active modes.

These outputs are illustrated in Figure 5.1.

Complementary outputs include the relocation of the Network Rail MDU to the Mayor's Walk car park and the provision of new active travel facilities along Thorpe Road.

1. Western Station Entrance
2. Western Access
3. Multi-Storey Car Park
4. Surface Car Parking
5. Surface Car Parking (existing)
6. Accessible Parking (5%)
7. City Link (Queensgate Roundabout)
8. Station Square
9. Taxi / Pick-up & Drop Off
10. Cycle Parking
11. Meanwhile Use
12. Refurbished Eastern Station Entrance

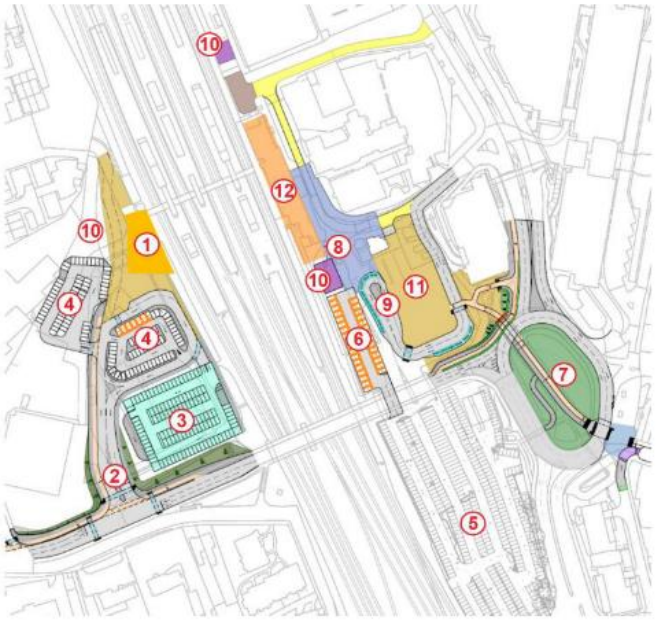

Figure 5.1: Anticipated Project Outputs

It is expected that the operational rail elements of the project will align with Network Rail's Project Acceleration in a Controlled Environment (PACE) process. PACE describes how Network Rail manages and controls investment projects on the rail network. The approach has been developed to minimise and mitigate the reputational and financial risks associated with project development and delivery and is based on best practice within comparable industries that undertake major investment projects. Use of the PACE process also provides a flexible control framework enabling Sponsors and Project Managers to tailor the controls to better meet the requirements of the project.

Delivering the project will entail either a standard Network Rail Asset Protection Agreement or a Development Services and Implementation Agreement, which are common agreements put in place when works to the rail network are led by third parties. Indicative requirements at this stage are that agreements would be required for the location or protection of lineside cabling systems and standard asset protection protocols for provision of new or extended station buildings on each side of the rail line.

There will also need to be a Terrorism & Hostile Vehicle Risk Assessment of the project, based on the station category.

Development or changes to Network Rail's property requires a number of approvals from Network Rail and LNER as SFO, usually Network Change and/or Station Change. The project may also need approval from the Office of Rail and Road (ORR) and the TOCs who have contractual and regulatory arrangements with Network Rail.

The design work on the operational rail elements will need to be developed in line with relevant railway standards such as:

- Railway Group Standards;
- Technical Specifications for Interoperability;
- Network Rail company standards;
- Accessibility standards (Equality Act);
- Appropriate accreditations for car parking (Park Mark and Secure Stations); and
- ORR and Health and Safety Executive guidance.

Design work on the highways and active travel elements will need to be in accord with the relevant DfT highways, junction and active mode design standards. The public realm enhancements should aim to match the materials used elsewhere in the City centre in order to provide further visual links to and from the station.

In taking forward the overall project, the following actions are required:

- Achieve cost certainty;
- Minimise preparation costs in regard to design;
- Minimise construction delivery costs;
- Achieve an efficient delivery programme;
- Achieve an appropriate quality of design;
- Incentivise innovation;
- Maintain project knowledge;
- Obtain contractor input to risk management and assessment;
- Obtain planning permission and all necessary consents; and
- Engage with contractors and stakeholders throughout planning to delivery.

5.3 Procurement Strategy and Sourcing Options

Up to completion and acceptance of this OBC, PCC has taken the lead in procuring the necessary development work using established procurement routes, including existing framework arrangements.

In order to maintain momentum and with a mind to the March 2026 deadline for the LUF contribution, it has been agreed that PCC will continue to lead the next stage of development work for the whole project, seeking to confirm an extension to existing contract arrangements and bringing in specialist skills as necessary. This will include preparation of the Full Business Case (FBC).

This will be undertaken in close partnership with both Network Rail and LNER, as at present, mindful that these partners will be responsible for approval and adoption of a number of elements of the project.

In developing the OBC, PCC, CPCA, Network Rail and LNER have considered whether separate delivery routes and contracts for each element of the project (or a combination of the elements) would secure better value for money, allow a phased approach to delivery, and minimise risk.

This was undertaken through a workshop held in November 2023 and the resulting Delivery Strategy is included at Appendix H. The agreed delivery and procurement strategy identifies the best way of achieving the objectives of the project and value for money, taking account of the risks and constraints.

The agreed approach gives rise to five recommended delivery contracts, as illustrated in Figure 5.2 and described in the following paragraphs.

In addition to these contracts, Network Rail will continue with the procurement of the works required for the relocation of the MDU and CPCA/PCC will lead the delivery of the complementary active travel improvements along Thorpe Road.

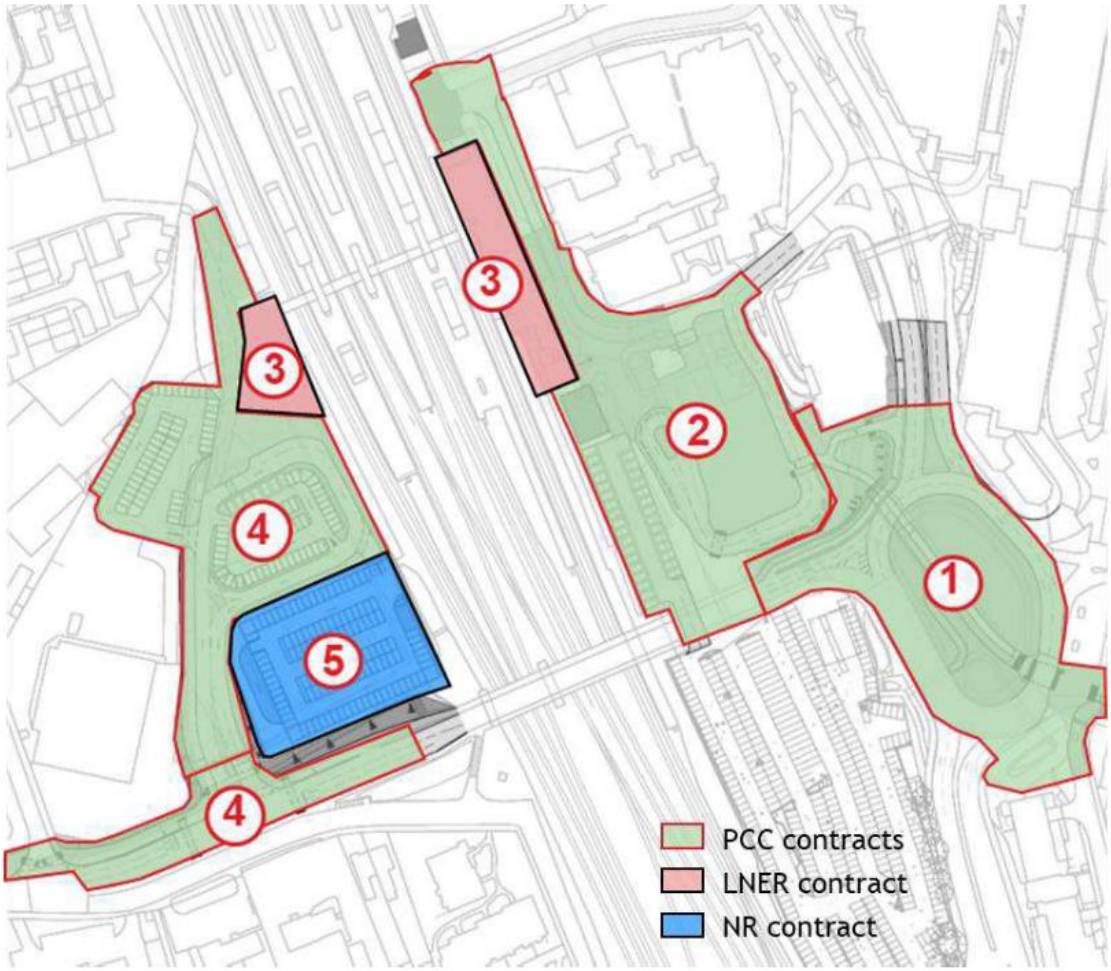

Figure 5.2: Proposed Delivery Contracts and Lead Organisations

5.3.1 Contracts 1, 2 and 4

Led by PCC, delivery and supervision of the highways and active travel and public realm/station "floormat" elements will be delivered in house by Peterborough Highway Services (PHS), building upon the design work that will have been completed in the next stage of development work, in close partnership with LNER and Network Rail.

PHS is a ten-year (with two, five-year possible extensions) NEC3 Term Service Contract between PCC and Milestone Infrastructure, with responsibility for improving and maintaining Peterborough's highway network. The contract is built upon a collaborative and multi-disciplined team capable of developing schemes from policy concept right through to design and construction, and then maintaining them.

Procuring the project directly through the PHS contract enables PCC to appoint a contractor to construct these elements (Milestone Infrastructure) in an efficient manner. Using PHS' in-house delivery capability offers advantages over alternative procurement routes:

- PHS is reliable and has a proven track record of delivering major schemes successfully;
- Schemes can be procured far quicker than alternative procurement routes, which reduces procurement costs;
- The integrated delivery model creates a single point of responsibility and encourages more effective collaboration between client, designer and contractor to reduce costs and minimise maintenance;
- A well-established supply chain is already in place which provides value for money;
- Strong performance is highly incentivised as all schemes delivered within the PHS contract contribute to a suite of KPIs which impacts on the term of the contract; and
- The contract duration and strong collaborative relationship encourages both parties to work towards long term gain rather than short term commercial gain.

When using this approach, however, price comparisons cannot be made at a project level - all work packages will be competitively tendered to sub-contractors, ensuring value for money and allowing for price comparisons to be made at a package level.

It is also the case that different approaches to delivery and risk are not available - the delivery and risk models are fixed by the contract, meaning that there is no scope to vary these within the context of the PHS contract. However, these models have been used successfully on previous schemes delivered by PHS and all involved are familiar and comfortable operating with them, making delivery more efficient.

Different contracts may be considered for the west side and the east side of the rail line, given that the delivery of the improvements to the west are reliant on the relocation of the MDU. However, the new junction on Thorpe Road could proceed in isolation early in the delivery programme as this is not reliant on the MDU relocation, can tie-in to the existing access arrangements to the west side of the rail line and can be delivered alongside the complementary active travel improvements along Thorpe Road.

5.3.2 Contract 3

LNER or Network Rail are considered best placed to lead the design and construction of the rail station elements, with the procurement strategy being driven by the output specification, key objectives and appraisal of the design and associated risks.

Network Rail or LNER Commercial and Procurement teams will support and identify the most effective route to market for project delivery following completion of the OBC. However, given the LUF contribution deadline and experience of similar projects, a design and build option, particularly for the new western station entrance, is likely to be the most appropriate.

Delivery of the improvements to the eastern station building will need to account for ongoing operation of the station itself and so will need to be planned considerately.

5.3.3 Contract 5

Consideration of the preferred procurement strategy for the new MSCP has included taking account of the suggested funding contributions, a developed market for any proposed procurement approach and a mechanism to incentivise performance, efficiency and innovation.

In essence, there are two principal options:

- Traditional design and construction; and
- Design and build.

The former option offers the greatest degree of flexibility to switch procurement strategy and timeframe later, if required.

The latter option potentially offers the shortest development phase duration (and the lowest development phase cost) and thereby provides the best fit with the funding timescale constraints, as well as providing greater cost certainty at the time when any funding is committed.

The latter option also provides the opportunity for contractor involvement during the development phase, which should aid cost certainty and reduce risks at an earlier stage. This option is also the one that has been used most recently by Network Rail for similar schemes, for example, at Stevenage station.

On this basis, the Steering Group considers at this point that the preferred procurement method for the new MSCP would be a design and build contract, led by

Network Rail, given their recent experience with similar car parks at nearby stations and along the ECML.

5.4 Payment and Charging Mechanisms

The payment mechanism for the highways and active travel and public realm/station "floormat" delivery packages will be negotiated with the contractor based on the final shape of the individual contract. As previously stated, procuring the project directly through the PHS contract enables PCC to appoint a contractor to construct the project in an efficient manner.

All subcontract packages will be competitively tendered to ensure best value and will be put to a minimum of three tenderers where possible.

At this time, it is envisaged that either LNER or Network Rail will lead on the detailed design and construction contracts for the other work packages and that the successful contactor will be paid through standard mechanisms as with other similar schemes within the RNEP.

5.5 Risk Allocation and Transfer

A more detailed account of the approach to risk management for the project is included in the Management Dimension. However, at this stage of development and prior to the letting of any of the construction contracts, the project cost estimate contains a greater proportion of risk borne by PCC, Network Rail and LNER than will remain after the appointment of the successful contractors.

Some of the risk is captured and quantified within the risk allowance outlined in the Financial Dimension. Once the tendering process for the various construction contracts is complete, some of the risk (such as cost increases associated with the detailed design and construction) can be transferred to the successful contractors. However, the risk of costs being higher than currently predicted remains until this tendering process is complete, although this risk is reflected in the various allowances included within the cost estimate included in the Financial Dimension.

Other risks that may be transferred to the successful contractor at the appropriate time include those that encompass appropriate planning conditions, estimations of the quantities, mitigation measures and resources. PCC, Network Rail and LNER will continue to take responsibility for risks that encompass land, residual planning and environmental permission in the next stage of development work, as well as the following specific risks:

- The need for changes to the project;

- Inaccuracies or incompleteness of any of the data or information related to the project;
- Pre-contract advance works which might result in delivery and programme delays to the contractor;
- Pre-contract arrangements with others/third parties; and
- Change in the law.

Other risks, such as the identification of statutory undertakers' equipment, and mitigation costs associated with these, can be removed from the risk allowance element of the project costs completely if they do not materialise, or transferred to "actual" costs if they do materialise, rather than remaining within the risk allocation.

5.6 Contract Length and Management

As set out in the Management Dimension, the current programme envisages completion of the elements included within the LUF funded element of the project to be completed by March 2026. Contract lengths will be different across the different delivery packages, but a start on site is anticipated no later than January 2025.

PCC's project governance and management arrangements post-contract award will evolve from the governance arrangements put in place to develop the FBC through to contract award.

Network Rail's supply chain is divided into Route Services (goods and services) and capital delivery projects (delivery of major projects). Network Rail has developed a standard suite of contracts that it believes reflect a sensible allocation of risk and responsibility between the different parties and that these contracts will save management time for Network Rail and their suppliers and contractors when setting up and managing contracts.

5.7 Human Resource Issues

No significant human resources issues have been identified that could affect the deliverability of the project, although it is recognised that it will have a considerable human resources requirement, across PCC, CPCA, Network Rail, LNER, the design teams and the contractor teams.

At this time, sufficient resources have been identified to deliver the project, however the resource requirement will be kept under review by the Steering Group and, if necessary, additional resources brought in.

6 The Management Dimension

This chapter of the OBC describes how the project will be managed and delivered, with a clear understanding of what needs to be done, why, when and how, with measures in place to manage any risks. It includes a plan to ensure that the benefits set out in the Strategic and Economic Dimensions are realised.

6.1 Evidence of Similar Projects

The key deliverables of the Peterborough Station Improvements project, as a minimum, are summarised below:

- Provision of a new station entrance on the west side of the rail line, with new areas of public realm, cycle parking, pick-up/drop-off facilities, accessible car parking and a new MSCP, accessed by all modes from a new signalised junction on Thorpe Road;

- A refurbished eastern station building with more customer circulation space and a relocated entrance, fronting onto a new station square with additional cycle parking, servicing provision, revised pick-up/drop-off and taxi facilities, accessible car parking and an enhanced area of public realm; and

- A high quality and accessible route to the City centre for active modes.

These are shown on Drawing Number PSQ-ARU-ZZ-ZZ-DR-C-00015, provided separately.

All of the partners have significant experience in delivering projects of a similar nature to the project, particularly in leading and delivering the individual delivery packages identified in the Commercial Dimension.

Overall, CPCA is the lead authority and accountable body for the LUF contribution. As a funder of projects, CPCA has been heavily involved in enabling a range of local rail projects that include reinstating Soham rail station that closed in 1965, improvement of Fenland services, rail connectivity Wisbech to Cambridge, capacity improvements through Ely and a new station at Cambridge South serving the biomedical campus and local community.

The new station at Soham opened in 2021 ahead of schedule and under budget. CPCA and Network Rail accelerated the programme by overlapping stages in the project process, completing some requirements at the same time instead of one after the other. A number of lessons have been learned from implementing this local scheme - these will influence how this project is taken forward.

6.1.1 Highways and Active Travel

PCC has a strong track record in the procurement and delivery of similar highway and active travel measures through the existing PHS arrangements described in the Commercial Dimension.

PHS has successfully developed and delivered multiple highway schemes, totalling more than £20 million annually, including several CPCA schemes. All skills and competencies to deliver this project are available within the local PHS contract. For example, a recently PHS delivered scheme was the Junction 20 Improvement Scheme (A47 Soke Parkway/A15 Paston Parkway), completed in 2017 at a cost of £5.7 million.

6.1.2 Rail Station

Network Rail has collective experience in delivering a diverse range of high-profile rail projects, and have a strong track record in the procurement and delivery of major track and station improvements on the ECML in recent years including:

- Darlington new eastern station entrance, footbridge, MSCP and platforms - £130 million (currently on site, due for completion in 2024);
- Werrington grade separation - £200 million (completed in 2021);
- Leeds station improvements - £160 million (completed in 2021);
- King's Cross remodelling - £260 million (completed in 2021 with LNER as a station beneficiary);
- Wakefield Westgate new station building and footbridge - £8.8 million (completed in 2014 in collaboration with ECMLCo as predecessor to LNER); and
- Newcastle Station Gateway – Grade I listed station redevelopment, including new retail opportunities and enhanced public realm/pick-up/drop-off facilities - £12 million (completed in 2014 in collaboration with ECMLCo as predecessor to LNER);

There is therefore clear evidence of the delivery of similar projects by Network Rail (also working in collaboration with the SFO) and that specific elements of this project would sit well as packages delivered by the rail industry.

6.1.3 Multi-Storey Car Park

Network Rail also has recent experience of delivering new MSCPs at rail stations along the ECML.

In addition to new MSCPs delivered in the Darlington and Wakefield Westgate schemes listed above, a new 622-space MSCP has recently been opened at Stevenage station for £9.8 million. As part of the York Central scheme, a new 636-space MSCP is being delivered, with a budget of £13 million.

6.1.4 Public Realm/Station "Floormat"

Again, there are numerous examples of similar projects where station frontages have been improved along the ECML, including the Newcastle and Wakefield Westgate examples listed above. The Darlington and York Central schemes both include significant provision of public realm and associated rail station facilities in front of existing station buildings and new station entrances.

There is also work underway at Leeds station to deliver the £46.1 million Leeds Station Sustainable Travel Gateway scheme, that will see the following improvements delivered:

- Pedestrianisation of New Station Street, with outdoor seating and rest areas, and landscaping;
- Relocating the existing taxi rank to Bishopgate Street where there will be a large and well-lit shelter and room for six vehicles, also allowing for kerb-side boarding which will help people with wheelchairs or assistance dogs to board more easily;
- Two 21-passenger lifts from Bishopgate Street to the station entrance on New Station Street, providing step-free access between the two streets;
- A high quality cycle hub at the station, which will include electric charging points and storage for all types of cycle;
- Environmental improvements to Neville Street and Dark Neville Street including enhanced lighting, road surface and pavement and elevation treatments; and
- Installing high quality cycle infrastructure on Bishopgate Street and Neville Street, and improvements to cycling infrastructure in surrounding communities.

This project is a collaboration between the local highway authority, the West Yorkshire Combined Authority and Network Rail as the landowner, indicating that such

an approach to delivery as advocated for this project has been used successfully elsewhere on the ECML.

PHS has also delivered the following public realm schemes in recent years in Peterborough, demonstrating their local experience and competence:

- Westgate Public Realm (2018) - £963,000;
- Long Causeway Public Realm (2014) - £2 million;
- Lower Bridge Street Public Ream (2017) - £2.6 million (as part of a £10.5 million scheme).

6.2 Project Dependencies and Constraints

The Strategic Dimension identified a number of other transport and non-transport interventions with a relationship to the preferred option for the project.

As identified in the Financial Dimension, there is a constraint on the LUF contribution in that, at this time, this funding needs to be spent by March 2026. The complementary Towns Fund contribution has a similar time constraint. This situation has influenced the agreed procurement and delivery strategy set out in the Commercial Dimension and will continue to be a significant driver of project delivery.

The most critical part of the current delivery strategy is the timely relocation of the Network Rail MDU as this will impact on the availability of land for some elements of the project, as well as the wider aspects the PSQ programme.

Network Rail's current Business Plan identifies the relocation happening early in Control Period 7, but there is the potential for a temporary relocation of Network Rail staff and contractors in Summer 2024 to ensure that this process does not delay the delivery of the project.

The new western station entrance and the new junction on Thorpe Road can both be delivered in advance of the MDU relocation, allowing construction traffic to access the site required for the new station entrance and, if needed, allowing access to the new entrance once open in the short term.

The latest Network Rail Delivery Plan for the Eastern Region does not include any specific future interventions planned on this section of the network that relate to the project. However, any opportunity for synergies between future work packages and the works required for this project should be examined as development work

progresses, particularly where there is any requirement to change power and/or signalling equipment in the Peterborough area.

The requirement for an Environmental Statement to accompany the suggested planning process still needs to be confirmed. Screening activity to establish whether an Environmental Impact Assessment will be needed is planned as part of the work confirming the approach to securing any necessary planning approvals.

6.3 Governance, Organisation Structure and Roles

6.3.1 Key Individuals

The appropriate structures and processes are in place to support effective decision making with strong and effective shared leadership embedded within the development and delivery process.

Most recently, PCC has led the recent development of the project in partnership with CPCA as the lead for the LUF contribution, and PCC will continue to provide the lead through to the completion of the FBC, subject to funding availability.

Key individuals involved include:

- **Senior Responsible Owner (SRO)** – the SRO has overall accountability for the delivery of the project ensuring the project remains focused on achieving its objectives. They have the authority to make decisions concerning the delivery of the project within a certain delegation. The SRO is Tim Bellamy from CPCA given that CPCA will be the recipient of any LUF contribution and pass on funds via a grant funding agreement to PCC.

- **Project Director** – the Project Director leads and manages the project team with the authority and responsibility to run the project on a day-to-day basis. The Project Director is Nick Carter, Service Director for Growth and Regeneration at PCC, who reports directly to the Executive Director for Place & Economy in PCC's Corporate Leadership Team.

To take forward the delivery packages of the project being led by them, Network Rail has allocated an experienced Project Sponsor to act as the "guiding mind", defining the work required and checking that the detailed outcome is aligned with the requirement set for them by PCC/CPCA.

At present, the Project Sponsor is Alison Howard, although it is possible that, as the project progresses through the PACE milestones and the different stages of Network

Rail's Investment Decision Framework, the Project Sponsor will change so that they have the appropriate skills and experience for the project development stage.

LNER's lead at this time is Carl Howarth, Principal Estates Manager, along with Luke Owen, Property Development Manager.

6.3.2 Steering Group

Since the outset of the work to develop the Strategic Outline Case and the LUF bid, a Peterborough Station Steering Group has been in operation to manage development of the project. The Group currently meets monthly and comprises senior level representation from the following:

- PCC;
- CPCA;
- Network Rail; and
- LNER.

The Steering Group, via the SRO and/or the Project Director, reports progress against milestones, as required, to:

- CPCA and PCC Leadership Teams;
- CPCA Transport and Infrastructure Committee;
- PCC Cabinet/Executive Groups;
- PCC Towns Fund Board; and
- PCC Growth and Regeneration Programme Board.

The Steering Group receives progress and project exception reports from, and gives direction to, the Project Manager appointed by PCC to oversee the production of the OBC. The Project Manager is currently an externally appointed consultant, accountable to PCC's Head of Regeneration.

The Steering Group ensures the timely set up and key deliverables from the technical support teams involved with the project, directing the commissioning of the technical work necessary. The Group has the authority to commission further technical work as necessary and will liaise with stakeholders about the progress in relation to their

interests, and also provides overview of the risk register and ensures effective communications are implemented.

The responsibilities of the Steering Group in the immediate future include:

- Strategic direction;
- Business case preparation;
- Stakeholder engagement and communications; and
- Co-ordination across the different elements of the project, but also with other interventions across the City centre.

Following completion of the OBC, it is suggested that the Steering Group continue, but with the addition of an overall Delivery Group and a series of working groups, aligned to the delivery packages set out in the Commercial Dimension (as well as the relocation of the MDU) and the preferred procurement strategy. This is illustrated in Figure 6.1.

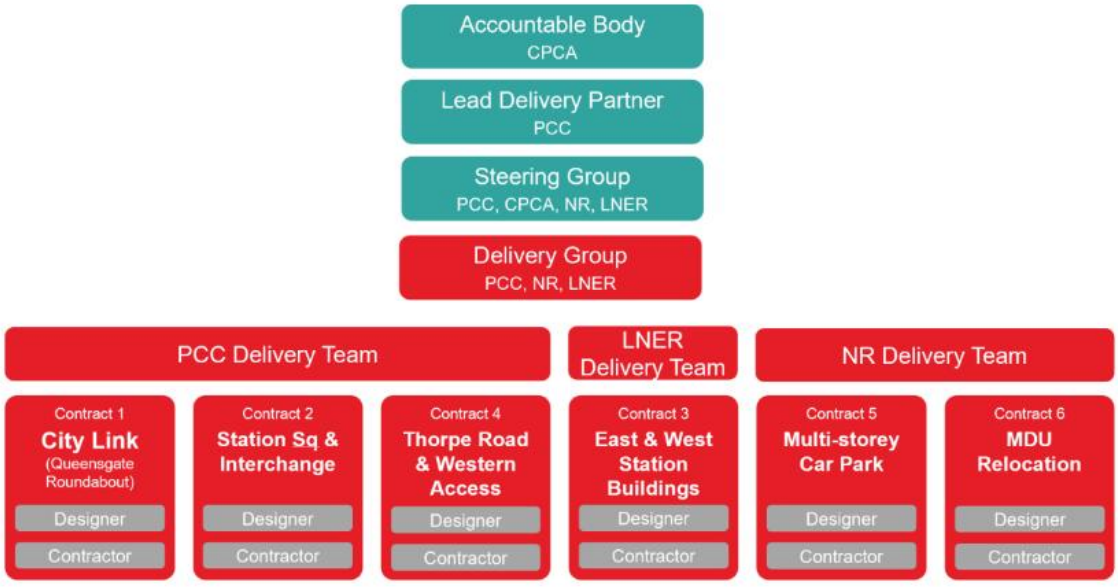

Figure 6.1: Proposed Future Governance Structure

These future governance arrangements will be discharged as shown in the 'Responsible, Accountable, Consulted and Informed' (RACI) chart in Table 6.1, which is a matrix of all the activities or decision-making authorities undertaken in an organisation set against all the people or roles.

Table 6.1: RACI Chart

Tasks	DLUHC/DfT (Funder)	CPCA (Project Sponsor /Grant Recipient)	PCC (Project Lead)	Steering Group	Highways and Active Travel Working Group (PCC)	Rail Station Working Group (NR)	Multi-Storey Car Park Working Group (NR)	Public Realm /Station "Floormats" Working Group (PCC/NR)
Provide grant funding	A/R	C	C/I	C/I	I	I	I	I
Progress funding/service agreements		A	A/R	C	I	I	I	I
Develop business cases	C	A	A/R	R	C	C	C	C
Progress required planning approvals	I	I	I	A	C	C	C	C
Progress necessary legal agreements	I	I	I	A	C	C	C	C
Highway/Active Travel design	I	I	I	A	R	C	C	C
Rail Station design	I	I	I	A	C	R	C	C
MSCP design	I	I	I	A	C	C	R	C
Public Realm /Station "Floormats" design	I	I	I	A	C	C	C	R

Tasks	DLUHC/DfT (Funder)	CPCA (Project Sponsor /Grant Recipient)	PCC (Project Lead)	Steering Group	Highways and Active Travel Working Group (PCC)	Rail Station Working Group (NR)	Multi-Storey Car Park Working Group (NR)	Public Realm /Station "Floormats" Working Group (PCC/NR)
Develop, manage and monitor overarching programme management documentation	I	A	A/R	R	C	C	C	C
Ensure alignment of workstreams and common activities between partners	I	I	A	R	C	C	C	C
Oversee delivery of the agreed programme	I	A	A/R	R	C	C	C	C
Provide an interface with other relevant projects	I	I	I	R	C	C	C	C

Note: R = Responsible, A = Accountable, C = Consulted, I = Informed

Details of what decisions individual delivery teams are empowered to make, what decisions are required to be escalated to the Delivery Group/Steering Group and how this escalation process works will be agreed through the terms of reference that will be developed for these teams by the Steering Group. Delivering the project to the planned programme to meet funding constraints will need early aligned sequencing between delivery packages.

The Steering Group will be responsible for any gateway reviews of the ahead of formal review by DfT/DLUHC as potential funders of the project. It will also oversee the outcomes of the Network Rail PACE delivery milestones.

A Head of Terms Agreement has been drafted and substantially agreed between the partners to govern the relationship between the partners who have a financial interest in the project. The agreement states that the parties agree that delivering an enhanced station is crucial to the success criteria of the PSQ programme to create an attractive city gateway, transform the visitor and passenger experience, accommodate future rail demand and provide for city-wide economic growth.

Some of the key items included within the Head of Terms Agreement are as follows:

- The parties will work together to achieve the strategic objectives, deliver the Peterborough Station Improvements scheme and enable the redevelopment of the sites that form the PSQ programme.

- The parties aim to agree marketable opportunities and the appropriate disposal strategy when appropriate to attract end users in accordance with planning policy to achieve the strategic objectives.

- The parties will work together to support if reasonably practicable any future land assembly of any part of the PSQ programme currently in third party ownership to deliver the strategic objectives.

- The parties will work together to seek funding (which will be subject to viability, regulatory approvals and licence condition restrictions) for work packages and attract gap funding where necessary to make a scheme viable.

- The parties will not unilaterally (unless required for operational or safety reasons in Network Rail's case) create any material legal encumbrance that will affect the PSQ programme without the consent of the other parties such consent not to be unreasonably withheld.

- The parties will aim to agree a revised planning framework (masterplan) to be adopted that will promote the viable redevelopment of the PSQ area and promote improved railway facilities, so long as this will not adversely prejudice the existing railway permissions and permitted development rights.

The agreement has been made available as a separate document for reasons of commercial confidentiality and will be developed further as the project progresses.

Other legal agreements will govern the relationship between rail industry partners, with established rail industry processes to amend these as required to deliver the project, for example, Station Lease and Station Change agreements.

From the point that the project (or at least the relevant delivery packages) enters the Network Rail Investment Decision Framework, the existing ECML Programme Board is considered to be a suitable body for the oversight of the development and delivery of these elements from Network Rail's perspective. The Programme Board is held every eight weeks with a supporting Programme Delivery Group (PDG) every four weeks. Additionally, progress updates will be reported to Route Investment Review Group (RIRG).

6.4 Assurance

Project assurance provides the basic framework of controls that ensure:

- The project is managed and controlled as directed by the project lead;
- Basic standards are being followed; and
- The project is well-managed.

The project assurance controls that have been utilised thus far include:

- Regular reporting;
- Exception reporting and re-authorisation;
- Sign-off of any PACE products as they are produced; and
- Stage gate assessment reviews - evidence-based review that draws on documentation and activities that the project team have already produced.

An Integrated Assurance and Approvals Plan (IAAP) has been developed and the latest version is included at Appendix J.

Network Rail has its own procedures for undertaking the development and construction of new infrastructure projects. These follow the PACE process to provide an effective, consistent and repeatable standard by which to manage projects across the organisation. This minimises variation and ensures delivery to the desired standard, on time and on budget.

For Network Rail delivered projects, it is standard practice to hold a full Stage Gate Review at the end of every PACE stage.

As part of Network Rail's internal assurance processes, there are regular reviews to assess process compliance. This is supplemented by an independent Project Assurance Review (PAR) carried out by Network Rail's national programme management team - these are independent Network Rail assessors who review readiness status for next stage of programme/project. At the appropriate point, it is expected that the relevant delivery packages of the project will be included in Network Rail's National PAR.

Before undertaking any proposed changes to the rail network, Network Rail must follow the Network Change and/or Station Change consultation process. This is a formal process which allows a proposer to seek agreement from all affected parties that the change may go ahead, and to agree what compensation (if any) will be paid to cover the impact of the change for when a development entails changes to a station lease area, physical or operational changes to a station, or changes that affect the content or drafting of Station Access Conditions and Annexes.

This is a procedure governed by the regulated 'station access conditions' for each station. At franchised stations, the conditions are part of the station leases granted by Network Rail, and in the access arrangements between the train operator tenant and other train operators who use the station. Given the nature of this project, the regulatory requirements will also need to be satisfied by making a Station Change Proposal, securing approval of all relevant parties and registering the approved change with the ORR.

Although the high level assurance principles and the necessary approvals will need to follow DfT's, DLUHC's and Network Rail's processes as a minimum, some elements of the project will need to comply with CPCA's and PCC's agreed Assurance Framework, given the likely funding contributions.

For example, an updated Equality Impact Assessment will be prepared, building on the initial assessment conducted for the LUF bid, and the distributional impact appraisal outlined in the Economic Dimension, to meet the requirements of the Public Sector Equality Duty.

6.5 Project Plan

A Project Plan has been developed for this OBC setting out all the key project tasks and their duration, the interdependencies between each of the tasks, and key milestones and gateways. Certain elements of the programme have a built-in tolerance/contingency to account for risks identified within the risk register which could have an impact upon the programme.

The current version of the project plan is included at Appendix K, and includes all significant work activities, significant outputs and key decision points regardless of which organisation is leading the work and the governance milestones envisaged. The current programme envisages completion of the elements included within the Peterborough Station Improvements scheme to be completed by March 2026.

The Steering Group will seek opportunities to expedite the process where possible to meet this date, for example, standard construction timescales have been assumed and future potential innovations/novel construction approaches are not considered that could reduce timescales.

The Steering Group will also look to accelerate individual delivery packages where this is possible (for example, the highways and active travel elements) and discuss with DfT as to whether separate FBCs would be appropriate and feasible to allow this to proceed.

Other key milestones currently envisaged are as follows:

- Single Option Design Development and Completion of OBC – End of 2023;
- Approval of OBC – March 2024;
- Updated Design, Costings and Approval – January to March 2024;
- Consultation – Spring 2024;
- Design Stage for Tender – Spring/Summer 2024;
- Possible Temporary Relocation of Network Rail Facilities – Summer 2024;
- Full Business Case – Autumn 2024; and
- Construction – Late 2024/January 2025 to March 2026.

Some of the dates outlined above overlap to ensure that the programme can be accelerated, completing some requirements at the same time instead of one after the other, in line with Rail Project SPEED (Swift, Pragmatic and Efficient Enhancement Delivery) principles. This approach identified 10 key themes to lower costs and speed up the delivery of rail infrastructure schemes, such as rapidly increasing the use of innovative construction methods and removing complexity from planning processes.

Key to deliver within the LUF timescale of March 2026 is a prompt approval of this OBC to allow detailed design work, consultation and the tendering of the various contracts to proceed in the early part of 2024.

The project plan is a 'live' document and is reviewed and updated regularly to provide an accurate and integrated picture of progress and dependencies for the project. Any changes or risks to achieving key milestone dates are brought to the Steering Group's attention and discussed as part of the monthly meeting cycle. All proposed revisions to the plan are issued to the Steering Group for approval.

An even greater level of detail will be introduced into the project plan during next stage of development work, as more detailed design of the project progresses and as risk quantification and impacts change.

6.6 Carbon Management

At the next stage of development work, and as part of the CPCA assurance process, a detailed and robust carbon management plan, which reports predicted emissions against baseline values, includes credible mitigation of associated risks, and provides sufficient evidence on the project team's overall ability to manage and reduce carbon emissions, will be prepared. This will be interwoven between all stakeholders at all stages in the delivery of the project.

The evidence produced as part of this OBC indicates the project will deliver a likely reduction in carbon emissions and the new infrastructure to be provided will seek to reduce carbon impacts as far as possible. Once more detail is available on the new and refurbished station buildings, estimates of quantified carbon reductions will be provided.

6.7 Stakeholder Engagement and Communications

Effective stakeholder communication and management is vital for the success of a initiative such as the PSQ programme, of which the Peterborough Station Improvements project is a key part. It creates stronger working relationships and increases the understanding of the project, with the overall objective of increasing support for the proposals and buy-in.

The Strategic Dimension set out the key stakeholders and their identified needs to date. Building on this, a Communications and Stakeholder Engagement Plan has been developed for the overall PSQ programme and the latest version is included at Appendix K. The Steering Group is responsible for ensuring this plan is implemented in relation to this project.

The key aims of the plan are as follows:

- Making available to interested parties, information on the need and impact of the project;

- Giving the public and stakeholders an opportunity to express their views on the option(s) under consideration and provide a feedback loop;

- Outlining the sustainable option(s) for consideration and the likely consequences of the project; and

- Providing a programme for future stakeholder engagement and public consultation,

all of which should ensure the consistent and structured delivery of messages to all key stakeholders throughout the lifecycle of the project. This is to ensure that:

- Stakeholders feel informed about the project and how it may impact them;

- Stakeholders feel they have had the opportunity to share their views about the project; and

- Stakeholders are informed of the benefits the project will have on the local area.

The plan is a 'live' document and will be updated at key points during the project lifecycle, with additional information included when applicable, including the timings and considerations for external communications.

There has been a significant history of stakeholder involvement in the development of the project to date.

In 2020, PCC, CPCA, Network Rail and LNER funded a feasibility study for the PSQ Masterplan. This was part of the combined authority's comprehensive spending review in the same financial year, which was communicated to statutory consultees and the wider community.

At the same time, an investors' conference was set up in Peterborough, with the wider purpose of 'selling' key investment sites located in the city – PSQ being the main site. A press release on this was publicised widely, including to the local media, trade publications, the websites of key partners, social media (including LinkedIn with #investor hashtags used). Database of potential investors also used to target those who had previously registered an interest.

A virtual conference was held in October 2020 (due to the COVID-19 social distancing restrictions in place at the time) – this was attended by 90 potential investors, plus businesses in the city and local stakeholders. It included speakers from PCC, Opportunity Peterborough (PCC's economic development and inward investment not-for-profit business), both local MPs and CPCA. News of the conference was circulated afterwards (including slides) to the media, online and social media.

In addition to the partners represented on the Steering Group, specific engagement activities have been undertaken with a number of key stakeholders during the preparation of this OBC. These stakeholders are:

- England's Economic Heartland (the relevant Sub-National Transport Body);
- Train/Freight Operating Companies;
- Active Travel England;
- Peterborough Cycle Forum;
- Disability Access Groups – MPAG, Health Watch, RNIB and Hearing Loss, Disability Forum of Peterborough Council for Voluntary Service;
- CPCA Bus Strategy Lead;
- Peterborough Civic Society;
- Peterborough BID and Local Chamber of Commerce; and
- Sponsoring MP for the LUF allocation.

The overarching feedback that has been received has been supportive of the benefits of the revised Masterplan Framework and the impact that the project will have on wayfinding, accessibility and bus/rail connectivity.

The stakeholders contacted are keen to continue to input into the design of the project and noted points of detail that will be picked up as part of the next stage of development work. These points included the need to retain drop-off locations and the existing bus stop as close to station as possible as well as aligning with other ongoing wayfinding initiatives across the City and the proposed access improvements for the Queensgate Shopping Centre.

Over and above the wider stakeholder group engagement, the design team has also carried out two station-specific sessions with LNER staff to establish critical needs for the whole station redevelopment. These sessions highlighted the need to address passenger flow issues and address wayfinding and accessibility restrictions, aligning with feedback from other stakeholders.

The design team is also progressing engagement with Active Travel England to ensure high quality cycle provision and will be providing key active travel design and data as part of this.

Stakeholder engagement is also a fundamental part of how Network Rail seeks to continuously improve its business performance and its network licence contains a stakeholder engagement duty which, requires, to the greatest extent reasonably practicable, that Network Rail treats its stakeholders in ways appropriate to their reasonable requirements.

The network licence also requires Network Rail to publish information on the principles and procedures to be adopted when dealing with stakeholders to comply with this duty. This requirement has been discharged through the publication of a Stakeholder Relations Code of Practice – an overarching framework that sets rules and expectations of engagement.

Eight key principles are set out, and the minimum requirements that Network Rail expects will be followed, to demonstrate adherence to the code of practice, are also included in the document. However, mindful of the broader aims of devolution, Network Rail recognises that it is more important that those who manage stakeholder relationships at the appropriate local, regional or national level determine how best to apply such principles, in order to treat stakeholders in ways appropriate to their needs. This supports the approach taken with the joint development of a stakeholder management plan for the project.

In addition to the engagement undertaken to date, TOCs and FOCs will be kept informed of general progress via the ECML Programme Board and RIRG and the Station Change procedure described previously will need to be followed, providing TOCs and FOCs with a formal consultation role.

It is the sponsoring party's responsibility to work through any issues raised during the consultation process so there are no outstanding objections. If this means changing the Station Change proposal, this must be formally advised to all consultees, who must be given adequate opportunity to consider the revision and provide any comments, rejections or acceptances.

Issues specific to their operations will be discussed directly with the relevant operator on an ad hoc basis as required during the next stage of development work.

6.8 Project Reporting

To date, the progress of the project and in particular the progress of the current deliverables has been reported by PCC, CPCA, Network Rail, LNER and the consultant(s) involved to the Project Director and thereafter the Steering Group, on a monthly basis.

A summary of other reporting formats and frequencies adopted to date is shown in Table 6.2.

Table 6.2: Regular Reporting Formats and Frequency

Control Area	Report Description	Frequency	Co-ordinated By
Progress (product delivery) against plan/programme	Steering Group minutes / Project plan review	Monthly	Project Director
Look ahead	Steering Group minutes / Project plan review	Monthly	Project Director
Costs and budgets	Monthly finance returns / management reports	Monthly	Project Director
	Quarterly LUF grant returns	Quarterly	SRO
Risks	Risk Register	Quarterly	Project Director
Issues	Steering Group minutes / Issues log	Quarterly	Project Director
Change control	Change log	Quarterly	Project Director

These management and reporting arrangements are subject to active and regular review to ensure they are working as effectively as possible. The procedures used are based on good practice, and it is anticipated that they, or a variation of them, will be adopted as the project moves forward.

As noted previously, progress on those elements of the project that are being led by PCC will be reported to:

- Cabinet/Executive Groups;
- Corporate Management Team;
- Towns Fund Board; and
- Growth and Regeneration Programme Board.

From the point that the project (or at least the relevant delivery packages) enters the Network Rail Investment Decision Framework, those elements will be run in line with the PACE process and will follow standard Network Rail reporting processes.

As a minimum, Network Rail reports on projects/programmes on a four-weekly basis - sometimes weekly dependent on urgency. Each project is categorised reflecting its complexity. Typical reports are as follows:

- Network Rail costs;
- Funding drawdown;
- Risk;
- Finance;
- People;
- Safety;
- Schedule;
- Current progress against milestones;
- Earned value, if applicable; and
- Contract status.

For schemes of significant value/significance, this is supplemented by Monthly/ Quarterly Reviews with the Route/Regional Managing Director.

The Capital Delivery part of Network Rail uses the P3M3 (Portfolio, Programme and Project Management Maturity Model) methodology as a management maturity model to assess how it delivers its projects, programmes and portfolio across the organisation.

6.9 Risk and Issues Management

The risk management process utilised for the project is designed to ensure that:

- Risks are identified;
- Owners of each risk are identified;
- Risks are prioritised;
- Impact of risks is understood;
- Mitigation and action measures are agreed and implemented;
- Mitigation and action measures are reviewed and managed; and
- Risks are escalated at the appropriate time.

Effective risk management is essential to ensure that any barriers to delivery are identified at any early stage in a project lifecycle and effectively monitored and mitigated. It is also essential to set out any budget allowances required to deal with any identified risk, depending on the impact and likelihood of occurrence of the risk, to mitigate the potential of unexpected demands to established workstream and programme budgets. Risk management will be implemented at the appropriate level according to the category of risk and allocated responsibility for managing the risk in question.

Risk identification to date has been undertaken with key stakeholders and the technical support teams across a range of risk categories (for example, scheme design, consenting, funding, governance and construction) across the whole project. Risks have been assessed to determine the probability and consequences of each risk, determining the relative level of risk, and whether risks should be monitored and controlled or whether a response or action is required.

A whole project-level risk register has been prepared and maintained by the Project Manager, which is the means of recording risk information and monitoring risk exposure at this time. It records identified risks and their associated assessments, and also includes risk control plans and responsibilities, as well as the status of all risks.

The latest version of the risk register is included at Appendix M. The key risks identified at this time are:

- Lack of clarity over relocation of the Network Rail MDU;
- Inability to agree with LNER amended arrangements for car parking;
- Increased competition for resources and funding;
- Compressed funding timescales may impact on programme;
- Complex governance arrangements between and within partners;
- Additional works required to existing building due to poorer existing condition than anticipated;
- Additional works required to existing structures due to poorer existing condition than anticipated; and
- Unknown/unexpected utility diversions required.

Reporting of the key risks has been undertaken at the monthly Steering Group meetings as necessary and these risks are being managed closely by the partners.

As the project progresses, separate risk registers will be developed for each of the delivery packages, feeding into the whole project-level risk register. For the highway and active travel elements, PHS will ensure that these will be in line with current practice.

For the delivery packages being led by Network Rail, their usual risk management activities will be engaged. Network Rail has a corporate risk management strategy and system for managing project/programme risks (Active Risk Manager) – this is reviewed and assessed on a four weekly basis and will also be visible to senior stakeholders should the risk exposure become significant.

The Designated Project Engineer and Project Manager are responsible for reviewing the requirement and implementation of the Common Safety Method on Risk Evaluation and Assessment (CSMRA) process which is a pre-requisite before any amendments are made or any new elements are added to buildings or facilities within the LNER 99-year lease. A quarterly Quantitative Schedule Risk Analysis (QSRA) is held to assess the likely impact of uncertainty on key milestones and project completion date.

Risks relating to construction works that are relevant to the operational rail network, either during design, construction or during operation, maintenance or deconstruction, are progressed through the CSMRA hazard log. Risks relating to construction works that are relevant to areas other than the operational railway network are progressed through the CDM issues log. The Safe by Design process is applied to the hazard elimination and risk mitigation/control for all project phases.

6.10 Lessons Management

During its delivery, as well as at the end of the project, the risk mitigation measures that have taken place will be analysed and recorded as part of the 'lessons learned' process to inform future management of similar schemes.

This process will record not only mistakes made in managing these risks but also good practice, ensuring that risk and issues are dealt with in the best manner possible in the future and hopefully will reduce the occurrence or impacts of the risk.

The previous experience of CPCA and Network Rail with the Soham rail station project will be used to help get the most of this process, with the following lessons identified in the resulting Network Rail Value Management Lessons Learned Workshop Report:

- Assess the programme regularly, ensure all disciplines are involved with the production and that consents and required approvals are added to the critical path of the programme;

- Ensure a delivery matrix is completed and briefed to all members in the project team – the delivery matrix should be monitored regularly; and

- Conduct regular meetings to monitor changes to the project team and ensure robust handover processes when team members leave and are replaced.

The key principles to be adopted for this project arising from this previous scheme is outlined below, but will also align with Network Rail's own internal processes and lessons learned model shown in Figure 6.2, to ensure that this project builds a culture that encourages the right behaviours:

- Informing and building the team - the 'lessons learned' approach will be outlined to the core team, including key stakeholders, and be demonstrated to ensure uptake, the formation of clear expectations and to clear up an potential misunderstandings.

- Gathering - a 'lessons learned' log will be set up and become a core part of the project management approach. Its use will be encouraged and it will be regularly reviewed as part of the risk management process so that it is more meaningful and relevant to the work of the team. 'Lessons learned' reviews will also be carried out at the end of each formal phase/milestone of the project and any learnings rapidly utilised both within the project being reviewed and in other related projects. In addition, face-to-face workshops will be convened at key points in the project delivery cycle where the project team will actively work with the experiences, deduct insights and obtain recommendations for action.

- Dissemination of findings - the outcome of the workshop sessions and reviews will be written recommendations for action and next steps. Information will be presented in an easy to understand way that that makes its relevance apparent. Different stakeholder groups will be made aware that the information is available and be provided copies as required.

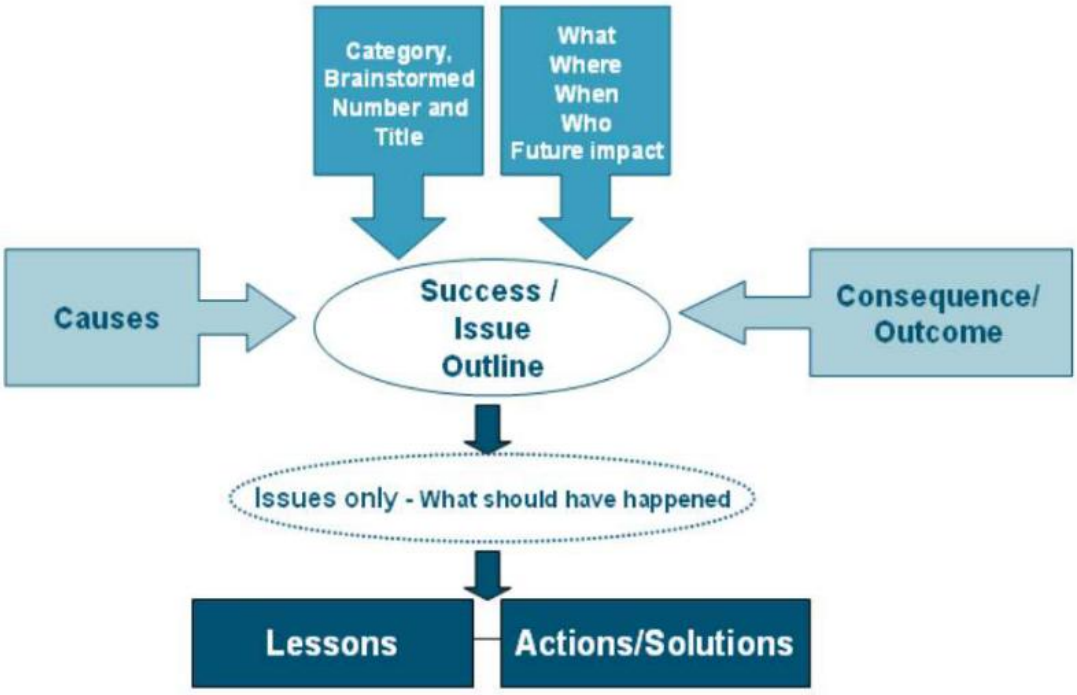

Figure 6.2 Network Rail Lessons Learned Model

6.11 Benefits Realisation, Monitoring and Evaluation

An outline Benefits Realisation Plan was produced alongside the SOC to begin the process of identifying, tracking and comparing the various benefits expected to be delivered. The agreed objectives and a logic mapping process were used to develop the "desired outputs, outcomes and impacts" of the project. These desired outputs, outcomes and impacts are the actual benefits that are expected to be derived from the project and are directly linked to the original set of objectives:

- Desired outputs – tangible effects that are funded and result from the project;
- Desired outcomes – what happens as a result of the outputs; and
- Desired impacts – the final impacts brought about by the project in the short, medium and long term as a result of the outputs and outcomes.

Given the agreed PSQ programme objectives, the desired outputs, outcomes and impacts have been converted into measurable indicators of benefits, closely aligned to the Monitoring and Evaluation Plan that has been developed and is included at Appendix N. The plan is cognisant of the following requirements:

- HM Treasury Magenta Book;
- DLUHC LUF2 Technical Note (Annex E);
- DfT Local authority major schemes: monitoring and evaluation framework;
- CPCA's Monitoring and Evaluation Framework v1.6;
- Network Rail PACE requirements; and
- LNER/Network Rail Agreed Performance Metrics

The plan has been developed by referring to the theory of change to identify key outputs, outcomes, and impacts. Where possible the standard outputs and outcomes set out in the LUF Monitoring Forms have been incorporated as well as DfT's enhanced monitoring measures for transport schemes and CPCA's Draft Key Metrics. The definition of these outputs, outcomes and impacts has been adjusted so that they align with the design of the project.

As a result, the following list of measures is proposed for monitoring and evaluation:

- Project build costs;
- Travel demand - rail, cycle, pedestrian, vehicles;
- Travel times and reliability - vehicle, cycle, pedestrian;
- Carbon dioxide reductions (resulting from travel demand changes);
- Noise reductions (resulting from travel demand changes);
- Local air quality improvements (resulting from travel demand changes);
- Accident reductions;
- Change in rail passenger numbers;
- Levels of customer satisfaction (based on LNER's Customer Satisfaction survey);
- Percentage of visitors and residents who report feeling safe in the local area;
- Number of full-time equivalent (FTE) permanent jobs created, safeguarded, or facilitated directly through the project;

- Index of Multiple Deprivation updates;
- Increase in GVA;
- Increase in labour market catchments areas;
- Increase in inward/business investment;
- Increase in land values around the station; and
- Change in perceptions of place (business, residents and visitors).

The type of evaluation method proposed is a combination of 'impact evaluation' and 'value for money' evaluation:

- Impact evaluation attempts to provide a definite answer to the question of whether an intervention was effective in meeting its objectives. Impact can in principle be defined in terms of any of the outcomes affected by a policy or intervention but is most often focused on the outcomes which most closely match with the ultimate objectives. The key characteristic of a good impact evaluation is that it recognises that most outcomes are affected by a range of factors, not just the policy or intervention.

- Value for money evaluation measures the economic outcomes and benefits of the interventions and the project's cost-effectiveness. There is some overlap with impact evaluation, although the impacts require monetisation, and this will be undertaken in line with TAG or DLUHC guidance.

It is intended to utilise data sources that are already readily available where possible to reduce monitoring and evaluation costs. However, these data sources will be supplemented with additional locally collected data where necessary to ensure the true impacts of the project are fully recorded. CPCA is committed to maintaining a repository of monitoring and evaluation data and is supported in doing this through Cambridgeshire Insight Partnership.

The monitoring and evaluation for the project will be undertaken by CPCA, PCC, Network Rail and LNER. The established governance structures will be used for the delivery of this activity. The collection and analysis of the monitoring data will be the responsibility of the Project Director and will be reported to the Steering Group. The Group will be responsible for ensuring the agreed measures have been monitored and will consider the results of the evaluation even beyond completion of the project.

In the case of PCC, the collection of data and preparation of the identified assessments will be managed as part of the wider monitoring and evaluation of the Cambridgeshire and Peterborough Local Transport Plan and the Towns Fund projects.

Prior to starting on site, any gaps in the required baseline evidence will be collected. A baseline evidence report will be completed on acceptance of the FBC and prior to construction of the project. Data will then be collected one year and five years post opening, which will be compared against the baseline data to quantify the extent of benefits realised.

'1 year after' and '5 years after' evaluation reports will be produced and published on the PCC and CPCA websites, which contains the results of a meta-analysis of all project evaluations carried out so far, highlighting any interesting and emerging trends. It is, however, anticipated that wider economic benefits may take longer time frames to manifest. This would invariably have a bearing on the timing of surveys and subsequent reporting.

The '1 year after' assessment will be used to understand the impact mainly on station access journey times/quality and passenger satisfaction. The '5 years after' assessment will look at longer term benefits including mode shift, area of development land released, jobs, additional business investment and land values.

PCC, CPCA, Network Rail and LNER recognise the importance of setting specific targets and accepts that the current Monitoring and Evaluation Plan does not yet include these for all metrics. The plan will be updated following the collation of the baseline report to include these targets.

Appendices

Appendix A: Updated Masterplan Framework

Appendix B: OBC Option Development Report

Appendix C: Station Option Development Report

Appendix D: Car Parking Strategy

Appendix E: Appraisal Specification Report

Appendix F: Economic Appraisal Technical Note

Appendix G: Appraisal Summary Table

Appendix H: Cost Plan

Appendix I: Delivery Strategy

Appendix J: Integrated Assurance and Approvals Plan

Appendix K: Project Plan

Appendix L: Communications and Stakeholder Engagement Plan

Appendix M: Risk Register

Appendix N: Monitoring and Evaluation Plan

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CAMBRIDGESHIRE & PETERBOROUGH COMBINED AUTHORITY

Transport & Infrastructure

17 January 2024

Agenda Item **11**

Title:	Budget and Performance Report
Report of:	Tim Greenwood, Finance Manager
Lead Member:	Councillor Anna Smith, Chair of the Transport & Infrastructure Committee
Public Report:	Yes
Key Decision:	No
Voting Arrangements:	No vote required.

Recommendations:	
A	Note the financial position of the Transport Division for the financial year 23/24 to November 2023

Strategic Objective(s):	
The proposals within this report fit under the following strategic objective(s):	
x	Achieving ambitious skills and employment opportunities
x	Achieving good growth
x	Achieving best value and high performance

1. Purpose

1.1	To provide an update of the financial position for 2023/24 and to provide analysis against the 2023/24 budgets, up to the period ending November 2023.

2. Background

2.1	At the last meeting, the Committee was provided with an analysis of the 2023/24 performance against budget to September 2023. This report provides an update covering up to November 2023.

3. Revenue Income and Expenditure

3.1	A breakdown of the Transport income for the period to 30 November 2023 is set out in Table 1 below.

Table 1

Transport Income	23/24 Actual YTD £k	23/24 Budget YTD £k	23/24 Variance YTD £k	23/24 Budget FY £k	23/24 FO FY £k	23/24 Variance FY £k	23/24 Deferral £k
Highways Maintenance and Pot-hole Fund	-27,343	-27,695	352	-27,695	-27,695	0	-
Public Transport - Bus Service Operators Grant (BSOG) CCC	-409	-411	2	-411	-409	2	-
Zebra GCP Contribution	-2,250	-2,250	0	-2250	-2250	0	-
Transport Levy	-8,096	-8096	0	-13,494	-13,494	0	-
Total Transport Income	**-38,098**	**-38452**	**354**	**-43,850**	**-43,848**	**2**	**0**

3.2 The income received in the year is £38m. The variance compared to budget to date is due to timing difference.

3.3 The forecast outturn is in line with the expected budget

3.4

Transport Revenue Expenditure	23/24 Actual YTD £k	23/24 Budget YTD £k	23/24 Variance YTD £k	23/24 Budget FY £k	23/24 FO FY £k	23/24 Variance FY £k	23/24 Deferral £k
"Lifebelt" city portrait to inform Cambridge's sustainable & inclusive growth & recovery	40	40	0	40	40	0	-
Active Travel 4	0	0	0	176	176	0	-
Bus Reform Programme	402	255	147	517	517	0	-
Develoment of Bus Franchising	20	500	-480	900	900	0	-
Public Transport - Bus Service Operators Grant (BSOG) CCC	0	0	0	411	411	0	-
Public Transport - Bus Services CCC	3274	2664	610	5597	6367	770	-
Public Transport - Bus Services PCC	525	889	-364	1275	730	-545	-
Public Transport - Community Transport CCC	193	168	25	247	292	45	-
Public Transport - Concessionary Fares CCC	2995	3852	-857	6204	4950	-1254	-
Public Transport - Concessionary Fares PCC	1683	1774	-91	2711	2390	-321	-
Public Transport - Contact Centre CCC	66	175	-109	197	84	-113	-
Public Transport - Contact Centre PCC	65	75	-10	95	69	-26	-
Public Transport - Overheads PCC	91	324	-233	572	572	0	-
Public Transport - RTPI, Infrastructure & Information CCC	358	191	167	325	325	0	-
Public Transport - RTPI, Infrastructure & Information PCC	48	0	48	0	0	0	-
Public Transport - Supported bus costs s106 CCC	196	0	196	0	0	0	-
Total Transport Revenue Expenditure	**9,956**	**10,907**	**-951**	**19,267**	**17,823**	**-1,444**	**-**

3.5 Expenditure to date is £1.0m lower that budget to date. Concessionary fares (£0.9m) mainly due to passenger numbers not returning to pre covid levels, expected to underspend at year end.

3.6 Forecast outturn shows an underspend to budget for the year of £1.4m.

The variance is mainly due to an estimated reduction in the cost of concessionary fares. This underspend will be held within the transport levy reserve and taken into account when setting the levy.

4. Capital Expenditure

4.1 A breakdown of the Transport Capital Expenditure for the period to 30 November 2023 is set out in Table 3 below.

Transport Capital Expenditure	23/24 Actual YTD £k	23/24 Budget YTD £k	23/24 Variance YTD £k	23/24 Budget FY £k	23/24 FO FY £k	23/24 Variance FY £k	23/24 Deferral £k
A10 Upgrade Capital	393	2,157	-1764	3,577	1,430	-2147	2147
A1260 Nene Parkway J15	1592	1438	154	1,628	1,628	0	-
A1260 Nene Parkway Junction 32-3	1264	4569	-3305	9492	9000	-492	492
A141 SOBC	488	2522	-2034	7001	1470	-5531	5531
A16 Norwood Dualling	24	825	-801	1221	1221	0	-
A505 Corridor	2	0	2	135	135	0	-
A603 Barton Road	0	0	0	400	400	0	-
Active Travel 4	0	0	0	3720	3720	0	-
Addenbrookes Roundabout	0	0	0	200	200	0	-
Brook Crossing - Sutton	0	0	0	225	225	0	-
Centre For Green Technology	0	0	0	2500	2500	0	-
Countywide Speed Reduction	0	0	0	800	800	0	-
East Park Street Crossings	0	0	0	260	260	0	-
Ely Area Capacity Enhancements	0	0	0	124	124	0	-
Fengate Access Phase 1	844	4846	-4002	7563	7563	0	-
Fletton Quays Footbridge	0	272	-272	1407	0	-1407	1407
Highways Maintenance and Pothole Fund	27557	27557	0	27557	27557	0	-
March junction improvements	496	1069	-573	5574	5574	0	-
Northstow P&R Link	0	0	0	500	500	0	-
Peterborough Green Wheel	209	355	-146	631	631	0	-
School Streets	0	0	0	10	10	0	-
Smaller Road Safety Measures	0	0	0	100	100	0	-
Snailwell Loop	0	90	-90	150	150	0	-
Soham Station	0	92	-92	153	153	0	-
Thorpe Wood Cycle Way	0	0	0	625	625	0	-
University Access - Fengate Phase 2	542	684	-142	821	821	0	-
Wisbech Access Strategy	27	0	27	523	523	0	-
Wisbech Rail	0	0	0	310	310	0	-
ZEBRA (buses)	8333	8333	0	8,333	8,333	0	-
Total Transport Capital Expenditure	**41,771**	**54,809**	**-13,038**	**85,540**	**75,963**	**-9,577**	**9577**

4.2	Expenditure to date is significantly lower than budget, £13.0m. This is due to delays in some of the schemes detailed below and billing issues, some invoices have yet to be received..
4.3	Forecast outturn shows an underspend against budget of £9.6m. This is due to delays in 4 schemes, the A10, A1260 Junction 32-3, A141, and Flettons Quays Footbridge, which are expected to slip into 2024/25.

5. Implications

Financial Implications	
5.1	There are no financial implications other than those included in the main body of the report.
Legal Implications	
6.1	The Combined Authority is required to prepare a balanced budget in accordance with statutory requirements.
Public Health Implications	
7.1	N/A

Environmental & Climate Change Implications	Item 11
8.1	N/A
Other Significant Implications	
9.1	N/A
Background Papers	
10.1	None

CAMBRIDGESHIRE & PETERBOROUGH COMBINED AUTHORITY

TRANSPORT & INFRASTRUCTURE COMMITTEE AGENDA PLAN

Updated 09/01/2024

Notes

Committee dates shown in bold are confirmed.
Committee dates shown in italics are TBC.

The definition of a key decision is set out in the Combined Authorities Constitution in Chapter 6 – Transparency Rules, Forward Plan and Key Decisions, Point 11
http://cambridgeshirepeterborough-ca.gov.uk/assets/Uploads/CPCA-Constitution-.pdf

* indicates items expected to be recommended for determination by Combined Authority Board
\+ indicates items expected to be confidential, which would exclude the press and public.

The agenda dispatch date is five clear working days before the meeting.

Standing items are shaded blue and are considered at every Committee meeting:

Committee date	Agenda item	Report Purpose	Lead officer	Report to CA Board for decision	Reference if key decision	Agenda despatch date
14/06/23	Minutes of previous meeting		Jo Morley	No	n/a	06.06.23
	Public Questions (if received)		Jo Morley	No	n/a	
	Director's Highlight Report		Steve Cox	No	n/a	
	E-scooters	Update on DfT licensing legislation and future procurement	Tim Bellamy Interim Head of Transport	No		
	Active Travel Update	Update on recent bid outcomes and next steps	Tim Bellamy Interim Head of Transport	Yes		
	Regional Transport Model	Update on Regional Transport Model and approval of spend by Peterborough City Council	Tim Bellamy Interim Head of Transport	Yes	KD2023/016	
	TIC Agenda Plan		Jo Morley	N/A		
12/07/23	Minutes of previous meeting and Action Log		Jo Morley	N/A		**04.07.23**
	Public questions (if received)		Jo Morley	N/A		
	Directorate Highlight Report		Steve Cox	No		

Committee date	Agenda item	Report Purpose	Lead officer	Report to CA Board for decision	Reference if key decision	Agenda despatch date
	Strategic Road Network Initial Report Consultation	To approve CPCA response to Government consultation on National Highways' Strategic Road Network initial report which includes future priorities for the next road period – Roads Investment Strategy 3	Robert Jones	No	Key Decision KD2023/025	
	ITSO Approved Support Contracts for ENCTS	To request delegation to the Interim Head of Transport to procure support services essential to the running of the local, statutory English National Concessionary Travel Scheme for a period of 4 years from 1st April 2024, through existing Local Authority Frameworks.	Tim Bellamy	Yes	Key Decision KD2023/027	
	TIC Agenda Plan		Jo Morley	N/A		
13/09/23	Minutes of previous meeting and Action Log		Jo Morley	N/A		**05.09.23**
	Public questions (if received)		Jo Morley	N/A		
	Director's Highlight Report		Steve Cox	N/A		
	Electric Vehicles	Note progress and way forward on Electric Vehicles and LEVI funding	Emma White	Yes		

Committee date	Agenda item	Report Purpose	Lead officer	Report to CA Board for decision	Reference if key decision	Agenda despatch date
	Connecting Cambridgeshire Progress Report	To note progress on the programme delivery	Ceren Clulow (County)	No		
	Bus Network Review	To present the initial findings of the Bus Network Review and consider approval to continue tendered bus services which are providing good value for money.	Tim Bellamy	Yes	KD2023/039	
	Bus Reform Outline Business Case	To present the Outline Business Case for Bus Reform in Cambridgeshire and Peterborough.	Tim Bellamy		KD2023/026	
	Peterborough Bus Depot	To present an update on joint proposals with PCC for funding secured to provide a bus depot in Peterborough	Steve Cox Tim Bellamy	Yes		
	ITSO Approved Support Contracts for ENCTS	To recommend to the Combined Authority Board to delegate authority to the Interim Head of Transport to approve procurement, award and enter into contract(s) for HOPS and Smartcard Services	Steve Cox Tim Bellamy	Yes	KD2023/027	
	Budget and Performance Paper		Tim Greenwood			
	TIC Agenda Plan		Jo Morley	N/A		

Committee date	Agenda item	Report Purpose	Lead officer	Report to CA Board for decision	Reference if key decision	Agenda despatch date
15/11/23	Minutes of previous meeting and Action Log		Jo Morley	N/A		**07.11.23**
	Public questions (if received)		Jo Morley	N/A		
	Director's Highlight Report		Steve Cox	N/A		
	Air Quality	To receive an update on the work undertaken by the Combined Authority and constituent Councils on the development and submission of the air quality grant scheme 2023/24	Yo Higton Tim Bellamy Steve Cox			
	Future Funding for BP Roundabout NMU	To receive an update on the project including key milestones and drawdown funding to support the next stage.	Robert Jones Tim Bellamy Steve Cox			
	Bus Update	To receive an update covering the network review, bus reform and potential ZEBRA	Neal Byers Tim Bellamy Steve Cox	Yes	KD2023/046	
	Wisbech Rail	To receive an update on the Wisbech Rail project	Matthew Lutz Tim Bellamy Steve Cox			
	Combined Authority's response to National Highways' RIS3	To agree the Combined Authority's response to National Highways' RIS3 consultation	Robert Jones Tim Bellamy Steve Cox			
	March Area Transport Study	To approve a change request on the March Area Transport Study	Emma White Tim Bellamy Steve Cox			

Committee date	Agenda item	Report Purpose	Lead officer	Report to CA Board for decision	Reference if key decision	Agenda despatch date
	Update on Transport Policy	Update on the Transport Policy and associated projects for decision on way forward.	Emma White Tim Bellamy Steve Cox	Yes	KD2023/050	
	Budget and Performance Paper		Tim Greenwood			
	TIC Agenda Plan		Jo Morley	N/A		
17/01/24	Minutes of previous meeting and Action Log		Jo Morley	N/A		**09.01.24**
	Public questions (if received)		Jo Morley	N/A		
	Director's Highlight Report		Steve Cox	N/A		
	Bus Reform	To recommend that CPCA consults the public on the reform of buses.	Neal Byers	Yes	Key Decision KD2023/058	
	Bus Strategy Update	To provide an update on Bus Strategy work and recommend to the CPCA the outcome of the remaining bus service contracts	Neal Byers	Yes	Key Decision KD2023/059	

Committee date	Agenda item	Report Purpose	Lead officer	Report to CA Board for decision	Reference if key decision	Agenda despatch date
	Transport Funding Decisions	Including: To approve drawdown of funding from the Transforming City Funds to aid completion of the A505 Royston to Granta Park Study Drawdown of extra funds for the Reginal Transport Model - Peterborough	Matthew Lutz	No	Key Decision KD2023/063	
	A10 Project	To provide a verbal update on the A10 project and the potential themes that will be considered for public consultation	Matthew Lutz			
	Peterborough Station Quarter	To provide an update on the progress of Peterborough Station Quarter and the outcome of the Outline Business Case, seeking approval for the next phase.	Anna Graham		Key Decision KD2023/056	
	Kings Dyke Project	To update members on the Kings Dyke Project	Anna Graham			
	Budget and Performance Paper		Tim Greenwood			
	TIC Agenda Plan		Jo Morley	N/A		
13/03/24	Minutes of previous meeting and Action Log		Jo Morley	N/A		**05.03.24**

Committee date	Agenda item	Report Purpose	Lead officer	Report to CA Board for decision	Reference if key decision	Agenda despatch date
	Public questions (if received)		Jo Morley	N/A		
	Directorate Highlight Report		Steve Cox	N/A		
	E-Scooter Trial Extension	To update members on the progress of the e-scooter trial and to recommend that CA Board approve an extension of the trial	Anna Graham	Yes	Key Decision KD2023/057	
	Budget and Performance Paper		Tim Greenwood			
	TIC Agenda Plan		Jo Morley	N/A		
19/06/24	Minutes of previous meeting and Action Log		Jo Morley	N/A		**11.06.24**
	Public questions (if received)		Jo Morley	N/A		
	Directorate Highlight Report		Steve Cox	N/A		
	TIC Agenda Plan		Jo Morley	N/A		

An accessible version of this information is available on request from democratic.services@cambridgeshirepeterborough-ca.gov.uk

Transport & Infrastructure Committee

17 January 2024

Agenda Item **14**

Title:	Kings Dyke Update
Report of:	Anna Graham, Transport Programme Manager
Lead Member:	Cllr Anna Smith, Chair of Transport and Infrastructure Committee
Public Report:	Yes, with EXEMPT appendices
Key Decision:	No
Voting Arrangements:	No vote required

Recommendations:	
A	To note the contents of the report

Strategic Objective(s):	
The proposals within this report fit under the following strategic objective(s):	
x	Achieving good growth - The scheme sought to improve growth by providing better connectivity for businesses and residents using the A605.
x	Increased connectivity - The project provided improved connectivity by removing the level crossing which regularly stopped traffic on the A605, a significant route in the Fens

1. Purpose

1.1	To update the Transport and Infrastructure Committee on the progress of Cambridgeshire County Council's (CCC) commercial closeout of the Kings Dyke project.

2. Proposal

2.1	The paper attached at Appendix A contains sensitive commercial information and is therefore confidential and provided to members in confidence.

3. Background	
3.1	The A605 is an important east-west route between the Fens and Peterborough, providing connections to the A1(M) and the A47 via the Peterborough Parkway Network. It had suffered significant congestion during closures at the level crossing which services approximately 120 daily train movements. The scheme's objective was to remove this road-rail conflict by providing a road bridge over the rail line.
3.2	The new section of the A605 and bridge was opened to traffic in July 2022 and was named the Ralph Butcher Causeway.

4. Appendices	
4.1	EXEMPT Appendix A: Forecast Cost Scenarios EXEMPT Appendix B: Update Report

5. Implications	
Financial Implications	
5.1	N/A
Legal Implications	
6.1	N/A
Public Health Implications	
7.1	N/A
Environmental & Climate Change Implications	
8.1	N/A
Other Significant Implications	
9.1	N/A
Background Papers	
10.1	Combined Authority Board Paper Dated 19 October 2022