UNIVERSITY OF CAMBRIDGE

North West Cambridge

Future Phases of Eddington

September 2025

Transport Assessment

kmc
transport planning

North-West Cambridge Masterplan

Future Phases

Transport Assessment

UNIVERSITY OF CAMBRIDGE

Document:	Transport Assessment
Project:	North-West Cambridge Masterplan
Client:	University of Cambridge
Job Number:	24067

Issue	Date	Status	Prepared	Reviewed	Approved
1	May 2025	Draft	MV LK NP	JP	EP
2	June 2025	Draft	MV LK NP	JP	EP
3	July 2025	Draft	MV LK NP	JP	EP
4	July 2025	Final Draft for legal review	MV LK NP	JP	EP
5	Sept 2025	FINAL	MV LK NP	JP	EP

Contents

Figures

Tables

1 INTRODUCTION

1.1 Background

1.1.1 KMC Transport Planning Ltd ('KMC') is retained by the University of Cambridge (UoC) (the 'Applicant') to provide transport planning advice and prepare supporting technical documentation in association with the planning application for the development of Future Phases of the North-West Cambridge Masterplan ('NWCM') for residential, employment, academic, retail and supporting uses (referred to as 'Future Phases' throughout this document).

1.1.2 The first phase of North West Cambridge is being built out pursuant to an Outline planning permission granted in 2013 (LPA refs, S/1886/11 & 11/1114/OUT) and subsequent Reserved Matters Applications. The new community formed by Phase 1 is named Eddington.

1.1.3 Eddington is the University of Cambridge's response to the need to provide affordable housing for its staff so it can attract and retain top talent to maintain its global competitiveness. By housing staff in a purpose-built, high quality neighbourhood, the University also reduces the demand on the wider housing market in the city.

1.1.4 By providing 50% of housing for staff and the remainder contributing to increasing the overall supply of housing in the city, the Eddington development supports the highly successful Cambridge eco-system which provides long-term growth and prosperity for the local, regional and national economy. Importantly however, Eddington is open to all. Eddington combines all the community infrastructure that is needed for a new, growing neighbourhood. The University's investment in the community is evident in the school, nursery, post-doc centre, hotel, supermarket, community centre, sports facilities and parklands as well as homes delivered in Phase 1. The Site will remain under the University's long-term stewardship.

1.1.5 In transport terms Eddington is exceptional. The Chartered Institution of Highways and Transportation highly commended the development within the Creating Better Places award, as a real-world example of a Decide and Provide approach to transport planning where the outcomes sought were designed for and the benefits have been subsequently reaped. These benefits are comprehensively monitored and reported by the Eddington transport team to Cambridgeshire County Council (CCoC) and have provided the foundation for this Transport Assessment.

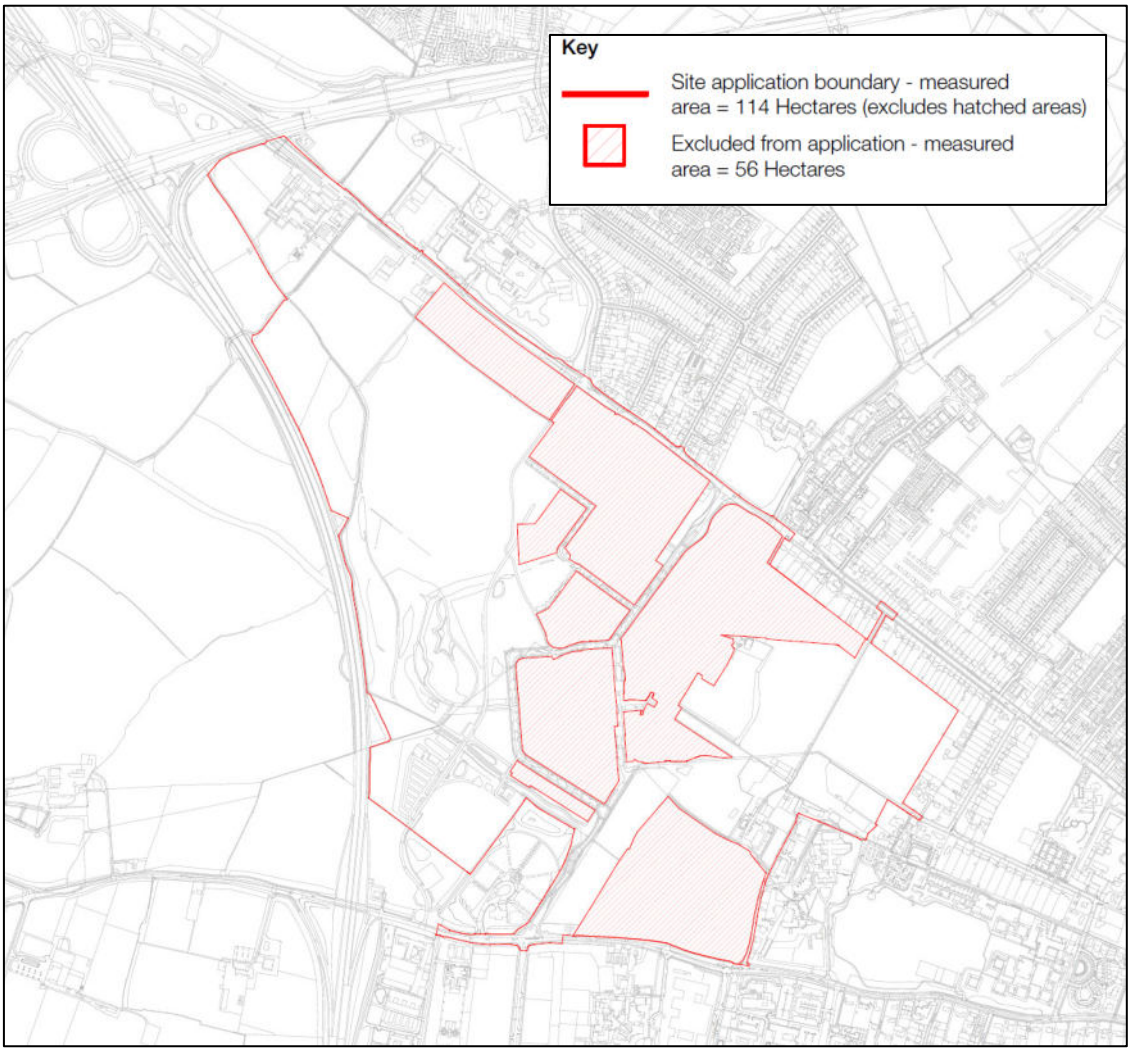
1.1.6 The challenge for Future Phases is to ensure that the ingredients that make Eddington successful are identified, maintained and enhanced.

1.2 The Site

1.2.1 The NWCM/Future Phase Site (' the Site) is located approximately 2km north-west of Cambridge city centre. The Site is roughly triangular in shape and comprises land between Huntington Road (A1307), Madingley Road (A1303) and the M11. The Site forms part of the emerging settlement of Eddington.

1.2.2 The Site location is shown in **Figure 1.1**.

Figure 1.1: Site Location



1.3 Planning Context and History

1.3.1 Outline Planning Permission for Eddington was originally granted (application references 11/1114/OUT and S/1886/11) in February 2013 for a residential led mixed use development. The full description of development for that Outline Planning Permission is as follows:

"*Proposed development comprising up to 3,000 dwellings; Up to 2,000 student bedspaces; 100,000 sqm. employment floorspace, of which: up to 40,000 sqm. commercial floorspace (Class B1(b) and sui generis research uses) and at least 60,000 sqm. academic floorspace (Class D1); up to 5,300 sqm. gross retail floorspace (Use Classes A1 to A5) (of which the supermarket is 2,000 sqm. net floorspace); Senior Living, up to 6,500sq.m. (Class C2); Community Centre; Indoor Sports Provision; Police; Primary Health Care; Primary School; Nurseries (Class D1); Hotel (130 rooms); Energy Centre; and associated infrastructure including roads (including adaptions to Madingley Rd and*

Huntingdon Rd), pedestrian, cycle and vehicle routes, parking, drainage, open spaces and earthworks."

1.3.2 Details of what was consented and what has been delivered so far / under construction is set out in Table 1.1.

Table 1.1: Development Quanta consented at NWC in 2013

Use	Quantum Approved	Delivered in Phase 1
Residential	3,000 units (50% affordable housing to meet the needs of Cambridge University key workers, 50% market housing)	1,121 occupied of these, 686 for University key workers and 435 market homes. Total homes to come forward in Phase 1 = 1,848.
Student Accommodation	2,000 units	325
Employment/Academic Floorspace	100,000 sqm	-
Retail	5,300sqm	New Local Centre including supermarket, additional retail units and market square. Total Phase 1 retail floorspace approved through reserved matters applications - 4,158 sqm
Senior Living	6,500sqm	-
Hotel	130 rooms	180 apart hotel by Locke Living and 150 rooms by Hyatt Centric Hotel Delivered
Primary School	-	Delivered (University of Cambridge Primary School)
Community Centre	-	Delivered (Storey's Field Centre)

1.3.3 The ability to bring forward further residential dwellings under the Outline Planning Permission (through Reserved Matters Applications) expired in 2023. As a result, the University needs to bring forward a new planning application for the Future Phases of the NWCM.

1.3.4 To support this new planning application. the SCDC Local Plan includes for an additional 1,500 dwellings at Eddington.

1.4 Proposed Development

1.4.1 The UoC is seeking Outline Planning Permission ("OPP") for the Future Phases of the NWCM. The Outline Planning Application ("OPA") (all matters reserved except for means of access to the public highway) seeks planning permission for:

"a phased mixed use development, including demolition of existing buildings and structures, such development comprising

- *Living Uses, comprising residential floorspace (Class C3/C4, up to 3,800 dwellings), student accommodation (Sui Generis), Co-living (Sui Generis) and Senior Living (Class C2);*
- *Flexible Employment Floorspace (Class E(g) / Sui Generis research uses);*
- *Academic Floorspace (Class F1); and*
- *Floorspace for supporting retail, nursery, health and indoor sports and recreation uses (Class E (a) – E (f)).*
- *Public open space, public realm, sports facilities, amenity space, outdoor play, allotments and hard and soft landscaping works alongside supporting facilities;*
- *Car and cycle parking, formation of new pedestrian, cyclist and vehicular accesses and means of access and circulation routes within the Site;*
- *Highway works;*
- *Site clearance, preparation and enabling works;*
- *Supporting infrastructure, plant, drainage, utility, earthworks and engineering works."*

1.4.2 The proposed development quantum is illustrated in Table 1.2.

Table 1.2: Proposed Development Quantum

Use	Use Class	Amount (GEA sqm)
Residential	C3/C4	Up to 365,000*
Co-Living	Sui Generis	Up to 52,000*
Student Accommodation	Sui Generis	Up to 52,000*
Senior Living	C2	Up to 6,500
Employment	E(g) / Sui Generis Research Uses	Up to 40,000
Academic	F1(a)	Up to 60,000
Supporting retail, nursery, health, indoor sports and recreation	E(a) – E(f)	Up to 3,500
Ancillary floorspace comprising Back of House, Enclosed Plant, Storage, Servicing, Car and Cycle Parking Areas, development infrastructure required to support the development etc	N/A	No maximum

**Total maximum floorspace of Residential (C3/C4) + Co-living (Sui Generis) + Student Accommodation (Sui Generis) – Up to 417,000 sqm GEA*

1.4.3 Whilst the above proposed parameters are defined in maximum floor area, the following residential dwellings numbers have been used alongside the non-residential GFA quantum within this TA for assessment purposes. This results in a 2,648 uplift in residential dwelling numbers from the 2013 outline consent, where 3,000 units were approved overall. These development quantities are shown in Table 1.3. This TA goes onto assess this growth in transport terms by using the exemplar performance of Phase 1 sustainable mode share to show how growth in the right place allows for densification without additional impact. **The transport**

strategy detailed in this TA aims to deal with this uplift by focusing on sustainable infrastructure rather than highway capacity, as the uplift is later shown in this TA to fall well within the previously consented trip budget.

Table 1.3: Proposed Residential Dwelling Quantum used for assessment

Land Use	Sub-Category	No. Dwellings		
		To be built	Built / Consented RM (of which occupied)	Total
Residential	Residential - Market (Houses)	745	1,162 (435)	**2,813**
	Residential - Market (Flats)	906		
	Residential - KWH	2,149	686 (686)	**2,835**
	Market + KWH Total	**3,800**	**1,848 (1,121)**	**Up to 5,648**
	Student Accommodation	1,800*	325 (325)	**2,125**

**Phase 1 included for 2,000 total (so 1,675 yet to be built from OPP), but robust illustrative scheme includes for 1,800 student units to be built in Future Phases (or 1,800 co-living units in place of PBSA or Residential)*

1.4.4 It is important to note that the above Quantum of Development includes for a number of flexible land uses that includes for a maximum GFA for each, that can be interchanged. This TA deals with this flexible approach by assessing the impact of the worst case development scenario, by accounting for the maximum GFA for land use scenarios that maximises car driver trip generation. Specifically the flexibility between co-living, student accommodation vs C3 land uses has been dealt with through assessing the maximum C3 proposed (which will generate the highest trip rate per GFA) alongside student accommodation (which will generate negligible car trips during the peak hours as per co-living). Overall, the flexibility to replace and interchange C3, student and co-living land uses will have negligible impact on the outputs of this TA that has assessed a worst case development scenario. Furthermore, the impact assessment of each plot will be dealt with through separate Reserved Matters Transport Statements.

1.5 Purpose of Report

1.5.1 This Transport Assessment (TA) has been prepared by KMC in association with the outline planning application for the development of the future phases of the NWCM.

1.5.2 This TA analyses the transport effects of the proposed development of the Site once its fully occupied, as well as in conjunction with other relevant committed development as agreed with CCoC.

1.5.3 This TA sets out the strategies for walking, wheeling, cycling, public transport and private vehicles in order to deliver sustainable development. From a transport perspective, the key

objective of the proposed development is to forecast the potential impacts of the proposed development and develop strategies to mitigate impacts, with a preference for sustainable modes of transport to continue the exemplar mode share achieved in Phase 1. This TA details how this objective will be met.

1.5.4 There are a number of transport related documents that also support the planning application, which are:

- Framework Site Wide Travel Plan;
- Framework Construction Traffic Management Plan; and
- Waste and Refuse Strategy.

1.5.5 In addition to this TA and additional transport documents, there is a Transport and Access Chapter of the Environmental Statement (ES), which has also been prepared by KMC.

1.5.6 This TA should be read in conjunction with all other documents submitted alongside the outline planning application.

1.6 Stakeholder Engagement

1.6.1 The transport aspects of the proposed development have been subject to comprehensive pre-application discussions with the Greater Cambridgeshire Shared Planning Service (GCSPS), as the local planning authority, Cambridgeshire County Council (CCoC) as the local highway authority, and National Highways at the government agency body who maintain the Strategic Road Network (SRN). The various records of engagement, including; RAG Tracker, meeting minutes, key email exchanges and key Quality Panel Design Advice are attached in Appendix A. A summary of these engagements is provided below.

1.6.2 In relation to transport, the pre-application engagement has included discussions on:

- Geographical scope of assessment (Personal Injury Collision records, link and junction impact & capacity assessments)
- Trip generation approach and methodology;
- Transport modelling;
- Development of the masterplan from a transport perspective;
- Active travel strategy in terms of the masterplan design and connections to the wider area and off-site active travel improvements;
- Vehicular access strategy;
- Public transport strategy in terms of provision for public transport within the Site and strategy for improvements to public transport services and infrastructure; and
- Street design.

1.6.3 As part of the pre-application process a Red, Amber, Green (RAG) tracker was developed. The RAG tracker was designed to monitor and track the progress of discussions and agreement with CCoC on transport matters prior to the submission of a planning application. The RAG tracker

ensured that transport-related matters were properly addressed to help streamline the planning process. This RAG Tracker adapted to and took account of the monthly meetings held between KMC, CCoC Transport Assessment Team and others between October 2024 and planning submission.

1.6.4 Formal pre-application scoping comments were received from National Highways (dated 23/04/2025) which have also informed the contents of this TA and other associated transport documents supporting the outline planning application for the NWCM.

1.6.5 In addition, a pre-application Scoping Opinion was published by CCoC dated 23rd January 2025 regarding an Environmental Impact Assessment (EIA) for the proposed development. This includes comments from both CCoC (as the LHA) and National Highways.

1.6.6 A series of community consultation workshops were also undertaken in October 2024, November 2024, December 2024, March 2025 and April 2025 to gather local community feedback on the emerging development proposals. A separate community Transport Workshop was also held in June 2025, to gather information on lessons learnt from Phase 1 and feedback on the principles of the Transport Strategy for the development. Stakeholders attending the Transport workshop included local Councillors, CPCA representatives, local residents, bus operators (Whippet), UoC representatives, GCSPS representatives and Outspoken Cycle representatives.

1.6.7 Below is a summary of the comments received and discussed at the June 2025 Transport Workshop.

Table 1.4: June 2025 Transport Workshop Comments, Advice and Actions Incorporated

Active Travel
Accessible greenspace
Lighting
High use of Voi Hubs and more needed in right location
Cyclists using Hunts Rd footway and need for improvement
Narrow footways
Success of Gravel Hill and Ridgeway as cycle route
Need for adequate connection to Madingley Rd
Confusing shared spaces
Problem with parking and driving on cycleway
More cycle parking needed at community hubs
Cycle parking security
Courtesy crossing vs formal crossing
Public Transport
Off-site congestion impacts reliability
Interaction between bus and place

Orbital route deemed exciting opportunity
Vehicular Traffic
Parking a success as low uptake
Facilities management and construction staff taking up on-street spaces
Oversupply of private parking but under supply of on-street
Confusing parking signs / payment process
Advertise car club more
Dedicated parcel room per block welcomed
Potential for testing deliveries by robot pods at Eddington
Value of Place
Girton Students like living in Eddington
Way in which females use the Site and transport needs to be considered
Hubs of activity needed north of centre

1.6.8 Quality Panels (QP) for the NWCM were held in November 2024 and April 2025. The panels were made up of a number of national respected built and natural environment professionals who critiqued the emerging development proposals and identified where the design and strategy could be improved to achieve the best possible outcomes. In addition, two Joint Development Control Committee Briefings (JDDC) have been held. Below is a summary of the QP Design Advice.

Table 1.5: QRP Design Advice and Actions Incorporated

QRP Advice
Need to confirm Movement strategy to arriving at current masterplan
Need to identify key fundamentals from Phase 1 that have influenced the positive mode shares and will therefore be followed through into Future Phases.
How has the storage of electric bikes been designed for
Electric bike strategy should be very ambitious in this location
Cartwright Avenue must also have a social and place function as well a movement function
Mobility Hubs to act as key role to create the sense of place
With cycling, make sure masterplan is based on a full understanding how people will use the routes and where they are going, rather than start with a hierarchy.
Community street is favourable but need to make sure where necessary space is made for cycling to avoid conflict.
Removal of cars early in the neighbourhood seen as a positive
Shared mobility needs to be a real focus. Mobility hubs on Cartwright Avenue welcomed but there should be hubs in neighbourhoods for concierge, cargo bikes and other micro mobility alongside car clubs
Define a robust public transport strategy.
Balance car use with efficient storage solutions for vehicles, bikes, and bins.

1.6.9 Transport related comments arising from pre-application and stakeholder engagement have informed the design of the proposed development, the development of the Transport Strategy and assessment of transport effects.

1.7 Scope of Report

1.7.1 This TA is based upon 'Planning Practice Guidance: Travel Plans, Transport Statements, and Statements in Decision-Taking', published by the Department for Transport (DfT) in 2014 and CCoC's 'Transport Assessment Guidelines' published in 2024. The remainder of this TA is structured as follows:

- Section 2: Review of national and local policy plus guidance in the context of NWCM proposals.
- Section 3: Baseline Conditions – Review of Site, Existing Land Uses and Consented Infrastructure
- Section 4: Baseline Conditions – Review of existing Active Travel Infrastructure and connections
- Section 5: Baseline Conditions – Review of existing Public Transport facilities and services
- Section 6: Baseline Conditions – Review of existing Highway Network
- Section 7: Baseline Conditions – Review of existing travel surveys and data used to determine existing travel characteristics
- Section 8: Existing accessibility of the Site
- Section 9: Review of future baseline network conditions and performance
- Section 10: Future Baseline Accessibility without future NWCM phases
- Section 11: Summary of development proposals, including phasing, quantum, access, layout and infrastructure
- Section 12: Summary of supporting on-site transport strategy measures
- Section 13: Summary of trip modelling methodology and outputs
- Section 14: Summary of supporting off-site transport strategy measures
- Section 15: Review of future baseline accessibility with future NWCM phases in place
- Section 16: Summary of impact assessment, including sustainable infrastructure and services vs demand and highway site access capacity
- Section 17: Summary & Conclusions

2 POLICY AND GUIDANCE

2.1 Introduction

2.1.1 This section of the TA summarises the relevant national and local policy and guidance in the context of the Site and proposed development at North West Cambridge. A full review of policy and guidance is provided in Appendix B. The following national and local policy and guidance documents are of relevance and have been reviewed:

2.1.2 National:

- National Planning Policy Framework (2024)
- Planning Practice Guidance: Travel Plans, Transport Statements, and Statements in Decision-Taking (2014);
- Planning for the Future – National Highways (2023);
- Strategic Road Network and the Delivery of Sustainable Development (2022);
- Active Travel England (2023);
- Manual for Streets (2007); and
- LTN 1/20 (2020).

2.1.3 Local

- Cambridge Local Plan (2018);
- South Cambridgeshire District Local Plan (2018);
- Cambridge and Peterborough Combined Authority LTCP (2023);
- Cambridgeshire Active Travel Strategy (2024);
- Cambridgeshire's Active Travel Toolkit for new developments (2024);
- Cambridgeshire Transport Assessment Requirements (2024);
- North West Cambridge Area Action Plan (2009);
- Greater Cambridge Sustainable Design and Construction (SPD) (2020); and
- North West Cambridge Approved Design Code and Guidelines (2013).

2.1.4 Other (not directly related but used as exemplar design practice)

- The Planning for Walking Toolkit, Mayor of London (March 2009)

2.2 Policy Summary

2.2.1 A summary of the policy and guidance documentation provided in Appendix B of this TA is shown in Table 2.1 below. These key transport design principles, standards, policy and guidance have been considered throughout the development of the masterplan proposed for the Future Phases of the NWCM, as illustrated throughout this TA and other documents accompanying the planning application.

Table 2.1: Policy and Guidance Documentation Summary

Policy Document	Description
National	
National Planning Policy Framework (2024)	The NPPF is a UK planning policy guiding sustainable development. Section 9 of the NPPF (2024) outlines national policy on promoting sustainable travel.
National Planning Practice Guidance (2014)	The PPG contains a suite of guidance, with is continually being updated. This guidance is intended to assist all stakeholders in determining whether an assessment may be required and, if so, what level and scope the assessment should include.
Planning for the Future – National Highways (2023)	This document was produced by National Highways, who are the overseeing organisation for the management of the strategic road network and all-purpose trunk roads within England. Within this document, National Highways outline sustainability principles that should be considered in new development within Paragraphs 28 and 29, respectively. This includes the location of development, sustainable transport access/solutions, and opportunities to maximise walking, wheeling, cycling and public transport.
Strategic Road Network and the Delivery of Sustainable Development (2022)	The circular applies to the whole strategic road network and outlines how National Highways will engage with the planning system. The circular states that walking, cycling and public transport must be the natural choice for those able to use it. National Highways states it will: "*Support development promoters and local authorities in applying the principles of Manual for Streets, the National Design Guide on Movement, inclusive mobility, and local transport note 1/20 to ensure priority is given to pedestrian and cycle movements, and that well-considered parking, servicing and utilities infrastructure for all users is incorporated into development proposals*"
Active Travel England (2023)	ATE are the government's executive agency sponsored by the DfT and responsible for making walking, wheeling, and cycling the preferred travel mode choice for everyone. ATE will apply their latest 'Active Design' guidance, released by Sport England in May 2023, supported by Active Travel England and the Office for Health Improvements and Disparities, to consider developments on which they are consulted. The guidance provides a toolkit for developers, officers, and consultants to ensure that 'activity for all' is at the heart of new developments.
Cambs Active Travel Toolkit for new development	The Cambridgeshire Active Travel Toolkit for New Developments (referred to as the 'Toolkit') allows the effective assessment of walking and cycling provision for all scales of new development in Cambridgeshire. This Toolkit aims to 'ensure that all new housing and business developments are built around making sustainable travel, including cycling and walking, the first choice for journeys'.
Manual for Streets (2007)	Manual for Streets (MfS), which provides guidance on the design, construction and maintenance of residential streets. It is also noted that MfS should be considered as a starting point for good design, and that the principles it espouses should not be applied blindly but should be interpreted in the light of new innovations and technologies.
LTN 1/20 (2020)	Local Transport Note 1/20 'Cycle Infrastructure Design' was published by the DfT in July 2020. The note provides guidance to local authorities and developers on delivering high quality cycle infrastructure.

Local	
Cambridge Local Plan (2018)	The document sets out the strategic vision for sustainable growth in Cambridge alongside specific policies to help guide new developments. Policy 80 "Supporting sustainable access to development" states that development will be supported where it demonstrates that prioritisation of access is by walking, cycling and public transport and it is accessible for all. Policy 81 "Mitigating the transport impact of development" states that developments will only be permitted where they do not have an unacceptable transport impact.
South Cambridgeshire District Local Plan (2018)	The South Cambridgeshire District (SCDC) Local Plan guides the future development of South Cambridgeshire up to 2031. Policy TI/2 states that development must be located and designed to reduce the need to travel, particularly by car, and promote sustainable travel. Policy TI/2 also states that planning permission will only be granted for developments where the Site has (or will attain) sufficient integration and accessibility by sustainable modes of transport.
Cambridge and Peterborough Combined Authority LTCP (2023)	The LTCP is the "long term strategy to make transport in Cambridgeshire and Peterborough better, faster, greener and more accessible for everyone". The plan aims to "discourage individual private car use" by "making active travel, public and shared transport the natural first choice" .The LTCP vision is as follows: "A transport network which secures a future in which the region and its people can thrive"
Greater Cambridge Transport Strategy (GCTS)	The GCTS will consider how to support transport into, and around, Greater Cambridge, and support the principles outlined in the LTCP (2023). This includes travel into Greater Cambridge from across the whole CPCA and travel-to-work areas, as well as supporting rural trips in Greater Cambridge. The GCTS will aim to address congestion in Cambridge and the need for sustainable alternatives to enable people to access jobs and services to support economic growth. The proposed timelines for developing the GCTS are in line with the new local plan, with a planned submission date for Winter 2026.
Cambridgeshire Active Travel Strategy (2024)	The Strategy sets out to increase and further improve the proportion of journeys within Cambridge and the wider region that are made by active modes of travel such as walking, cycling, and wheeling.
Cambridgeshire Transport Assessment Requirements (2024)	The guidance was published in 2024 by CCoC as the Local Highway Authority. The guidance sets out the requirements for when a TA is required, and what it should contain.
North West Cambridge Area Action Plan (2009)	The NWC AAP provides the basis for the initial planning permissions and for further detailed planning, including masterplanning, and approval of individual phases of development through a range of policy.
Greater Cambridge Sustainable Design and Construction (SPD) (2020)	The SPD provides the guidance for Greater Cambridge on Electric Vehicle (EV) parking and infrastructure, as well as Car Club Provision.
North West Cambridge Approved Design Code and Guidelines (2013)	The North West Cambridge Design Code was approved by CCoC in 2013 for the previous outlined consent. The Design Code provided the next level of detail for design parameters than those within the parameter plans and outline planning application. The aim of the Design Code is to ensure a consistently high quality level of design and outcome is achieved throughout North West Cambridge.

Other	
The Planning for Walking Toolkit, Mayor of London (March 2009)	A handbook providing advice for planners and designers in the redesign and creation of public realm, including streets, off-road footbaths and public spaces across London. The document emphasises the importance of embedding good practice urban design principles in the planning and design process.

3 BASELINE CONDITIONS – STRATEGIC CONTEXT, SITE AND EXISTING LAND USES

3.1 Introduction

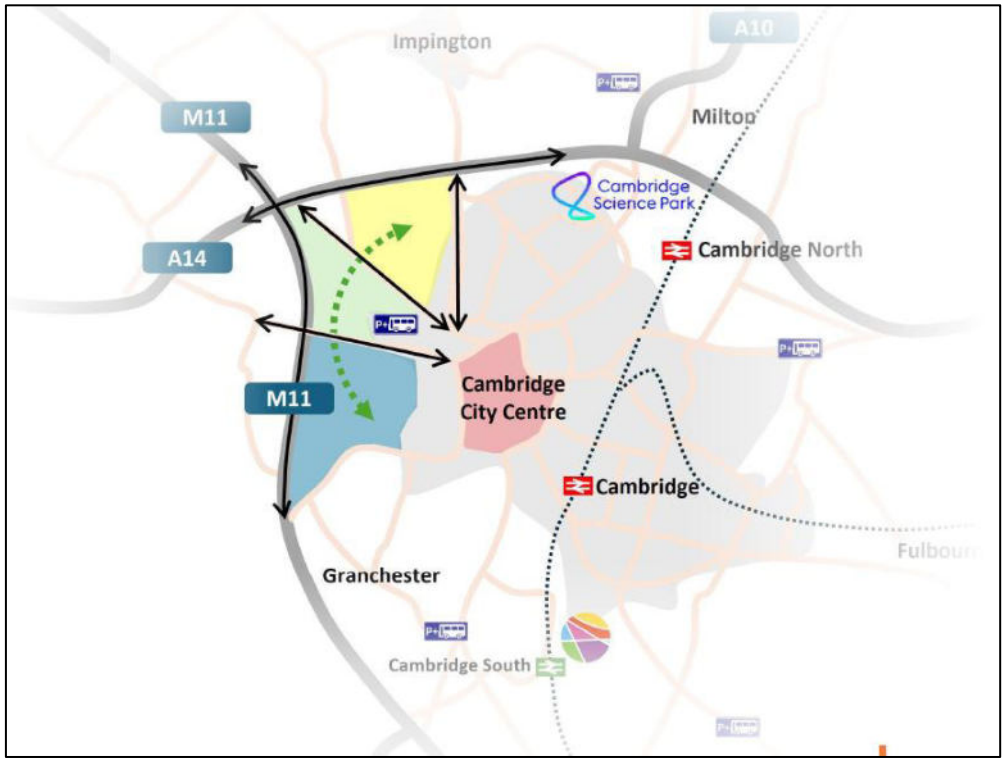
3.1.1 This Section provides a description of the Site location in the context of baseline pedestrian, cycle and public transport facilities and services in the immediate area, and a review of the local highway network in terms of its operation, safety record and wider Cambridge Transport Strategy. A more detailed review of baseline conditions is provided in Appendix C.

3.2 Strategic Context

3.2.1 Greater Cambridge is already a polycentric city region with dispersed centres of employment and population. Future growth patterns will add to this and the city's existing and proposed transport networks are built for radial movements converging in the city centre. There are clear missing connections between these radial links currently.

3.2.2 Strategic land holdings, such as NWCM, have a city wide responsibility to facilitate movements and connectivity and help the city provide orbital connectivity to better link to the city's growth areas. The location of NWCM offers the potential to build on the connections provided through NWC Phase 1 and connect to future orbital routes. This is demonstrated in Figure 3.1.

Figure 3.1: NWCM site location in context of wider radial and future orbital connectivity



3.3 The Site

3.3.1 NWCM is located approximately 2km north-west of Cambridge city centre. The Site is roughly triangular in shape and comprises land between Huntington Road (A1307), Madingley Road (A1303) and the M11. The Site forms part of the emerging settlement of Eddington.

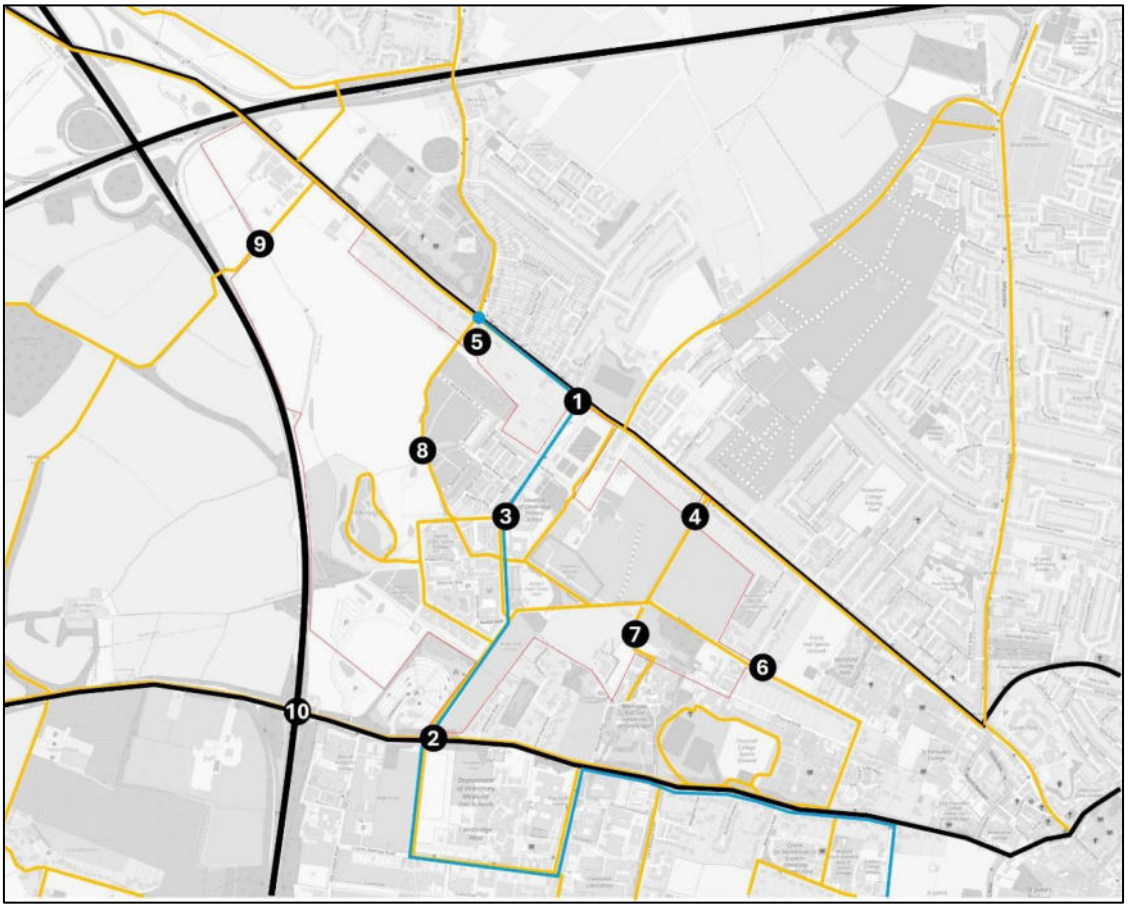
3.3.2 The Site covers a total area of approximately 114 hectares ("ha") and is located across the administrative boundary of South Cambridgeshire District Council ("SCDC") and CCoC which are therefore the Local Planning Authorities ("LPAs") for the Site. The Greater Cambridge Shared Planning Service ("GCSPS") manages planning services on behalf of SCDC and CCoC.

3.3.3 The Site is bound by:

- a small portion of the A14 to the north, and Girton College, residential properties and agricultural fields which front onto Huntingdon Road (A1307) to the north and north-east;
- residential properties located along Huntingdon Road, Ascension Parish Burial Ground, Trinity Hall (University of Cambridge student accommodation) and Trinity Hall sports grounds to the east of the Site;
- Madingley Road Park and Ride, Madingley Road (A1303), and residential properties and buildings associated with the University of Cambridge to the south; and
- the M11 motorway to the west, beyond which lies agricultural fields.

3.3.4 The local existing transport network is shown in Figure 3.2 and the key connections are referenced. Vehicular access to the Site can be gained via either (1) Huntingdon Road to the north or (2) Madingley Road to the south of the Site. Huntingdon Road and Madingley Road are linked via (3) Eddington Avenue, which traverses the south-eastern extent of the Site. Pedestrian access can be gained via the same routes. Pedestrian and cycle access can also be gained via (4) Horse Chestnut Avenue and (5) Bunkers Hill (from Huntingdon Road), as well as (6) Gravel Hill and (7) Madingley Rise to the east of the Site. The Ridgeway (8) provides a cycle route through the Site. A Public Rights of Way (Footpath 99/5) crosses the Site in the north-west corner (9), running between Huntingdon Road to Cambridge Road, and crossing beneath the M11 (10).

Figure 3.2: Existing Transport and Movement Network



3.4 Existing Land Uses and Phase 1 Eddington

3.4.1 The Site predominantly comprises grassland fields, construction areas, and sections of Huntingdon Road (A1307) and Madingley Road (A1303). Barcroft Centre and associated buildings are located within the most northerly extent of the Site, along Huntingdon Road. The Site contains areas of hard standing, including an area utilised for parking to the south of the Site. There are a variety of amenity and green spaces on the Site including swales, ponds, grassland, areas of woodland, hedgerows and individual trees. A storm water recycling system pond, which has never been commissioned, is located at the Brook Leys.

3.4.2 Traveller's Rest Pit Site of Special Scientific Interest ("SSSI") is located within the eastern extent of the Site. Washpit Brook is the closest watercourse to the Site and runs through the Site from southeast to the northwest .

3.4.3 Much of the Site comprises topsoil and clay that emerged as a result of development undertaken pursuant to the 2013 OPP at North West Cambridge.

3.4.4 Brook Leys and the central Girton Gap that form Phase 1 are located within the Green Belt.

3.4.5 Details of what was consented as part of the 2013 OPP and what has been delivered so far / under construction to form Phase 1 of Eddington is set out in the table below.

Table 3.1 Phase 1 Development Quantum

Use	Quantum Approved	Delivered in Phase 1
Residential	3,000 units (50% affordable housing to meet the needs of Cambridge University key workers, 50% market housing)	1,121 occupied of these, 686 for University key workers and 435 market homes. Total homes to come forward in Phase 1 = 1,848.
Student Accommodation	2,000 units	325
Employment/Academic Floorspace	100,000 sqm	-
Retail	5,300sqm	New Local Centre including supermarket, additional retail units and market square
Senior Living	6,500sqm	-
Hotel	130 rooms	Delivered
Primary School	-	Delivered (University of Cambridge Primary School)
Community Centre	-	Delivered (Storey's Field Centre)

3.4.6 The ability to bring forward further residential dwellings under the Outline Planning Permission (through Reserved Matters Applications) expired in 2023. As a result, the University needs to bring forward a new planning application for the Future Phases of the NWCM.

3.5 Delivered Strategic and Local Infrastructure

3.5.1 There have been a number of changes on the strategic and local transport network since the preparation of the original TA in 2013. These are summarised below and have implications on movement in the local. A full review of each is provided in **Appendix D**:

- Cambridgeshire Guided Busway
- A14 Cambridge to Huntingdon
- Cambridge North Rail Station
- Huntingdon Road Cycle Scheme
- Gravel Hill Closure and Impact
- Local Bus Service Changes Since 2012

4 BASELINE CONDITIONS – WALKING, WHEELING AND CYCLING

4.1 Introduction

4.1.1 This Section provides a description of the Site location in the context of baseline pedestrian & cycle infrastructure, utilisation and demand in the immediate area. This section also provides an audit of Phase 1 and existing infrastructure. A more detailed review of baseline conditions is provided in Appendix C.

4.2 Existing Walking Infrastructure

4.2.1 A comprehensive pedestrian network is already in place within Eddington, facilitating internal movement between residential areas, the local centre, and the Madingley Road Park and Ride facility.

4.2.2 The Ridgeway, a shared-use active travel route, provides an east–west connection through the Site, linking Huntingdon Road in the west to Gravel Hill in the east. Gravel Hill provides further connections to Madingley Road to the south and Huntingdon Road to the north, enabling access to the wider Cambridge pedestrian network.

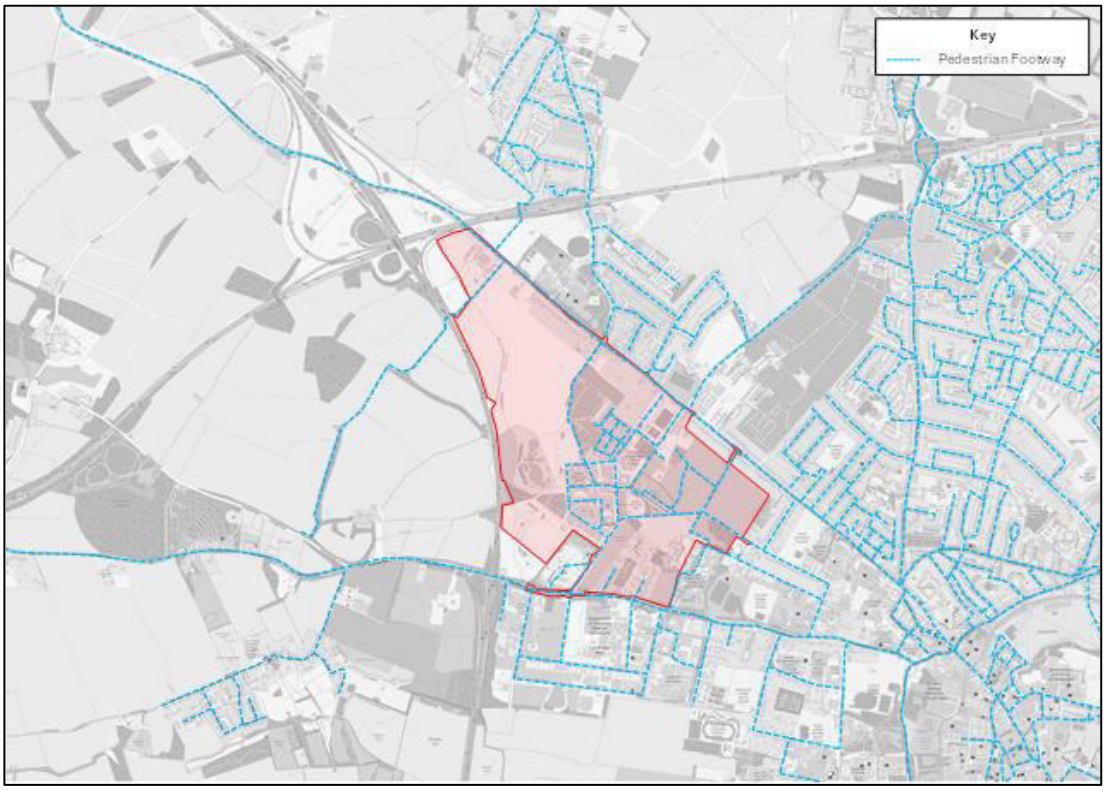
4.2.3 Pedestrian footways and shared-use paths are located along Eddington Avenue, supporting north–south movement through the Site. These routes connect with existing infrastructure along both Madingley Road and Huntingdon Road, ensuring integration with the broader active travel network.

4.2.4 Footways along Madingley Road provide eastbound pedestrian access towards Cambridge City Centre via a number of potential routes. Westbound connectivity is provided towards the village of Madingley. Additionally, Madingley Road enables pedestrian crossings between Eddington and the Cambridge West Innovation District, enhancing north–south permeability across the corridor.

4.2.5 Footways along Huntingdon Road facilitate eastbound pedestrian connectivity towards Cambridge City Centre, as well as northbound access to areas north of the city via routes such as Arbury Road and Whitehouse Lane. The corridor also supports north–south pedestrian movement between Eddington and Girton, with crossing facilities enhancing permeability across Huntingdon Road.

4.2.6 Figure 4.1 shows the local walking routes and infrastructure within the vicinity of the Site, and illustrates how Eddington integrates with the existing local pedestrian network.

Figure 4.1: Existing Walking Routes and Infrastructure



4.2.7 Figure 4.1 illustrates that there is an existing comprehensive lattice-oriented network of pedestrian footways within Eddington that connect into the wider Cambridge pedestrian network. Both north-south and east-west connectivity for pedestrians from Eddington is provided, with connections to Huntington Road, Madingley Road, and Storey's Way, respectively.

4.3 Walking Baseline Demand

4.3.1 UoC have undertaken numerous all mode travel surveys, over a number of years, to better understand existing NWC Phase 1 Development and non-development trips through the Site.

4.3.2 The 2024 surveys found that on average there were 8,327 daily trips made by walking, cycling and scooting through the Phase 1 development, an increase of 2,401 trips from 5,926 in 2023. This increase is in part due to an additional count added to the 2024 survey at the Travellers Rest crossing. Of these trips 3,568 were walking trips, making up 42.8% of the Active Travel movements through the Site.

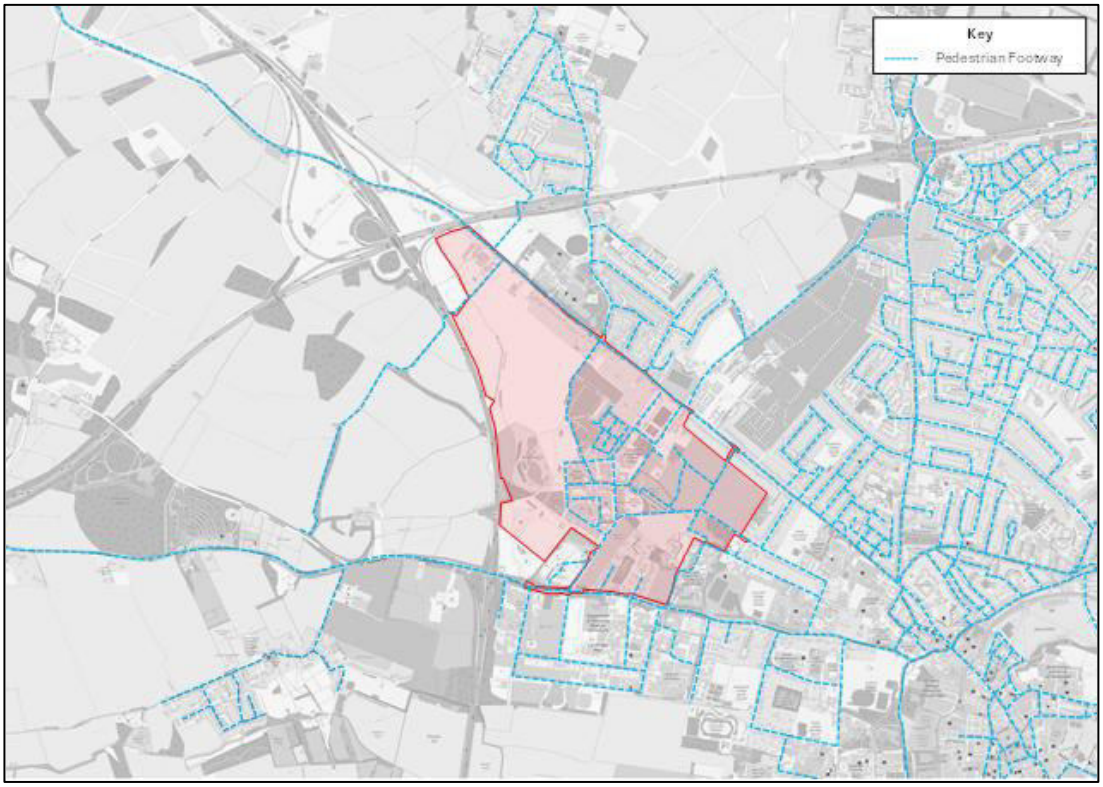
4.3.3 More detail of the survey results is presented in the North West Cambridge Development Monitoring Report (2024) which is included in Appendix C

4.3.4 Analysis of this active travel data emphasises the missing connection, between the city's existing radial routes, that NWCM can fill.

4.4 Existing Cycling Infrastructure

4.4.1 A summary of the existing cycle routes and infrastructure nearby to the Site is shown in Figure 4.2, complied from the CCo2CC website. The full cycle route and infrastructure map from a city-wide and surrounding settlement perspective is contained within Appendix E.

Figure 4.2: Existing Cycle Routes and Infrastructure



4.4.2 As shown in Figure 4.2, there is a range of cycling routes and infrastructure within the vicinity of the Site that provide connections to key areas. The infrastructure varies between a mixture of on-road and off-road (separated from traffic).

4.4.3 There are existing cycle routes that run through Eddington, along Eddington Avenue and Turing Way. The Ridgeway Cycle route is 900m of dedicated cycleway that traverses through the Site from Huntingdon Road and connects into Gravel Hill to the east.

4.4.4 Local cycle routes run eastbound along both Huntingdon Road and Madingley Road and connect into the city-centre cycle network. North-south cycle routes that cross Madingley Road and Huntingdon Road in a number of locations also provide connections to Cambridge West and to the northern fringe of Cambridge.

4.4.5 There is existing cycle infrastructure on the northern side of Huntingdon Road to the west of the Site that provides connections to Bar Hill. A PRoW path, although narrow, is also provided from the northern end of Huntingdon Road linking across St Johns land and then over the A14

towards Girton via a pedestrian/cycle bridge. On Madingley Road, a cycleway on the northern side of the carriageway provides a connection to Madingley.

4.5 Cycling Baseline Demand

4.5.1 As outlined above, 2024 surveys found that on average there were 8,327 daily trips made by walking, cycling and scooting through the Phase 1 development. Of these trips 4,759 were cycling/scooter trips, making up 57.2% of the Active Travel movements through the Site.

4.6 Wheeling and Micromobility

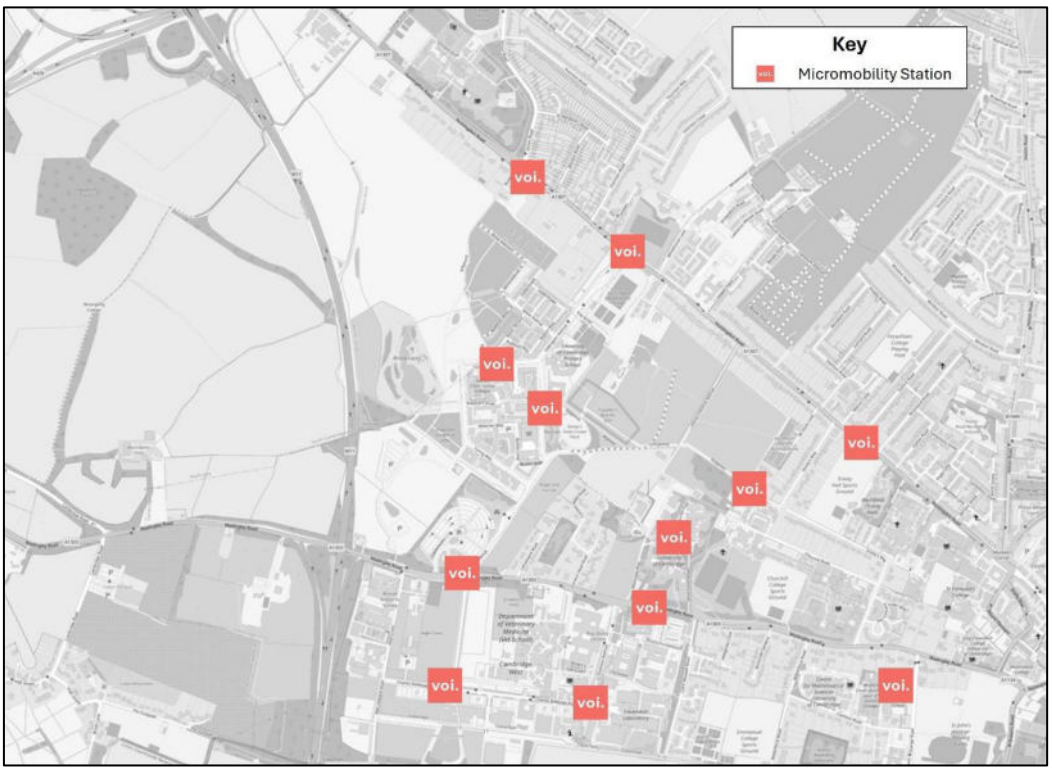
4.6.1 Micromobility refers to a range of small, often lightweight, electric vehicles, which are driven by the user. This includes electric scooters (e-scooters) and electric bicycles (e-bikes). Micromobility, similar to cycling, offers a sustainable way of travelling shorter distance trips within urban areas.

4.6.2 Within Cambridge, 'VOI' operates all micromobility hire services which consist of a fleet of shared e-bikes and shared e-scooters that are docked at a number of stations throughout the city. Users can hire the vehicles on-demand via a smartphone application, or pre-book day/weekly passes to travel around Cambridge.

4.6.3 There are currently three micromobility stations (operated by VOI) within Eddington. These are located on Eddington Avenue, adjacent to the Storeys Field Community Centre, on Turing Way, and the Ridgeway. There is also a number of micromobility stations on Madingley Road and Huntington Road, as well as two within Cambridge West.

4.6.4 Figure 4.3 presents a summary of the micromobility stations operated by VOI that are within the Site or located nearby to the Site.

Figure 4.3: Micromobility Stations (VOI)



4.6.5 Within Cambridge, there are a number of VOI stations within the city and on the outskirts. This includes locations such as Cambridge Railway Station, Cambridge City Centre, Cambridge Biomedical Campus and Cambridge Science Park.

4.6.6 Wheelchair access has been designed into and audited as part of the Phase 1 development in terms of accessibility to key buildings, public transport, crossings and leisure land uses.

4.7 Public Rights of Way

4.7.1 A series of Public Rights of Way (PROW) are located within and nearby to the Site. Public Footpath '99/5' runs across the northwest of the Site, between Huntingdon Road and land to the southwest of the M11 via an at-grade separated route under the carriageway. This footpath continues as Public Footpath '154/3' southbound to Madingley Road via Trinity Land (between M11 and UoC land). As part of the A14 improvements, National Highways included a scheme to upgrade Public Footpath '99/4' and '99/5' to a Bridleway and then connect this route to Madingley Road via Bridleway '154/2'. This scheme is yet to be implemented.

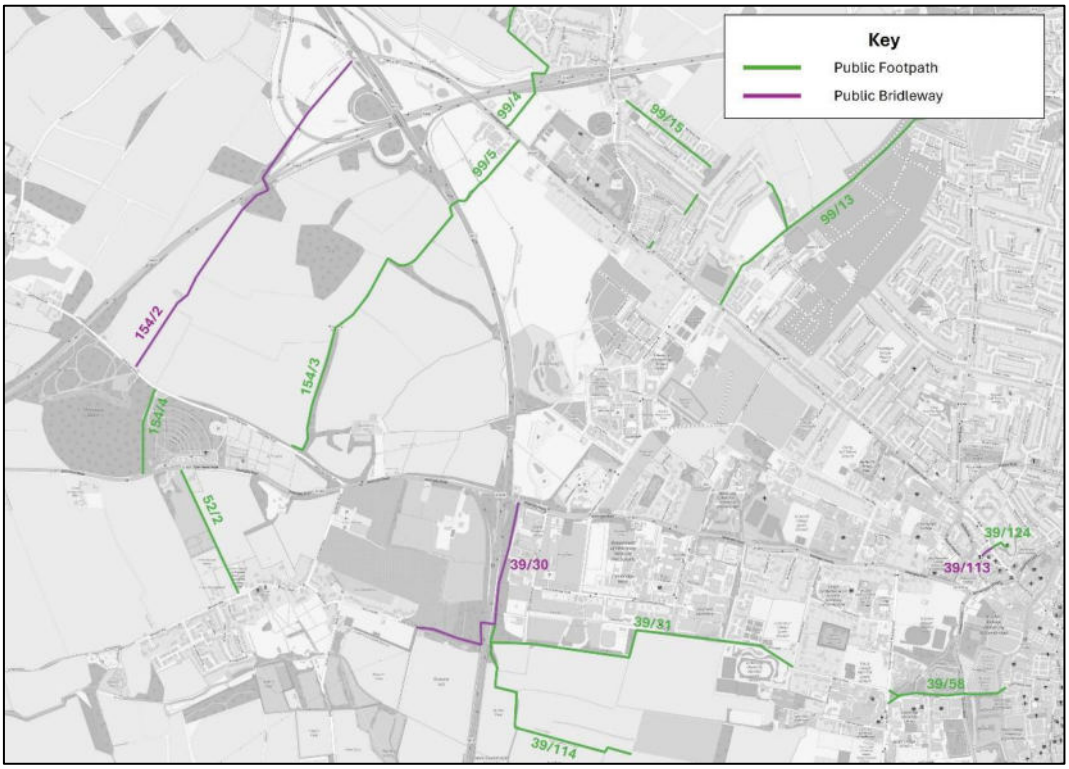
4.7.2 To the north of the Site, Public Footpath '99/4' provides a connection from Huntington Road to Girton, via a grade separated pedestrian bridge over the A14 after it passes through St John's land.

4.7.3 To the southeast of the Site on Huntingdon Road, Public Footpath '99/13' runs northbound from Huntingdon Road to Milton Road to the north of Cambridge.

4.7.4 South of the Site, Public Bridleway '39/30' runs from Madingley Road adjacent to the M11 (southbound) within the Cambridge West site. This Public Bridleway connections to Public Footpath '39/30', which runs east-west towards Queens Road.

4.7.5 A summary of the existing PROW's within and nearby to the Site are shown in Figure 4.4.

Figure 4.4: PROW's In Vicinity of Site



4.7.6 In conjunction with the existing walking and cycle network, the existing PROWs provide connectivity to Cambridge City Centre, North/Northeast Cambridge, Girton and the wider area.

4.7.7 Currently cycling (and wheeling) is not permitted nor very achievable between the A14, the Site and M11.

4.8 Active Travel Network Audit

4.8.1 As part of the Phase 1 Audit KMC have also undertaken an Active Travel Audit to determine constraints, failings, issues and also opportunities on the wider existing active travel network surrounding NWCM. This Audit is included in Appendix C and a summary is provided below. Measures considered to mitigate these issues are outlined in Section 12:

- Turing Way connection to Ridgeway
- Eddington Avenue cycleway from the northern junction with Turing Way
- Ridgeway / Storey's Field
- Eddington Avenue crossing
- Inconsistent tactile paving

- Better wayfinding required within UoC land ownership
- Need for better active travel access to and along Madingley
- Two stage crossings are provided at Madingley Road / Eddington junction and there is a long signal cycle time, meaning delays to pedestrians and cyclists
- Cyclists using the footway along Huntingdon Road and limited cycle infrastructure at northern end of Huntingdon Road
- Missing footway at northern end of Huntingdon Road towards A14 bridge and Bar Hill.
- Buses and cars queueing to turn right into Eddington Avenue from Huntingdon Road block ahead movements due to only having dedicated right turn green arrow
- Poor crossing facilities over Huntingdon Road at its northern end.

4.8.2 Improvements to address items highlighted by the audit are included within this TA.

5 BASELINE CONDITIONS – PUBLIC TRANSPORT

5.1 Introduction

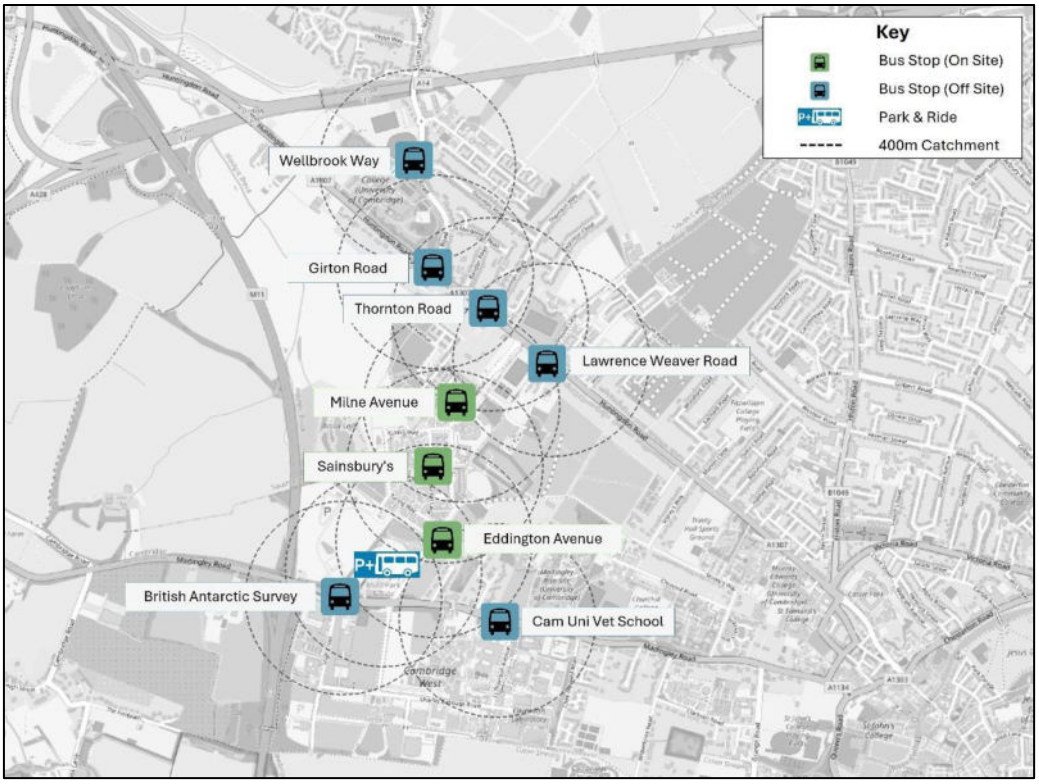
5.1.1 This Section provides a summary of the Site location in the context of public transport facilities, services, demand and utilisation in the immediate area. A more detailed review of baseline conditions is provided in Appendix C.

5.2 Existing Bus Network

5.2.1 The existing Eddington development and the area surrounding the Site is well-served by a number of bus services and routes, providing connectivity to a range of destinations.

5.2.2 A summary of the bus stops and interchanges in relative to the Site is provided in Figure 5.1.

Figure 5.1: On-Site and Off-Site Bus Stops and Interchanges with 400m Catchment Buffer



5.2.3 Figure 5.1 shows there are three existing on-site bus stops at Eddington. Two bus stops within the vicinity of the Site are located along Madingley Road, and three on Huntingdon Road as well as a bus stop on Wellbrook Way. In addition to bus stops, Madingley Road Park and Ride facility is located immediately south of the Site.

Existing Bus Services in Eddington

5.2.4 The existing Eddington site is well-served by a number of routes, operating from bus stops within the Site. This includes bus stops such as 'Milne Avenue', 'Sainsbury's' and on Eddington Avenue to the south.

5.2.5 All bus stops are sheltered with seating facilities provided, with real-time passenger information (RTPI) provided.

5.2.6 Bus services Universal 1 (U1) and Universal 2 (U2) serve the existing Eddington site, operated by Whippet, and provide connections to destinations such as Girton, the Cambridge Biomedical Campus (CBC), Cambridge railway station, and Cambridge city centre. The U1 and U2 buses operate on the Cambridge Guided Busway (CGB) between Cambridge railway station and the CBC.

5.2.7 The Tiger 2 (commenced 27th May 2025) and is funded by the mayoral precepts, to connect the park and rides with an orbital route, via Newmarket, Milton park and rides, then on to Impington Village College, through Eddington and terminates at Madingley Road Park and Ride.

5.2.8 An Autonomous Vehicle (AV) trial is currently taking place between Eddington and the Cambridge West innovation district. This commenced on the 16th of June 2025 and is being funded by the Greater Cambridge Partnership (GCP), with Whippet providing the safety drivers. A summary of the bus services servicing the existing Eddington site is provided in Table 5.1.

Table 5.1: Summary of Bus Services – Eddington

Service	Route	Peak Frequency			First / Last Service		
		Mon-Fri.	Sat.	Sun.	Mon-Fri.	Sat.	Sun.
U1	Girton Corner – CBC	2 buses per hour	1 bus per hour	1 bus per hour	06:22/ 22:34	07:54/ 22:45	08:24/ 19:55
U2	Eddington – CBC	2 buses per hour	1 bus per hour	1 bus per hour	06:05/ 21:54	07:28/ 21:5	07:27/ 18:53
Tiger 2	Newmarket Rd/Milton Rd P&R Impington – Eddington – Madingley Rd P&R	1 bus per hour		-	06:41 / 21:41		-
Autonomous Vehicle	Eddington – West Cambridge	Trial Period – half hourly 07:30 – 09:18 & 1530 - 1718					

Existing Bus Services on Madingley Road

5.2.9 Bus stops along Madingley Road accommodate routes, 4, 905, and X3 which are operated by Stagecoach East, Whippet and Dews Coaches. This includes bus stops such as the 'British Antarctic Survey' bus stop and the 'Cam Uni Vet School' bus stop.

5.2.10 The routes operating from these bus stops provide services to destinations such as Cambourne, Huntingdon, Bedford, Godmanchester, and St Neots. A summary of the bus services operating from Madingley Road is provided in Table 5.2.

Table 5.2: Summary of Bus Services – Madingley Road

Service	Route	Peak Frequency			First / Last Service		
		Mon-Fri.	Sat.	Sun.	Mon-Fri.	Sat.	Sun.
4	Cambridge – Cambourne	3 buses per hour	3 buses per hour	1 bus per hour	06:17 / 23:17	06:17 / 23:17	09:17/ 18:17
X3	Huntingdon – Addenbrookes	2 buses per hour	1 bus per hour	1 bus per hour	05:53/ 19:48	05:53 / 21:43	05:53 / 21:43
905	Bedford – St Neots – Cambridge	2 buses per hour	2 buses per hour	1 bus per hour	06:10/ 23:20	06:10/ 23:20	08:20/ 20:20

Existing Bus Services on Huntington Road

5.2.11 Bus stops along Huntingdon Road accommodate routes 5 and 6, which are both operated by Stagecoach East. This includes bus stops such as the 'Lawrence Weaver Road' bus stop and 'All Souls Lane' bus stop.

5.2.12 The routes operating from these bus stops provide services to destinations including Cambridge city centre, Bar Hill, Longstanton, St Ives and Oakington. A summary of the bus services operating from Huntingdon Road are provided in Table 5.3.

5.2.13 A bus lane is currently provided along Huntingdon Road starting northwest of the Site. Site observations suggest this inbound bus lane is not regularly used during peak periods as queueing back from Girton Road is minimal.

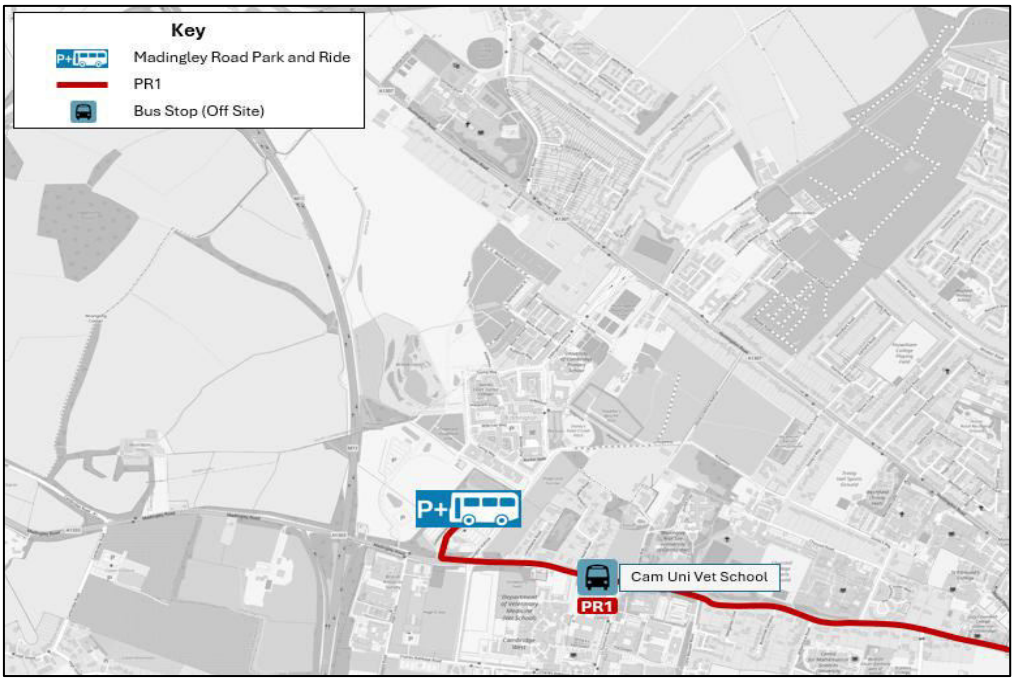
Table 5.3: Summary of Bus Services – Huntingdon Road

Service	Route	Peak Frequency			First / Last Service		
		Mon-Fri.	Sat.	Sun.	Mon-Fri.	Sat.	Sun.
5	Cambridge – Bar Hill – Longstanton	2 buses per hour	2 buses per hour	1 bus per hour	05:53 /23:43	05:53 / 23:43	09:03/ 18:03
6	Cambridge – Girton – Oakington	2 buses per hour	2 buses per hour	1 bus per hour	07:06 / 19:08	07:06 / 19:08	08:31 / 18:31

Park and Ride

5.2.14 Madingley Road park and ride (P&R) is located immediately south of the Site, on the northern side of Madingley Road. Vehicular access to the P&R is achieved through a signalised junction with Madingley Road to the south, with walking, cycling and wheeling access achieved from Eddington Avenue to the northeast. The P&R site has provision for car and cycle parking, as well as facilities such as shelters. The location of the Madingley Road P&R site is shown in Figure 5.2 below.

Figure 5.2: Madingley Road P&R Site



5.2.15 There are frequent bus services operated by Stagecoach East between the P&R and Cambridge city centre. A summary of the bus services operating from Madingley Road P&R is provided in Table 5.4.

Table 5.4: Madingley Road P&R – Summary of Services

Service	Route	Peak Frequency			First / Last Service		
		Mon-Fri.	Sat.	Sun.	Mon-Fri.	Sat.	Sun.
PR1	Madingley Road P&R – Central Cambridge	6 buses per hour	6 buses per hour	4 buses per hour	07:00/ 20:10	08:00/ 20:10	08:50/ 17:50
PR1	Central Cambridge – Madingley Road P&R	6 buses per hour	6 buses per hour	4 buses per hour	07:20/ 20:30	08:20/ 20:30	09:10/ 18:10

5.2.16 Table 5.4 demonstrates that there are frequent services between the existing Madingley Road P&R, located immediately south of the Site, and Cambridge city centre, where a range of employment, leisure, recreation and retail facilities and services are located.

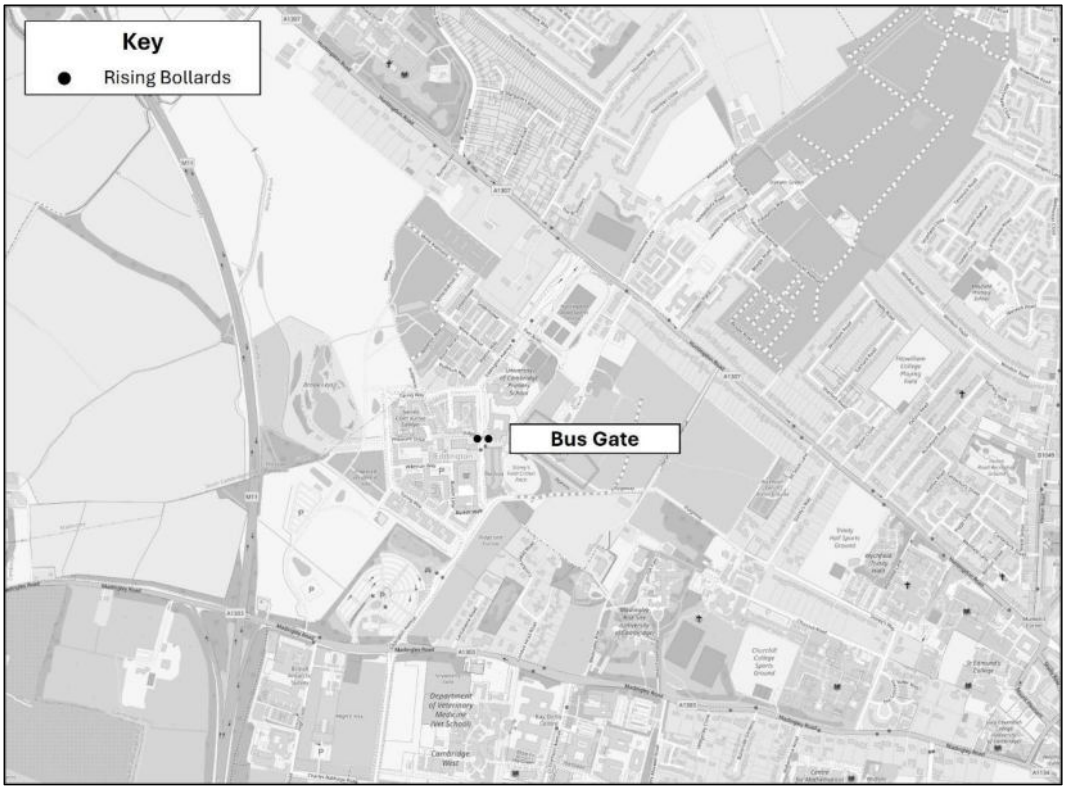
Bus Priority Infrastructure

5.2.17 There are currently rising bollards on Eddington Avenue nearby to the Local Centre that are active Monday-Friday between 07:00-19:00. During these times, only buses (and other approved vehicles) are able to access Eddington Avenue. All other vehicles must travel via Turing Way. The necessity and principles of this infrastructure was agreed with Cambridge City Council as part out of the Outline Planning Permission (OPP) for the Site (ref: 11/1114/OUT) and formed part of Condition 39.

5.2.18 These rising bollards are due to be replaced in the autumn of 2025 by ANPR cameras as agreed with Cambridgeshire County Council in a Non-Material Amendment to the access control public transport route, condition 39. Ref: 15/1553/S73 Date 01/10/24 with 24-hour operation supporting approved buses, taxis and other authorised vehicles only.

5.2.19 The location of these rising bollards along Eddington Avenue is shown in Figure 5.3 below.

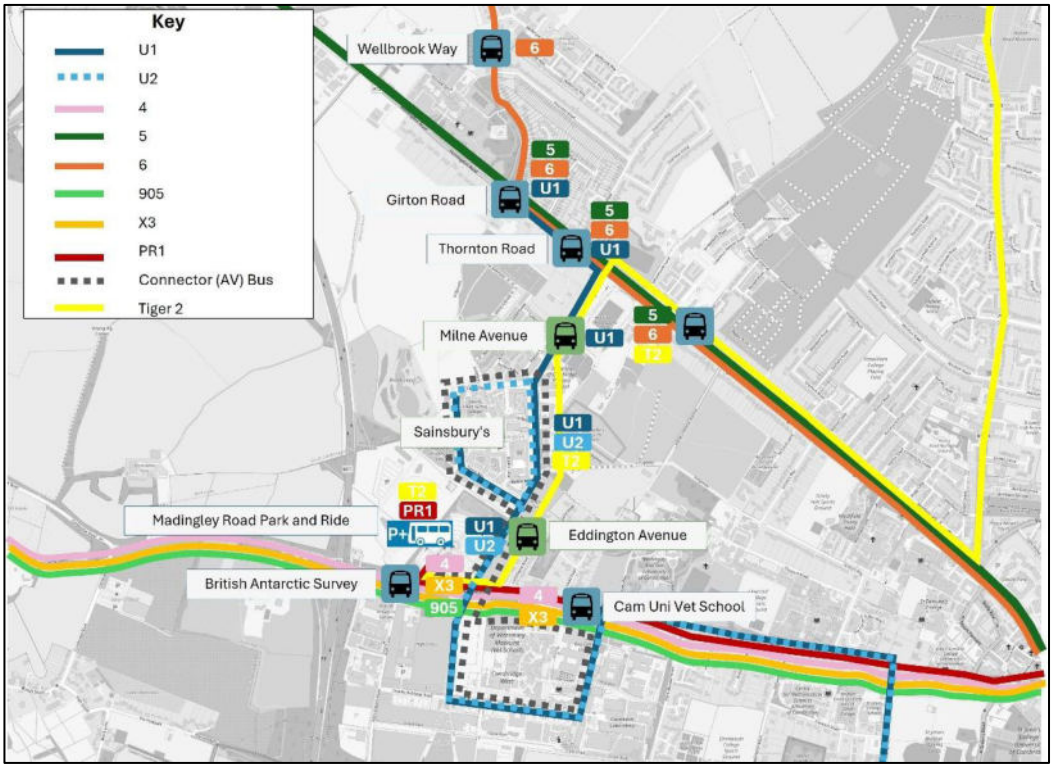
Figure 5.3: Location of Bus Gate Rising Bollards (Eddington Avenue)



Summary Of Bus Services

5.2.20 A summary of all bus services that serve existing on-site and nearby off-site bus stops and interchanges is shown in Figure 5.4.

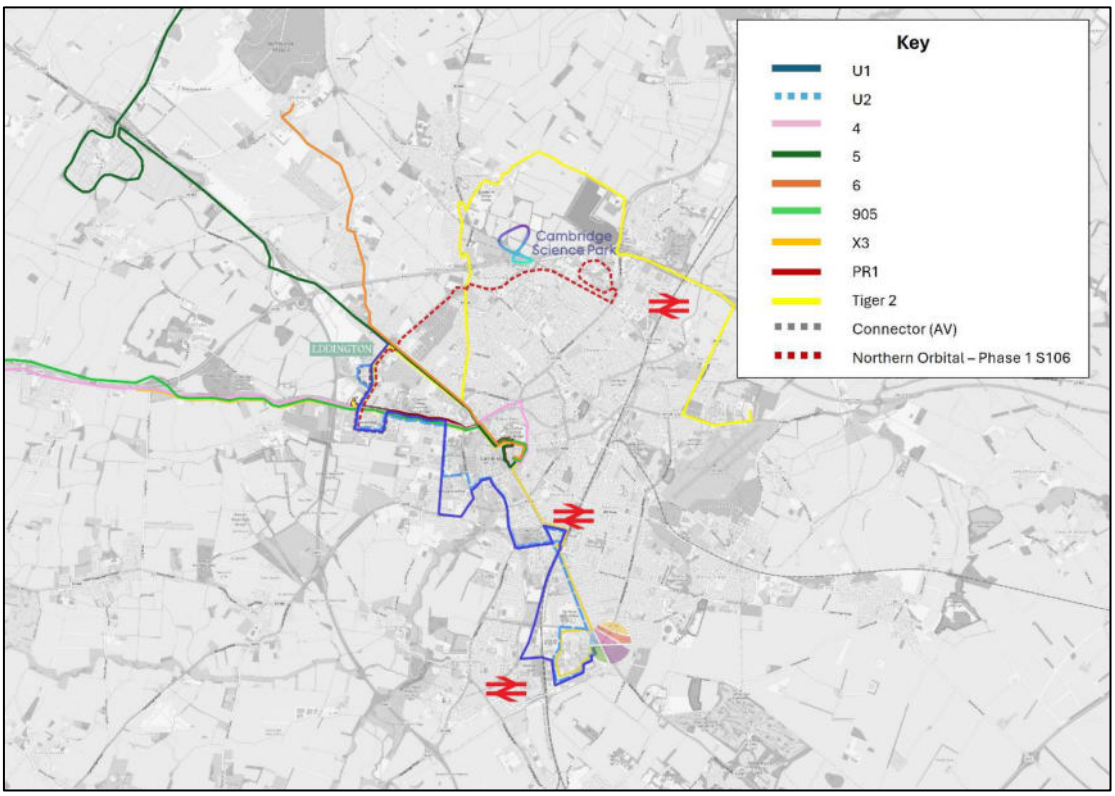
Figure 5.4: Routes Serving On-Site and Off-Site Bus Stops and Interchanges



5.2.21 Figure 5.5 below highlights the existing routes in a Cambridge context of bus services that operate from bus stops on, or located nearby, to the Site This includes bus services that operate from bus stops on Huntingdon Road or Madingley Road, as well as the Madingley Road Park and Ride site.

5.2.22 Currently there is a lack of connectivity to Barton Road from the Site.

Figure 5.5: Bus Service Routes (Cambridge Context)



5.2.23 Figure 5.5 illustrates that the existing Eddington site is well served by multiple bus routes. Routes PR1, 905, 6, 5, and 4 all provide connections into the centre of Cambridge, whilst the X3 continues further on to Cambridge Railway Station and Cambridge Biomedical Medical Campus vis Hills Road. Figure 5.5 includes the Northern Orbital Route which is not yet in place.

5.2.24 Bus services U1 and U2 provide connections to the Cambridge West Innovation site to the south, as well as southeast Cambridge. The U1 and U2 both also serve Cambridge Railway Station and continue onto the Cambridge Biomedical Campus (CBC) via the Cambridge Guided Busway (CGB) and Hills Road, respectively.

5.2.25 There is currently limited public transport connectivity between the Site and the Science Park / Cambridge North Station. Whilst the U1 and U2 currently provide frequent services to/from CBC to the southeast, the demand for an express service along this route is high.

5.3 Existing Rail Network

5.3.1 The nearest railway station to the Site is Cambridge central station, which is approximately 4.0km south east (as the crow flies).,. Cambridge railway station is located at the northern terminus of the West Anglian Mainline.

5.3.2 The railway station is currently managed by Greater Anglia and has a number of facilities available, including a ticket office, self-service ticket machines, refreshment facilities, retail facilities, seating, public toilets and waiting rooms.

5.3.3 The station has an approximate 330 space car park (including 23 accessible spaces). Cycle parking is also provided adjacent to the station, with 2,850 covered and CCTV-monitored spaces provided in a dedicated multi-level cycle park.

5.3.4 Cambridge railway station is served by train services operated by Greater Anglia, Great Northern, Thameslink and Cross County. A summary of the services operating from Cambridge railway station is provide in Table 5.5.

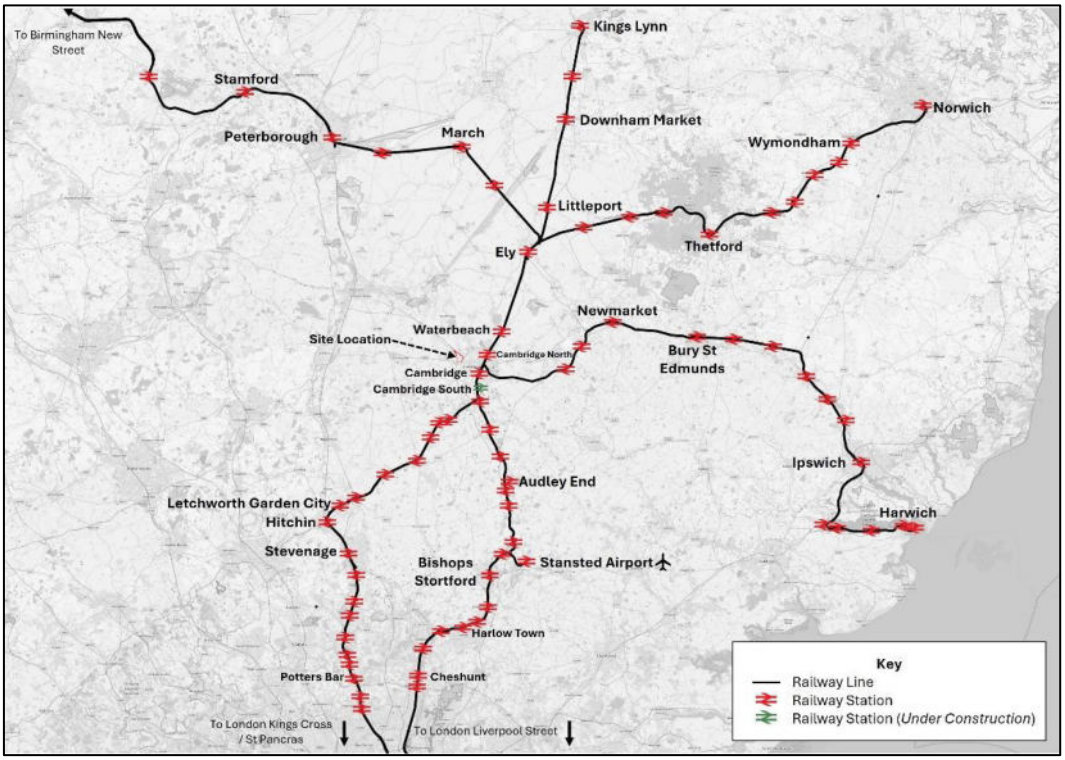
Table 5.5: Cambridge Railway Station Summary of Services

Destination	Peak Frequency (Weekday)	Approximate Journey Time
Cambridge North	5 trains per hour	5-minutes
Ely	4 trains per hour	20 minutes
Kings Lynn	2 trains per hour	50 minutes
Stansted Airport	1 train per hour	40 minutes
Birmingham New Steet	1 train per hour	150 minutes
Norwich	1 train per hour	75 minutes
London Kings Cross	3 trains per hour	50 minutes
London Liverpool Street	3 trains per hour	80 minutes
Brighton (via London St Pancras)	2 trains per hour	150 minutes
Ipswich	1 train per hour	75 minutes

5.3.5 Services illustrated in Table 5.5 also directly serve intermediate railway stations, including, but not exclusive to, Waterbeach (10-minutes), Royston (20-minutes), Newmarket (20-minutes), Letchworth Garden City (30-minutes), Welwyn Garden City (50-minutes), Peterborough (50-minutes), Bury St Edmunds(40-minutes) Leicester (90-minutes), Harlow Town (45 minutes), and Gatwick Airport (100-minutes).

5.3.6 Figure 5.6 shows a rail network plan from Cambridge, highlighting key destinations that can be reached via a direct service.

Figure 5.6: Rail Service Plan



5.3.7 The Site is connected to Cambridge railway station by bus services U1 and U2, which provide frequent services with an approximate journey time of 30 minutes.

5.3.8 Cambridge North railway station, formally opened in 2017, is also located approximately 4.9km northeast of the Site and is situated on the Fen Line. The station, operated by Greater Anglia, has provision for 428 car parking spaces and 1,000 covered and CCTV monitored cycle parking spaces, as well as a number of facilities such as a ticket office, self-service ticket machines, seating, and shelters. A summary of the services operating from Cambridge North Railway Station is provided in Table 5.6.

Table 5.6: Cambridge North Railway Station Summary of Services

Destination	Peak Frequency (Weekday)	Approximate Journey Time
Cambridge	5 trains per hour	5 minutes
London Kings Cross	2 trains per hour	65 minutes
Ely	4 trains per hour	15 minutes
Kings Lynn	2 trains per hour	45 minutes
London Liverpool Street	2 trains per hour	95 minutes
Norwich	1 train per hour	80 minutes
Stansted Airport	1 train per hour	45 minutes

5.3.9 Services displayed in Table 5.6 also serve intermediate stations such as Royston, Letchworth Garden City, Waterbeach, Harlow Town, and Downham Market.

5.3.10 Cambridge South Railway Station is located approximately 7.0km southeast of the Site, within the Cambridge Biomedical Campus, and is currently under construction with a scheduled opening date of Spring 2026. Cambridge South Railway Station will be situated on the West Anglian Mainline.

5.3.11 Whilst no timetable has been published for Cambridge South Railway Station, services are expected to be similar to those from Cambridge Railway Station.

5.3.12 A summary of the location of the three railway stations within Cambridge in relation to the Site is shown in Figure 5.7.

Figure 5.7: Cambridge Railway Stations

6 BASELINE CONDITIONS – HIGHWAY NETWORK

6.1 Introduction

6.1.1 This Section provides a review of the local highway network in terms of its operation, safety record and wider Cambridge Transport Strategy.

6.2 Internal Highway Network

6.2.1 There is an existing road network on the Site, which was built as part of the consented Phase 1 scheme.

6.2.2 Eddington Avenue runs at a north west bearing through the spine of the Site that connects to Huntingdon Road (A1307) and Madingley Road (A1303) to the north and south, respectively. Eddington Avenue is single lane carriageway and subject to a posted speed limit of 20mph. Whilst not currently adopted it is built to adoptable standards. Eddington Avenue has rising bollards that are active from 07:00-19:00 every day, to prevent the movement of through traffic along this route.

6.2.3 In the centre of the Site, Eddington Avenue connects with Turing Way. Turing Way routes westbound from Eddington Avenue before routing southbound to provide a connection to a number of residential plots and roads, such as Pheasant Drive and Wileman Way. Turing Way continues southbound before routing eastbound and re-connecting onto Eddington Avenue. Unlike Eddington Avenue, Turing Way is open to all traffic across the day.

Through-Movements

6.2.4 In March 2025, Automatic Number Plate Recognition (ANPR) surveys were undertaken at both ends of Eddington Way and at key points across the local study network, including Girton Road, Madingley Road, and Huntingdon Road. The primary purpose of the data collection was to quantify the proportion of traffic using Eddington Way and Turing Way as a through-route, rather than for trips with an origin or destination within Eddington.

6.2.5 For the purposes of this analysis, through-traffic is considered to be vehicles with their plates matched at the northern and southern extents of Eddington Way (i.e., trips made between Madingley Road and Huntingdon Road, or vice versa) with a journey time of 10 minutes or less. If a trip took longer, it may conceivably have included running an errand within Eddington, thus ruling it out from being categorised as through-traffic.

6.2.6 Table 6.1 summarises the findings of this analysis. It outlines the total volume of two-way traffic throughout the 12-hour survey period (07:00-19:00) reported along Eddington Avenue in addition to the quantum of vehicle trips considered to be through-traffic during the same period.

Table 6.1: ANPR Analysis – Through-Traffic Proportion via Eddington Avenue

Hour Commencing	Through-Traffic (1)			Total Traffic (2)			% Through-Traffic		
	NB	SB	2-Way	NB	SB	2-Way	NB	SB	2-
07:00	46	256	302	102	379	481	45%	68%	63%
08:00	76	191	267	239	465	704	32%	41%	38%
09:00	54	119	173	126	214	340	43%	56%	51%
10:00	30	84	114	89	143	232	34%	59%	49%
11:00	46	66	112	95	145	240	48%	46%	47%
12:00	45	62	107	105	130	235	43%	48%	46%
13:00	41	58	99	106	117	223	39%	50%	44%
14:00	67	55	122	123	156	279	54%	35%	44%
15:00	79	75	154	222	197	419	36%	38%	37%
16:00	119	57	176	216	175	391	55%	33%	45%
17:00	106	70	176	224	192	416	47%	36%	42%
18:00	71	30	101	153	108	261	46%	28%	39%
12-Hour	780	1123	1903	1800	2421	4221	43%	46%	45%

(1) Trip between Madingley Road and Huntingdon Road (or vice versa) completed in < 10 minutes via Eddington Avenue and Turing Way.

(2) All vehicle movements on Eddington Avenue reported immediately south of Huntingdon Road

6.2.7 The findings show that through-traffic accounted for 38% and 42% of all two-way movements on Eddington Avenue during the AM and PM network peak hours, respectively. Across the full 12-hour survey period, the share of through-traffic rose to 45%. The highest hourly proportion was recorded between 07:00–08:00 (63%), which may reflect the lower baseline traffic volumes relative to the subsequent AM peak.

6.2.8 Through traffic in part occurs because of limitations to the existing strategic network to make these movements, for example no northbound or southbound off slips at M11 J13.

6.2.9 Whilst through traffic for cars is an important consideration, it should be noted that counts showed that approximately 560 cycle movements were recorded, either along Bunkers Hill or along Eddington Avenue, travelling to/ from the northwest over a 12 hour period. This shows that active travel will need to be prioritised over the private car to ensure these movements and new NWCM active travel movements are accommodated safely through Future Phases.

6.3 Highway Network

6.3.1 A summary of the highway network and key junctions as detailed within Appendix C is displayed in Figure 6.1.

6.3.2 The internal highway network links to the local highway network, as the site is located between two main routes leading from the M11 to the centre of Cambridge – the A1303 Madingley Road and A1307 Huntingdon Road.

6.3.3 Eddington Avenue forms a signalised four arm junction with Madingley Road, located to the south of the development. Madingley Road is a single lane carriageway that runs at an east west bearing. In the vicinity of the site, Madingley Road has a posted speed limit of 40mph which reduces to 30mph towards the centre of Cambridge to the east, near the junction with JJ Thomson Avenue. To the east, Madingley Road connects to the A1134 (Queens Road) and Northampton Street, and provides connections into the centre of Cambridge. To the west, Madingley Road provides a connection to the M11 and also to Madingley (via Cambridge Road) and to the A428.

6.3.4 To the north of the site, Eddington Avenue forms a signalised three armed junction with Huntingdon Road. Huntingdon Road is a single lane carriageway with a posted speed limit of 40mph in the immediate vicinity of the site, that reduces to 30mph to the east nearer to the centre of Cambridge. To the east, Huntingdon Road provides a connection to the A1143 (Victoria Road) and Castle Street, which connect to the centre of Cambridge. To the west, Huntingdon Road provides a connection to the M11 and also continuous westbound towards Huntingdon via Longstanton.

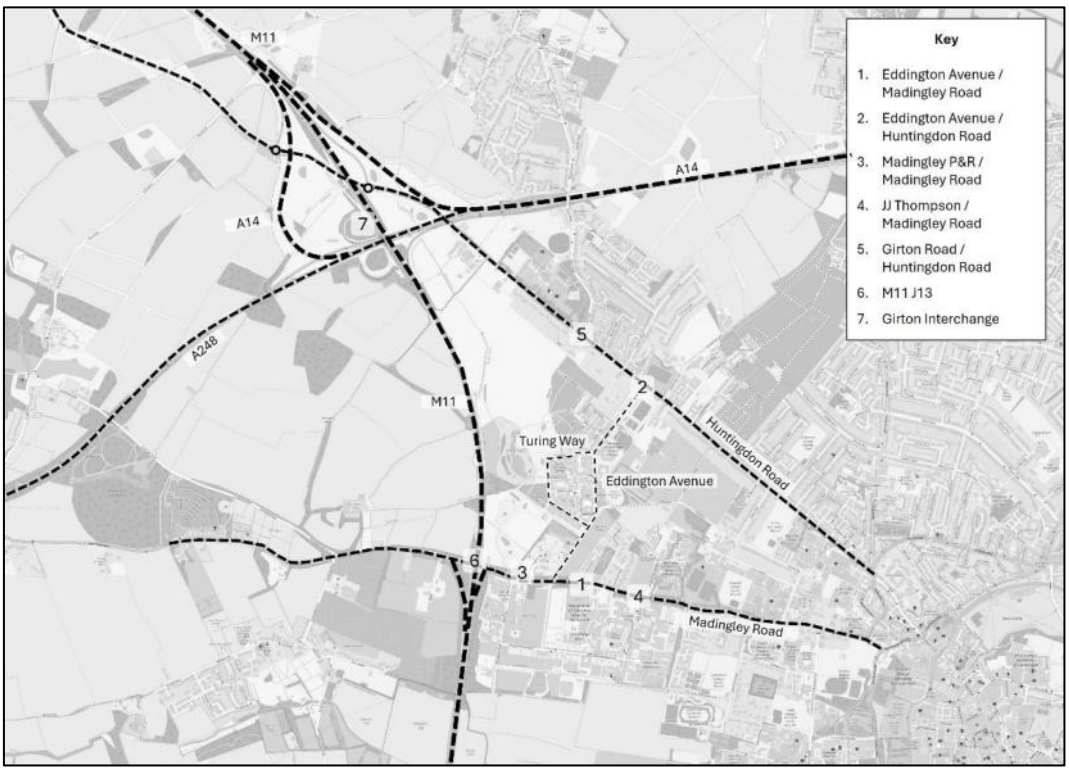
6.3.5 Eddington Avenue junctions were delivered to support the previous scheme up to 3,000 dwellings, based on a high car mode share estimate.

6.3.6 As outlined previously, queueing back along Huntingdon Road from Girton Road towards the A14 occurs infrequently, negating the need for the existing inbound bus lane in this location.

6.3.7 Madingley Rise is located to the southeast of the site, off Madingley Road, is the current access road to the UoC's Madingley Rise site and Institute of Astronomy.

6.3.8 Storeys Way, located to the east of the site, forms a link between Huntingdon Road and Madingley Road. Gravel Hill is a predominantly residential road with traffic calming measures.

Figure 6.1: Summary of Highway Network

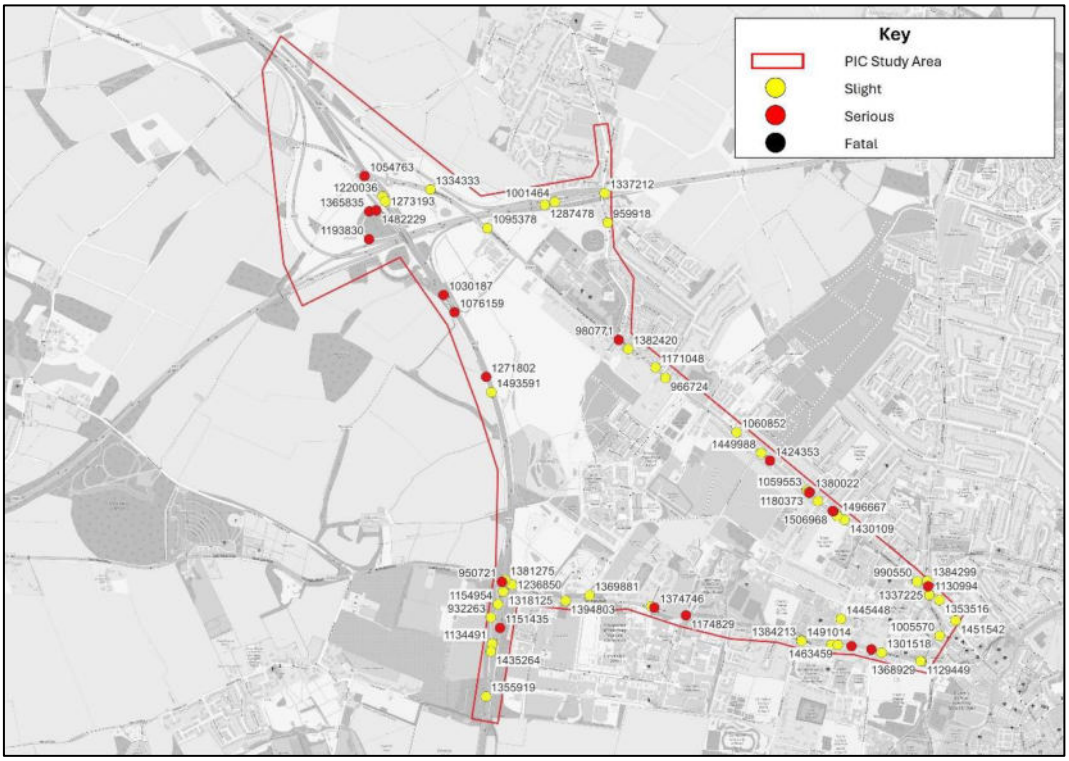


6.4 Road Safety

6.4.1 Personal Injury Collision (PIC) records for the highway network in the vicinity of the Site have been obtained from CCoC. As agreed with CCoC Highways as part of the pre-application scoping process, the records cover the most readily available full five-year period (2020-2024) for the area outlined in Figure 6.2, which has been agreed with CCoC Highways for assessment.

6.4.2 A summary of all PICs that occurred within the study area, classified by 'severity' between 2019-2024 is presented in Figure 6.2 below.

Figure 6.2: PIC Data (2020-2024) – All Vehicles



6.4.3 The PIC data has been reviewed to identify any PIC cluster locations (where multiple PIC's have recorded to have occurred within 25m of each other) and identify common causation factors within clusters that could highlight any existing safety issue.

6.4.4 Table 6.2 provides a breakdown of all PICs within the study area (Figure 6.2).

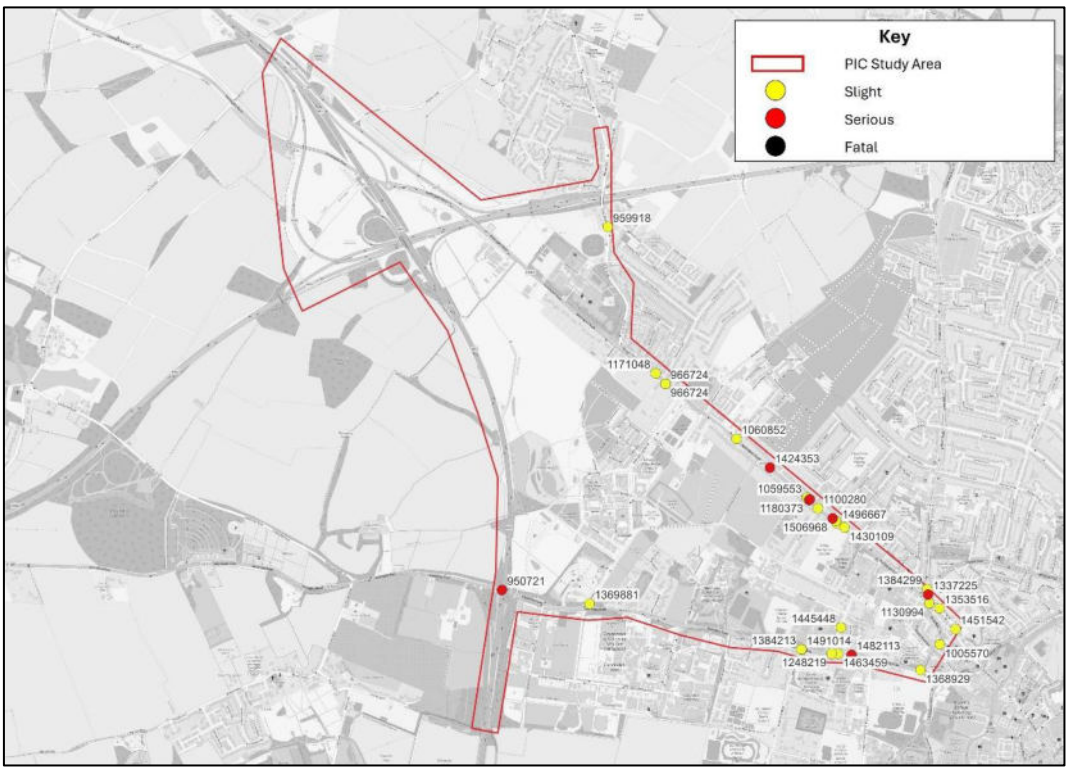
Table 6.2: PIC Data (2020-2024) – By Year

Year	Slight	Serious	Fatal	Total
2020	6	2	0	8
2021	7	4	0	11
2022	8	3	0	11
2023	14	6	0	20
2024	10	5	0	15
Total	45	20	0	65

6.4.5 Table 6.2 shows there have been 65 PICs recorded within the study area the last full five-year period (2020-2024). Of these, 45 (69%) were marked as slight, 20 (31%) as serious and 0 (0%) as fatal.

6.4.6 Figure 6.3 shows the recorded PICs within the study area that that involved a non-motorised user casualty (a pedestrian or cyclist).

Figure 6.3: PIC Data (2020-2024) – Pedestrian / Cyclist Casualty



6.4.7 Table 6.3 provides a breakdown of the PICs that involved a pedestrian and/or cyclist casualty, as shown within Figure 6.3.

Table 6.3**:** Pedestrian or Cyclist Casualty PIC Data (2020-2024) – By Year

Year	Slight	Serious	Fatal	Total
2020	4	1	0	5
2021	4	0	0	4
2022	4	0	0	4
2023	5	2	0	7
2024	4	6	0	10
Total	21	9	0	30

6.4.8 Table 6.3 shows there have been 30 PICs recorded within the study area the last full five-year period (2020-2024) that involved a pedestrian or cyclist casualty. Of these, 21 (70%) were marked as slight, 9 (30%) as serious and 0 (0%) as fatal.

6.4.9 For locations within the study area where more than five PIC's (e.g., a potential cluster) have been recorded over the last five year period (2020-2024), a further assessment has been provided and this is provided in Appendix C.

Road Safety summary

6.4.10 The road safety assessment presented within this TA, above and Appendix C, illustrates that there has been a total of 30 recorded PICs within the study area over the last full five-year period. No fatal PICs were recorded. An assessment of any potential clusters has shown that there is no clear clusters with inherent causation factors. Site access junctions implemented for Phase 1 have no significant accident records nor issues.

6.4.11 It may therefore be concluded that there are no significant road safety issues in this area.

7 BASELINE CONDITIONS – SUPPORTING TRAVEL SURVEYS & DATA

7.1 Local Travel Characteristics

Census – Mode Share

7.1.1 Table 7.1 outlines the 2011 'Travel to Work' mode share (residents) for Cambridge 005 Middle Super Output Area (MSOA), where the Site lies, and displays this comparatively with the wider area. Cambridge 005 MSOA is shown in Figure 7.1.

Figure 7.1: Cambridge 005 MSOA Location

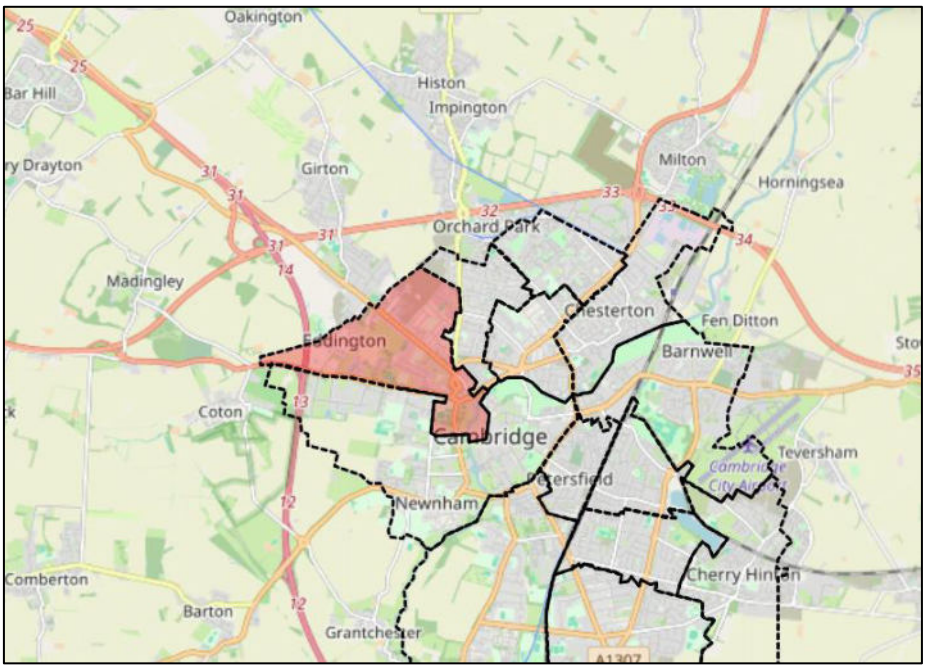


Table 7.1: 2011 Travel to Work Census Data (Resident Population)

Mode	Cambridge 005 MSOA	Cambridge
Underground, metro, light rail or tram	1%	0%
Train	5%	5%
Bus, minibus or coach	5%	7%
Taxi	0%	0%
Motorcycle , scooter or moped	1%	1%
Driving a car or van	29%	34%
Bicycle	2%	3%
On foot	39%	32%
Other method of travel to work	18%	17%
Total	0%	1%

7.1.2 Table 7.1 shows that approximately 68% of all trips to work in Cambridge 005 are made by sustainable modes of travel (walk, cycle, bus, rail, and 'other' non car modes) and 32% by car, van, or motorcycle. This is consistent with the travel patterns for the Cambridge city area.

7.1.3 Table 7.2 outlines the 2021 'Travel to Work' mode share (residents) for Cambridge 005 MSOA and displays this with the wider area. It should be noted that the 2021 Census was undertaken during the COVID-19 pandemic, which may have impacted resident travel patterns (e.g., increased levels of working from home and lower public transport uptake).

Table 7.2: 2021 Travel to Work Mode Share (Resident Population)

Mode	Cambridge 005 MSOA	Cambridge
Underground, metro, light rail or tram	0%	0%
Train	2%	2%
Bus, minibus or coach	7%	7%
Taxi	1%	1%
Motorcycle, scooter or moped	1%	1%
Driving a car or van	29%	35%
Passenger in a car or van	3%	4%
Bicycle	37%	31%
On foot	20%	18%
Other method of travel to work	1%	1%
Total	100%	100%

7.1.4 Table 7.2 illustrates that, in accordance with the 2021 Census Data, 66% of journeys to work within Cambridge 005 were undertaken by sustainable modes of transport. This is consistent with the wider travel patterns of the Cambridge City area.

Census - Car Ownership

7.1.5 The 2021 Census has been consulted to understand the existing car ownership rates at the Eddington. Table 7.3 illustrates the car parking ownership rates for the entirety of Cambridge.

Table 7.3: Car Ownership Rates – Cambridge

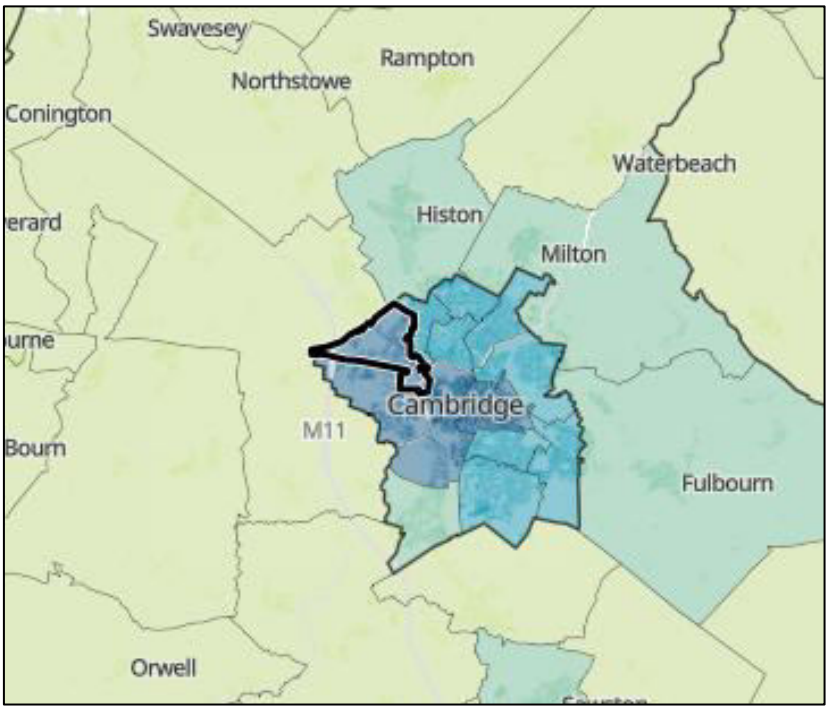
Location	Number of Cars	Ownership Rates
Cambridge	No cars in household	34.4%
	1 car or van in household	46.6%
	2 cars or vans in household	15.0%
	3+ cars or vans in household	4.0%

7.1.6 Table 7.3 shows that the majority of households within Cambridge have 1 car (46.6%) within their household. However, 34.4% of households have no cars. In comparison, just 19.0% of

households have 2 or more cars. This is representative of city living and the range of sustainable transport infrastructure and opportunities within Cambridge.

7.1.7 From a more local perspective, car ownership rates have also been derived from the 2021 Census for the 'Eddington and Castle' middle super output area (MSOA). This MSOA represents a portion of northwestern Cambridge, which includes Eddington as well as surrounding neighbourhoods. The location of Eddington and Castle MSOA is provided in Figure 7.2.

Figure 7.2: Eddington and Castle MSOA



7.1.8 Table 7.4 illustrates the car ownership rates for the Eddington and Castle MSOA.

Table 7.4: Car Ownership Rates – Eddington and Castle MSOA

Location	Number of Cars	Ownership Rates
Eddington and Castle MSOA	No cars in household	40.2%
	1 car or van in household	44.5%
	2 cars or vans in household	12.7%
	3+ cars or vans in household	2.6%

7.1.9 Table 7.4 shows that the majority of households within Eddington and Castle have 1 car (44.5%) within their household. However, 40.2% of households have no cars, representing an increase of 5.8% compared to the entirety of Cambridge. Just 15.3% of households have 2 or more cars, representing a decrease of 6.3% compared to Cambridge as an entirety.

7.1.10 As the existing Eddington site is currently occupied, the 2021 Census data can be utilised to understand how car ownership rates compare between Eddington and the wider local area at a point in time. To understand this, a range of focused super output areas were analysed and a combined average car ownership rate was determined. The super output areas included within this are as follows:

- E00187816;
- E00187780;
- E00187751;
- E00187805;
- E00187757;
- E00187764; and
- E00187713.

7.1.11 It is considered that these super output areas represent the existing Eddington site. A summary of the average car ownership rates for Eddington is provided in Table 7.5.

Table 7.5: Car Ownership Rates – Eddington

Location	Number of Cars	Ownership Rates
Eddington	No cars in household	60.4%
	1 car or van in household	31.5%
	2 cars or vans in household	6.1%
	3+ cars or vans in household	1.8%

7.1.12 Table 7.5 shows that the majority of households within Eddington, in accordance with the 2021 Census, have no cars in their household (60.4%), with 31.5% of households having just 1 car. This equates to 91.9% of households having 1 or less car, with just 7.9% of households having 2 or more cars in their household.

7.1.13 This analysis shows that, when compared to Cambridge and other wider local areas, Eddington had a lower car ownership.

7.1.14 This analysis should be caveated to account for the high proportion of student accommodation in 2021. Eddington residential surveys from 2024 have therefore also been undertaken and reviewed to better understand car ownership for new residents since the 2021 census. Nevertheless, given the presence of UoC within the wider local area, it is clear that Eddington has been successful at reducing car ownership.

Eddington Travel Surveys

Mode Share

7.1.15 The UoC undertake annual travel surveys at Eddington to understand the current travel patterns of existing residents. The latest travel surveys at Eddington were undertaken in 2024.

7.1.16 A summary of the existing travel mode shares for Eddington residents for 2024, split by journey purpose, is provided in Table 7.6. These mode shares are based upon residents' mode of travel when arriving at their respective destinations.

Table 7.6: Eddington Travel Surveys – Mode Share (2024)

Mode	Journey Purpose					
	Commuting			Shopping / Leisure		
	Typical	Preferred	Diff	Typical	Preferred	Diff
Car Driver	17.4%	14.9%	-2.5%	20.5%	17.2%	-3.3%
Car Passenger	0.9%	2.6%	0.0%	0.0%	1.6%	1.6%
Bus	31.3%	36.8%	5.5%	41.8%	37.7%	-4.1%
Train	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bicycle	33.9%	25.4%	-8.5%	25.4%	23.0%	-2.4%
On Foot	13.9%	20.2%	6.3%	11.5%	14.8%	3.3%
Car Club	0.0%	0.0%	-0.8%	0.0%	0.8%	4.1%
Taxi/Uber	2.6%	1.6%	-2.5%	0.8%	4.9%	-3.3%
Total	100.0%		0%	100.0%		0%

7.1.17 Table 7.6 shows that for 'Commuting' 18.3% of Eddington residents utilise the car (17.4% as driver, 0.9% as passenger). In comparison, 31.3% utilise public transport (31.3% bus and 0% train), whilst 47.8% use active modes of transport (33.9% on bicycle, 13.9% on foot). Therefore, 79.1% of journeys to work from existing Eddington residents can be considered to be undertaken by 'sustainable modes' of transport. This also illustrates how the existing community at Eddington is exceeding the sustainable levels of transport with regards to commuting seen in Cambridge.

7.1.18 Table 7.6 also illustrates that for Shopping / Leisure, only 20.5% of journeys are undertaken by car. In comparison, 41.8% are undertaken by public transport (41.8% bus and 0% train), and 36.9% by active modes of travel (25.4% bicycle and 11.5% walking). Therefore, 78.7% of journeys for shopping / leisure purposes from the existing Eddington community are undertaken by sustainable modes of transport.

7.1.19 By comparison, when asked about their preferred travel mode choice (assuming no constraints/restrictions) Single Occupancy Vehicles (SOV) as a car mode share reduces further.

For journeys to work these car trips would be replaced by an increase in walking and bus trips. For leisure journeys SOV movements are replaced by walk and an uptake in car club and Voi usage. Furthermore, majority of residents confirmed they had used the Universal bus service but majority had not used the existing car club. 46% of residents also stated they were not satisfied with the Universal service, despite bus being a high mode share. This analysis combined suggests that there is great potential in a further uplift in bus as a mode share, if the frequency and routes meet future demand. Also, providing for active travel and car clubs will further reduce SOV trips.

7.1.20 The 2024 surveys at Eddington also illustrated that a total of 28% of existing residents 'work from home' (WFH) on the average day. This aligns with post COVID-19 survey data trends from Eddington.

Car Ownership

7.1.21 The 2024 UoC annual travel survey at Eddington has also been used to better understand car ownership of residents beyond the 2021 Census.

7.1.22 A summary of the existing car ownership levels for Eddington from the 2024 residents survey 2024 is provided in Table 7.7.

Table 7.7: Car Parking Ownership Rates (2024 Residents Survey) – Eddington

Location	Number of Cars	Ownership Rates
Eddington – Market Houses (2024 Survey)	No cars in household	20%
	1 car or van in household	72%
	2 cars or vans in household	9%
	3+ cars or vans in household	0%
Eddington – KWH (2024 Survey)	No cars in household	77%
	1 car or van in household	23%
	2 cars or vans in household	0%
	3+ cars or vans in household	0%
Eddington – All Residents (2024 Survey)	No cars in household	54%
	1 car or van in household	42%
	2 cars or vans in household	3%
	3+ cars or vans in household	0%

7.1.23 The table above shows that 77% of KWH residents do not own a car. This is reduced to 54% when accounting for market housing, but still much higher when compared to the wider local area and Cambridge. This data reiterates the 2021 Census analysis, in that it is clear that Eddington has been successful at reducing car ownership and therefore car trips.

8 BASELINE CONDITIONS: ACCESSIBILITY

8.1 Introduction

8.1.1 This chapter summarises and presents the existing accessibility of the Site that is afforded by the existing networks. Consideration is also given to the wider existing commuter patterns across Cambridge and the level of accessibility that the respective major employment hubs achieve.

8.1.2 It is essential to understand these existing patterns of accessibility to determine and enable the transport strategy for Future Phases to begin to address further infrastructure needs beyond Phase 1 that are contributing to reduced accessibility between primary destinations.

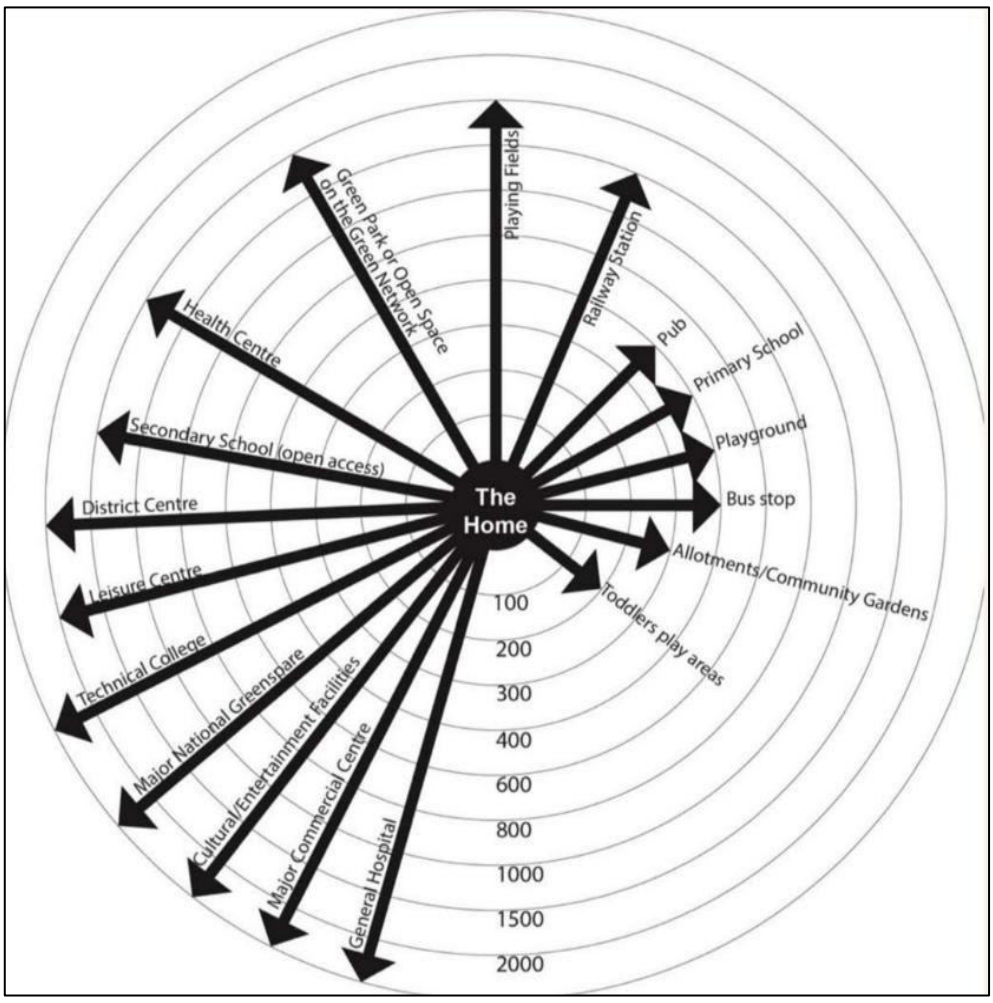
8.1.3 Key to the transport strategy will be the philosophy of Triple Access Planning. Triple Access Planning is a framework designed to address the complexities of urban mobility by considering the following three key components; Physical Mobility, Spatial Proximity and Digital Connectivity. The existing accessibility of the Site is considered in this section accounting for these three components.

8.2 Local Living – Spatial Proximity

8.2.1 Local Living is an urban planning model where everything a resident needs in their daily life can be accessed within a short walking or cycling ride. This includes employment opportunities, sport, goods and cultural activities. The key ingredients of Good Places[1] are shown in Figure 8.1.

[1] Cambridge Growth Company, Peter Freeman.

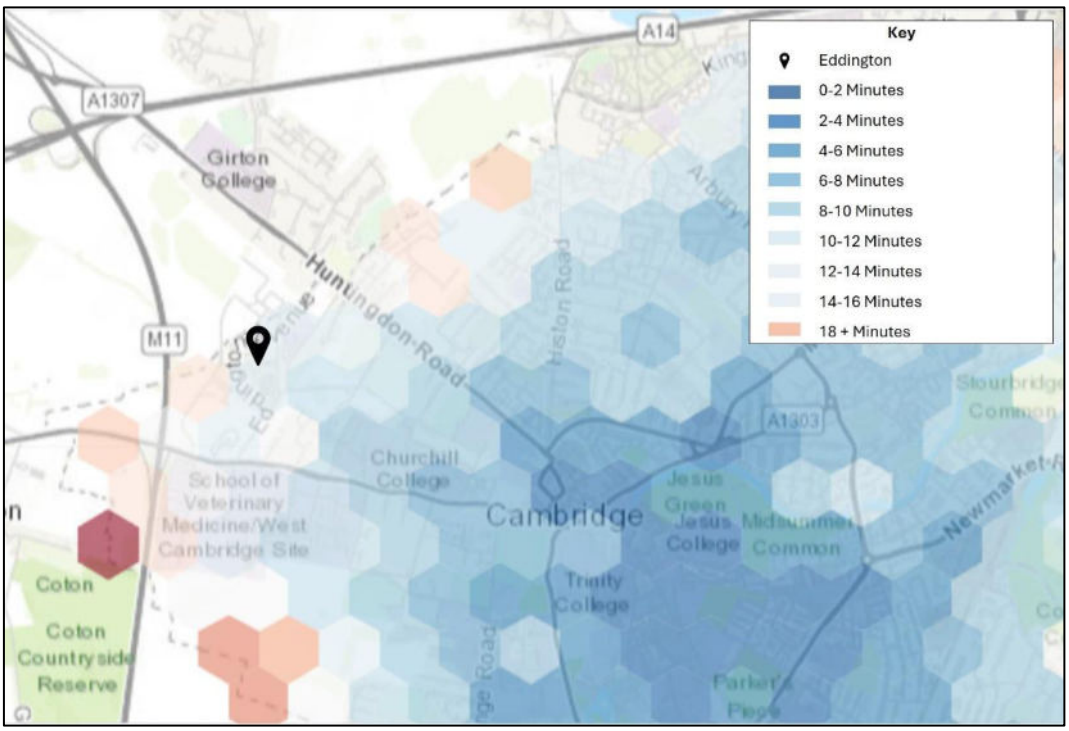
Figure 8.1: Ingredients for Good Places



8.2.2 This platform has been used to explore the level of which existing settlements are close to the local living concept. The platform produces a series of average accessibility maps, which provide information on where people can reach within '15 minutes' and how accessible that area is to day to day services that are needed to satisfy a resident, as shown in Figure 8.2 – Figure 8.3, respectively.

8.2.3 Figure 8.2 illustrates the 15-minute walking accessibility of Cambridge City and shows Eddington falls within the 15 minute radius.

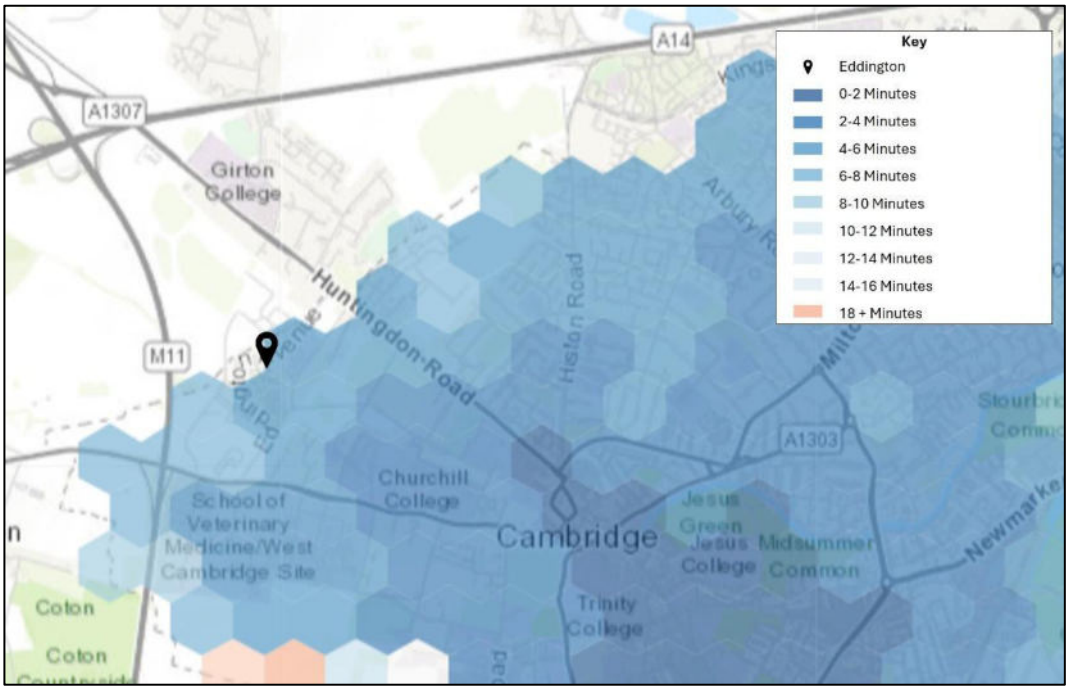
Figure 8.2: 15-Minute City Walking Average Accessibility – Cambridge City



8.2.4 Figure 8.2 shows that, with regards to walking, Eddington is already displaying some characteristics of the 15-minute city model by falling within Cambridge City's 15 minute City radius. The average walking accessibility to amenities and services to satisfy the day to day needs of residents is within the 15-minute catchment of Cambridge City Centre. Figure 8.2 shows a current lack of accessibility on the western side of Cambridge.

8.2.5 Figure 8.3 illustrates the 15-minute city cycling accessibility of Cambridge City and shows Eddington falls within the 15 minute radius

Figure 8.3: 15-Minute City Cycling Average Accessibility – Cambridge City



8.2.6 Figure 8.3 shows that, with regards to cycling, Eddington is already displaying characteristics of the 15-minute city model by falling within Cambridge City's 15 minute City radius. The average cycling accessibility to amenities and services to satisfy the day to day needs of residents is approximately 6-8 minutes catchment of Cambridge City Centre.

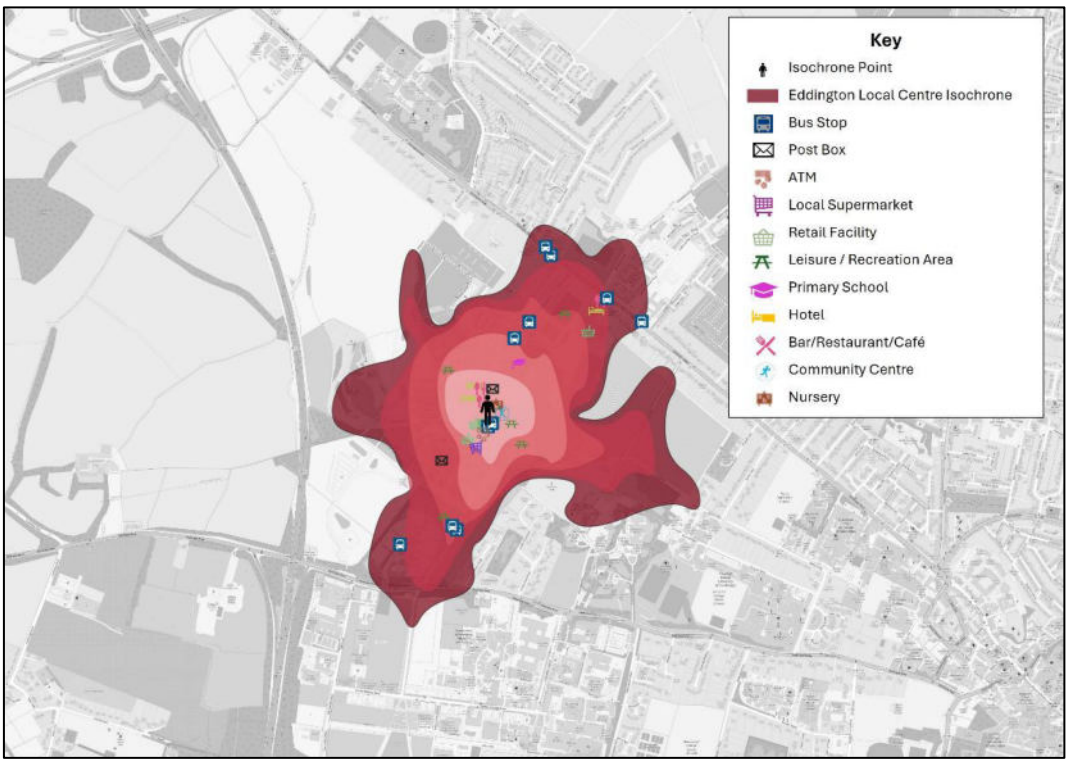
8.3 Existing Walk Accessibility

8.3.1 The National Design Guide (2021) refers to a common single walkable distance of 800m (equivalent to an approximate 10-minute walk). The existing walking accessibility of Eddington and the local communities has been assessed.

Eddington

8.3.2 Figure 8.4 illustrates a 10-minute walking isochrone (equivalent to an approximate 800m walking distance) from the existing Local Centre within Eddington.

Figure 8.4: 10-Minute Walking Isochrone – Eddington (2-Minute Increments)

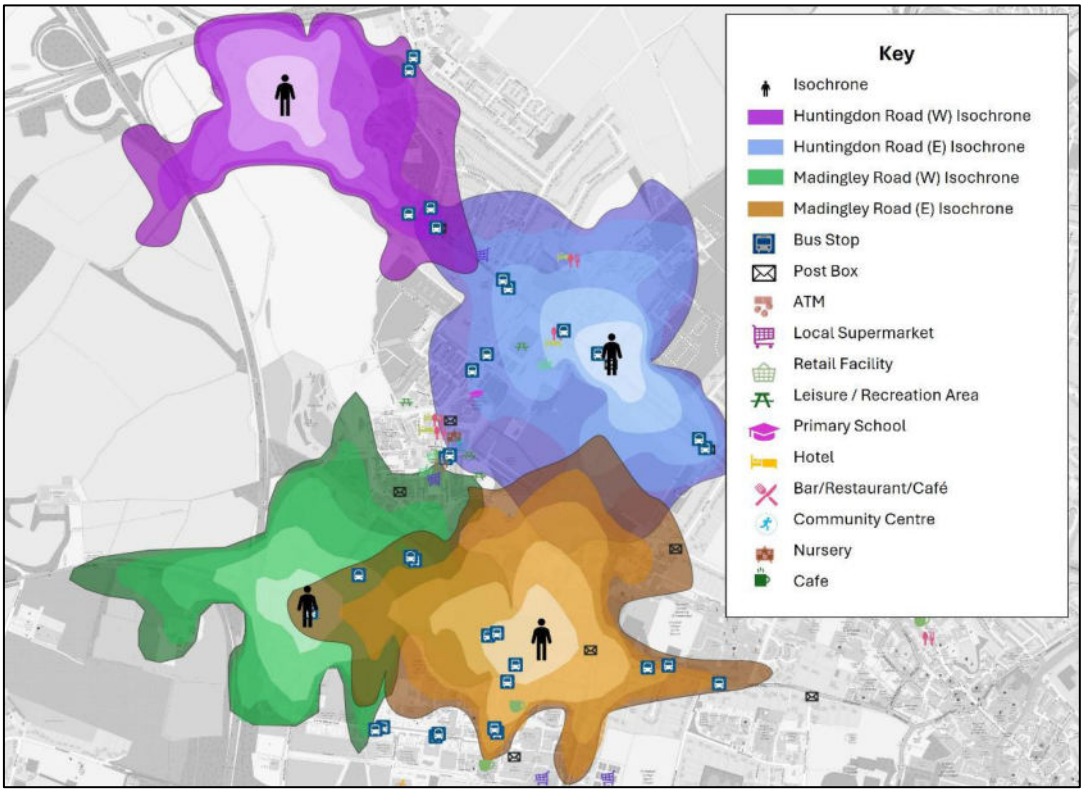


8.3.3 Figure 8.4 shows that from the existing Local Centre, the entirety of Eddington is accessible within a 10-minute walking distance of the Site including various existing amenities and the primary school. Additionally, areas of Huntingdon Road to the north and Madingley Road to the south are also accessible within a 10-minute walking distance, including the P&R, numerous onsite and offsite bus stops.

Local Communities

8.3.4 Figure 8.5 illustrates a 10-minute walking isochrone (equivalent to an approximate 800m walking distance) from nearby settlements on Huntington Road and Madingley Road, respectively, and local amenities within this walking distance.

Figure 8.5: 10-Minute Walking Isochrones – Local Communities (2-Minute Increments) and Amenities



8.3.5 Figure 8.5 illustrates that from nearby local areas and settlements on Huntington Road and Madingley Road, the existing Eddington Local Centre and supporting amenities is accessible within a 10-minute walking distance, including numerous bus stops, education facilities, supermarket, hotel, retail, cafés and leisure facilities. Notwithstanding this, the area to the northwest of Eddington (currently un-developed) is not accessible. Increased accessibility at this location would enhance walking permeability and connectivity within North West Cambridge.

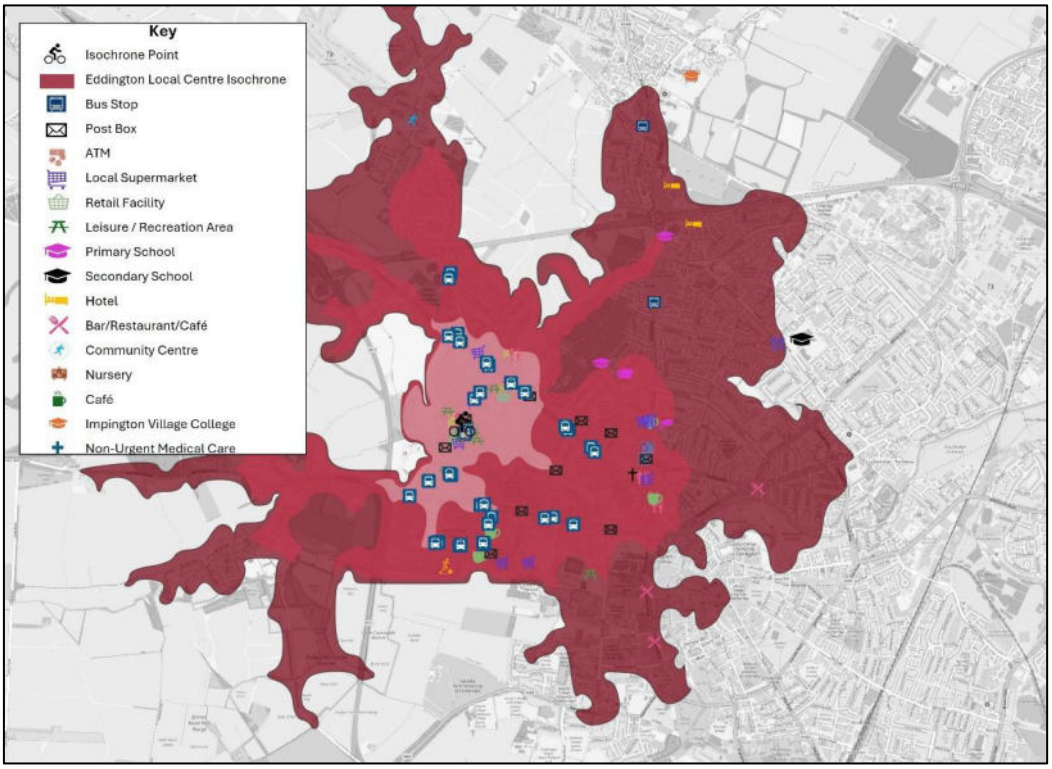
8.4 Existing Cycle Accessibility

8.4.1 Cycling has the potential to substitute for short car trips, particularly those under 5km. Cycling is an attractive form of travel, and it is reasonable to expect that for able-bodied people a cycle distance of 5km (equivalent to an approximate 15-minute cycle ride) is readily achievable and attractive.

Eddington

8.4.2 Figure 8.6 illustrates the existing 15-minute cycle accessibility (5-minute increments) from the Eddington Local Centre, taking account of the existing infrastructure within Eddington and in the local area.

Figure 8.6: Existing 15-Minute Cycling Isochrone – Eddington (5-Minute Increments)



8.4.3 Figure 8.6 illustrates that from the existing Eddington Local centre, the near-entirety of the North West Cambridge area is accessible within a 15-minute cycle ride. This includes areas such as:

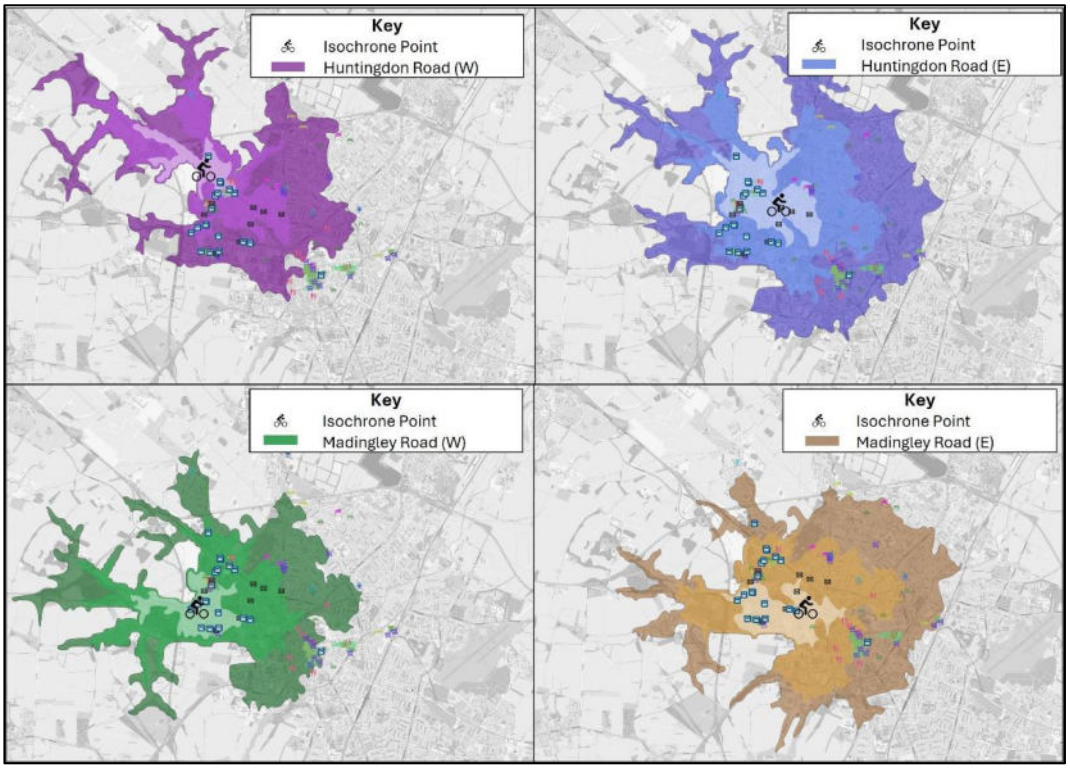
- Eddington;
- Cambridge West Innovation District;
- Cambridge City Centre (including UoC);
- Madingley Road P&R;
- Neighbourhoods such as Arbury, Orchard Park, Histon, Girton and Coton; and
- All the amenities these local =communities and neighbourhoods have to offer.

8.4.4 A range of facilities and services just over a 15-minute cycle distance are also accessible, such as Cambridge Science Park, Cambridge Railway Station, and Cambridge North Railway Station.

8.4.5 Notwithstanding this, there are some existing gaps in the local cycle network that limit cycling connectivity, including between Huntington Road and Madingley Road to the northwest of Eddington.

Local Communities

Figure 8.7: 15-Minute Cycling Isochrone – Local Communities (5-Minute Increments)



8.4.6 The 15-minute cycling isochrones illustrated in Figure 8.7 demonstrate the existing accessibility of settlements along Huntingdon Road and Madingley Road, highlighting the current connectivity in the area.

8.4.7 The northwestern area, in particular, currently shows limited cycling accessibility, with certain areas being more restricted in terms of active travel routes. However, the introduction of new cycling routes will improve this area's integration within the 15-minute cycling isochrones, enhancing the overall accessibility of the local area as further detailed in Section 10 and 15 of this TA.

8.5 Public Transport Accessibility

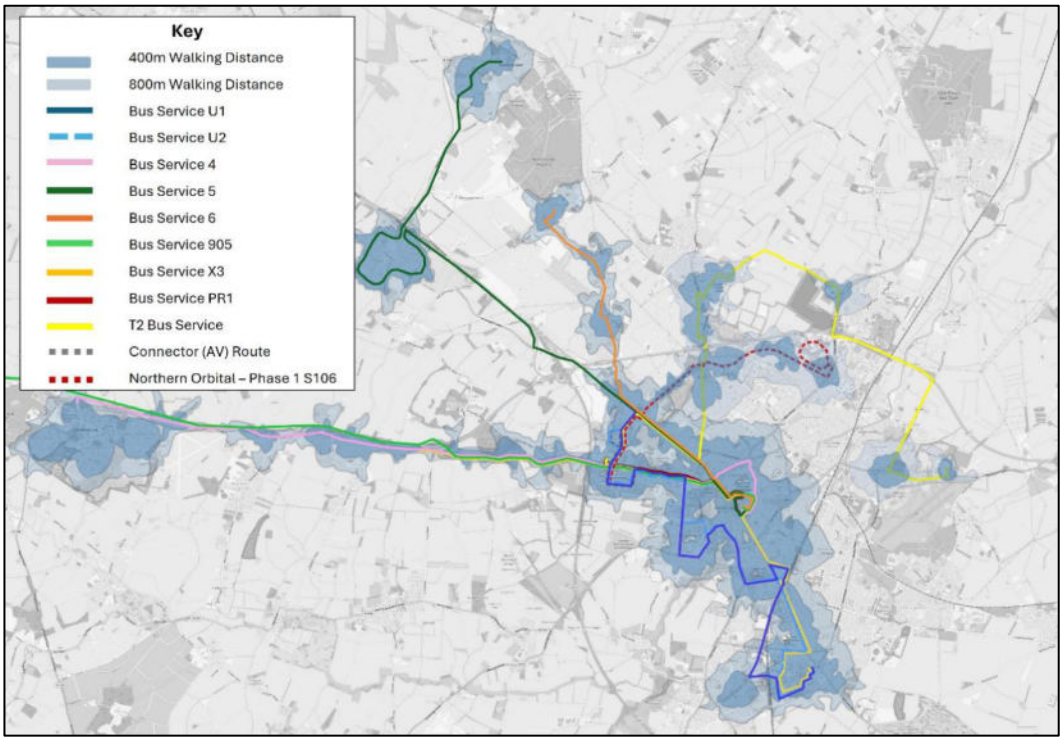
8.5.1 An accessibility review has been undertaken to understand the existing accessibility of the Site by bus as a mode of transport. All existing bus services that serve the Site or operate from nearby bus stops on Huntingdon Road or Madingley Road, have been included in this assessment (Figure 8.8). Bus stops that are served by these services within Cambridge and the local area have been identified.

8.5.2 A 400m walking isochrone (the national recommended walking distance to a bus stop from a residential development) and an 800m walking isochrone (a single common 'walkable' range

pertinent to the National Design Guide (2021)) have been applied to each bus stop served by services that operate from or nearby to Eddington.

8.5.3 The resultant accessibility is shown in Figure 8.8 below.

Figure 8.8: Existing Bus Accessibility (400m and 800m Isochrones)



8.5.4 Figure 8.8 shows that a large proportion of Cambridge is accessibility via bus, and within a 400m or 800m walking distance, respectively. This includes key employment, leisure, retail and transport hubs within the city centre such as:

- Cambridge City Centre Retail District;
- Cambridge Biomedical Campus (CBC);
- Cambridge Railway Station;
- Cambridge West Innovation District;
- Cambridge South Railway Station (opening late 2025);
- Newmarket Road Retail Park; and
- Trumpington.

8.5.5 Further afield, a number of existing settlements are also accessible via bus, such as:

- Girton;
- Bar-Hill;
- Cambourne;
- Oakington; and
- Northstowe.

8.6 Existing Accessibility Summary

8.6.1 Table 8.1 below provides a summary of the walking and cycling times to a range of nearby settlements, areas of employment, public transport nodes, facilities and services. For consistency, walking and cycling times are taken from a centroid point of Eddington.

8.6.2 Walking and cycling times are based upon an average speed of 5km/h for walking and 19km/h for cycling, based on information contained within the National Travel Survey (NTS) 2016.

Table 8.1: Existing Site Accessibility Summary (Active Travel)

Category	Name	Approximate Distance	Walking Time (Minutes)	Cycling Time (Minutes)
Public Transport	Onsite Bus Stops	100m	1.0	0.5
	Madingley Road P&R	550m	7.0	2.0
	Huntingdon Road Bus Stops	750m	9.0	2.5
	Madingley Road Bus Stops	700m	8.5	2.0
	Drummer Street Bus Station	3.5km	-	11.0
	Cambridge Railway Station	5km	-	16.0
	Cambridge North Railway Station	5.5km	-	17.5
ATM	ATM	100m	1.0	0.5
Post Box	Post Box	100m	1.0	0.5
Post office	West Hub – Cambridge West	1.4km	19	5
Employment	Cambridge West (UoC)	1km	12.0	3.0
	Cambridge City Centre	2.5km	30.0	8.0
	Cambridge Biomedical Campus	8km	-	25
Education	UoC Primary School	100m	1.0	0.5
	Chesterton Community College	3.5km	-	11
	North Cambridge Academy	4.5km	-	15
	Parkside Community College	5.4km	-	17
	Impington Village College	5.4km	-	17
	Cambridge West (UoC)	1km	14	4
Healthcare	Huntingdon Road Surgery	1.6km	19.0	5.0
	Bridge Street Medical Centre	2.8km	-	9.0
	Arbury Road Surgery	3.4km	-	11.0
	Addenbrookes Hospital	8km	-	24.0
Retail	Sainsburys Supermarket, Eddington	100m	1.0	0.5
	Outspoken Cycles	100m	1.0	0.5
	Londis, Huntingdon Road	850m	10.0	3.0
	Aldi, Histon Road	2km	24.0	6.0

	Iceland, Histon Road	2km	24.0	6.0
Leisure	Hotel	100m	1.0	0.5
	Brook Leys	100m	1.0	0.5
	Storeys Field Community Centre	100m	1.0	0.5
	Various onsite leisure amenities	100m	1.0	0.5
	Play areas (various)	100m	1.0	0.5
	Cambridge City Centre	2.5km	30.0	8.0
	Jesus Green	3km	-	10.0
	Parkers Piece	3.5km	-	11.0
	Coe Fen	3.4km	-	11.0
Hospitality	Dulcedo	100m	1.0	0.5
	Douce	100m	1.0	0.5
	La Pizzica	100m	1.0	0.5
	The Astronomer	100m	1.0	0.5
	Dutch	150m	1.5	0.5

8.6.3 As shown in Table 8.1, and summarised within this chapter of the TA, there are a range of facilities, amenities and services within suitable walking and cycling distance from the existing site. This highlights the overall accessibility of the location with regards to existing active travel infrastructure provision and the local environment. Where gaps have been identified, the masterplan has been developed to account for these missing amenities through on site provision or improvements to the Site accessibility amenities located of-site.

8.6.4 Further to above key amenities, Phase 1 provides digital connectivity for employees and residents through the following and again the masterplan has been developed to maximise digital infrastructure to improve digital connectivity further:

- Work Hubs
- Mobility Hubs
- Wi-Fi and internet infrastructure for all.

9 FUTURE BASELINE

9.1 Introduction

9.1.1 In order to assess the impact of development in the future, consented development and infrastructure needs to be accounted for.

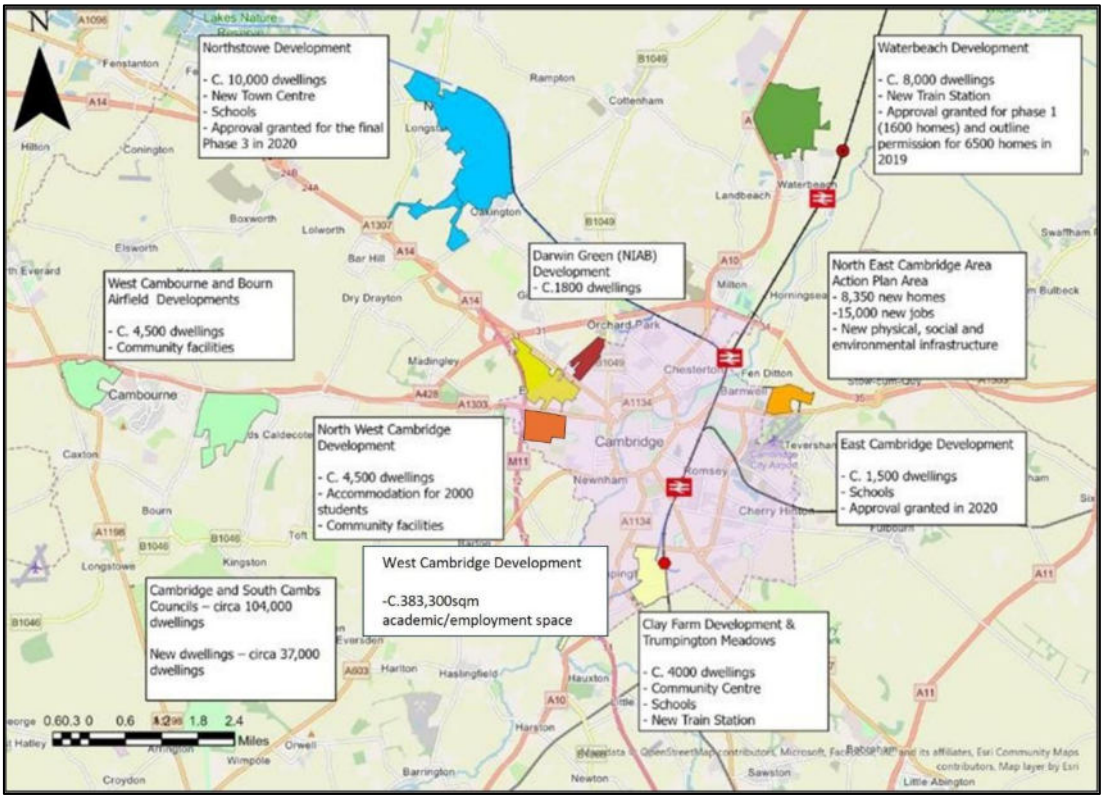
9.2 Committed Development

9.2.1 The 2012 NWC Transport Assessment was supported with transport modelling work undertaken in the Cambridge Sub-Regional Model (CSRM). Since 2012, a series of changes to the commercial and residential developments have occurred across the Cambridge Sub-Region. These include the following and have been considered, along with their impacts on the local transport network:

- Cambridge West Masterplan
- Northstowe
- West Cambourne
- Darwin Green
- Cambridge East (Marliegh and LNCH)
- Waterbeach
- Bourne Airfield

9.2.2 A full review of each is included in Appendix D and Figure 9.1 below summarises the geographical location of local residential developments.

Figure 9.1: Cambridge Local Residential Development Summary



9.2.3 Of particular note and benefit to the NWCM is Cambridge West. This local employment offer, and associated transport strategy immediately adjacent to the NWCM, within easy walking and cycling distance, would reduce the need to travel by vehicle and further be enhanced through the mitigation package being delivered for Cambridge West.

9.3 Transport Proposals in Surrounding Area

9.3.1 The Greater Cambridge Partnership (GCP - formerly the Cambridge City Deal) is the local delivery body for a City Deal with Central Government, bringing powers and investment, worth up to £1 billion over 15 years, to vital improvements in infrastructure to enable this. The four GCP partners are Cambridge City Council, Cambridgeshire County Council, South Cambridgeshire District Council, and the University of Cambridge.

9.3.2 The GCP is delivering a comprehensive programme of sustainable transport initiatives, working with local authority partners to create a comprehensive transport network that can meet the needs of the area now and into the future. The programme has been developed using an extensive evidence base and is designed to support sustainable economic growth and the accelerated delivery of the Local Plan, as well as enabling a broader transformation in the way Greater Cambridge moves and travels, supporting the transition to zero carbon and creating a more inclusive economy. The GCP's vision for a future travel network is particularly important in achieving a green recovery from Covid-19, with sustainable transport options vital to enable communities to access work, study and other opportunities the city-region has to offer.

9.3.3 To create a more sustainable network for the future, reduce congestion, improve air quality and reduce carbon emissions, significantly more people need to travel by public transport, cycling and walking with significantly fewer people travelling by car. The GCP's programme looks to achieve this by giving people better choices to travel sustainably. The various schemes relevant to the NWCM area are considered further.

9.3.4 It should be noted that the remarkable transport outcomes being seen as part of Phase 1 have been achieved prior to the delivery of most of the GCP's programme. Many of these schemes were assumed to be being delivered sooner than they have been and despite these delays the outcomes reported in Section 7 have still been achieved.

Madingley Road Corridor – GCP Cycle Scheme

9.3.5 As part of the emerging area-wide strategy, the County Council / GCP are seeking to improve sustainable travel along the Madingley Road corridor into the city. The University supports the aspirations of this scheme, and to mitigate the Cambridge West Masterplan Review in 2020 commitments to make appropriate contributions towards this were made.

9.3.6 The Madingley Road Scheme seeks to create clear, dedicated cycling and walking routes from Madingley Road Park and Ride Site (to the west of the High Cross junction) through to the Northampton Street Roundabout. It is proposed that through the reduction in vehicle movements provided by the Cambourne to Cambridge Busway scheme, the existing junctions along the road would be reconsidered and redesigned – first, to improve access for those travelling on foot or by cycle, and secondly to improve the street scene, with additional landscaping - including for more trees and planting.

9.3.7 A preliminary design for the scheme was completed and was consulted upon through September 2024 with the public and key stakeholders. Two options were considered through the consultation. Both options proposed largely segregated priority cycle and walking routes. The main difference between the two options was Option 2 would utilise areas of privately owned land and would deliver more impactful changes at key junctions. It additionally sought to provide a two-way cycle route from Gravel Hill to Eddington Avenue to support the opportunity to travel to Eddington without the need to cross this busy road and it offered alternative junction arrangements at the Eddington Avenue and JJ Thomson Avenue junctions.

9.3.8 The Executive Board agreed in principle to take forward Option 2 and the key supported elements of Option 1, to the next stage of work (to include further scheme design, discussion with local landowners on access to land, and negotiation with the UoC in regard to the Cambridge West and NWCM).

9.3.9 In summary the scheme to be taken forward and developed further, includes:

- a one-way cycle track on both sides of Madingley Road, which would be 'semi-segregated' from cars on the road.

- floating bus stops, which would see pedestrians crossing the cycleway to reach a segregated bus stop and waiting area.
- Copenhagen crossings on some side roads linking on to Madingley Road.

9.3.10 Construction is expected to start no earlier than 2027, subject to detailed design, business case completion and final consultation in 2026, before coming back to the board. The construction works may need to be delivered in two phases to tie in with the Cambridge West Phase 2 development.

9.3.11 The preliminary designs are included in Appendix D.

9.3.12 Further to the overall GCP Madingley Road Scheme, improvements are required at the Eddington Avenue / Madingley Road junction. Whilst this junction is not included for as part of the wider GCP Corridor Scheme, and there is currently no defined junction layout scheme, improvements to this junction will be funded through Cambridge West S106 monies and GCP funding.

Madingley Road Corridor – Cambridge West Schemes

9.3.13 Funding will be available from Cambridge West to further improve Active Travel links onto the Madingley Road corridor and between NWCM and Cambridge West. This will include; JJ Thompson Avenue, High Cross and Eddington Avenue / Madingley Road junction.

9.3.14 The Cambridge West Transport package is outlined in the table below alongside the trigger for each.

Table 9.1: Cambridge West Mitigation Package and Triggers

Mitigation Package	Trigger
Madingley Road / Eddington Avenue Junction	Prior to Phase 2 – Forms part of £12.603m S106 commitment to junction improvements. Anticipated to be 2030 (Phase 1 comprises up to 143,00sqm of employment floorspace. Phase 2 comprises up to 383,300 sqm)
Madingley Road Corridor Active Travel (GCP scheme)	TBC – detailed design and further consultation still required
High Cross / Madingley Road Junction	A new junction which forms part of Phase 2.
JJ Thompson Avenue / Madingley Road	Prior to Phase 2 - Forms part of £12.603m S106 commitment to junction improvements. Anticipated to be 2030 (Phase 1 comprises up to 143,00sqm of employment floorspace. Phase 2 comprises up to 383,300 sqm) X

9.3.15 The Madingley Road corridor will therefore benefit from significantly improved Active Travel links in the future design years.

Cambourne to Cambridge - the C2C

9.3.16 The Cambourne to Cambridge Transport scheme is one of four corridor schemes that form a key component of the GCP's Transformed Bus Network.

9.3.17 Following rounds of public consultations and extensive technical work to determine a preferred route, a Transport and Works Act Order, was submitted to the DfT in November 2024, for a new busway, and travel hub, and a path for walkers and cyclists linking Cambourne to Cambridge. Figure 9.2 shows the latest proposed scheme. The DfT are now reviewing any objections or representations and a public inquiry is scheduled for September 2025. Delivery dates are therefore uncertain at the time of writing this TA.

9.3.18 The C2C scheme presents a positive opportunity that reinforces the benefits of NWCM (both residential and commercial land uses) and provides a valuable link between NWCM and areas west of Cambridge, including new developments and settlements.

9.3.19 The C2C will punch through the southern portion of Cambridge West providing bus stop infrastructure and a corridor that can be accessed by Eddington and future NWCM Residents.

9.3.20 C2C will be funded partly by S106 monies from Cambridge West and Bourne Airfield plus the GCP.

Figure 9.2: GCP Camborne to Cambridge Scheme

Comberton Greenway

9.3.21 The Comberton Greenway forms a key component of Cambridge's broader 'Greenway' network, comprising twelve interconnected routes for pedestrians, cyclists, and equestrians linking the city with surrounding neighbourhoods. The Comberton Greenway will connect Comberton with Cambridge West, via Coton. The greenway will route into Cambridge from the west, south of the Cambridge West Development.

9.3.22 The Comberton Greenway will establish a strategic active travel corridor within Cambridge West. This Greenway will facilitate indirect active travel connectivity to NWCM through linkages with the Cambridge West Development.

Cycling-Plus / LCWIP

9.3.23 Cambridgeshire's Local Cycling and Walking Infrastructure Plan (LCWIP) has been produced by CCoC officers plus local stakeholders to provide for new and improved Non Motorised User (NMU) infrastructure across Cambridgeshire. Madingley Road is identified as a funded cycle route and Gravel Hill (between Huntingdon Road and Madingley Road) as a LCWIP cycle route.

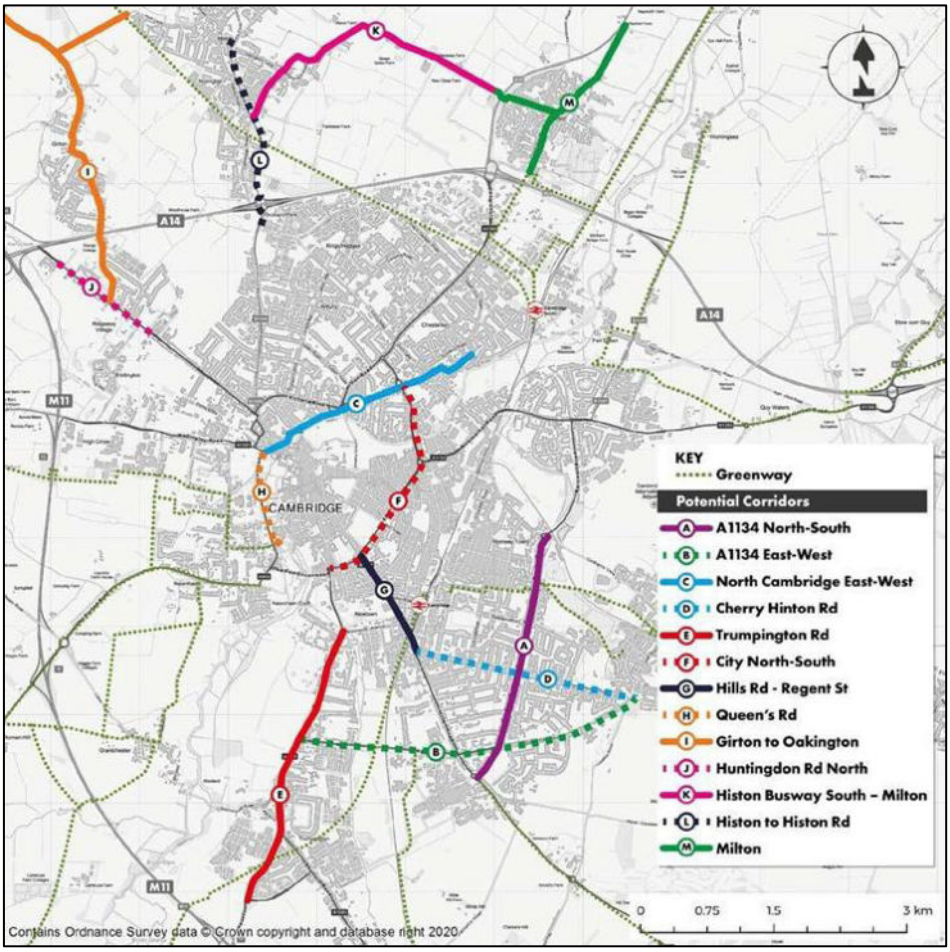
9.3.24 Further to this, the Cycling-Plus network has been identified by the GCP as the next step in delivering improvements in the Cambridge City Cycle Network, many of which have been or are being delivered currently. Figure 9.3 sets out the proposed network of 13 cross-city cycle routes that would benefit from significant improvement..

9.3.25 Of relevance for NWCM the network includes:

- Corridor I – between Girton to Oakington [delivered].
- Corridor J – Huntingdon Road North [not currently funded].
- An Active Travel funded scheme to link the existing cycleway network between Eddington and Girton, to include:
  - A new crossing point on Girton Road to improve safety [delivered]
  - Improvements to existing footway including widening and resurfacing [delivered]
  - Relocation of bus stop and carriageway resurfacing [delivered]
  - Relocation of utilities to enable wider shared use footway [delivered]

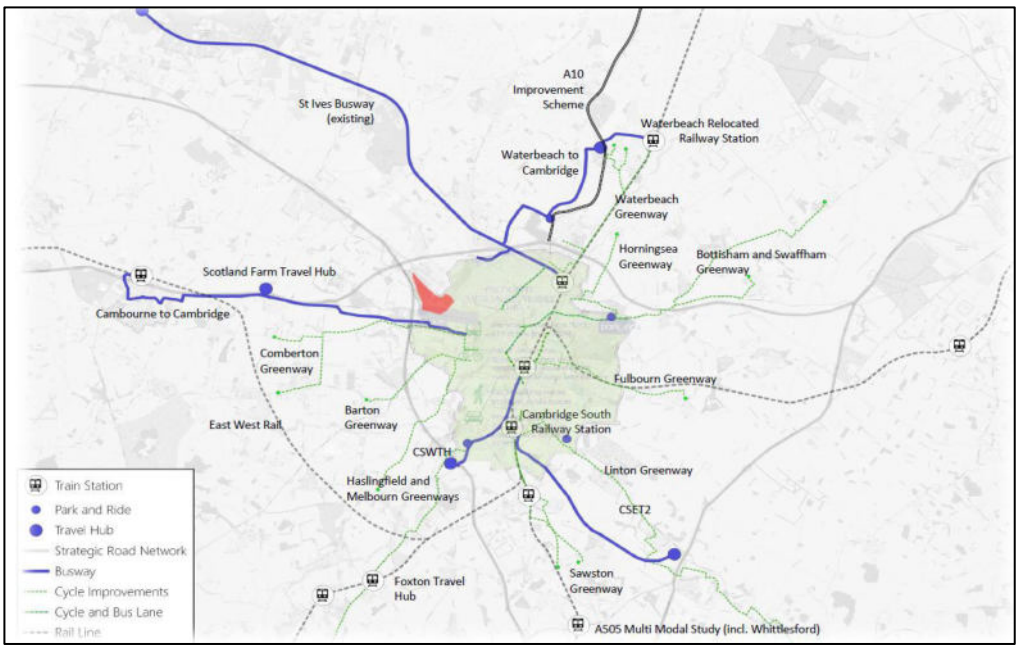
9.3.26 Corridor J would provide a connection between earlier completed schemes – being the Huntingdon Road Cycle Scheme delivered around 2014 – 2016, the A14 Cambridge Huntingdon Non-Motorised User route completed in 2020 – 2021, and Eddington – Girton Active Travel funded scheme - as well as enabling the existing infrastructure within NWCM to form part of a wider connection.

Figure 9.3: Area-Wide Cycling-Plus Network



9.3.27 Figure 9.4 summarises the wider radial routes surrounding Cambridge, both existing and committed. These will improve connections to Waterbeach, Cambourne and the south-east of the city.

Figure 9.4: Existing and Proposed Radial Routes Around Greater Cambridge



9.4 Wider Strategic Transport Schemes

Road Investment Strategy 3

9.4.1 In 2014, the Government reformed the way that England's strategic roads were funded and managed. Highways England (now operating as National Highways) was established as the steward of the strategic road network, with a remit to operate, maintain, renew and enhance motorways and main 'A' roads to the benefit of road users, people who live next to or depend on the network, and the natural, built and historic environment.

9.4.2 Government also committed to a five-year funding settlement, the Road Investment Strategy (RIS), which allowed National Highways and its supply chain to plan their work efficiently. This set the long-term strategic vision for the network, listed planned enhancement schemes expected to be built; and stated the funding that would be made available during that period.

9.4.3 In 2019, the Government published the second Road Investment Strategy (RIS2), committing the Government expenditure during this period on a series of schemes. In addition to the schemes with some status, a series of "Pipeline Schemes" were identified for RIS3 – proposals that National Highways could develop during RIS2 so that they could enter construction during the next period of 2025-2030. The future funding for construction of these schemes has not been committed to.

9.4.4 The RIS2 document refers to a RIS3 Pipeline scheme as being "M11 J13 Cambridge West" – for bringing forward in 2025 - 2030. Whilst no details are known, such a scheme may have a significant impact on vehicle movement in the local area if the existing single lane signal junction with restricted access to the M11 were to be reconfigured.

East West Rail

9.4.5 East West Rail is a nationally significant railway project which aims to improve connectivity for communities between Oxford and Cambridge. The East West Rail Company was set up in 2018, with the aim of creating better transport options for those living in Oxford and Cambridge.

9.4.6 The main proposals are to upgrade an existing section of railway between Oxford and Bicester, bringing back a section of railway between Bicester and Bletchley, refurbishing existing railway between Bletchley and Bedford, and building brand new railway infrastructure between Bedford and Cambridge.

9.4.7 The proposals will be delivered over three connection stages, with the first providing services between Oxford and Milton Keynes. The second connection stage will then see this service extended to Bedford, and the third and final connection stage will complete the full East West Rail connection and will see services run from Oxford to Cambridge via Bedford and Bletchley.

9.4.8 Construction is currently in the first connection stage with a focus on improving the services between Oxford and Bicester. Track laying is taking place to Bletchley, with a new station completing.

9.4.9 Further connection stages to Cambridge are still in the planning stages but recently received Government commitment to funding and delivery. This Government commitment included a new station at Cambourne, which will benefit NWCM through connections West alongside the C2C along Madingley Road.

Cambridge Growth Company

9.4.10 The Cambridge Growth Company will be preparing a Transport Strategy for the area and to reflect government growth ambitions. Whilst this is yet to be published, high capacity transformational transport investments will likely be part of the strategy. These schemes would provide capacity enhancements across the city and area.

10 FUTURE BASELINE ACCESSIBILITY

10.1 Introduction

10.1.1 This section summarises and presents the anticipated future baseline accessibility, by sustainable travel modes, for the Site by taking into account the transport schemes that will be implemented in the future and as reported in Chapter 10.

10.1.2 It is essential to understand the future baseline accessibility of the Site in order to ascertain where deficiencies on the existing transport network would continue to exist despite public sector investment. This analysis has then been fed into the development's Transport Strategy in Sections 11, 12 & 14 to enable the focus of mitigation to be on known and agreed gaps in sustainable transport infrastructure.

10.2 Future Walk Accessibility

10.2.1 The 10-minute walk isochrones for the Eddington Local Centre and local communities along Madingley Road and Huntingdon Road, as presented in the baseline analysis, have been used as the basis for the future baseline assessment. No material changes to the local walking network are anticipated that would significantly impact walking times. As such, the future baseline 10-minute walk isochrones remain the same as those established in the baseline.

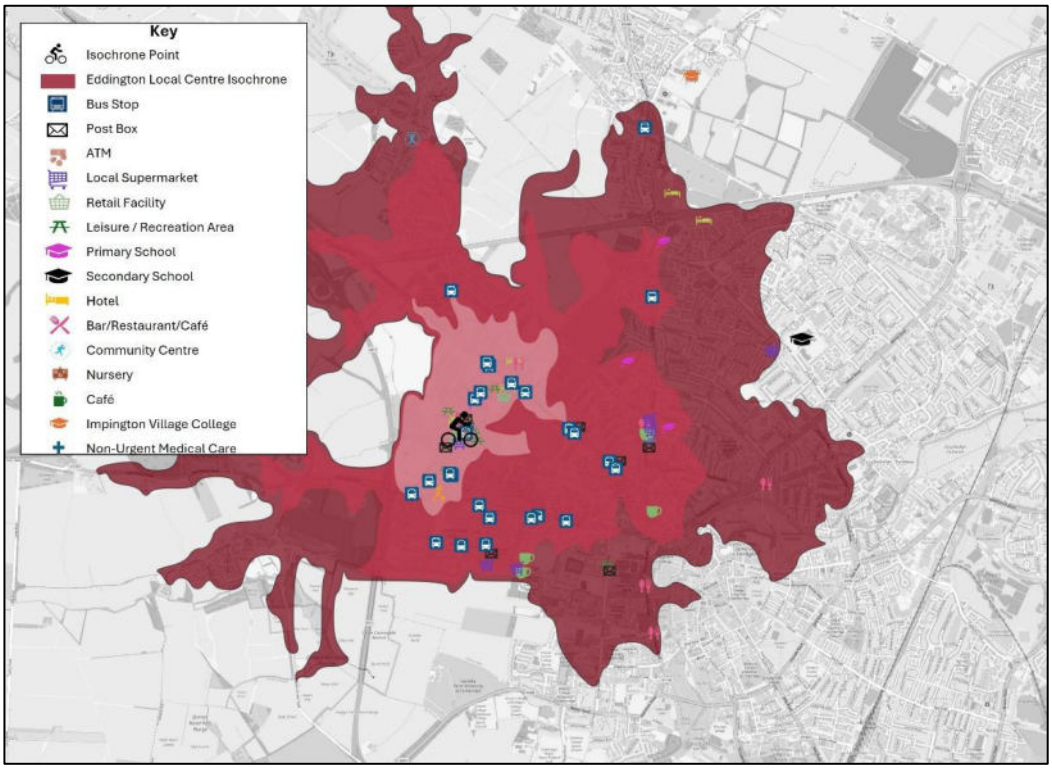
10.2.2 Further consideration of the future walking accessibility, particularly in relation to the NWCM development, is provided in Section 15, where additional 10-minute walk isochrones have been presented to reflect potential changes in the area. However, it should be noted that these new isochrones do not indicate any significant variation in walking accessibility when compared to the current baseline conditions.

10.3 Future Cycle Accessibility

Eddington

10.3.1 Figure 10.1 illustrates the 15-minute cycle accessibility (in 5-minute increments) from the Eddington Local Centre, based on both the existing infrastructure in Eddington and the surrounding area, as well as the future active travel baseline, which includes new active travel links associated with the Darwin Green development to the north.

Figure 10.1: Future Baseline 15-Minute Cycling Isochrone – Eddington (5-Minute Increments)

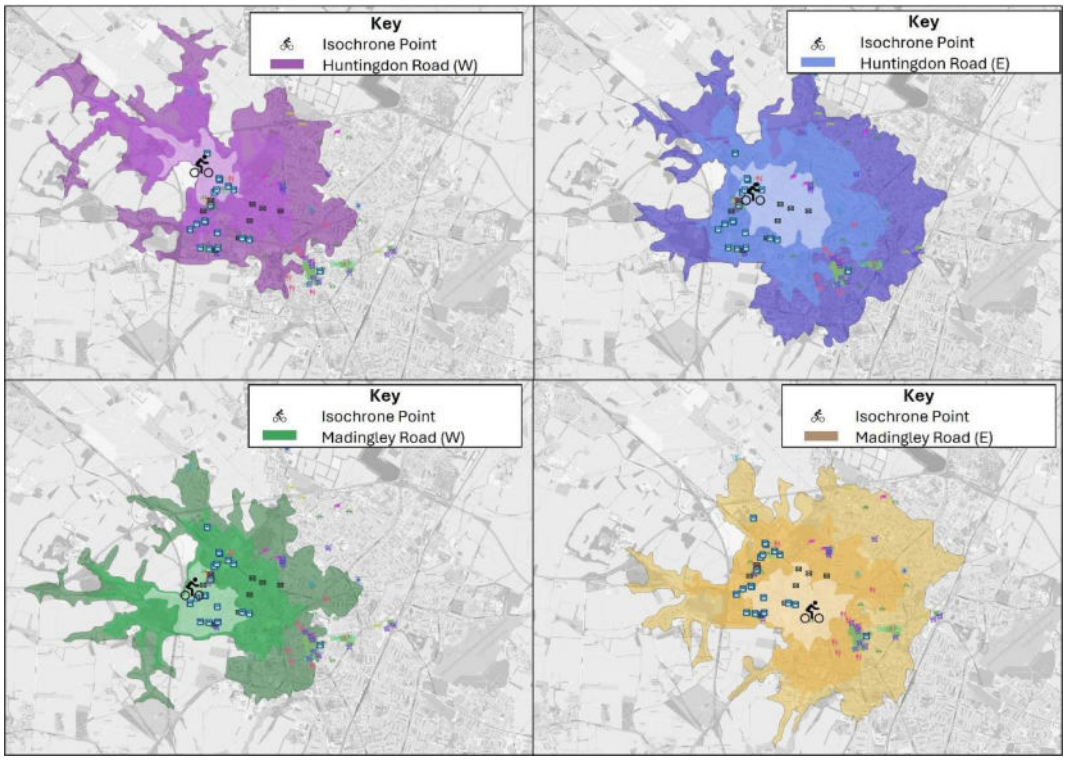


10.3.2 As shown in Figure 10.1, the future baseline illustrates improved cycle accessibility and likely travel times to the north, facilitated by new active travel links associated with the Darwin Green development. Notwithstanding this, there is still gaps in the network, most prominently at the northwest of the NWCM between Huntingdon Road and Madingley Road.

Local Communities

10.3.3 Figure 10.2 shows the 15-minute cycle accessibility (in 5-minute increments) from the local communities along Huntingdon Road and Madingley Road, considering both the existing cycling infrastructure and the future active travel network, which includes planned improvements such as new active travel links associated with the Darwin Green development to the north, prior to the implementation of the NWCM development.

Figure 10.2: Future Baseline 15-Minute Cycling Isochrone – Local Communities (5-Minute Increments)



10.3.4 As demonstrated in Figure 10.2, the future baseline reflects enhanced cycle accessibility and likely reductions in travel times to the north, supported by new active travel links associated with the Darwin Green development. However, gaps in the cycle network remain, particularly at the northwest of the NWCM site, between Huntingdon Road and Madingley Road

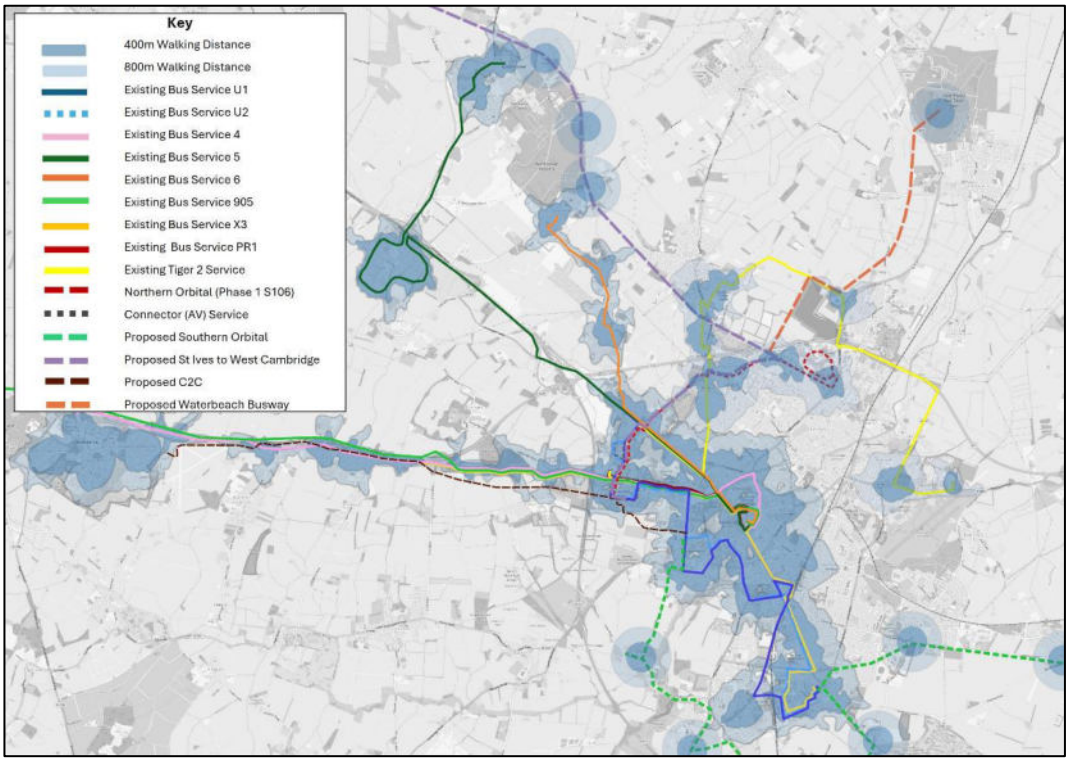
10.4 Future Public Transport Accessibility

10.4.1 An accessibility review has been undertaken to assess the future accessibility of the Site via proposed bus services. This assessment includes the proposed routes detailed in Section 5 of the report, including the Southern Orbital, Northern Orbital, Waterbeach to Cambridge West, St Ives to Cambridge West, and Cambridge to Cambourne routes.

10.4.2 While the exact locations of future bus stops are currently unknown, estimated stop locations have been identified based on likely placements within nearby settlements. Isochrones have been generated from these estimated bus stop locations to indicate potential walkable access. 400m and 800m walking isochrones have been applied to each of the proposed stops. NWCM will aspire to provide for 800m between bus stops with a 400m walking isochrone from dwellings to the nearest bus stop.

10.4.3 The resulting future accessibility coverage is illustrated in Figure 10.3.

Figure 10.3: Future Baseline Bus Accessibility (400m and 800m Isochrones)



Note: Routes above are provided as indicative where proposals may be subject to change

10.4.4 As shown in Figure 10.3, future public transport accessibility is demonstrated in the figure, showing an extension in 400m and 800m walking distance accessibility coverage from the baseline, now potentially encompassing settlements such as future phases of Northstowe, Waterbeach New Town, Histon/Impington, Grantchester, Great Shelford, Fullburn, and Cherry Hinton, as well as employment areas such as Cambridge Science Park, with improved connectivity and reduced journey times.

10.5 Future Accessibility Summary and Identified Gaps in Sustainable Travel Infrastructure

10.5.1 In summary the following gaps are identified in the future baseline sustainable travel infrastructure:

- Sustainable links to the North East Cambridge growth area
- Active Travel links across and along Madingley Road
- Cycle infrastructure at the northern end of Huntingdon Road
- Active Travel crossing points at the northern end of Huntingdon Road between Girton College, the north and NWCM.
- Frequency and reliability of existing Eddington bus services due to congestion on wider the road network

11 DEVELOPMENT PROPOSALS

11.1 Introduction

11.1.1 Having established the Existing and Future Baseline situations, this section of the report details the Development Proposals which are comprised by the Futures Phases of NWCM. This section therefore covers the previously consented scheme for context, the quantum of development being applied for, the proposed access being applied for and the proposed car and cycle parking proposed.

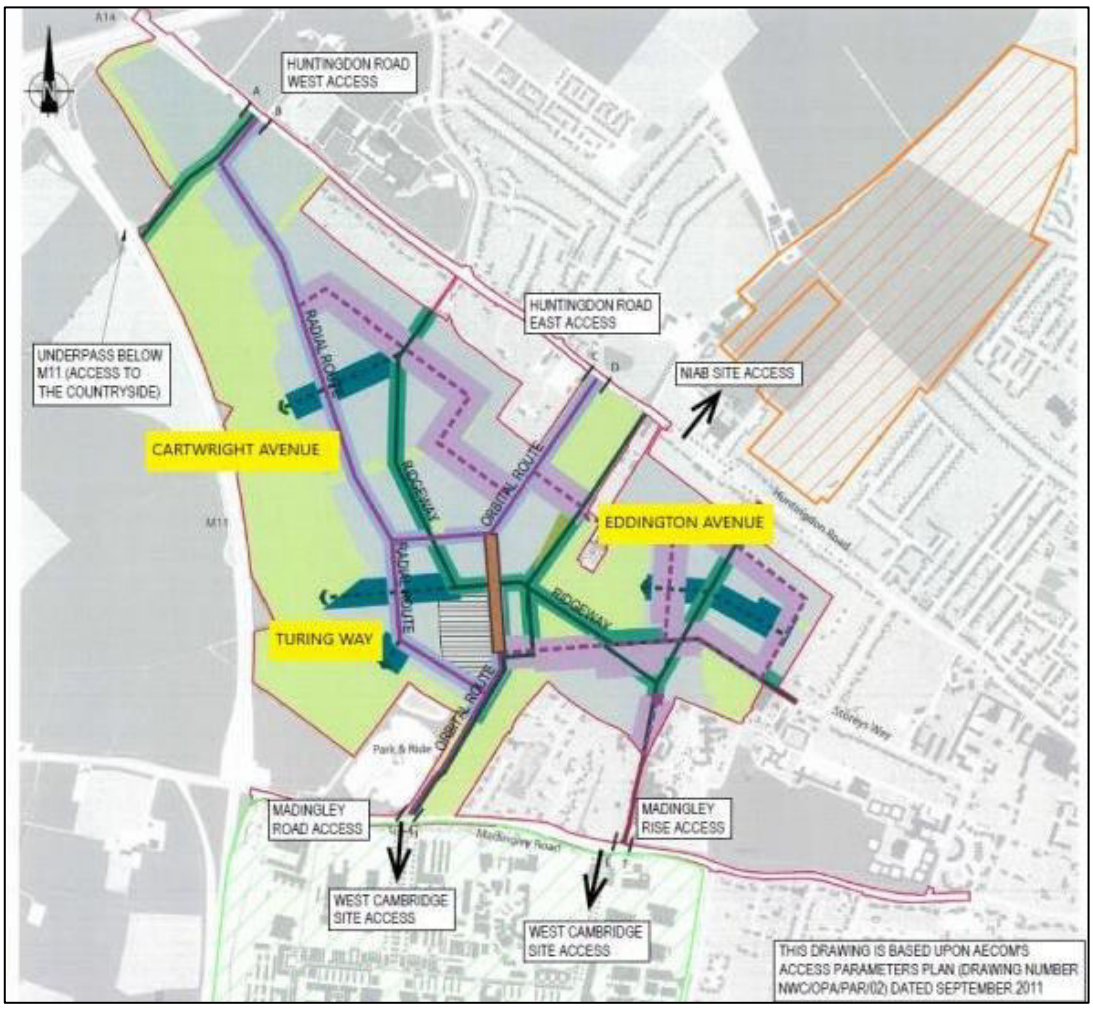
11.1.2 Whilst significant masterplan development has been undertaken for this scheme, it should be noted that this is a parameter-based outline planning application supported by a Design Code. Therefore, Reserve Matters Applications will be required pursuant to any outline approval which will be required to reflect the principles within this outline application and align with the 'rules' prescribed through the Design Code.

11.1.3 The only area where detailed approval is sought is the new Huntingdon Road West junction. The previously approved access design for this junction was not delivered as part of Phase 1 and has been comprehensively redesigned as part of this application to account for new design standards and a different site masterplan. This updated access is introduced and summarised in this section of the report.

11.2 Previously Approved NWC On-Site Transport Infrastructure

11.2.1 The starting point for the Future Phases of NWCM is the 2013 consented scheme. This is particularly true of the previously consented transport, access and movement infrastructure which is summarised in Figure 11.1.

Figure 11.1 : Consented on-site transport infrastructure



11.2.2 From the Figure 11.1, the following three vehicular accesses to the development were approved:

- Huntingdon Road East – this was opened in 2016 and has been operating for over eight years;
- Madingley Road West – this too was opened in 2016 has been operating for over eight years;
- Huntingdon Road West - to the north-west of the Site, a traffic signal-controlled junction with Cartwright Avenue providing access to the NWCM to the south. A scheme for this junction was approved as part of the 2013 application, but this has not been delivered. A revised junction proposal forms part of this planning application.
- Madingley Rise Access which exists but has not yet had additional masterplan traffic take access from it. The Madingley Rise Access was only ever proposed to be a point of access into the development on Madingley Rise rather than connected into the wider street network.

11.2.3 The principles of these accesses remain valid for the Future Phases application.

11.2.4 Additional to the accesses, it is apparent that Cartwright Avenue was proposed and approved as part of a Parameter along with the Ridgeway walking and cycling route from Huntingdon Road to Gravel Hill. Cartwright Avenue has not been delivered and forms part of this Future Phase application whilst the Ridgeway has been delivered and is a successful part of the walking and cycling network in the area.

11.3 Future Phases Development Quantum

11.3.1 The UoC is seeking Outline Planning Permission ("OPP") for the Future Phases of the NWCM. The Outline Planning Application ("OPA") seeks planning permission for:

"Outline planning application (all matters reserved except for means of access to the public highway) for a phased mixed use development, including demolition of existing buildings and structures, such development comprising:

- Living Uses, comprising residential floorspace (Class C3/C4, up to 3,800 dwellings), student accommodation (Sui Generis), Co-living (Sui Generis) and Senior Living (Class C2);
- Flexible Employment Floorspace (Class E(g) / Sui Generis research uses);
- Academic Floorspace (Class F1); and
- Floorspace for supporting retail, nursery, health and indoor sports and recreation uses (Class E (a) – E (f)).
- Public open space, public realm, sports facilities, amenity space, outdoor play, allotments and hard and soft landscaping works alongside supporting facilities;
- Car and cycle parking, formation of new pedestrian, cyclist and vehicular accesses and means of access and circulation routes within the Site;
- Highway works;
- Site clearance, preparation and enabling works;
- Supporting infrastructure, plant, drainage, utility, earthworks and engineering works."

11.3.2 The proposed development quantum is illustrated in Table 11.1.

Table 11.1: Proposed Development Quantum

Use	Use Class	Amount (GEA sqm)
Residential	C3/C4	Up to 365,000*
Co-Living	Sui Generis	Up to 52,000*
Student Accommodation	Sui Generis	Up to 52,000*
Senior Living	C2	Up to 6,500
Employment	E(g) / Sui Generis Research Uses	Up to 40,000
Academic	F1(a)	Up to 60,000
Supporting retail, nursery, health, indoor sports and recreation	E(a) – E(f)	Up to 3,500
Ancillary floorspace comprising Back of House, Enclosed Plant, Storage, Servicing, Car and Cycle Parking Areas, development infrastructure required to support the development etc	N/A	No maximum

**Total maximum floorspace of Residential (C3/C4) + Co-living (Sui Generis) + Student Accommodation (Sui Generis) – Up to 417,000 sqm GEA*

11.3.3 It is important to note that the above Quantum of Development includes for a number of flexible land uses that include for a maximum GFA for each, that can be delivered interchangeably.

11.3.4 This TA deals with this flexible approach by assessing the impact of the worst-case development scenario, by accounting for the maximum GFA for land use scenarios that would maximise the car driver trip generation from the site. Specifically, the flexibility between co-living, student accommodation vs C3 land uses has been dealt with through assessing the maximum C3 proposed (which will generate the highest trip rate per GFA) alongside student accommodation (which will generate negligible car trips during the peak hours as per co-living). Overall, the flexibility to replace and interchange C3, student and co-living land uses will have negligible impact on the outputs of this TA that has assessed a worst-case development scenario.

11.4 Site Access

11.4.1 The principle of access to the site remains as per the 2013 Consent. The Huntingdon Road West junction was not delivered as part of the Phase 1. The access proposals have been revisited as part of this application with the following changes to be made to better accommodate active travel users and assessed against Active Travel England's and Cambridgeshire's Toolkit. This junction is therefore being applied for in detail and is referenced 24067-KMC-HGN-XX-SK-CH-HR02-PL01and included in Appendix G.

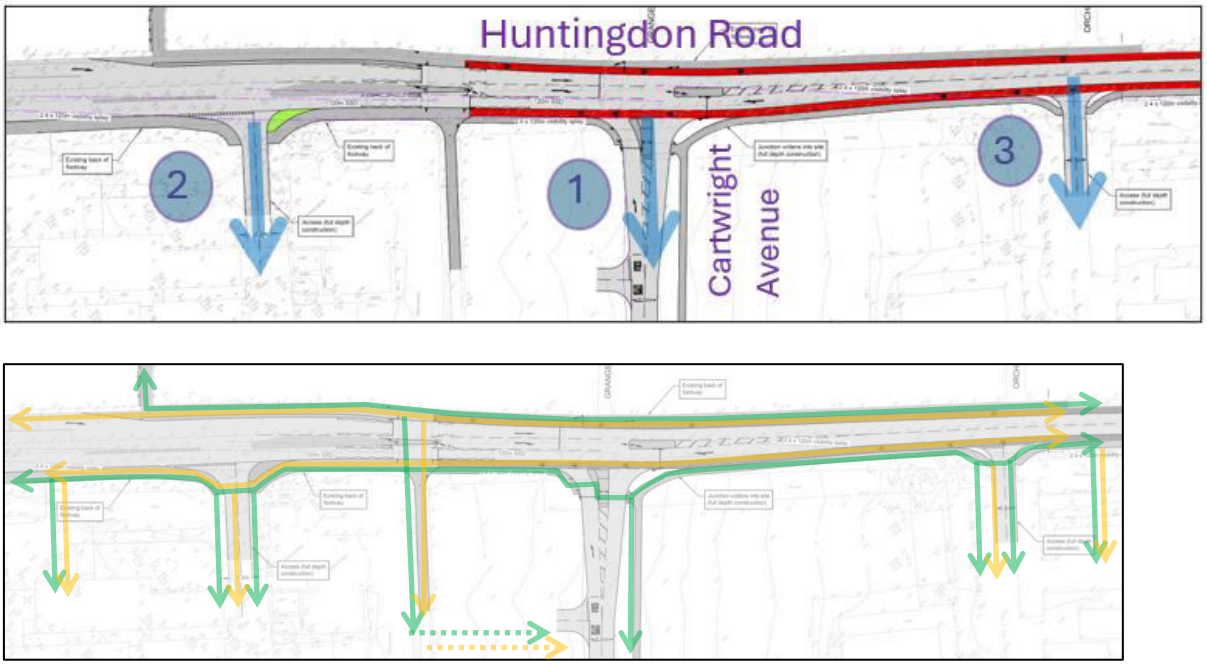
11.4.2 Huntingdon Road West junction has been redesigned, to accommodate policy and guidance updates since the 2013 consent which better cater for pedestrians and cyclists (LTN 1/20). Its approximate location is consistent with the approved 2013 consent. This junction provides

access between Huntingdon Road and the primary street within the masterplan known as Cartwright Avenue.

11.4.3 Additional, points of access from Huntingdon Road into commercial plots are also included in this application drawing and detailed consent is also sought. These are marked as 2 and 3 on Figure 11.2.

11.4.4 A summary of this access arrangement is shown in Figure 11.2 where the vehicle points of access are indicated in blue and walking and cycling connections are highlighted in green and yellow.

Figure 11.2: Proposed Site Access Strategy - Huntingdon Road West



11.4.5 The design provided by Drawing 24067-KMC-HGN-XX-SK-CH-HR02-PL01 and shown in Figure 11.2 include for the following key design elements which have been discussed with CCoC through preapplication engagement:

- Two new priority-controlled accesses off Huntingdon Road into the two main northern employment plots (locations 2 and 3 in Figures 11.2).
- Uncontrolled crossing points over each priority access set back from main carriageway with drop kerbs, tactiles, appropriate visibility, and kerb radius to accommodate vehicles expected at each (larger junction mouth at the northern employment site to accommodate larger HGVs).
- Signalised junction between Huntingdon Road and Cartwright Avenue (location 1 in Figure 11.1).
- Signalised arrangement to include; one lane approach on each arm plus right turn lane into site from NW, no right turn from Cartwright Avenue with physical restriction, staggered controlled crossing over Cartwright Avenue arm, no crossing

facilities over Huntingdon Road to reduce impact on capacity and account for crossing facilities provided North and South.
- On road uni-directional cycle tracks on Huntingdon Road south of the junction

11.4.6 Auto tracking analysis has been undertaken of the proposed site access junction with Huntingdon Road. This is presented on Drawings 24067-KMC-HGN-XX-SP-CH-HR03 PL01-Hunts Rd VSPA and 24067-KMC-HGN-XX-SP-CH-HR02 PL01 -Hunts Rd CA VSPA.

11.4.7 This proposal, in combination with the previously consented and delivered accesses means that the following existing, upgraded and proposed new accesses will support the Future Phases:

- Existing Huntingdon Road / Eddington Avenue.
- Existing Madingley Road / Eddington Avenue Site Access.
- New northwest signalised access between Huntingdon Road and Cartwright Avenue – See location (1) on Figure 11.1 and Drawing 24067-KMC-HGN-XX-SK-CH-HR02-PL01 in Appendix G.
- Two new priority-controlled accesses off Huntingdon Road to directly serve the northern NWCM employment plots – See locations (2) & (3) on Figure 12.1 and Drawing 24067-KMC-HGN-XX-SK-CH-HR02-PL01 in Appendix G.

11.5 Car Parking

11.5.1 The take up car parking spaces by KWH in Phase 1 was lower than forecast with just 10% of permits being taken up and this has been used to inform requirements for Future Phases alongside further data collected as part of various surveys undertaken for Phase 1 and Census car ownership data. This is summarised more fully in Section 7.

11.5.2 The design of car parking is covered by the Design Code. The provision proposed is as shown in Table 11.2.

Table 11.2: Proposed Car Parking Provision

Use	Use Class	Car Parking Ratio Proposed
Residential	C3/C4	Private dwellings = 1 permit per 1 residential unit and spaces to not be allocated Key Worker Housing = Blue Badge permit only
Co-Living	Sui Generis	Blue Badge permit only
Student Accommodation	Sui Generis	Blue Badge permit only
Senior Living	C2	
Employment	E(g) / Sui Generis Research Uses	1:178sqm
Academic	F1(a)	Blue Badge permit only
Supporting retail, nursery, health, indoor sports and recreation	E(a) – E(f)	Blue Badge permit only

11.5.3 Based on the proposed split between Private Residential and Key Working Housing, an average of ~ 0.43 per dwelling would be realised. This as a level of provision is substantially lower than the North West Cambridge AAP and the previous 2013 consent.

11.5.4 No specific visitor car parking for the residential neighbourhoods is proposed. Visitor car parking will be enabled by a permit system with capacity to be found within the communal parking available at any given time. This approach is considered to be the most efficient in avoiding sterilising space and land for specific visitor needs.

11.5.5 Electric vehicle charging provision will be provided in accordance with the 'Greater Cambridge Sustainable Design and Contraction SPD' (2020). The proposed provision is outlined below for each land use.

11.5.6 For residential land uses, the requirements contained within Table 3.13 of the SPD are as follows:

- One slow EV charge point for each dwelling with allocated car parking.
- At least one slow EV charge point for every two dwellings with communal parking (at least half of all non-allocated parking spaces to have EV slow charge points).

11.5.7 The current assumption is that the majority of electric parking will be unallocated. In some of the smaller, lower density neighbourhood plots, there may be some allocated parking.

11.5.8 For non-residential land uses, the requirements contained with Table 3.13 of the SPD are as follows:

- At least one slow EV charge point for every two parking spaces in non-residential developments.
- At least one rapid EV charge point for every 1,000sqm non-residential floor space or one fast EV charge point for every 1000sqm non-residential floor space (if the installation of rapid charge point is technically impossible due to grid supply constraints evidence must be provided).

11.5.9 On a site-wide basis, the requirements contained within Table 3.13 of the SPD are as follows:

- Large scale major developments will also have at least one rapid EV charge point, or at least one fast EV charge point (if the installation of a rapid charge point is technically impossible due to grid supply constraints evidence must be provided).
- Installation of passive charge points – electric vehicle charging infrastructure for future activation – at all vehicle parking spaces without active charge points to provide 100% coverage.

11.5.10 The kW charging requirements for EV charging are based upon a range of rates provided in Table 2.0 of the UK Electric Vehicle Supply Equipment Association guidelines. An extract is provided in Table 11.3.

Table 11.3: kW Requirements for EV Charging Types

Charging Speed	Power Output
Slow/Standard	2.4 kW – 3kW
Fast	3.7kW – 22kW
Rapid	43kW – 50kW
Ultra-Rapid	120kW – 350kW

11.6 Cycle Parking

Residential Cycle Parking Provision

11.6.1 The residential cycle parking standards of relevance to Future Phases of the NWCM are contained within the NWC APP. These standards are expressed as 'minimums' and are highlighted in Table 11.4 below for reference.

Table 11.4: NWC AAP Cycle Parking Standards – Residential (Minimum)

Land Use	Minimum Number of Spaces
Residential	1 space per bedroom up to 3 bedroom dwellings. Then 3 spaces for 4 bedroom dwellings, 4 spaces for 5 bedroom dwellings etc. Some level of visitor cycle parking, in particular for large developments.

11.6.2 The residential cycle parking standards have been applied to the Illustrative Scheme to give the minimum quantum of cycle parking that would be provided in that development scenario would generate. An additional 10% provision for visitor cycle parking has also been applied. Under this scenario a total of 5,528 dedicated residential cycle parking spaces would be required and an additional 553 visitor spaces (representing c.10% of the total provision). This creates a total number of cycle residential cycle parking spaces of 6,081, based on the Illustrative Scheme. The design and location of spaces is covered by the Design Code but is summarised below.

11.6.3 With regards to residential cycle parking design and typology, cycle parking for residents of houses will be provided in a secure, covered and lockable enclosure, preferably within the footprint of the building. To promote ease of use and cycling as the modal choice, the parking should usually be at the front of the building either in a specially constructed cycle shed or an easily accessible garage. However, where not viable, cycle parking will be located at the rear with access to a cycle route. If dedicated cycle parking cannot be provided at the frontage, provision within garages will be provided, subject to design. The size of the garage must allow cycles to be removed easily without first driving out a car.

11.6.4 Cycle parking for apartments/flats will be provided in a communal store, within 20m of the entrance to the building whether this is internally or externally. Cycle parking will be well lit, secure, and covered. If cycle parking is to be provided externally it should be overlooked by dwellings and not hidden. It will be subject to a form of key-controlled entry in a lockable

compound. Access and the movement flow of cycle stores should also be considered. In communal stores/areas, a simple repair and maintenance station / could also be provided. This would include a pump, a variety of tools and repair stand.

11.6.5 For visitor parking, the Cambridge Cycle Parking Guide for New Residential Developments states that for houses, visitor parking should be provided as close as possible to the front of the house and take form of a suitable stand. A wall bar / ring is also appropriate. The guidance also states, where appropriate, visitor cycle parking should also be covered (e.g., Canopy). For flats/apartments, visitor cycle parking should also be provided as close as possible to building entrances and be covered where appropriate.

11.6.6 Visitor cycle parking can also be incorporated into key hubs at the development, such as the mobility hubs.

11.6.7 In all cases, traditional Sheffield stands, or a-frames are considered best practice. A single stand provides parking for two bicycles.

11.6.8 It is proposed that 5% of the total capacity of the residential cycle parking will be designed to accommodate oversized bikes such as tandems or cargo bikes.

Commercial Cycle Parking Provision

11.6.9 The cycle parking standards of relevance to Future Phases of the NWCM for commercial uses are contained within the NWC APP. These standards are expressed as 'minimums' and are highlighted in Table 11.5 below for reference.

Table 11.5: NWC AAP Cycle Parking Standards – Commercial (Minimum)

Land Use	Minimum Number of Spaces
Offices	1 space for every 30sqm (GFA) to include some visitor parking
General Industry	1 space for every 40sqm (GFA) to include some visitor parking

11.6.10 The minimum cycle parking standards outlined in Table 12.4 have been applied to the Illustrative Scheme, to derive the minimum level of cycle parking that would be provided in that development scenario. This is illustrated within Table 11.6.

Table 11.6: Emerging Commercial Cycle Parking Quantum (Minimum Provision)

Plot	Land Use	Floor Area (GEA)	Cycle Parking Standard (minimum)	Number of Cycle Parking Spaces (minimum)
A	Mid-Tech	21,674sqm	1 space per 40sqm (GFA)	542
B	Office	17,768sqm	1 space per 30sqm (GFA)	573
Total				1,115

11.6.11 As shown in Table 12.5, a minimum of 1,115 cycle parking spaces is likely to be required for the commercial element of the proposals. Additional visitor cycle parking will also be provided.

11.6.12 Pertinent to the NWC AAP, cycle parking for employees will be provided in a convenient, secure location and covered (where practical). Cycle parking for visitors will also be provided nearby to the main entrance of buildings and covered by natural surveillance or CCTV.

11.6.13 It is proposed that 5% of the total capacity of the commercial cycle parking will be designed to accommodate oversized bikes such as tandems or cargo bikes.

Remaining Land Uses Cycle Parking Provision

11.6.14 The table below includes the cycle parking standards for the remaining elements of the Site including co-living, student accommodation, senior living, academic uses and supporting services (health, nursery, retail, recreation etc.)

Table 11.7: Cycle Parking standards

Use	Use Class	Amount (GEA sqm)	Cyle Parking Ratio
Co-Living	Sui Generis	Up to 52,000*	1 space per bedroom up to 3 bedroom dwellings. Then 3 spaces for 4 bedroom dwellings, 4 spaces for 5 bedroom dwellings etc. Some level of visitor cycle parking, in particular for large housing developments.
Student Accommodation	Sui Generis	Up to 52,000*	2 spaces per 3 bedspaces. 1 visitor space per 5 bedspaces
Senior Living	C2	Up to 6,500	1 space for every 6 residents and 1 space for every 2 members of staff
Academic	F1(a)	Up to 60,000	Cycle parking for all students using the site and 1 for every 2 members of staff.
Supporting retail, nursery, health, indoor sports and recreation	E(a) – E(f)	Up to 3,500	Case by case, based on floor area/staff number/facilities

11.6.15 It is proposed that 5% of the total capacity of the Remaining Land Uses cycle parking will be designed to accommodate oversized bikes such as tandems or cargo bikes. In some instances, specific land uses, may require bespoke cycle parking requirements i.e. medical services or nursery's and these should be fully considered and justified at Reserve Matters stage.

12 ON SITE TRANSPORT STRATEGY

12.1 Introduction

12.1.1 The previous section of this report summarised the Development Proposals. It provided detail on the quantum of development, access for which consent is sought, and the car and cycle parking provision proposed and for which approval will also be sought. This section of the report sets out the transport related strategy that will be employed within the site itself.

12.1.2 As stated in earlier sections of this report, Strategic Land has a role and responsibility in providing connections between communities and as part of a connected city quarter. It can also provide services and facilities which can support the new community as well as existing which in turn helps to reduce travel distances and make parts of the city more sustainable than before. These principles within the site are all part of the transport strategy.

12.1.3 This approach and way of thinking means that much of the necessary transport strategy to support the development proposals can be found within the site's redline as well as dealing with the off-site impacts.

12.1.4 As stated in previous sections of this report, this Future Phases application comes forward as a parameter-based outline. Nonetheless, commitments through this Transport Assessment which will manifest as planning obligations, and the Future Phases Design Code will mean that sufficient control will exist to capture the aspects set out in the following sub-sections.

12.2 Learnings from Stakeholder Engagement

12.2.1 As set out in Section 1, a series of community consultation workshops were also undertaken in October 2024, November 2024, December 2024, March 2025 and April 2025 to gather local community feedback on the emerging development proposals. A separate community Transport Workshop was also held in June 2025, to gather feedback on the principles of the Transport Strategy for the development. Stakeholders attending the Transport workshop included local Councillors, CPCA representatives, local residents, bus operators (Whippet), UoC representatives, GCSPS representatives and Outspoken Cycle representatives.

12.2.2 Below is a summary of the comments received and discussed at the June 2025 Transport Workshop and how the Masterplan and transport strategy has been considered and developed accordingly.

Table 12.1: June 2025 Transport Workshop Comments, Advice and Actions Incorporated

Workshop Comment	Actions Implemented
Active Travel	
Accessible greenspace	Feedback used to ensure that active travel is integrated and serves green spaces within the site
Lighting	Surveillance, lighting, and lessons learnt considered in masterplan and network development
High use of Voi Hubs and more needed in right location	More Voi Hubs can be provided through a mobility hub strategy
Cyclists using Hunts Rd footway and need for improvement	Improvements can be proposed to Hunts Rd cycle infrastructure
Narrow footways	2m wide footways as standard plus cycle infrastructure to reduce conflicts to be proposed
Success of Gravel Hill and Ridgeway as cycle route	Connectivity to be expanded into Future Phases
Need for adequate connection to Madingley Rd	Additional connections to Madingley Road to be designed for at eastern end of Future Phases
Confusing shared spaces	Segregated infrastructure rather than shared space proposed as part of Future Phases
Problem with parking and driving on cycleway	Detailed design will be cognisant of driver behaviour challenges in Phase 1
More cycle parking needed at community hubs	Cycle parking to be provided at all new hubs and Phase 1 review being addressed as part of Future Phases
Cycle parking security	Lessons learnt being applied and challenges to be captured through Design Coding
Courtesy crossing vs formal crossing	Lessons learnt and strategy being reviewed and where appropriate Phase 1 challenges being addressed through Future Phases
Public Transport	
Off-site congestion impacts reliability	City wide challenge.
Interaction between bus and place	Detailed design challenge
Orbital route deemed exciting opportunity	To be enabled through Future Phases off site strategy.
Vehicular Traffic	
Parking a success as low uptake	Low parking ratio followed through into Future Phases
Facilities management and construction staff taking up on-street spaces	CTMP produced for NWCM with parking areas to be identified and lessons learnt
Oversupply of private parking but under supply of on-street	Low parking ratio followed through into Future Phases
Confusing parking signs / payment process	Lessons learnt being applied
Advertise car club more	Followed through into Travel Plans
Dedicated parcel room per block welcomed	Followed through into Travel Plans

Potential for testing deliveries by robot pods at Eddington	To be reviewed as Travel Plan measure
Value of Place	
Girton Students like living in Eddington	Continue what's worked through into NWCM
Lighting needed for Ridgway	Lighting Strategy being developed for Future Phases
Way in which females use the Site and transport needs to be considered	Surveillance, lighting, and lessons learnt considered in masterplan and network development
Hubs of activity needed north of centre	To be part of Future Phases

12.2.3 Quality Panels (QP) for the NWCM were held in November 2024 and April 2025. The panels were made up of a number of nationally respected built and natural environment professionals who critiqued the emerging development proposals and identified where the design and strategy could be improved to achieve the best possible outcomes. In addition, two Joint Development Control Committee Briefings (JDDC) have been held. Below is a summary of the QP Design Advice and how the Masterplan and transport strategy has been adapted accordingly.

Table 12.2: QRP Design Advice and Actions Incorporated

QRP Advice	Actions Implemented
Need to confirm Movement strategy to arriving at current masterplan	TA and DAS present how the Movement strategy has developed and influenced the NWCM
Need to identify key fundamentals from Phase 1 that have influenced the positive mode shares and will therefore be followed through into Future Phases.	Phase 1 Audit undertaken and summarised in this TA and key lessons applied to NWCM
How has the storage of electric bikes been designed for	Yes and further detail as NWCM develops
Electric bike strategy should be very ambitious in this location	Noted and this has been fed into NWCM – more Voi Hubs located within NWCM
Cartwright Avenue must also have a social and place function as well a movement function	Cartwright Avenue has been developed with place, Shared Gardens running perpendicular to CA, crossings, community hubs at the forefront of design
Mobility Hubs to act as key role to create the sense of place	Mobility Hubs being designed into NWCM
With cycling, make sure masterplan is based on a full understanding how people will use the routes and where they are going, rather than start with a hierarchy.	Key existing routes and points of access have been considered in addition to missing gaps between key destinations
Community street is favourable but need to make sure where necessary space is made for cycling to avoid conflict.	Various options and testing has been undertaken to develop current NWCM
Removal of cars early in the neighbourhood seen as a positive	Low car parking ratio followed through into NWCM

Shared mobility needs to be a real focus. Mobility hubs on Cartwright Avenue welcomed but there should be hubs in neighbourhoods for concierge, cargo bikes and other micro mobility alongside car clubs	Key larger Mobility hubs included in NWCM alongside smaller hubs to focus on community and bring together key local infrastructure needs
Define a robust public transport strategy.	A robust strategy has been developed based on trip model analysis
Balance car use with efficient storage solutions for vehicles, bikes, and bins.	Lessons learnt being applied to NWCM

12.2.4 Transport related comments arising from pre-application and stakeholder engagement have also informed the design of the proposed development, the development of the Transport Strategy and assessment of transport effects.

12.3 Future Phases Vision

12.3.1 As set out in Section 11, much of what is being applied for as part of the Future Phases for NWCM has been established through the previous 2013 consent. Developing an updated transport vision has therefore necessitated an understanding of what has worked well to date and where enhancements, as necessary, can be brought into the transport approach. This has been informed through the Stakeholder Engagement summarised in 12.2.

12.3.2 To this end, our thinking as part of the Future Phases, has been to focus on 'accessibility' in its broadest sense and this is at the core of our transport vision. Accessibility is deemed a more inclusive approach to transport planning where access to jobs, facilities, services and opportunities are achieved through land use planning and the integration of both digital and physical mobility solutions. This is often referred to as Triple Access Planning.

12.3.3 As a summary transport vision:

North West Cambridge will be a complete, compact, and connected community that leverages its unique characteristics and achievements to date to foster low-impact, low-carbon transport solutions for the benefit of both the local community and the broader city. North West Cambridge will embrace the sharing economy to reduce consumption and waste, continuing from Phase 1 to set the benchmark for sustainable transport behaviours in new communities.

12.4 On Site Approach - Neighbourhoods and Local Living

12.4.1 Local Living is an urban planning model where everything a resident need in their daily life can be accessed within a short walking or cycling ride. This includes employment opportunities, sport, goods and cultural activities.

12.4.2 By providing 50% of housing for staff and the remainder contributing to increasing the overall supply of housing in the city, the Eddington development supports the highly successful Cambridge eco-system which provides long-term growth and prosperity for the local, regional

and national economy. Importantly however, Eddington is open to all. Eddington combines all the community infrastructure that is needed for a new, growing neighbourhood. The University's investment in the community is evident in the school, nursery, post-doc centre, hotel, supermarket, community centre, sports facilities and parklands as well as market homes delivered in Phase 1. The Site will also remain under the University's long-term stewardship.

12.4.3 The successful local living principles delivered through Phase 1 will be followed through into NWCM Future Phases. The components of which include the following and which are captured through the Design Code.

- Shared / community gardens strategy
- Community lanes
- A mixed of uses and housing tenures
- Two new hubs along Cartwright Avenue at northern end and centrally (The Common)
- Links to existing local neighbourhoods, such as Girton and Cambridge West
- Primary and neighbourhood Mobility hubs including a suite of services and facilities which can support local living
- Primary and neighbourhood Mobility hubs
- All homes within 400m of bus stop
- Cycle parking at, and for, community facilities

12.5 On Site Approach – Cartwright Avenue & The Common

12.5.1 The Huntingdon Road West junction (24067-KMC-HGN-XX-SK-CH-HR02-PL01) will provide access to Cartwright Avenue, the new spine street to serve NWCM. Cartwright Avenue was consented as a Parameter in 2013 to form part of the primary radial route through the west (Future Phases) of the development, linking between the Huntingdon Road West Junction and Turing Way within Phase 1. It was agreed through the 2013 consent that:

- this route would be relatively direct - to assist in providing access to the Madingley Road Park and Ride - yet routed far enough away to the west to increase the travel distance for through movements and reduce the attractiveness of this route for non-development traffic;
- it would be designed to reduce its attractiveness for rat-running by containing vehicle flows and speeds to a maximum of 20mph, and to provide a quality urban streetscape for all users. This would be achieved primarily through the adoption of the design philosophies of the Department for Transport's 'Manual for Streets' for all roads. The adoption of these principles would not only encourage traffic speeds to reduce on these routes and increase car journey times relative to public transport, but would also help to provide a more desirable environment for pedestrians and cyclists as a result of the lower vehicle speeds and lower overall traffic levels; and

- it would be designed to ensure that it strongly favours sustainable modes of transport, and to limit the permeability of the Site for vehicles and to enhance accessibility for pedestrians and cyclists.

12.5.2 A priority access has already been formed on Turing Way to accommodate the future Cartwright Avenue although this will likely change as part of updated proposals for Cartwright Avenue. Cartwright Avenue itself will form a separate Reserve Matter application where its design will need to accord with the approved Design Code for which Cartwright Avenue is a specific Character Area.

12.5.3 Whilst the principle of Cartwright Avenue has been agreed through the previous consent, substantial further design has been undertaken as part of the future phase masterplanning and a summary of the approach adopted is as follows.

- Cartwright Avenue is the key primary road through phase 2 of Eddington providing access to the new neighbourhood via cycle, foot and car.
- The Avenue will be a generous route lined with trees and with a design speed maximum of 20mph
- Cyclists and pedestrians will be provided with generous paths and vehicle speeds will be controlled through good highway and urban design.
- Pedestrian and cycle crossings will be used across Cartwright Avenue to connect neighbourhoods and other origins and destinations.
- Flexible verges will be used to engineer space for side access whilst allowing continuous footways and cycle tracks across them.
- Segregated cycle track(s) will be provided and the transition between uni-directionals in Phase 1 and bi-directionals will be carefully considered and designed with these transitions having to occur at the Common and at the junction with Turing Way.

12.5.4 Concept plans for Cartwright Avenue are included in Appendix H. These drawings are for information only and not for approval. They show the General Arrangement of Cartwright Avenue and key design features to be incorporate as part of the future design of the spine road:

- 24067-KMC-HGN-XX-SK-CH-CA14-C01-Overview+Details 2 Sht 1of2 and
- 24067-KMC-HGN-XX-SK-CH-CA19-C01-Overview+Details 2 Sht 2of2 -
- 24067-KMC-HGN-XX-SK-CH-CA11-C01 GA Sht1of2 and
- 24067-KMC-HGN-XX-SK-CH-CA12-C01 GA Sht2of2)

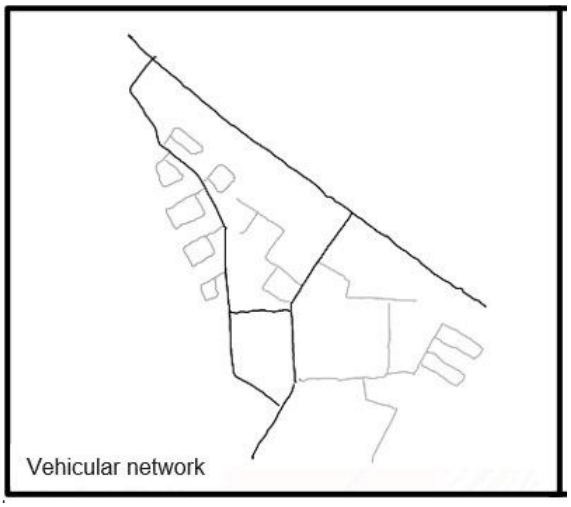
12.6 On Site Approach – Vehicular Access & Connections

12.6.1 The Future Phases is to be characterised by single vehicle points of access into neighbourhoods and a series of vehicular loops within them. These connections will be formed from Cartwright Avenue and Garrod Street. This approach to vehicular access seeks to limit vehicular connectivity and permeability to protect the integrity of the active travel network. This includes the breaking

of the previously consented vehicle link (Loverose Drive) across the Ridgeway and the removal of the vehicle connection between Garrod Street and Five Acres within the Gravel Hill plots.

12.6.2 This approach to vehicle access is a purposeful shift away from the more grid type network consented in 2013 and is illustrated below in Figure 12.1.

Figure 12.1: Vehicular and Active Travel Networks



12.6.3 It is not currently proposed to preclude through traffic from using the site given the limited other options available would see increased pressure on sensitive junctions within central Cambridge. However, based on turning movements established through the traffic surveys undertaken, the addition of Cartwright Avenue will see this traffic shift from Eddington Avenue (north) / Turing Way to Cartwright Avenue. Should changes to the strategic road network be made by National Highways as part of the RIS 3 (north facing slips at J11), Cartwright Avenue could be closed to through traffic if deemed beneficial to the wider network management of the city.

12.7 On Site Approach - Active Travel Network

12.7.1 As stated, the site has the potential to and must seek to connect different parts of the city to one another, and this is particularly true for active travel. This was the approach for the 2013 consent and remains the thinking behind the masterplan update.

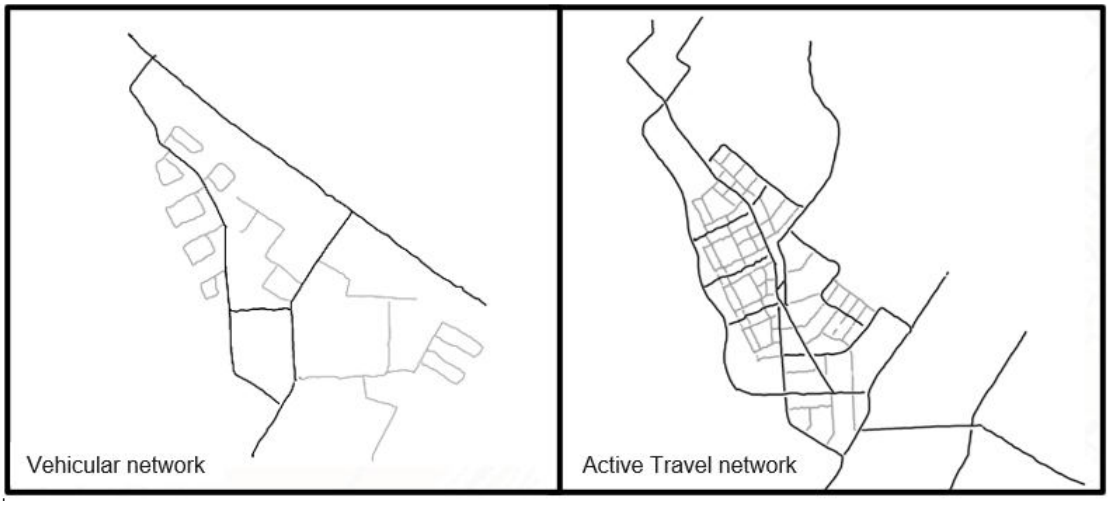
12.7.2 The following Active Travel proposals are deemed key and which will also be captured through the Design Code:

- High quality pedestrian footways and crossings throughout the scheme. Minimum footway widths of 2 metres.
- A bi-directional cycle track along southern side of Cartwright Avenue which connects into the bi-directional Public Rights of Way network to the north of the site, the Huntingdon Road West junction, the employment land to the north and the majority of the Future Phases population which is located to the south of Cartwright Avenue.

- An upgrade of the existing PROW footpath 99/5 to be a Bridleway or alternatively with permissive rights for cyclists which would connect Huntingdon Road and the National Highways delivered Bridleway to the west of the M11.
- Segregated connections to existing infrastructure (including the Ridgeway) will be provided at the Common and at Turing Way
- A Shared User Path Greenway through Brook Leys to connect the northern part of the site to Phase 1 will be provided
- Community Streets to connect through neighbourhoods and across Shared Gardens will be provided within which will sit Shared User Paths.
- Shared Gardens will connect Brook Leys to Cartwright Avenue and Shared User Paths will be included in these spaces. Segregated space will be provided at their northern end to provide the transition to the segregated infrastructure on Cartwright Avenue.
- Additional active travel permeability will be provided by slow speed streets within each of the neighbourhoods.
- Segregated pedestrian and cycle infrastructure along Garrod Street to move away from the previous consent which saw cyclists provided for within the carriageway.

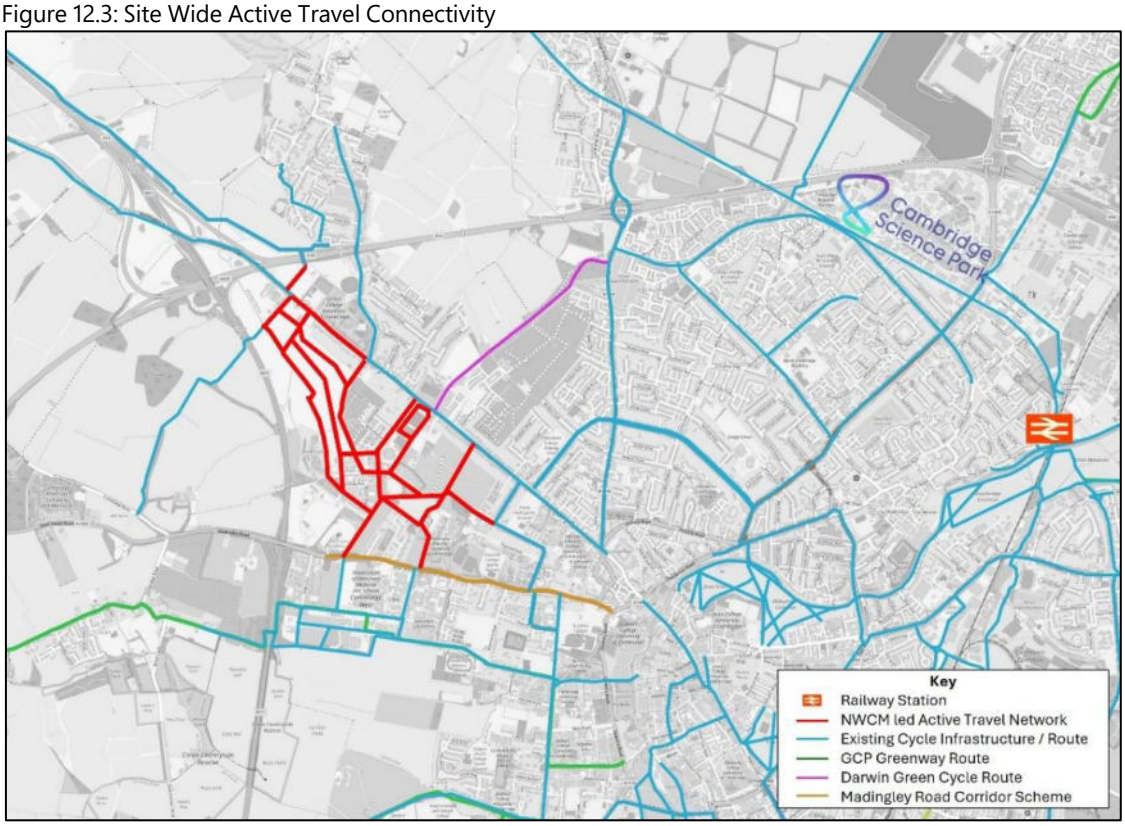
12.7.3 The figure below shows the difference between the vehicular network within the masterplan and the active travel network.

Figure 12.2: Vehicular and Active Travel Networks



12.7.4 Figure 12.2 illustrates how the Site-wide active travel network as proposed complements and connects the wider Cambridge active travel network. The red lines are the routes that the NWCM proposals (inclusive of Phase 1) would have delivered if the Future Phases are delivered as proposed. These, in combination with wider existing and planned connections make a comprehensive and cohesive network for the city quarter.

Figure 12.3: Site Wide Active Travel Connectivity

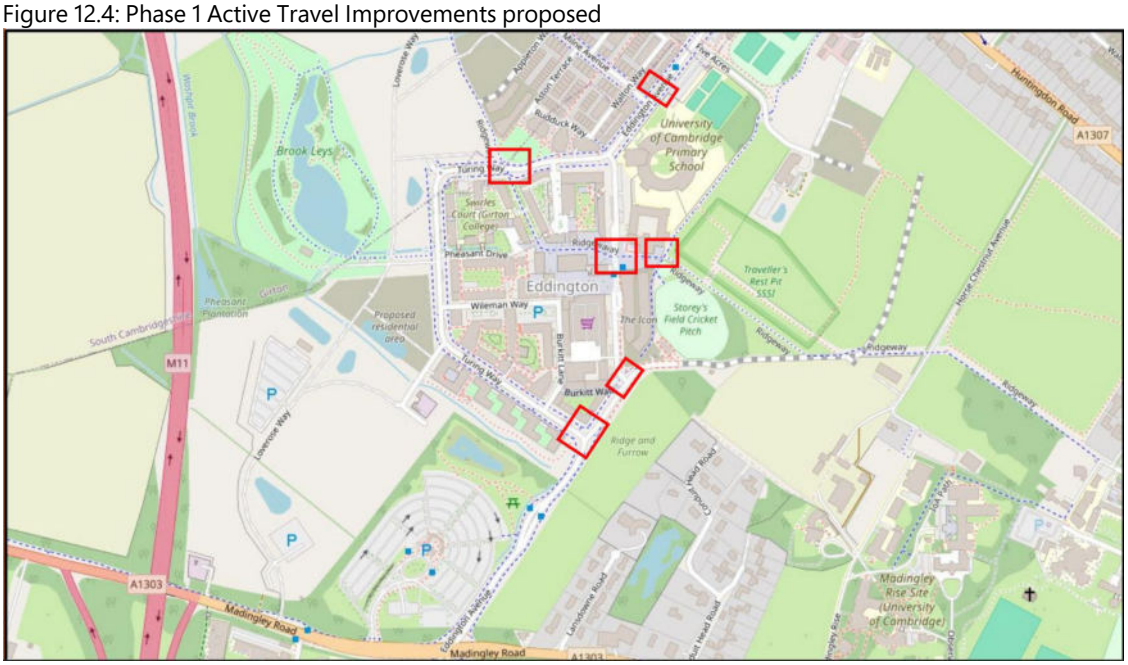


12.7.5 As well as new infrastructure being planned, the Phase 1 walking and cycling infrastructure has also been reviewed (audited) at the request of UoC to ensure that its design and performance is supporting the existing community and the able to support the Future Phases being applied for. Given the volume of pedestrians and cyclists who pass through the site, this has been considered an important part of the on-site strategy development.

12.7.6 This Audit is included in Appendix C and a set of enhancements are proposed which are summarised below. It is considered these are necessary changes to mitigate the additional person flows (pedestrians and cyclists) as a result of the future phases of Eddington. Indicative plans for each are included within Appendix C. The details may be subject to change following discussions with stakeholders and UoC.

Mitigation & Enhancements
Milne Ave / school crossing - crossing typology review.
Turing Way/Ridgeway Crossing (parallel crossing – ducting already in place)
Eddington Ave / Storeys Field Crossing & bus stop interaction
Turing Way/Eddington Avenue southern crossing
Eddington Ave to Garrod Street crossing
Storeys Field playground /Ridgeway

Figure 12.4: Phase 1 Active Travel Improvements proposed



12.7.7 To maximise the connectivity of NWCM to existing routes, an appropriate and effective wayfinding strategy, within UoC land ownership, will be key and developed through stakeholder groups. This strategy will include:

- Provide appropriate signage and surface treatment to guide residents, visitors and commuters to key internal destinations.
- Provide appropriate signage and surface treatment to key crossing points of the strategic road network at the boundary of UoC land ownership (Madingley Road & Huntingdon Road to key local neighbourhoods, communities and employment zones, such as Girton and Cambridge West).
- Provide appropriate signage and surface treatment to guide NMU through movements to key offsite destinations.
- Consistent strategy at/to/from Travel Hubs and bus stop facilities.
- Appropriate stakeholder engagement to agree to the use of consistent materials and colours.

12.8 On Site Approach - Public Transport

12.8.1 The Masterplan has been designed to continue to accommodate buses via Eddington Avenue but will also now include Cartwright Avenue which has been designed to the appropriate width to accommodate new bus services from the Huntington Road West junction being applied for. This will allow for a flexible future bus strategy, to serve all existing and new residents, by offering the flexibility to circulate around the Site using Huntingdon Road and also more direct buses straight through the Site.

12.8.2 Bus stops will be provided as part of Mobility hubs proposed at the following locations. These stop locations in combination with existing stops on Madingley Road and Huntingdon Road will mean that all parts of the masterplan will be comfortably within 400 metres of a bus stop.

- To the north of Cartwright Avenue, nearby to the commercial quarter;
- At 'The Common', on the eastern side of Cartwright Avenue within the neighbourhood quarter; and
- At the existing Eddington Local Centre, nearby to the Storeys Field Community Centre.

12.9 On Site Approach – Shared Mobility

Mobility Hubs

12.9.1 As stated, Mobility Hubs will be provided within the Future Phases, and which will build on the success of the Mobility Hub with Phase 1.

12.9.2 The concept of Mobility Hubs has evolved from thinking and delivery across Europe and North America. They are now increasingly featuring in transport strategies for new developments and in towns and cities across the UK.

12.9.3 CoMoUK is a market leader regarding guidance and expertise on mobility hubs and has prepared several guidance documents which are widely used to develop options. They apply the following definition for a mobility hub:

"*A mobility hub is a recognisable place with an offer of different and connected transport modes supplemented with enhanced facilities and information features to both attract and benefit the traveller*."

12.9.4 To expand on this, Mobility Hubs seek to cluster complementary transport modes and services allowing people to switch easily between modes and gather information to allow journeys to be easily and fully considered. In operational terms and to achieve optimal outcomes, Mobility Hubs require different operators to collaborate on matters such as integrated information, payment for access and passenger facilities. This collaboration then allows individuals to plan and choose the most suitable modes to complete their journeys in the most convenient, efficient, sustainable and cost-effective way. Mobility Hubs can adapt over time as new modes and services become available with the potential to accommodate demand responsive buses, autonomous electric vehicles and potentially drone deliveries. Modal shift away from the car will create further opportunities to repurpose excess road capacity and car parking to enhance public realm, improve active travel provision and provide better, more reliable public transport service levels.

Primary Mobility Hubs

12.9.5 Two new primary mobility hubs are included within the masterplan for the Future Phases at NWCM to amalgamate transport modes in one, convenient location. The initial location of the three primary mobility hubs is proposed as follows:

- To the north of Cartwright Avenue, nearby to the commercial quarter;
- At 'The Common', on the eastern side of Cartwright Avenue within the neighbourhood quarter.

12.9.6 These locations will complement the existing Eddington Local Centre Mobility Hub adjacent to the Storeys Field Community Centre.

12.9.7 Whilst each primary mobility hub will be subject to detailed design and pertinent to its local environment and users, Table 12.3 illustrates the key components that could be included within each primary mobility hub as part of Future Phases at NWCM.

Table 12.3: Primary Mobility Hubs – Key Components

Possible Component	Description
Bus Stop and bus loading / unloading zone	A bus stop will be provided at each primary mobility hub with an area for the bus to load and unload passengers.
Safe and Welcoming Passenger Waiting Facilities	Passenger waiting areas will be provided alongside bus stops with digital advert & timetable screens. Subject to detailed design, these will be shelters, with seating. Additional features such as Wi-Fi, live maps, USB sockets and green roofs will also be explored.
Smart media and Real Time Passenger Information (RPI)	RTPI signs will be included to provide the public with live updates on the status of public transport. This will help inform decisions. Information will also be provided on the status of public transport from nearby bus stops, in-case there is a quicker way to undertake a journey. These will also include a digital screen space for adverts.
Micromobility Station	A dedicated micromobility station could be provided that will include a selection of on-demand shared cycles, e-bikes and scooters. An area for e-bike charging could also be provided for shared use. These will be bookable via a smartphone application, or website. This will facilitate access across the Site and Cambridge.
Cycle Parking	A number of cycle parking spaces for nearby residential units could be provided in the form of Sheffield stands, or similar. The quantity of cycle parking spaces will be pertinent to the surrounding land uses and scale of each mobility hub.
Cycle Repair Hub	A cycle repair hub could be provided that contains basic tools to facilitate cycle repairs. This could include a tyre pump, Allen key and other similar tools. More advanced tools could also be provided including a cycle stand. These areas could also be utilised for cycle maintenance training sessions, if required.

Delivery Lockers	A consolidation of delivery lockers that enable parcel collection and delivery can be provided. These will reduce the number of vehicle trips for deliveries and offer a scalable last mile solutions.
Sui Generis	The primary mobility hubs, subject to detailed design, could include additional supplementary elements such as pop-up retail and food vendors.
Wayfinding signage and information	Wayfinding signs leading users to each mobility hub as part of the wider Future Phases Masterplan Wayfinding strategy. Plus information and signage at each mobility hub directing users to other key destinations and onsite amenities.
Electric vehicle charging	Charging points located close to mobility hubs to maximise connection between sustainable transport modes.
Wi-Fi smart phone connectivity	Readily accessible Wi-Fi internet access to users allowing them to stay connected while waiting.
Pick up and drop off points	An area dedicated for passengers to be picked up and dropped off close to the facilities.

Neighbourhood Mobility Hubs

12.9.8 Additionally, to the primary mobility hubs will be a series of neighbourhood Mobility Hubs. These will be compact in nature and complement the primary mobility hubs external to the neighbourhoods.

12.9.9 Whilst each neighbourhood Mobility Hub will be designed pertinent to its end users and surrounding area, Table 12.4 provides a summary of the key components these could include.

Table 12.4: Neighbourhood Mobility Hubs – Key Components

Possible Component	Description
Car Club Space(s) with EV charging.	A dedicated car club space should be provided at each neighbourhood mobility hub. This can be booked in advance or on-demand by residents. The number of car club spaces at each neighbourhood mobility hub will be subject to detailed design and local context.
Micromobility Docking Station	A dedicated micromobility docking station could be provided that will include a selection of on-demand shared cycles, e-bikes and scooters. These will be bookable via a smartphone application, or website. This will facilitate access across the Site and Cambridge.
Cycle Repair Tools	A small scale cycle repair station could be provided that contains basic tools to facilitate cycle repairs. This could include a tyre pump, Allen key and other similar tools.
Visitor Cycle Parking	A number of visitor cycle parking spaces for nearby residential units could be provided in the form of Sheffield stands.

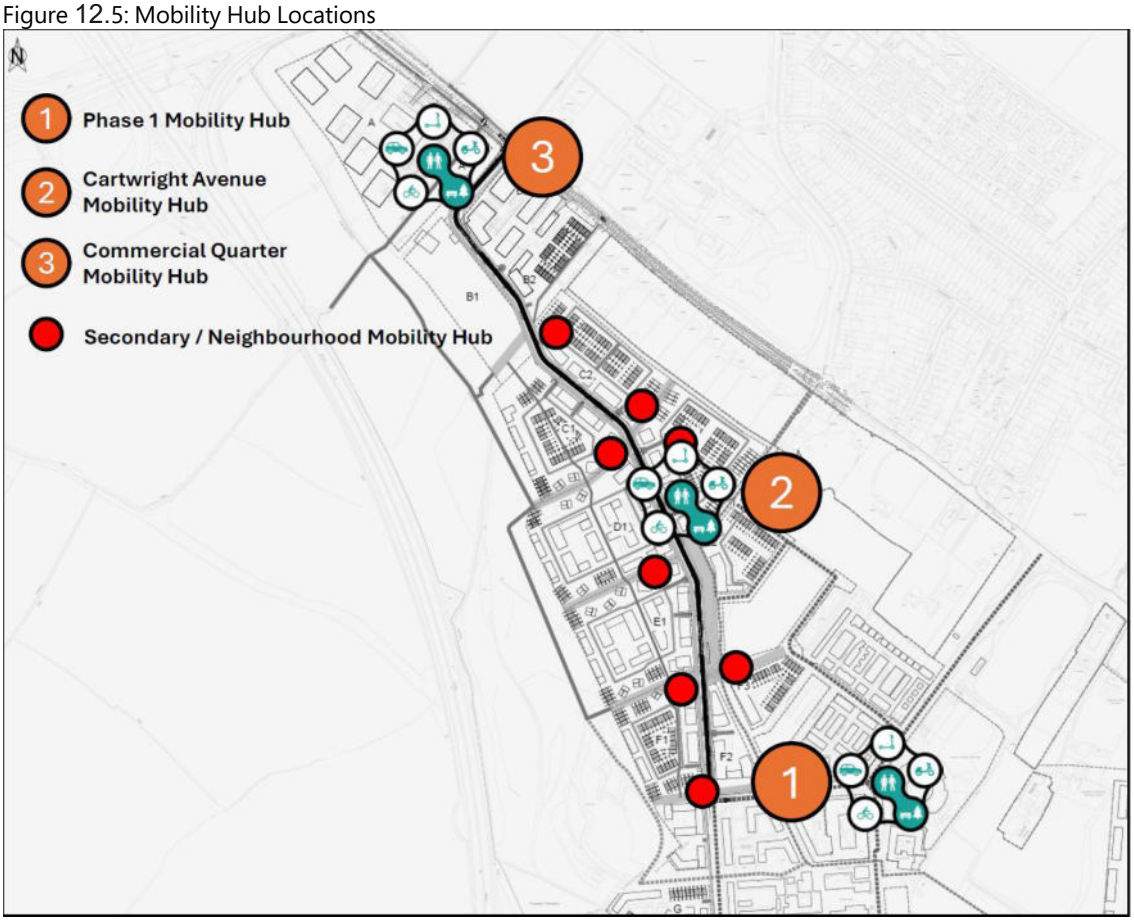
12.9.10 A cycle hire scheme will also be provided where appropriate, particularly for larger bikes such as cargo bikes. This would encourage cycling for those that do not own a car but require the uses of a cargo bike on an ad hoc basis (e.g., larger item collection and drop off). Provision for this could be made in a cycle hub, and at the mobility hubs.

12.9.11 Whilst cargo bikes provide a range of benefits, they often come at a higher financial cost to the user than a traditional bike. Therefore, particularly for a transient community such as that seen at Eddington, purchasing a new cargo-bike outright may not be viable for a number of residents.

12.9.12 To provide an alternative and facilitate cargo bike use at future NWCM phases, the UoC will explore the provision of a cargo-bike hire scheme through partnerships with private operators.

12.9.13 A cargo bike hire scheme would provide users with access to cargo bikes on-demand for the desired duration, whether it be a matter of hours or weeks, without the need for private ownership. A variety of cargo bike types could be provided, varying from 'mini-cargo bikes', to traditional bikes and larger electric variations.

Figure 12.5: Mobility Hub Locations



Micromobility

12.9.14 Micromobility refers to a range of small, often lightweight, electric vehicles that are driven by the user. This includes electric scooters ('e-scooters') and electric bicycles ('e-bikes').

Micromobility offers similar benefits to cycling, offering a sustainable way of travelling short distance trips within urban areas.

12.9.15 Within Cambridge, the private company 'VOI' operate nearly all micromobility services. The current VOI Cambridge fleet consists of number of shared e-scooters and e-bikes that are 'docked' at micromobility hubs across the city and surrounding areas.

12.9.16 To access a shared-micromobility vehicle, users can hire on-demand via the smartphone application, with the option to pre-book day/weekly bases to travel around Cambridge.

12.9.17 In an Eddington context, there are currently three micromobility hubs (both operated by VOI) within the development. These are located adjacent to the Storeys Field Community Centre, Turing Way near student accommodation at Swirles Court, and The Ridge Way, respectively. In addition to these, there is also a number of micromobility hubs nearby to the Site on Madingley Road and Huntingdon Road, respectively.

12.9.18 Further hubs will be added as part of the NWCM Future Phases with these being part of the aforementioned Mobility Hub approach to help consolidate transport options in a singular and identifiable location.

12.10 On Site Approach - Waste

12.10.1 A separate waste and servicing strategy report is submitted alongside this TA and the design of waste facilities is also captured by the Design Code for the site.

12.10.2 The estimated waste generation for the site once operational has been calculated using appropriate metrics and these calculations have informed the broader capacity and cost analysis undertaken for the site once operational has been calculated using appropriate metrics.

12.10.3 Residents will be provided with communal waste storage facilities, located externally within the streetscape. Separate containers will be provided for each waste stream. Residual water and recyclable will be stored in Underground Refuse Storage (URS) units consistent with the waste strategy for Phase 1. Food waste will be stored in wheeled bins.

12.10.4 Residents in communal blocks will be provided with sufficient space for the storage of bulky items.

12.10.5 Commercial waste will be managed in accordance with the Guidance and British Standard BS5906:2005.

12.10.6 The design of the illustrative masterplan which will be translated into the Design Code, ensures that at no point within the Future Phases of the masterplan will waste vehicles have to reverse.

12.11 On Site Approach - Transport Summary

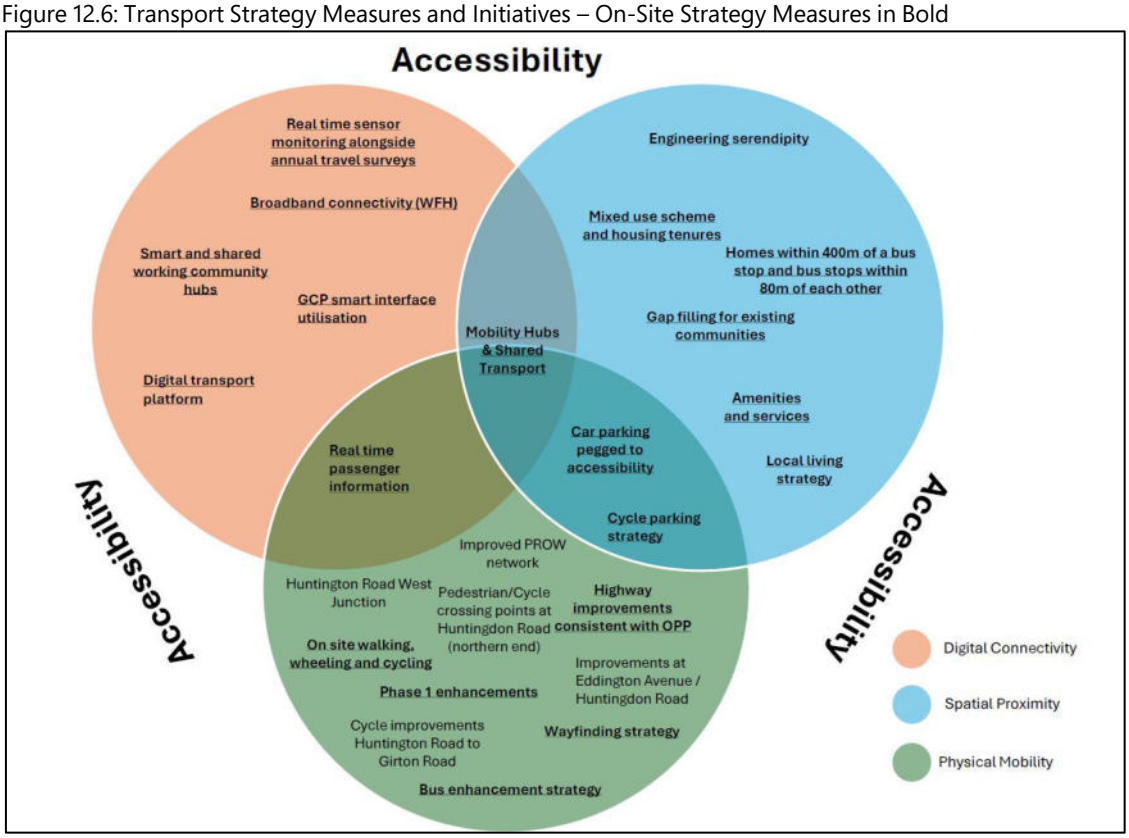
12.11.1 The Future Phases have sought to continue to build the legacy of transport behaviours that have been witnessed in Phase 1 by continuing the approach and bettering where possible from lessons learnt from Phase 1.

12.11.2 At this outline stage of the planning process, further detail, design and approvals will be needed but the following overarching principles have been assumed throughout the design and development process to date. It is expected that these will be secured through Design Coding or planning obligations.

- On site amenities and neighbourhoods to encourage internalisation through local living. An improved Public Right of Way to connect Huntingdon Road West junction towards the Bridleway to the west of the M11 which will incorporating cyclists
- Bus stops within 400m of all parts of the site
- Additional active travel routes through the site including a Shared User Path through Brook Leys, a Community Street linking neighbourhoods to one another and Shared User Path through the Shared Gardens
- Cartwright Avenue will be designed to be low speed and will be characterised by landscape and a bi-directional strategic and segregated cycle track which will connect the cycle networks to the north with those to the south.
- Private vehicle access will be through single points of access from Cartwright Avenue and Garrod Street. Vehicular permeability will be minimal to protect the integrity of the active travel network.
- Deliver walking and cycling infrastructure will be enhanced for the benefit of the significant existing and new users to the site and will include improvements for active travel to Storeys Field Playground / Ridgeway junction and improvements to Eddington Ave / Garrod St Crossing to incorporate cyclists.
- Segregated walk and cycle infrastructure along Garrod Street linking the Site to the east.
- Improved wayfinding on site within UoC land ownership.
- Three onsite primary mobility hubs plus additional neighbourhood mobility hubs. Primary Mobility hubs to include high quality cycle parking and high quality bus stops with digital real time passenger info and advertising space

12.11.3 An overview of the range of measures that are proposed in respect of various modes and initiatives is provided in Figure 12.6 for on-site measures.

Figure 12.6: Transport Strategy Measures and Initiatives – On-Site Strategy Measures in Bold



13 TRIP FORECASTING

13.1 Introduction

13.1.1 The forecast travel demand associated with the proposed development of Future Phases is set out in this section of the report and follows the methodology as set out within the agreed Scoping Note. The Trip Forecasting is a product of the Transport Approach adopted and set out in the previous section of this report.

13.1.2 This section also provides a summary of the 2012 trip demand modelling outputs and a comparison with updated trip demand forecasts based on Phase 1 Eddington Residential surveys. The full trip model methodology, inputs and outputs are provided in Appendix H.

13.1.3 It is important to note that the NWCM Quantum of Development includes for a number of flexible land uses that includes for a maximum GFA for each, that can be interchanged. This trip modelling section deals with this flexible approach by determining the trip generation of the worst case development scenario, by accounting for the maximum GFA for land use scenarios that maximises car driver trip generation. Specifically, the flexibility between co-living, student accommodation vs C3 land uses has been dealt with through assessing the maximum C3 proposed (which will generate the highest trip rate per GFA) alongside student accommodation (which will generate negligible car trips during the peak hours as per co-living). Overall, the flexibility to replace and interchange C3, student and co-living land uses will have negligible impact on the outputs of this TA that has assessed a worst case development scenario. Furthermore, the impact assessment of each plot will be dealt with through separate Reserved Matters Transport Statements.

13.2 Summary of the 2012 Person Trip Demand Modelling

13.2.1 The 2012 NWC Transport Assessment, submitted in support of the NWCM outline planning application, included two independent assessments of movement from NWCM:

- **Bespoke Option Test for NWCM** - Commissioned using Cambridgeshire County Council's Cambridge Sub Regional Model (the CSRM). This is an integrated land use and transport model used to assess and appraise development and infrastructure proposals across the Cambridge Sub-Region; and
- **Person Trip Analysis** - Prepared by Stantec for NWCM considering individual land uses.

13.2.2 The total number of vehicle trips assessed by both models in both peak hours was consistent, and provided increased certainty that the traffic impact from NWC had been correctly assessed.

13.2.3 Reflecting that NWC was a new development with an innovative transport strategy, the information included within the Person Trip Analysis referred to the best travel data available, albeit not necessarily obtained locally. The 2012 Person Trip Model was reviewed and approved by the Highway Authorities and forecast the following AM and PM peak hour development-

generated person trips, as summarised in Tables 13.1 and 13.2. **This has been used as a vehicle trip budget for this 2025 application**.

Table 13.1: AM Base Case NWC Person Trip generation by Land-Use by Mode (2012 Transport Assessment - Consented Quanta)

	PT Passengers		Car Driver		Car Passenger		Bicycle		Pedestrian		Total Trips	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Total – All Accom	34	139	217	617	40	65	105	899	57	77	463	1,890
Total – All Commercial / Research	64	7	586	42	31	3	218	29	26	11	945	96
Total – All Other Uses	30	11	96	78	19	17	0	1	13	18	160	129
Total	129	157	899	737	90	85	325	929	96	106	1,568	2,114

Table 13.2: PM Base Case NWC Person Trip generation by Land-Use by Mode (2012 Transport Assessment - Consented Quanta)

	PT Passengers		Car Driver		Car Passenger		Bicycle		Pedestrian		Total Trips	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Total – All Accom	164	143	538	248	101	65	620	517	159	162	1,583	1,138
Total – All Commercial / Research	9	92	80	464	4	40	41	343	12	53	146	1,010
Total – All Other Uses	6	5	194	212	98	107	1	1	22	22	323	349
Total	179	240	812	923	203	212	662	861	193	237	2,052	2,497

13.2.4 These consented trips form the Trip Budget and will have been accounted for in any demand modelling undertaken by the transport authorities responsible for delivering transport infrastructure in the area.

13.2.5 When comparing the mode shares used within the 2012 TA and approved in 2013 through the OPP with annual survey data collected from existing Phase 1 Eddington Residents, it is clear that the above car driver trip generation estimated in 2012 (and used to form the Trip Budget) overpredicted car mode share and underpredicted public transport and other sustainable

modes. This mode share comparison is demonstrated in Table 13.3 below, as extracted from the NWC monitoring report, and is followed through when estimating updated trip demand modelling.

Table 13.3: Comparison of 2012 estimated and 2023/2024 recorded mode shares

	TA 2011	2020	2021	2022	2023	2024	Modal shift
On foot	8%	14%	16%	15%	11%	14%	+6%
By bike	40%	48%	37%	40%	45%	34%	-6%
By bus (Other)	10%	1%	7%	5%	5%	3%	+21%
By bus (Universal)	0%	14%	28%	30%	28%	28%	
By car	36%	13%	7%	10%	5%	14%	- 22%
Train	0%	4%	2%	0%	0%	0%	-
Car Share Driver	0%	0%	1%	0%	0%	3%	+3%
Car Share Passenger	5%	1%	0%	0%	3%	1%	-4%
Motorcycle/Scooter	0%	0%	1%	0%	0%	0%	-
Taxi	0%	3%	0%	0%	2%	3%	+3%

13.3 Updated Trip Demand Modelling - Methodology

13.3.1 Whilst a trip budget approach has been adopted for vehicle trips, the Future Phases of NWCM must forecast multimodal trips to ensure that a comprehensive package of transport mitigation can be prepared to support the development scheme.

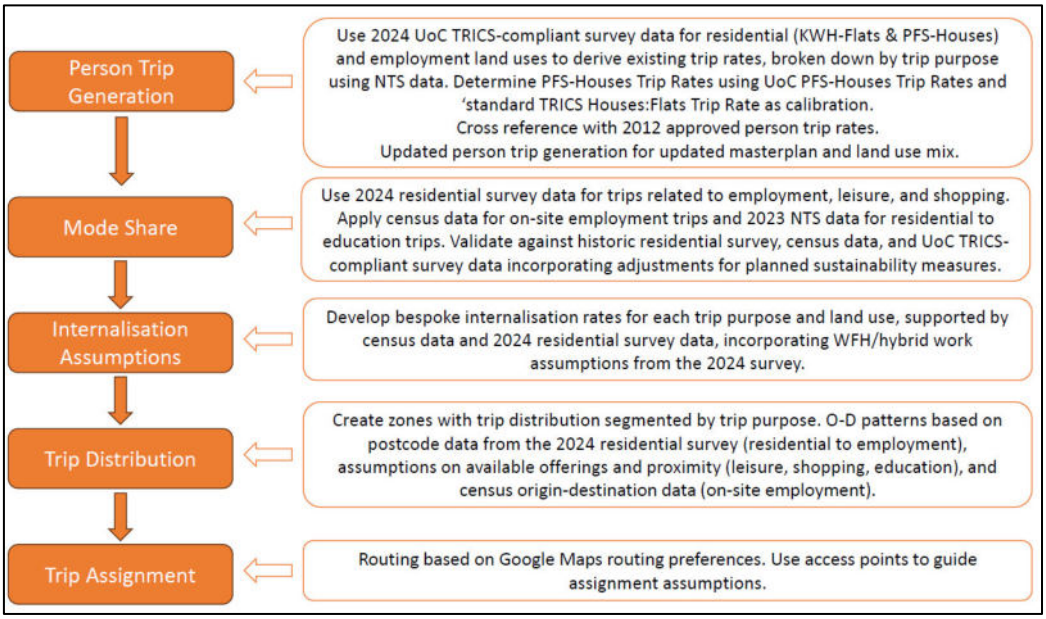
13.3.2 This section outlines the approach taken to derive multi-modal trip forecasts for the Future Phases of NWCM. It builds upon pre-application discussions held with CCoC and extensive data collection exercises to understand local travel patterns.

13.3.3 The general framework within this assessment is as follows and is summarised in Figure 13.1:

- Predict total person trips using TRICS-compliant surveys undertaken for comparable uses in Phase 1 and Cambridge West, general TRICS data, and forecast employment density ratios;
- Separate residential trips by trip purpose using the National Travel Survey (NTS);
- Apply reductions based on opportunities for internalisation within the Site and work-from-home (WFH) trends;
- Consider zones for origin-destination purposes;
- Identify destinations for each land use/trip purpose using census data and locations of existing facilities; and,
- Review opportunities for trips to be made by accessible forms of transport. This assessment considers existing and identified improvements to sustainable transport infrastructure, residential questionnaire surveys completed for Phase 1, census travel

to work data, existing and emerging local transport policies, availability/cost of parking, and potential links with other developments. Residual trips that could not be made sustainably are assumed to be made by car.

Figure 13.1: Future Phases Trip Generation Methodology



13.3.4 The full trip model methodology and inputs used are provided in Appendix H.

13.4 Updated Trip Modelling - Outputs

13.4.1 Following the application of the mode share assumptions to the person trip generation, Table 13.4 outlines the total trip generation by mode for NWCM. This is followed by Table 13.5 and Table 13.6, which provide a breakdown by mode for the internal and external person trips, respectively.

Table 13.4: Total Trip Generation by Mode

Mode	AM Peak Hour			PM Peak Hour			Daily (07:00-19:00)		
	Arr.	Dep.	2-Way	Arr.	Dep.	2-Way	Arr.	Dep.	2-Way
Car Driver	471	182	653	180	561	740	2,370	2,449	4,819
Car Passenger	28	17	44	8	30	38	130	134	264
Bus	177	322	499	340	245	585	1,990	2,275	4,265
Train	13	2	16	2	15	17	54	54	108
Bicycle	482	806	1,288	911	764	1,675	6,015	6,654	12,669
On Foot	398	994	1,393	477	351	828	3,550	4,004	7,555

Other	0	0	0	0	0	0	0	0	0
Total	1,569	2,323	3,892	1,917	1,967	3,884	14,110	15,570	29,680

Table 13.5: Internal Trip Generation by Mode

Mode	AM Peak Hour			PM Peak Hour			Daily (07:00-19:00)		
	Arr.	Dep.	2-Way	Arr.	Dep.	2-Way	Arr.	Dep.	2-Way
Car Driver	0	0	0	0	0	0	0	0	0
Car Passenger	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0
Bicycle	27	85	112	147	74	221	721	830	1,551
On Foot	27	85	112	147	74	221	721	830	1,551
Other	0	0	0	0	0	0	0	0	0
Total	54	170	224	294	149	443	1,442	1,660	3,102

Table 13.6: External Trip Generation by Mode

Mode	AM Peak Hour			PM Peak Hour			Daily (07:00-19:00)		
	Arr.	Dep.	2-Way	Arr.	Dep.	2-Way	Arr.	Dep.	2-Way
Car Driver	471	182	653	180	561	740	2,370	2,449	4,819
Car Passenger	28	17	44	8	30	38	130	134	264
Bus	177	322	499	340	245	585	1,990	2,275	4,265
Train	13	2	16	2	15	17	54	54	108
Bicycle	455	721	1,176	764	690	1,454	5,294	5,824	11,118
On Foot	371	909	1,280	330	277	606	2,829	3,174	6,004
Other	0	0	0	0	0	0	0	0	0
Total	1,515	2,153	3,668	1,623	1,818	3,441	12,668	13,910	26,578

13.4.2 During the AM peak hour, 653 two-way external vehicle trips are forecast. This increases marginally in the PM peak hour with 740 vehicle trips projected and, across a 12-hour period, circa 4,800 external vehicle trips are forecast.

13.4.3 External trips constitute 94% and 89% of all trips across the AM and PM peak hours, respectively. Across the day, 90% of person trips are external to the site.

13.4.4 Table 13.7 summarises the site-wide external mode share in percentage terms.

Table 13.7: External Mode Share by Time Period

Mode	AM Peak Hour	PM Peak Hour	Daily (07:00-19:00)
Car Driver	18%	22%	18%
Car Passenger	1%	1%	1%
Bus	14%	17%	16%
Train	0%	0%	0%
Bicycle	32%	42%	42%
On Foot	35%	18%	23%
Other	0%	0%	0%
Total	100%	100%	100%

13.4.5 The site-wide external mode share demonstrates a strong reliance on sustainable travel, with the majority of trips made by walking, cycling, or bus. Car use remains low throughout the day, with car driver trips making up just 18% of daily external travel, supporting the expectation that most external trips will be made without a car.

13.5 Updated Trip Modelling - Distribution

13.5.1 Following the derivation of external person trips by mode, the next step taken was to determine origin-destination patterns on a zonal basis. Zones at Middle Super Output Area (MSOA) scale were reviewed for Cambridge and South Cambridgeshire. Zones were expanded to full districts to cover travel patterns to/from East Cambridgeshire, Fenland, Huntingdonshire, and Peterborough. All origins and destinations outside of Cambridgeshire are considered as one zone.

13.5.2 Overall, a 'Core' distribution scenario was used accounting for a combination of Census data and 2024 Resident Survey data to distribute person trips by mode. Further to this a Sensitivity 'Plausible' distribution scenario was also undertaken to account for a higher proportion of Public Transport trips being distributed towards Cambridge growth areas, such as NECAAP and CBC, which are not accounted for in the 2024 Resident Survey nor Census Data.

13.5.3 The methodology for deriving and applying individual origin-destination patterns to each land use or trip purpose are summarised in Appendix H. The complete distributions by zone are

included at the end of this section, whilst a detailed set of calculations are included in Appendix I.

13.5.4 Below is a summary of how distribution of trips towards Cambridge growth areas has been weighted:

- Reviewed the planned/proposed floor areas for selected schemes for land uses that will generate employee growth in the future
- Calculated employee forecasts using density assumptions from HCA guidance.
- Matched each scheme with the correct distribution zone / MSOA.
- Applied a weighting between existing distribution by zone and future distribution by zone.
- Determined a blended distribution between Census, 2024 survey data and weighted growth areas.

13.6 Updated Trip Modelling – Assignment

13.6.1 The assignment of external vehicle trips to the local highway network builds directly on the distribution work provided in Appendix H, which identified the likely origins and destinations of trips on a zonal basis.

13.6.2 Table 13.8 summarises the resulting external vehicle trips by zone, presented for the AM and PM peak hours as well as the 12-hour daily period. This breakdown forms the basis for assigning vehicle flows to the study network for detailed analysis.

Table 13.8: External Vehicle Trip Generation by Zone

Zone	AM Peak Hour			PM Peak Hour		
	Arr.	Dep.	2-Way	Arr.	Dep.	2-Way
Internal (Future Phases only)	0	0	0	0	0	0
Cambridge 001	14	5	18	2	15	17
Cambridge 002	12	2	14	2	14	15
Cambridge 003	17	36	52	9	13	23
Cambridge 004	8	3	11	1	9	10
Cambridge 005 (inc. Phase 1)	0	0	0	0	0	0
Cambridge 006	12	6	18	11	16	26
Cambridge 007	0	0	0	0	0	0
Cambridge 008	10	5	15	5	12	17

Cambridge 009	11	2	12	1	12	14
Cambridge 010	7	1	8	1	8	9
Cambridge 011	6	1	7	1	7	7
Cambridge 012	6	1	7	1	7	7
Cambridge 013	11	12	23	14	14	28
South Cambridgeshire 001	5	1	6	1	6	7
South Cambridgeshire 002	6	1	6	1	6	7
South Cambridgeshire 003	7	1	9	1	8	9
South Cambridgeshire 004	3	1	4	1	4	5
South Cambridgeshire 005	7	1	8	1	8	9
South Cambridgeshire 006	13	5	18	3	14	17
South Cambridgeshire 007	11	15	26	33	23	56
South Cambridgeshire 009	0	0	0	0	0	0
South Cambridgeshire 010	8	2	10	2	9	11
South Cambridgeshire 011	4	1	5	1	5	5
South Cambridgeshire 012	4	1	4	0	4	5
South Cambridgeshire 013	5	1	6	1	6	7
South Cambridgeshire 014	3	0	4	0	4	4
South Cambridgeshire 015	8	1	9	1	9	10
South Cambridgeshire 016	7	1	8	1	8	8
South Cambridgeshire 017	12	13	25	15	16	31
South Cambridgeshire 018	6	1	7	1	7	7
South Cambridgeshire 019	3	1	4	0	4	4
South Cambridgeshire 020	4	1	5	1	5	6
South Cambridgeshire 021	5	1	6	1	6	7
East Cambridgeshire	53	9	61	7	61	67
Fenland	15	3	18	2	18	20
Huntingdonshire	65	12	77	10	75	85

Peterborough	7	1	8	1	8	9
Outside Cambridgeshire	96	36	132	49	120	169
Total	471	182	653	180	561	740

13.6.3 This shows a broad spread of vehicle trips across Cambridge and the wider county. Within Cambridge, Cambridge 003 (East Cambridge/Chesterton), Cambridge 013 (Cambridge Biomedical Campus), and South Cambridgeshire 007 (Milton and northeast fringe) generate higher vehicle trip volumes. In each case, less direct public transport connections to North West Cambridge, which often require interchanges, combined with limited walking and cycling accessibility, make car travel more likely. Although higher volumes are also observed for East Cambridgeshire, Fenland, and Huntingdonshire, these areas cover much larger geographic catchments than the MSOA zones within Cambridge, and the figures reflect that broader scale.

13.6.4 Conversely, zones directly adjacent to the site, such as Cambridge 007 and Cambridge 005, generate no external vehicle trips with trips expected to occur via walking or cycling instead.

13.6.5 From this point, a manual routing exercise is undertaken to assign vehicle trips across the highway network. This begins by identifying which parcel of the site (east or west of Eddington Avenue) each trip is likely to be associated with, based on land use, development phasing, and access arrangements. For the western parcel, trips are then routed via either the northern access onto Huntingdon Road or the eastern access via Turing Way, depending on which provides the most direct and appropriate connection.

13.6.6 Google Maps is used to identify the most logical route between each zone and the site, based on peak hour travel conditions. This allows for the consideration of congestion, travel time, and road hierarchy. Where two or more routes are of comparable distance or duration, trips may be split evenly between them to reflect likely route choice variability among drivers.

13.6.7 This assignment methodology ensures that vehicle trips are allocated in a logical manner, providing a robust input for proportional analysis and junction capacity assessments in the following stage of analysis.

13.6.8 The full output flow diagrams are attached in Appendix I.

13.7 Updated Trip Model – Multimodal Movements

Cycle Trips

13.7.1 Cycle trips have also been distributed to the network on a zonal basis using Census data as per the vehicle distribution across the wider network. Figures 13.2 to 13.5 show the Peak Hour and Daily NWCM cycle flows through the Site from each internal plot as extracted from the trip model.

Figure 13.2: Peak hour and daily internal cycle flows – from all internal plots

Link	AM Total	PM Total	Daily Total
1	1,200	1,500	4,600
2	100	200	600
3	300	300	1,100
4	200	300	900
5	1,200	1,300	4,400
6	300	300	900
7	500	500	1,500
8	300	300	900
9	300	300	900
10	1,500	1,600	5,300
11	0	0	0
12	100	100	500
13	1,300	1,400	4,500
14	1,400	1,900	6,000
15	500	900	3,300
16	1,400	2,100	6,600
17	100	200	700
18	200	200	900
19	100	100	400
20	300	300	1,000
21	1,000	1,100	3,500
22	100	100	500
23	200	300	1,200
24	200	200	900
25	500	500	1,500
26	0	0	300
27	300	300	1,200
28	0	0	100
29	300	300	1,100
30	200	200	700
31	100	100	500
32	100	100	500

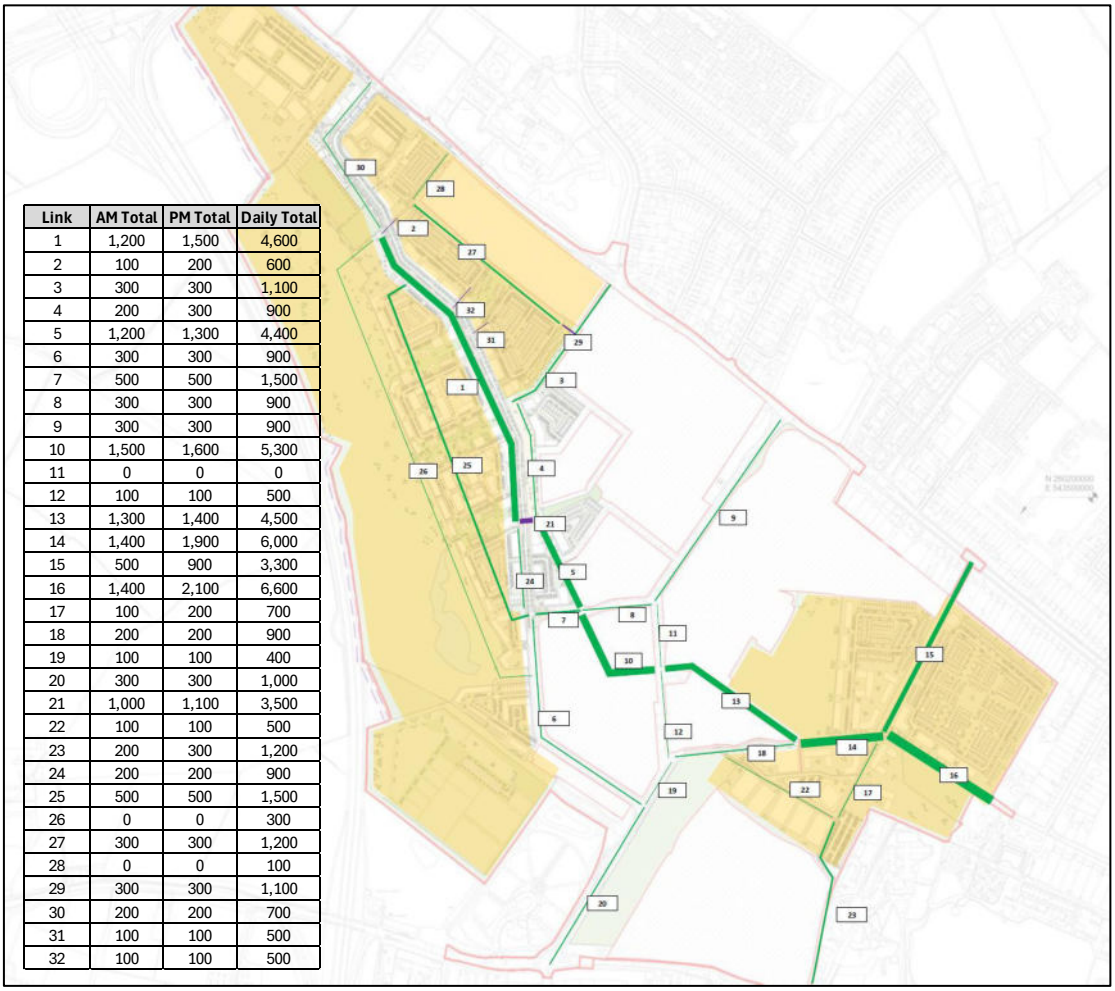


Figure 13.3: Peak hour and daily internal cycle flows – from plot north of Cartwright Avenue

Link	AM Total	PM Total	Daily Total
1	300	400	1,200
2	100	200	500
3	300	300	1,000
4	200	300	800
5	400	400	1,400
6	100	100	300
7	100	100	200
8	100	100	200
9	100	100	200
10	400	400	1,400
11	0	0	0
12	0	0	200
13	300	300	900
14	300	300	900
15	0	0	100
16	300	300	800
17	0	0	0
18	0	0	200
19	0	0	0
20	100	100	200
21	200	200	600
22	0	0	200
23	0	0	200
24	100	100	400
25	0	0	0
26	0	0	100
27	300	300	1,100
28	0	0	100
29	300	300	1,000
30	0	0	100
31	100	100	400
32	100	100	400

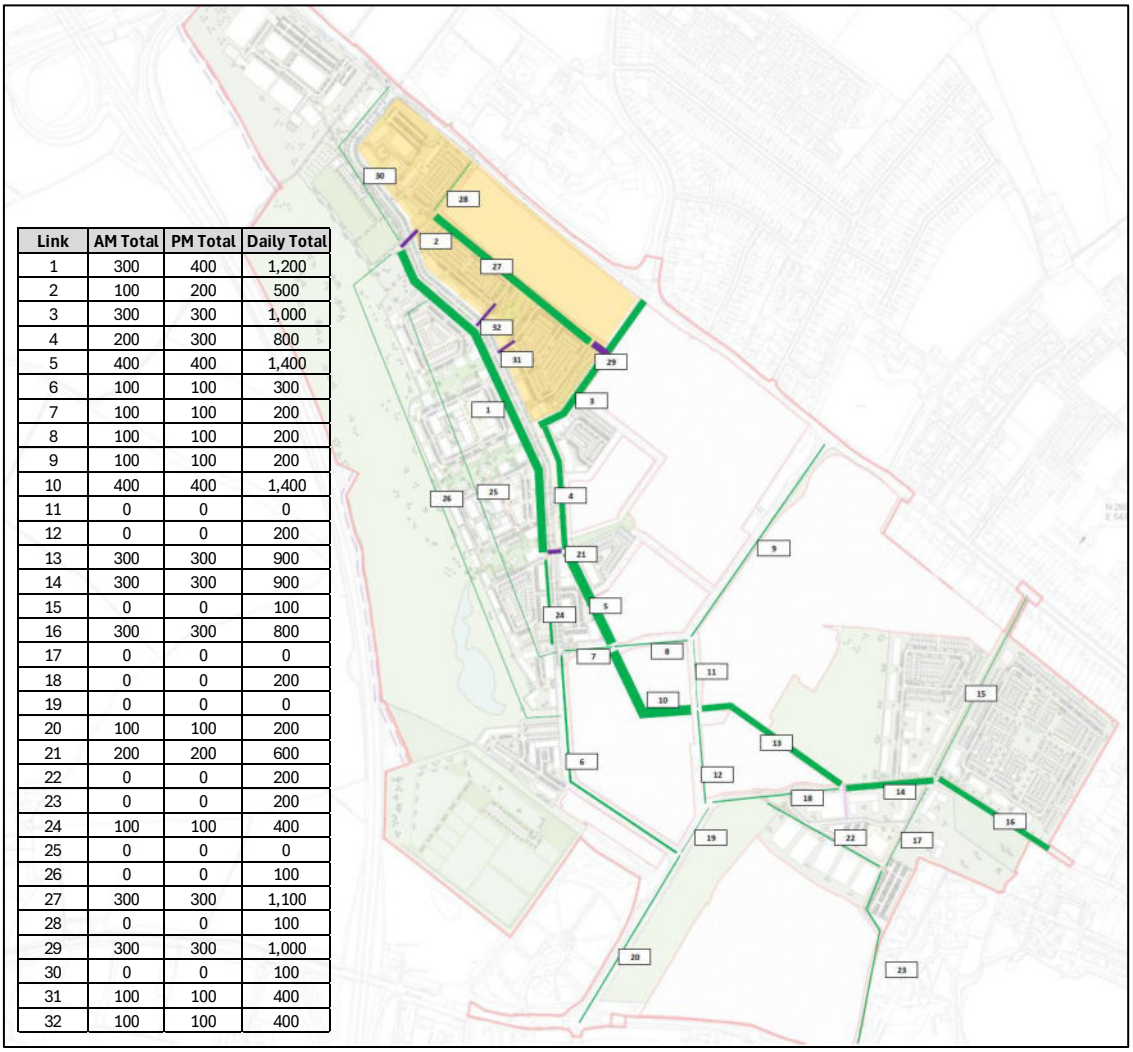


Figure 13.4: Peak hour and daily internal cycle flows – from plot south of Cartwright Avenue

Link	AM Total	PM Total	Daily Total
1	900	1,000	3,100
2	0	0	100
3	0	0	0
4	0	0	0
5	700	700	2,300
6	200	200	600
7	400	400	1,300
8	200	200	700
9	200	200	700
10	900	900	2,900
11	0	0	0
12	100	100	300
13	800	800	2,600
14	600	700	2,000
15	0	0	100
16	500	500	1,500
17	0	0	0
18	100	100	300
19	0	0	0
20	100	100	400
21	700	700	2,300
22	100	100	300
23	100	100	300
24	100	100	500
25	500	500	1,500
26	0	0	200
27	0	0	0
28	0	0	0
29	0	0	0
30	100	100	300
31	0	0	100
32	0	0	100

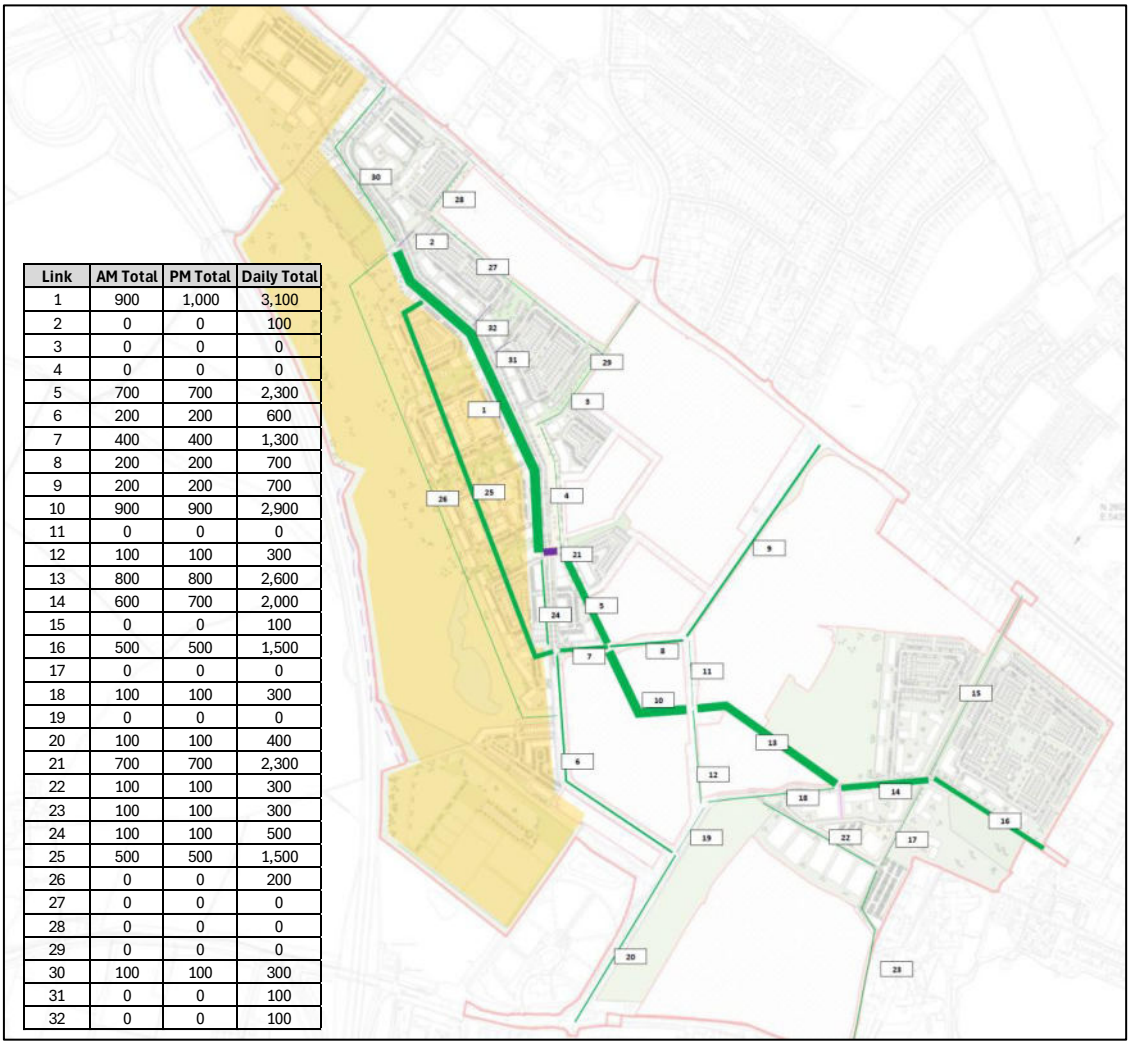
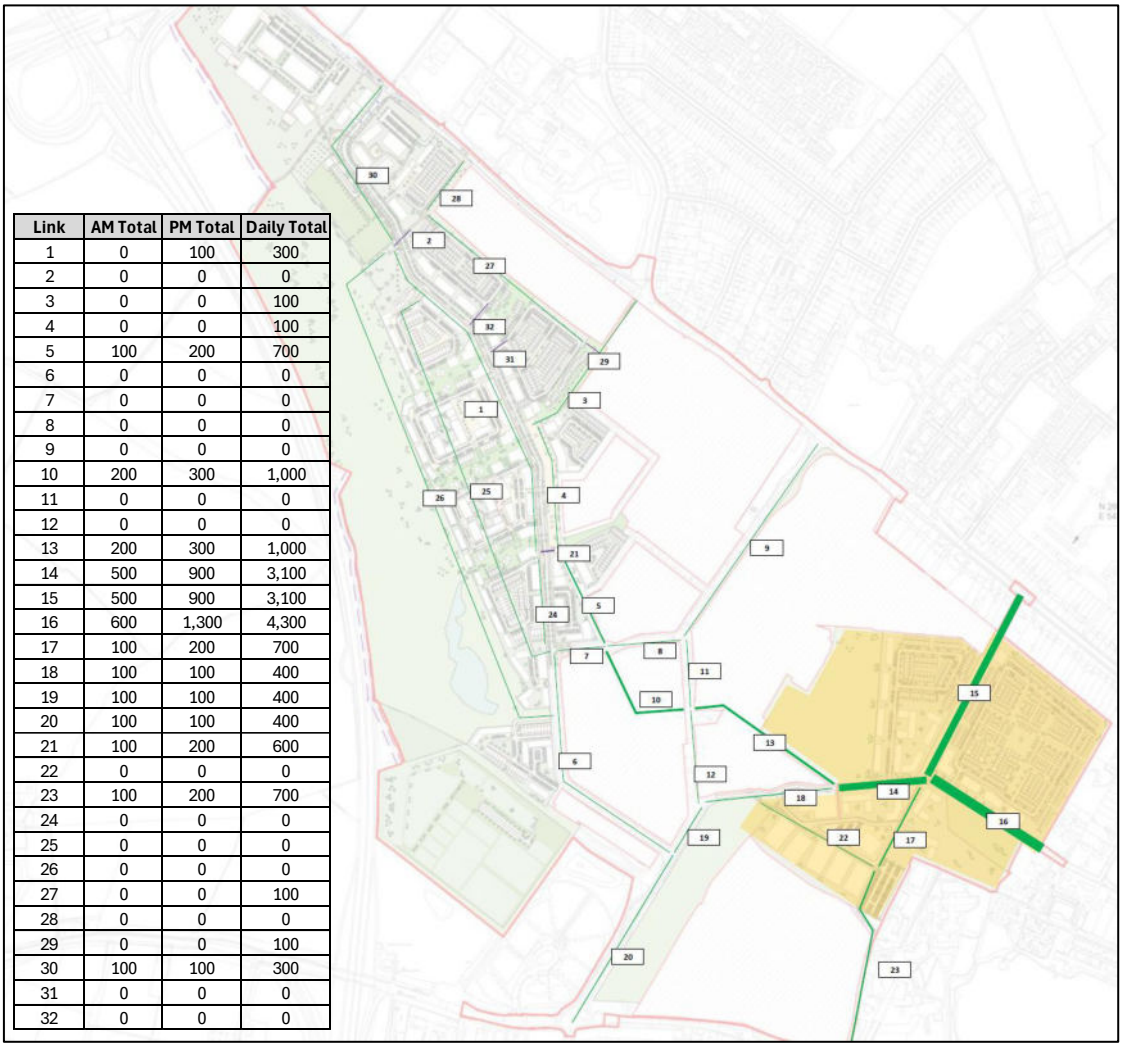


Figure 13.5: Peak hour and daily internal cycle flows – from eastern plot

Link	AM Total	PM Total	Daily Total
1	0	100	300
2	0	0	0
3	0	0	100
4	0	0	100
5	100	200	700
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	200	300	1,000
11	0	0	0
12	0	0	0
13	200	300	1,000
14	500	900	3,100
15	500	900	3,100
16	600	1,300	4,300
17	100	200	700
18	100	100	400
19	100	100	400
20	100	100	400
21	100	200	600
22	0	0	0
23	100	200	700
24	0	0	0
25	0	0	0
26	0	0	0
27	0	0	100
28	0	0	0
29	0	0	100
30	100	100	300
31	0	0	0
32	0	0	0



13.7.2 These cycle trip have been added to the baseline as part of the impact assessment considered later within this report.

Public Transport Trips

13.7.3 Figures 13.6 to 13.7 show a heat map of expected key origins and destinations for public transport trips, during the peak hours, peak periods (3 hours) and day NWCM, with existing and proposed public transport routes overlaid (white = existing and proposed routes and dashed blue = aspirational orbital route).

Figure 13.6: AM peak hour heat map by origin/destination with existing & proposed bus routes

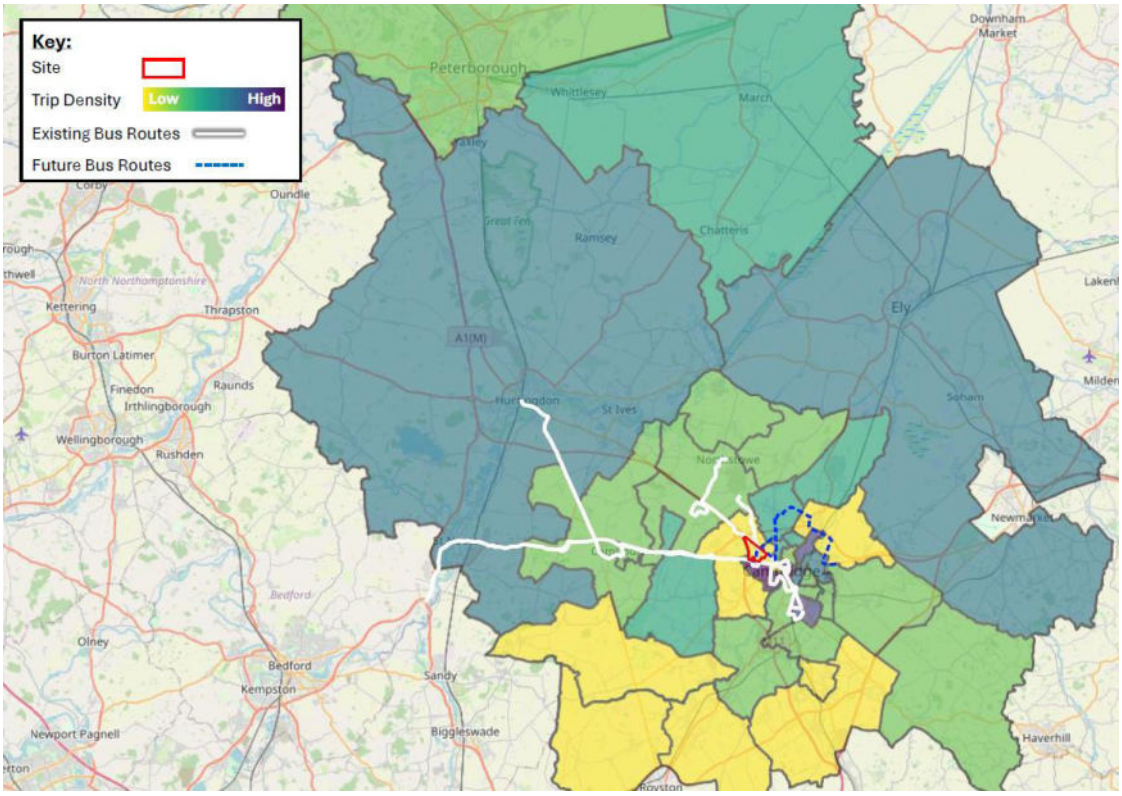
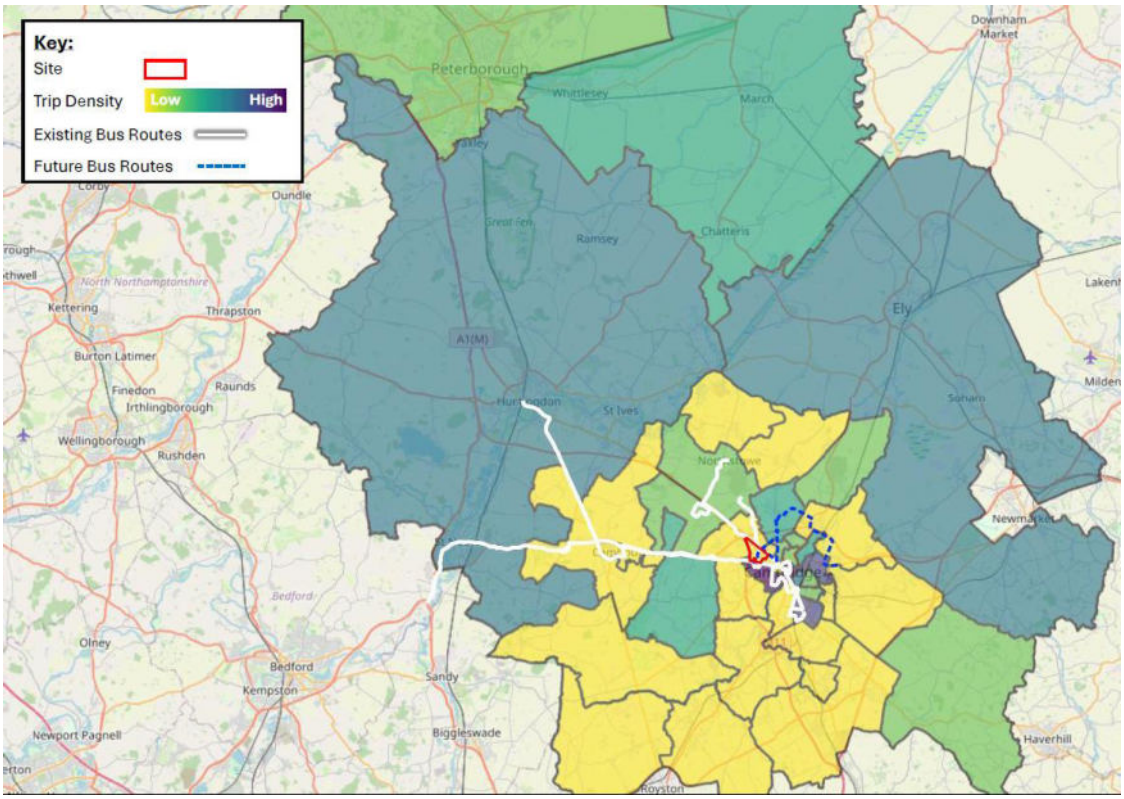
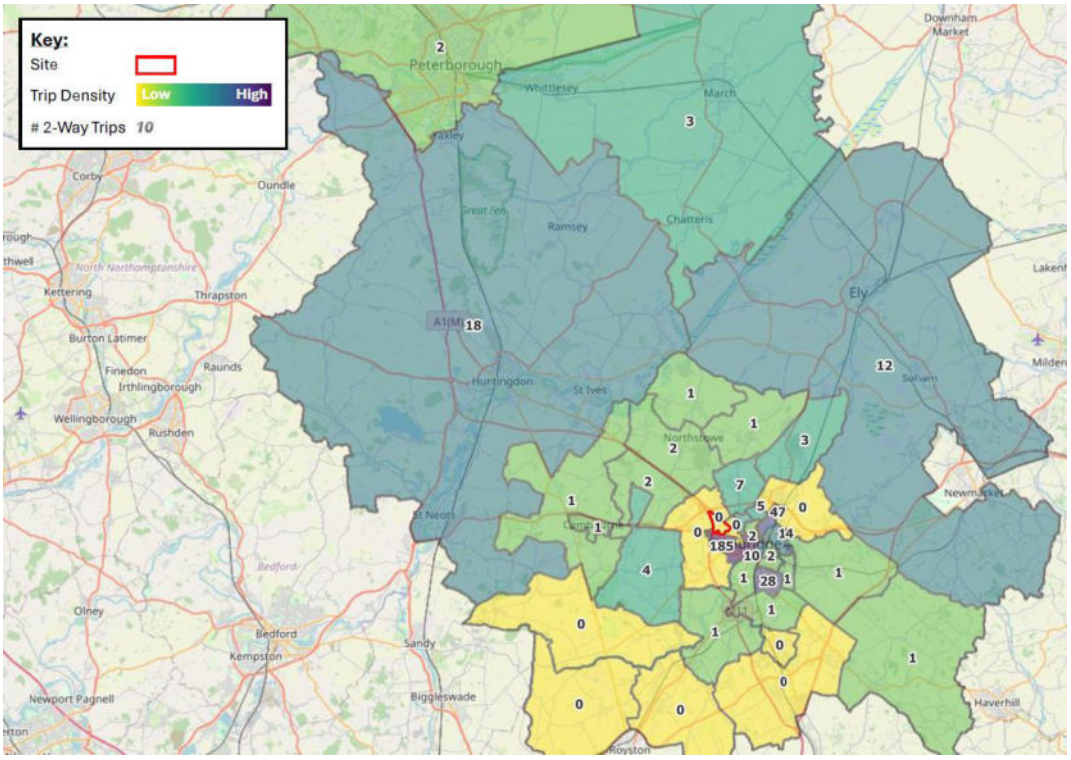


Figure 13.7: PM peak hour heat map by origin/destination with existing & proposed bus routes



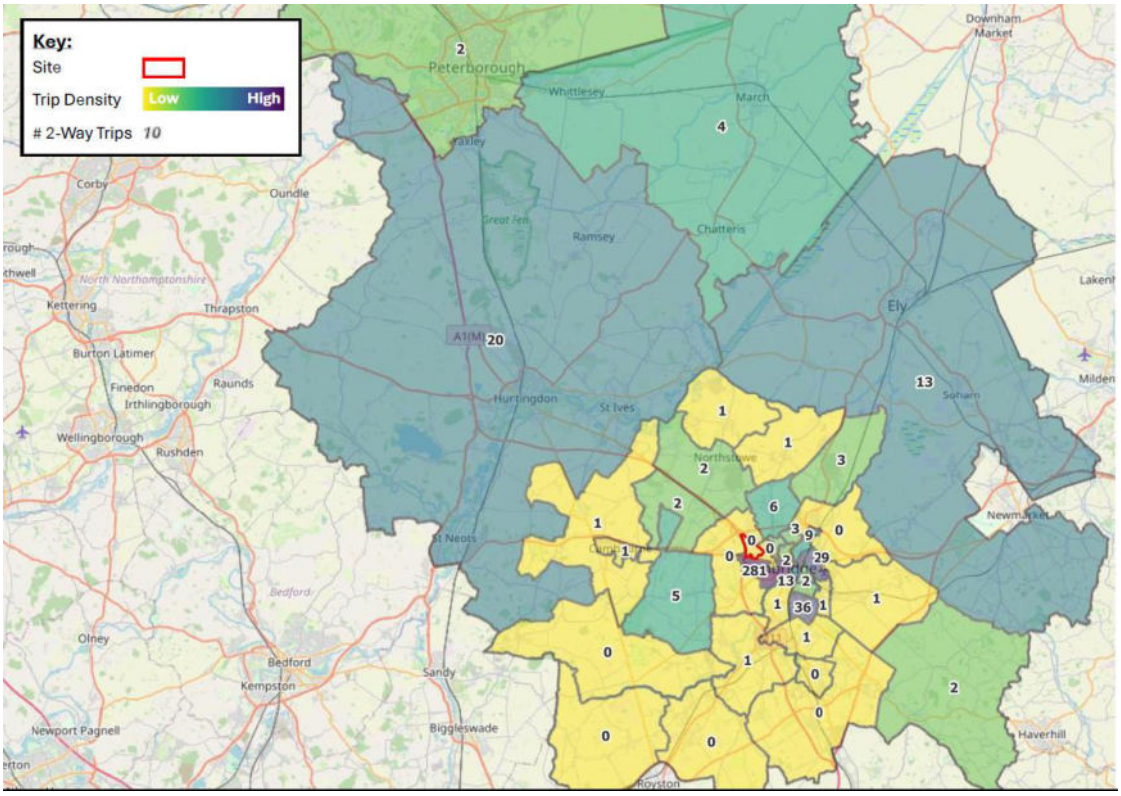
13.7.4 Figures 13.8 to 13.12 show the expected number of two-way public transport trips by origin & destination during the peak hours, peak periods (3 hours) and day NWCM.

Figure 13.8: AM peak hour trips by origin/destination



13.7.5 When accounting for additional growth at NECAAP and CBC as part of a sensitivity test, the number of AM Peak hour trips to MSOA Camb 003 and South Cambs 007 is predicted to increase from 52 to 57 and trips from MSOA Camb 013 is predicted to increase from 28 to 42 PT trips.

Figure 13.9: PM peak hour trips by origin/destination



13.7.6 When accounting for additional growth at NECAAP and CBC as part of a sensitivity test, the number of PM Peak hour trips to MSOA Camb 003 and South Cambs 007 is predicted to increase from 38 to 44 and trips from MSOA Camb 013 is predicted to increase from 36 to 56 PT trips.

Figure 13.10: AM 3 hour peak trips by origin/destination

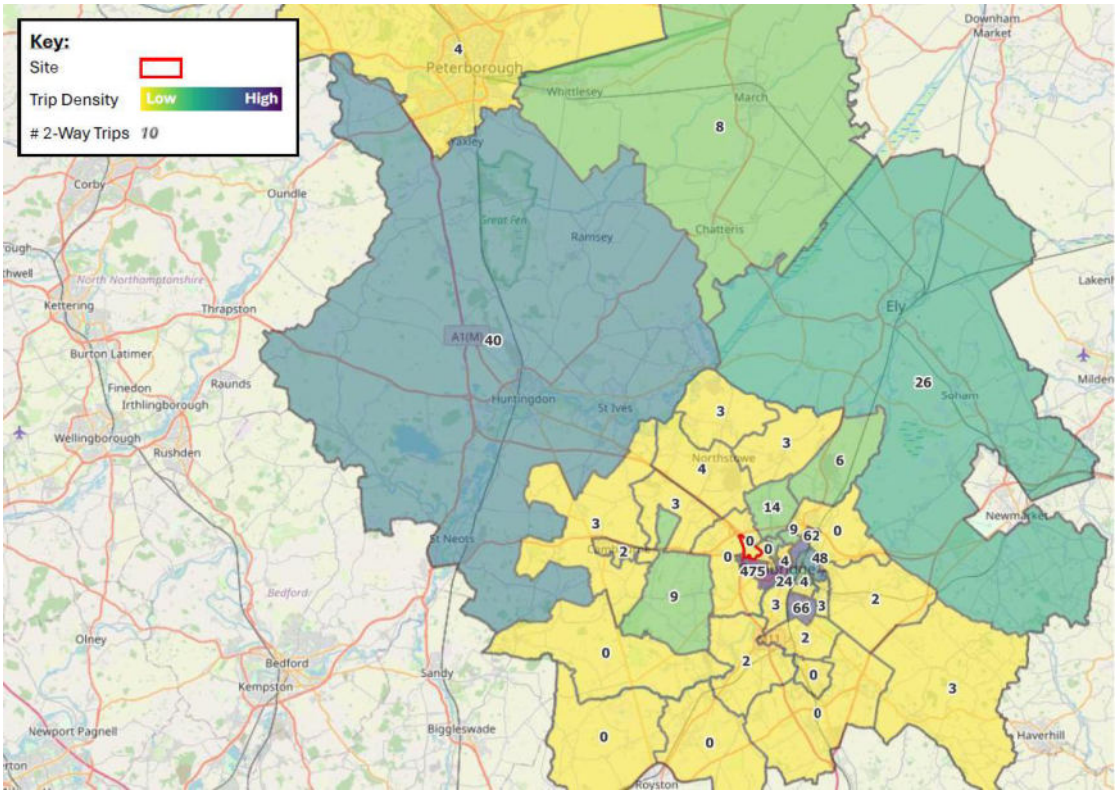


Figure 13.11: PM 3 hour peak trips by origin/destination

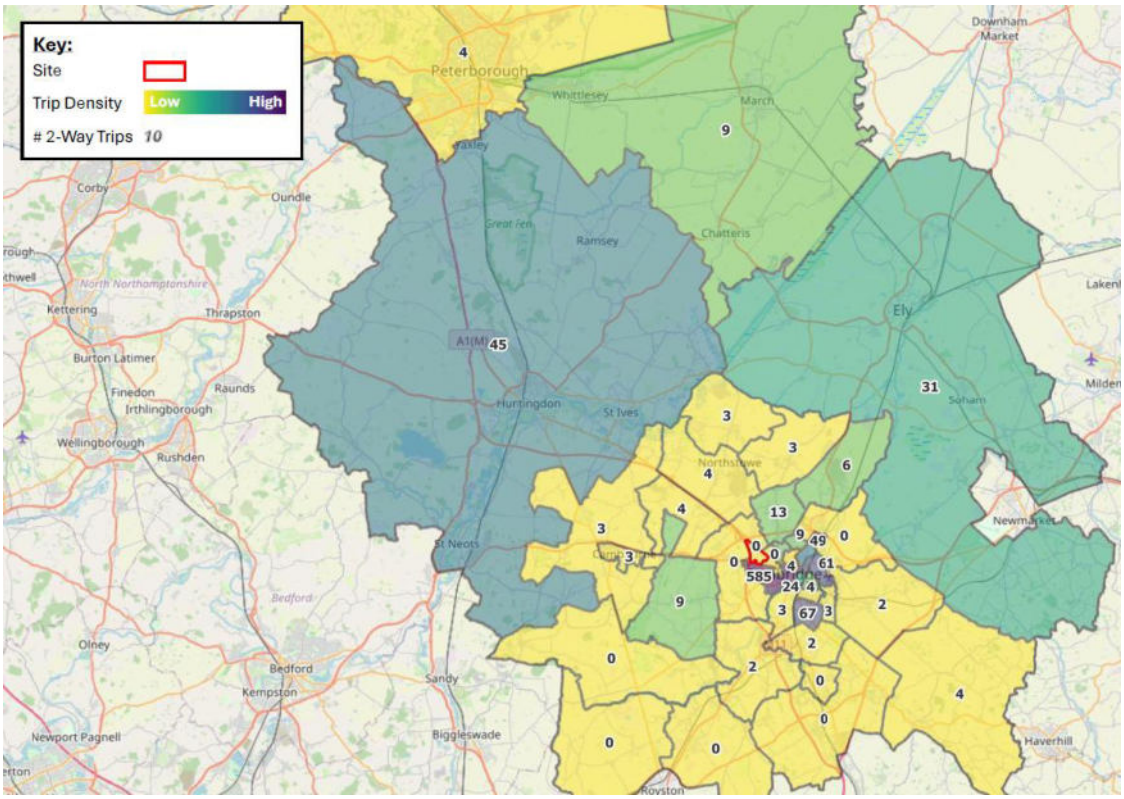
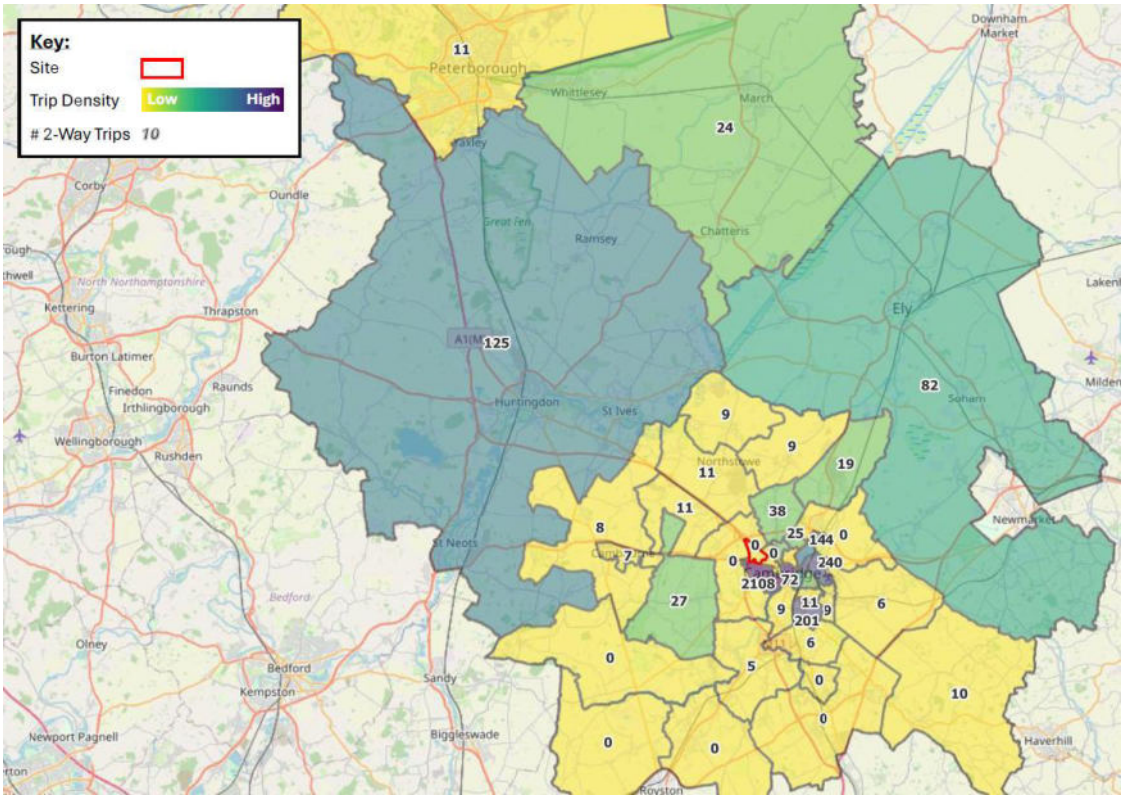


Figure 13.12: Daily trips by origin/destination



13.7.7 The forecasting of future public transport trips has been used inform the future bus route strategy to serve the site.

13.8 Updated Trip Model – Vehicle Trip Budget

13.8.1 As referenced at the start of this chapter, the table below provides a comparison between the consented trip budget for North West Cambridge (Phases 1 and 2) as set out in the 2012 Transport Assessment, and the updated trip forecasts developed through this assessment.

13.8.2 To enable a like-for-like comparison, 2025 counts (excluding through traffic) have been used to determine Phase 1 trips already built and occupied, allowing the 2012 trip budget to be directly compared with the combined total of forecasts for Phase 1 and Future Phases based on the current methodology and existing Phase 1 surveys. This includes forecasts for elements of Phase 1 that were not complete and occupied at the time of the surveys.

Table 13.9: Trip Budget Comparison

	AM Peak Hour			PM Peak Hour		
	Arr.	**Dep.**	**2-Way**	**Arr.**	**Dep.**	**2-Way**
NWC - Consent	899	817	1,716	812	923	1,735
"Phase 1" 2024 Traffic Flows, less through-traffic (2025 ANPR data)	321	282	603	216	230	445
Future Phases	469	172	640	179	560	739
NWCM - Revised	789	454	1,243	394	790	1,185
Net Difference	**-110**	**-363**	**-473**	**-418**	**-133**	**-550**

13.8.3 The comparison shows a substantial reduction in forecast peak hour vehicle trips when compared with the original 2012 consented trip budget. In the AM peak the new NWCM robust development scheme forecasts 473 fewer two-way trips, while the PM peak shows a reduction of 550 two-way trips. This reflects an evidence-based methodology suggestive of a significant shift towards sustainable travel behaviours in more recent years.

14 NWCM FUTURE PHASES OFF SITE TRANSPORT STRATEGY

14.1 Introduction

14.1.1 The development proposals outlined in the previous section of this report are dependent upon an effective offsite Transport Strategy that looks to both address and mitigate the impacts of the development and also unlock and address the gaps in sustainable infrastructure and services that exist between the Site and key employment zones plus neighbourhoods. This strategy focuses on meeting key PT service demand and destinations, new and improved walk/cycle infrastructure, site access and PRoW improvements.

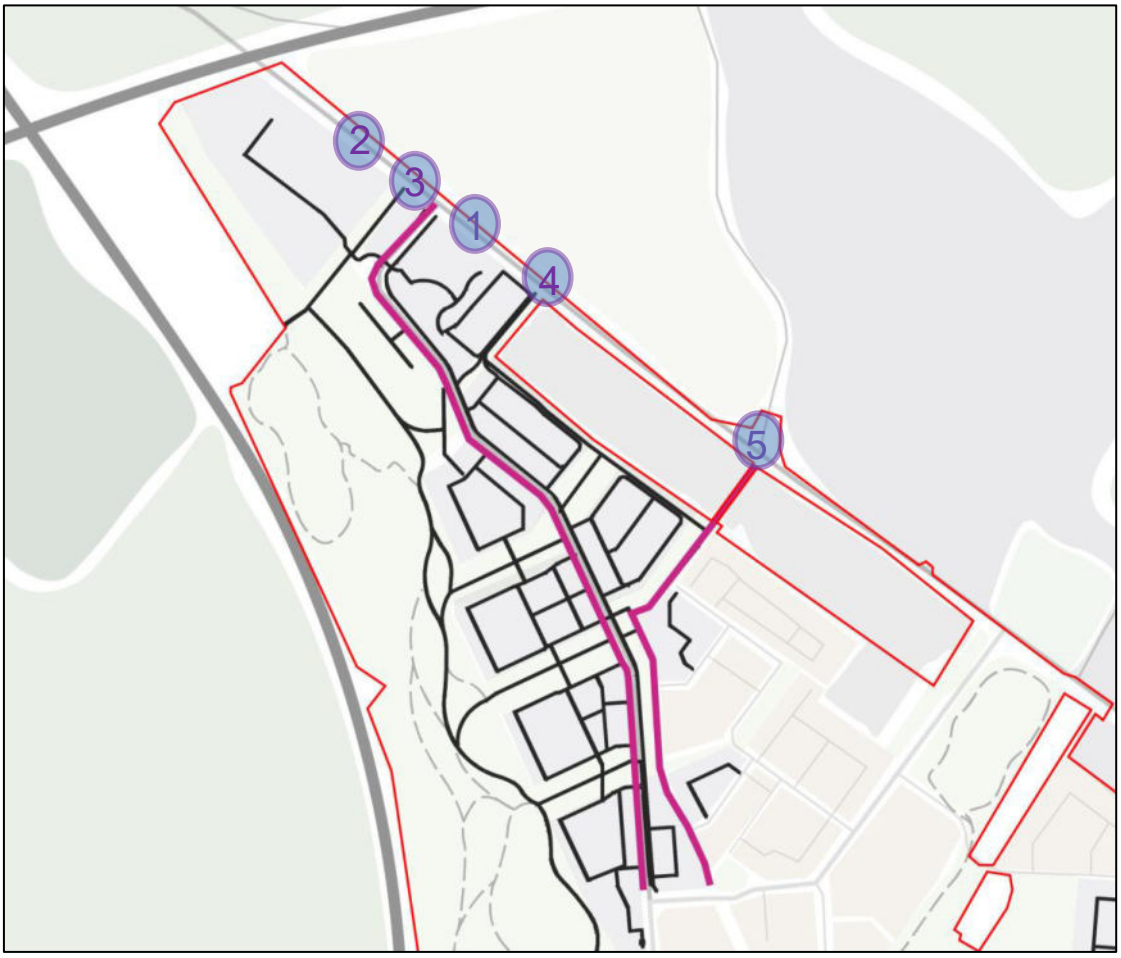
14.1.2 This section also considers the off-site transport strategy in the context of what has and is yet to be delivered as part of the 2013 consented Transport Strategy detailed in the previous section. This is in the context of the uplift in dwelling numbers for Future Phases. As outlined in the previous section, the Transport Strategy is underpinned by 'the principle of 'triple access planning'.

14.2 Active Travel Infrastructure

14.2.1 The following active travel infrastructure, in combination with the access strategy detailed in Section 12, is proposed around the immediate vicinity of the NWCM's northern site boundary and these are shown in Figure 14.1 and Drawings 24067-KMC-HGN-XX-SSK-CH-HR02-PL01 and 24067-KMC-HGN-XX-SSK-CH-HR10-PL01 in Appendix F:

1. **Proposed** - Uni-directional cycle lanes along northwestern end of Huntingdon Road to fill gap between Girton Road and A14 bridge to serve existing active travel users and new residents.
2. **Proposed** – Shared footway/cycleway provision between NW Huntingdon Road access and A14 bridge to fill existing active travel gap.
3. **Proposed** - Signalised Toucan (with equestrian push buttons) PRoW crossing northwestern end of Huntingdon Road to serve PRoW through St Johns Land and over A14 bridge and link into the NWCM – See Figure 14.1 and Drawing 24067-KMC-HGN-XX-SSK-CH-HR02-PL1 in Appendix F.
4. **Proposed** - Signalised Toucan crossing between NW Access and Girton Road, to link in to the NWCM – See Figure 14.1 and Drawing 24067-KMC-HGN-XX-SSK-CH-HR10-PL01 in Appendix F.
5. **Recently improved** – Active Travel crossing infrastructure around Girton Road junction.

Figure 14.1: Active Travel Infrastructure Proposed Adjacent to Site Boundary along Huntingdon Road.

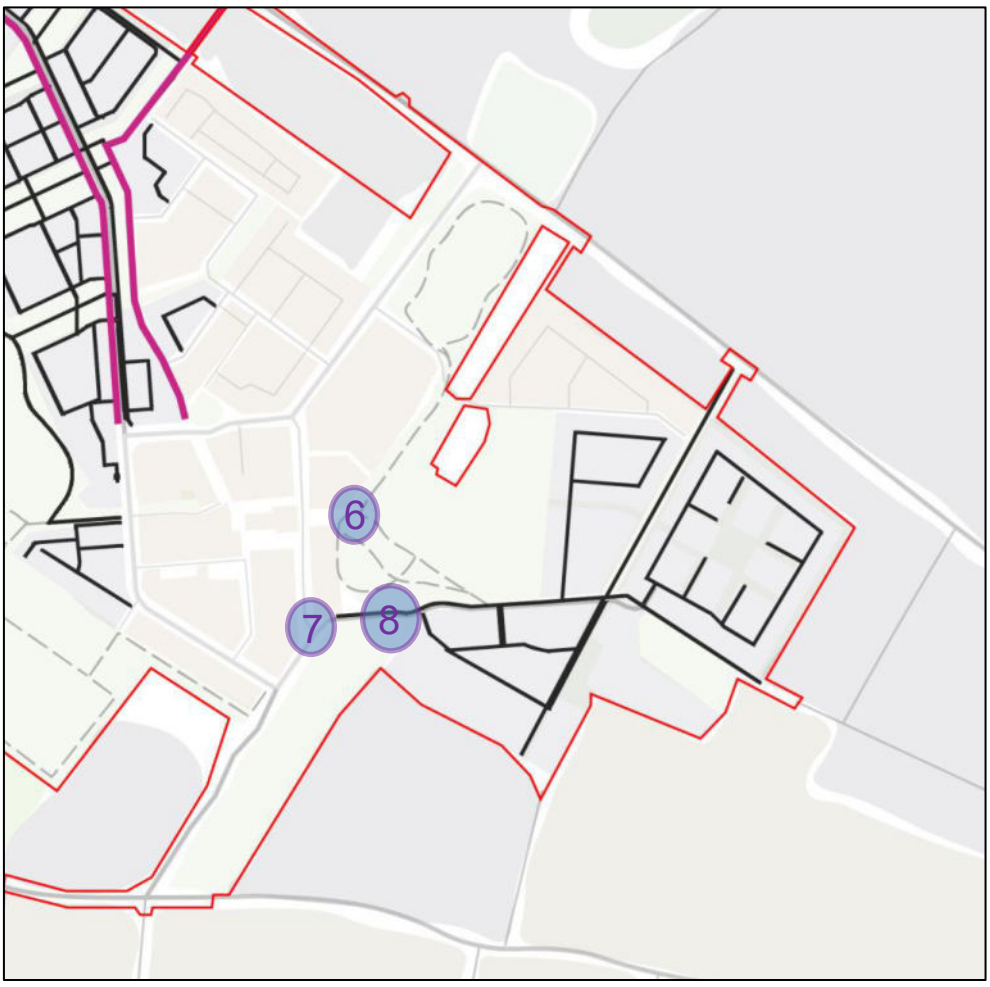


14.2.2 Along the Site's southern boundary, the GCP (combined with Cambridge West) have a scheme to improve Active Travel along the Madingley Road corridor. The NWCM proposes to improve internal links up to this corridor to maximise and encourage walking and cycling through the Site and onwards and fill the missing gap between the Huntingdon Road and Madingley Road radial routes.

14.2.3 The following active travel infrastructure is proposed around the immediate vicinity of the NWCM's eastern site boundary and these are shown in Figure 14.2 and Drawings 24067-KMC-HGN-XX-SSK-CH-EA01-C01 and Drawings 24067-KMC-HGN-XX-SSK-CH-EA02-C01 in Appendix F:

6. **Proposed and existing –** Improvements for active travel to Storeys Field Playground / Ridgeway junction
7. **Proposed** – Improvements to Eddington Ave / Garrod St Crossing to incorporate cyclists.
8. **Proposed** - Segregated walk and cycle infrastructure along Garrod Street linking the Site to the east.

Figure 14.2: Active Travel Infrastructure Proposed Adjacent to the eastern site boundary.



14.3 PRoW improvements

14.3.1 The following active travel infrastructure improvements are being considered and discussed with relevant third party landowners to improve existing PRoWs surrounding the Site.

Girton to Huntingdon Road

14.3.2 The existing public footpath 99/4 runs between Girton and Huntingdon Road. It is typically 2.5 metre wide, with a 0.5-metre verge on either side extending to the fence line. Both sides of the path are bordered by hedges and planting. To deliver a high-quality route suitable for walking, cycling, and equestrian use, a shared-use path is recommended of between 3.0-4m wide.

14.3.3 Achieving a 4m width would require the removal of the hedge on the western side and the relocation of the fence line by approximately 2.5 metres along the entire length of the path.

14.3.4 Improvements to this route would benefit existing PRoW users, equestrians and new NWCM residents/employees, linking to Girton and beyond. This route would also link to the southeast and Cambridge City with NWCM onsite infrastructure providing the missing central link. UoC

and KMC are therefore in discussions with St John's (landowner for most of the route) to agree options to help fund, develop, and improve this PRoW further. The PRoW improvements do not form part of this planning application, but UoC are separately working to reach an agreement to undertake the improvement works with the landowner.

14.4 Bus Strategy

14.4.1 This section of the report contains the proposed bus service strategy for NWCM Future Phases. This includes the main proposals for the uplift in and rerouting of key bus services running through the Site and existing adjacent communities such as Girton, Cambridge West, the wider UoC community and land uses, Darwin Green, and Cambridge.

14.4.2 Within this section, a number of options have been explored and the following elements of a bus strategy are proposed for NWCM:

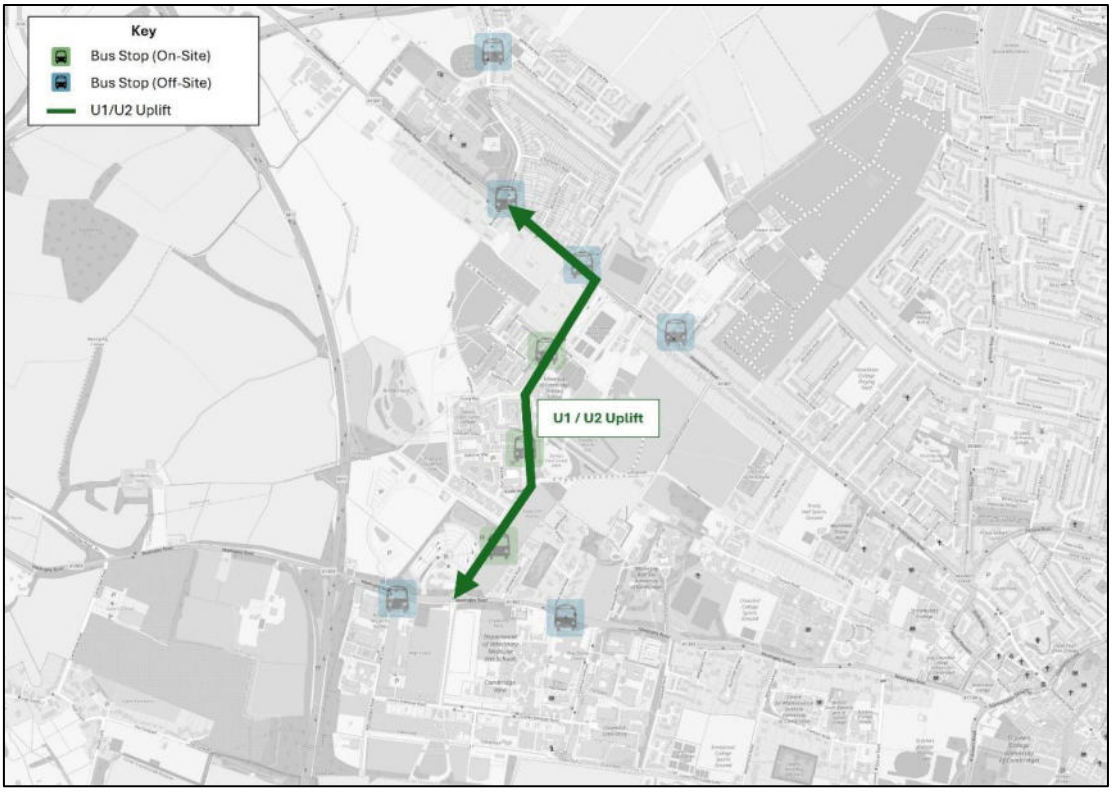
- Development of the following key options (to be funded through franchising or directly delivered by both NWCM and/or others):
  - improvements to NWCM infrastructure to serve Future Phases (bus stops, mobility hubs, and bus routes);
  - the enhancement of existing services running through Phase 1 (Eddington), including an uplift in the existing U1&2 to serve demand for Future Phases;
  - diversion of the existing U1 via Cartwright Avenue to serve demand and infrastructure for Future Phases;
  - inclusion of Eddington as part of the new Tiger 2 service – now operational and serving Eddington;
  - continued ongoing testing of the AV Bus currently serving Eddington (and NWCM) and Cambridge West;
  - Phase 1 S106 Northern Orbital ARC route (termed U3) to serve Eddington and NWCM and connect to the North East Cambridge growth area – Science Park and Cambridge North Station; and
  - Aspiration to explore provision of Southern Orbital route (termed U4) to serve Eddington and NWCM and connect to Cambridge Station and CBC.
- Refinement of these options to agree future frequency uplift and the detailed strategy to divert and uplift the U1 via Cartwright Avenue, to ultimately allow for a combined 10 minute frequency of bus services serving NWCM either directly through Eddington/NWCM or passing on Huntington Road and Madingley Road; and
- Agree a preferred combined strategy with all stakeholders to ultimately aspire to provide for 800m between bus stops, with a 400m walking isochrone from dwellings to the nearest bus stop within NWCM.

14.4.3 The proposed improvements to the local bus services are reviewed in the following section.

Uplift in Eddington U1 & 2 Services

14.4.4 This Phase 1 S106 requirement includes for uplifting existing U1 and U2 services to a 10 minute frequency to support demand from future services as shown in Figure 14.3.

Figure 14.3: Uplift in Eddington U1 & 2 Services

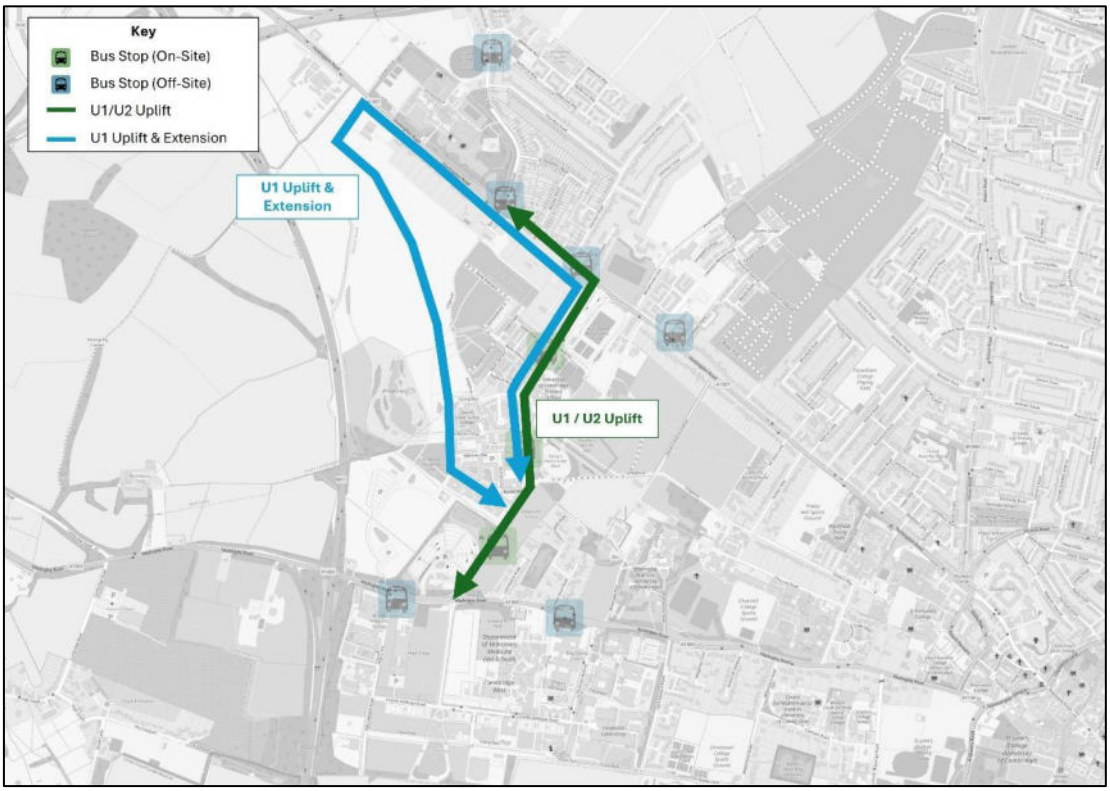


14.4.5 The Phase 1 S106 obligation to uplift existing U1&2 bus services to a frequency of 10 minutes has been taken forward into the NWCM proposed Bus Strategy.

Uplift in Eddington U2 Service and Uplift & Divert U1 via Cartwright Avenue

14.4.6 This option includes for uplifting existing U1 and U2 services to support demand from future services in addition to diverting **the U1 service** along Cartwright Avenue to serve Future Phases. This option is shown in Figure 14.4.

Figure 14.4: Uplift in Eddington U2 Service and Uplift + Divert U1 via Cartwright Avenue

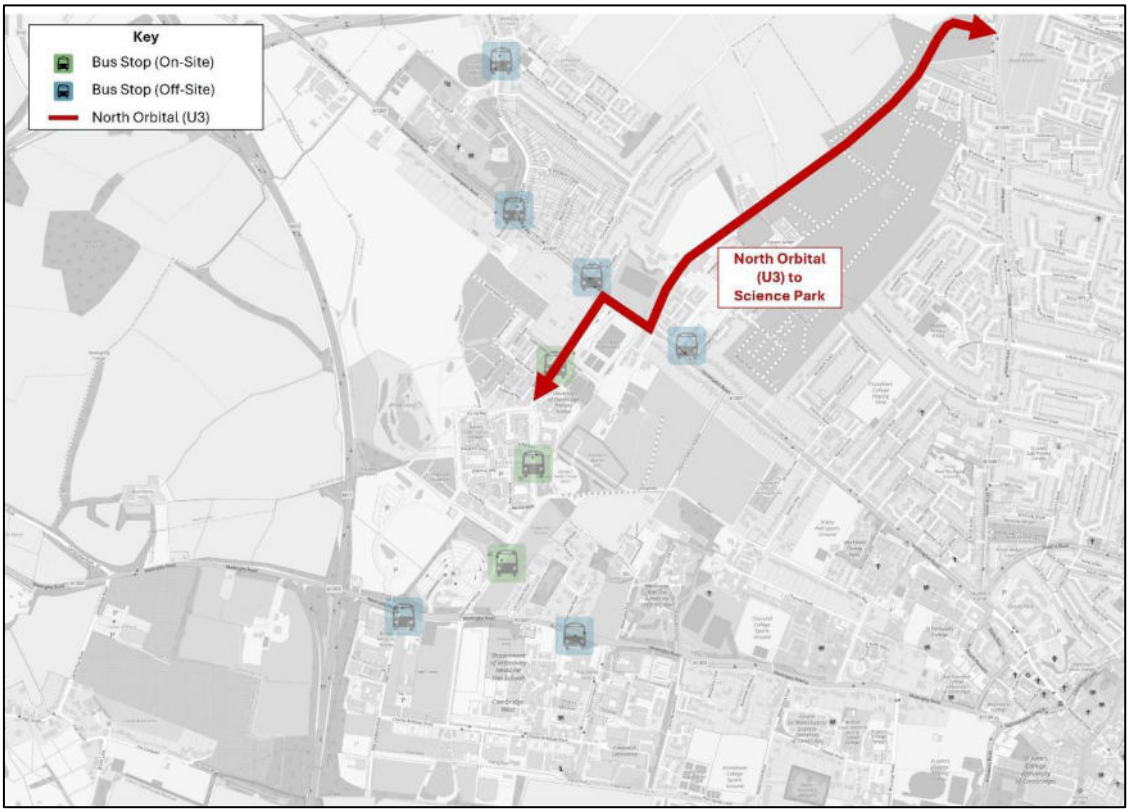


14.4.7 The option to uplift existing U2 bus services and uplift + divert U1 services via Cartwright Avenue has been taken forward into the NWCM proposed Bus Strategy. The detail of which U1 services are diverted and the frequency of uplift are to be agreed.

Northern Orbital Service to Science Park and Cambridge North Station (termed U3)

14.4.8 This option includes for the provision of a new service to be operated by the UoC to serve NWCM and links to Cambridge Science Park, Cambridge North Station and the northeast growth area where future passenger demand has been identified in this TA. Following the chronological naming strategy of the U1 and U2 this new service could be termed the U3 and provide a Northern Orbital route. This future route is already a condition of the Phase 1 S106 and the route is shown in Figure 14.5.

Figure 14.5: New Northern Orbital (U3) to Science Park and Cambridge North Station – Phase 1 S106

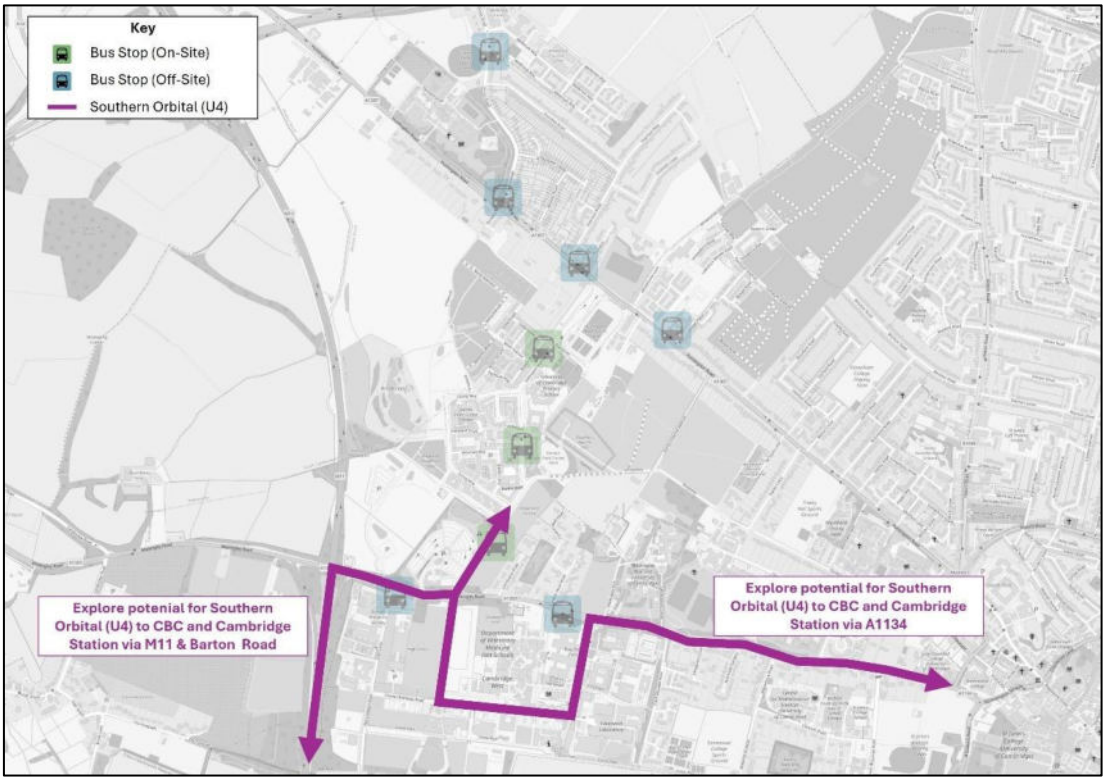


14.4.9 The option to provide a new Northern Orbital Service (termed U3) has been taken forward into the NWCM proposed Bus Strategy and will be funded through Phase 1 S106 utilising the Darwin Green infrastructure to create the orbital route. The detail, frequency, and phasing of the route are to be agreed.

Southern Orbital - Express Bus (termed U4) to Cambridge Station and CBC (to explore)

14.4.10 This option includes for the provision of a new service to be operated by the UoC to serve NWCM and links to Cambridge Station and CBC where future passenger demand has been identified in this TA. Following the chronological naming strategy of the U1 and U2 this new service could be termed the U4 and provide an Express Southern Orbital route to enhance the existing U1 & U2 provision. This route is shown in Figure 14.6.

Figure 14.6: Aspiration to Explore Southern Orbital (U4) to Cambridge Station and CBC

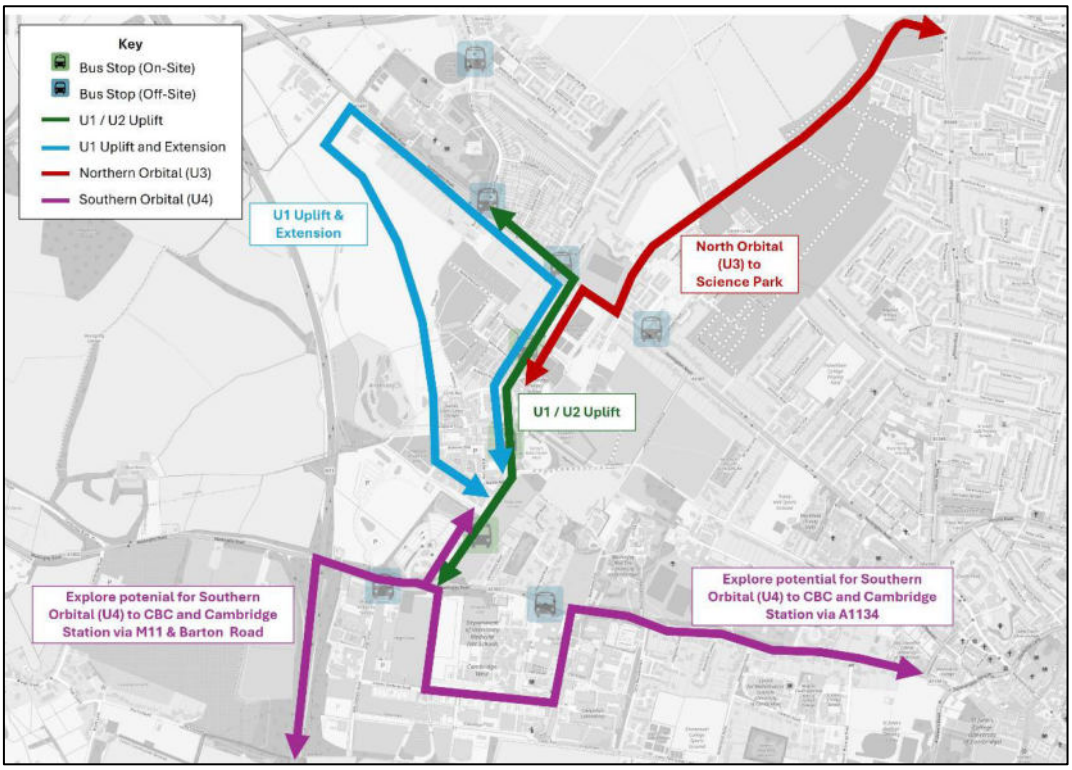


14.4.11 The option to provide a new Southern Orbital Service (termed U4) has been taken forward into the NWCM proposed Bus Strategy. The detail, frequency, and phasing of the route are to be agreed.

Summary of Proposed Options

14.4.12 A summary of the proposed bus strategy is shown in Figure 14.7.

Figure 14.7: Summary of Proposed Bus Strategy



14.5 Off Site Highway Schemes

14.5.1 Given the success of Phase 1 Sustainable Mode Share, NWCM vehicle trips falling well short of the OPP Trip Budget that has already been mitigated for in highway capacity terms, off site highway schemes are intended to be limited, with a focus instead on sustainable travel improvements.

14.5.2 The offsite highway schemes proposed for NWCM, in combination with the new access strategy detailed in Section 12, will include the following:

- Upgrade of Eddington Avenue / Huntingdon Road junction to include a new right turn signal head and signal timings to allow for right turn movements to giveway. Currently right turning movements are not given their own right turn arrow, which leads to ahead movements being blocked when a bus or three cars are waiting to turn right.
- A new signal-controlled junction at Huntingdon Road West/Cartwright Avenue. As discussed Section 12 the Huntingdon Road West site access has planning permission but has not yet been delivered. The 2013 junction proposals have been revisited as part of this application and updated to better cater for active travel users. The site

access location is as per previously agreed. The junction will be traffic signal controlled and left turn only out of the access. This reflects vehicle desire lines. Drivers travelling west will use the Eddington Avenue / Huntingdon Road. The site access is shown on Drawing 24067-KMC-HGN-XX-SK-CH-HR02- PL01.

14.6 Madingley Road Corridor Committed Infrastructure

14.6.1 As identified in this TA, NWCM's location benefits from its close proximity with Cambridge West and the active travel infrastructure and complimentary land uses that link the two sites. For both sites to maximise on this location and complimentary land use benefit, there is a clear need to further improve active travel infrastructure along and across Madingley Road.

14.6.2 Whilst NWCM can and will provide apportioned infrastructure to link the two sites, there is already a committed GCP scheme (options being developed further), alongside various Cambridge West funded junction/crossing improvements, being developed for the future along Madingley Road. UoC therefore propose to develop the internal NWCM and active travel infrastructure to directly tie into Madingley Road committed infrastructure at the appropriate points. The committed infrastructure proposed and funded by GCP and Cambridge West along Madingley Road include:

- GCP Madingley Road Corridor Active Travel Scheme to include improved cycle lanes along and crossings over Madingley Road.
- Cambridge West improvements to active travel crossings and potential signalised junction west of P&R.
- Improvements to Madingley Road / Eddington Avenue junction to benefit Active Travel users
- Cambridge West Active Travel access onto and across Madingley Road.

14.6.3 Further to the above schemes, whilst not deemed a requirement for NWCM prior to the Trip Budget associated with 3,000 dwellings from an impact perspective, KMC have looked at options to upgrade the existing Madingley Road / Eddington Avenue site access to better accommodate active travel. KMC consider there are a number of improvement options possible for others, as part of the GCP Madingley Road corridor scheme, to deliver including; a CYCLOPS type arrangement, realignment of Eddington Avenue, and direct active travel links . These improvements would use the funding already available to better provide for pedestrians, cyclists and buses whilst also allowing for general vehicle capacity.

14.7 Off-site Transport Strategy Summary

14.7.1 In summary the following off-site infrastructure and measures are proposed as part of the Transport Strategy:

- Bus enhancement strategy to include:
  - Uplift in U2 service
  - Uplift and diversion of U1 service via Cartwright Avenue
  - Phase 1 S106 Northern Orbital ARC route (termed U3) to serve Eddington and NWCM and connect to the North East Cambridge growth area – Science Park and Cambridge North Station
  - Aspiration to explore provision of Southern Orbital route (termed U4) to serve Eddington and NWCM and connect to Cambridge Station and CBC as part of the wider University access strategy.
- Two new Toucan crossing points on Huntingdon Road near the new site access with Cartwright Avenue:
  - Signalised Toucan (with equestrian push buttons) PRoW crossing northwestern end of Huntingdon Road to serve PRoW through St Johns Land and over A14 bridge and link into the NWCM
  - Signalised Toucan crossing between NW Access and Girton Road, to link in to the NWCM
- Provision of uni-directional cycle lanes along northwestern end of Huntingdon Road to fill gap between Girton Road and A14 bridge to serve existing active travel users and new residents;
- Shared footway/cycleway provision between NW Huntingdon Road access and A14 bridge to fill existing active travel gap;
- New NW access onto Huntingdon Road at the northern end of Cartwright Avenue.
- Two new priority controlled accesses off Huntingdon Road, with pedestrian footways linking onto Huntingdon Road, to directly serve the northern NWCM employment plots; and
- Change signal timings at Eddington Rd / Hunts Road to allow give way right turn from Huntingdon Road and provide capacity improvement. Contribution to CCoC signals team. Change to signal head and then change to controller timings.

15 ACCESSIBILITY WITH DEVELOPMENT IN PLACE

15.1 Introduction

15.1.1 This section summarises and presents the anticipated future accessibility, by sustainable travel modes, for the Site taking into account the opening of Future Phases and the associated masterplan and transport Strategy outlined in Sections 11, 12 & 14 of this report.

15.1.2 It is essential to understand the future accessibility of the Site in comparison to the baseline and future baseline accessibility presented in Sections 8 and 10, respectively. This comparison enables the benefits of the Future Phases Transport Strategy to be determined and confirmed not only for new residents and employees located on site but also for existing Phase 1 Residents and other existing users of the local transport network from the local communities.

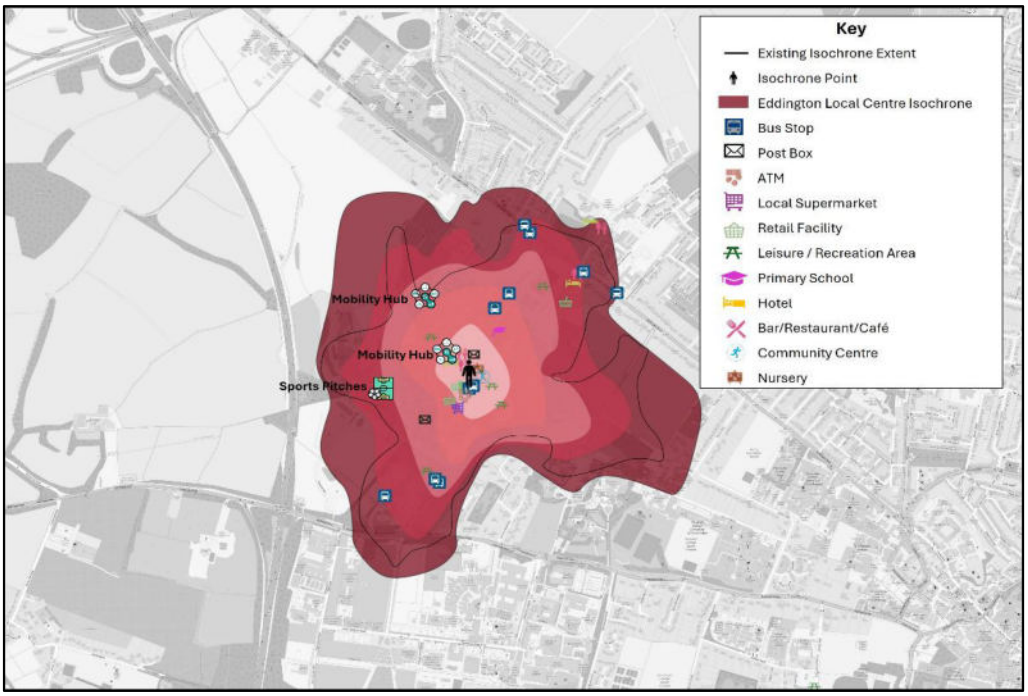
15.2 Future Walk Accessibility

15.2.1 As detailed in Sections 4 & 8, The National Design Guide (2021) refers to a common single walkable distance of 800m (equivalent to an approximate 10-minute walk). The future (with NCWM development) in-situ accessibility of Eddington and the local communities has been assessed.

Eddington

15.2.2 Figure 15.1 illustrates a future (with NWCM development) 10-minute walking isochrone (equivalent to an approximate 800m walking distance) from the Local Centre within Eddington.

Figure 15.1: Future Baseline with NWCM 10-Minute Walking Isochrone – 2 Minute Increments

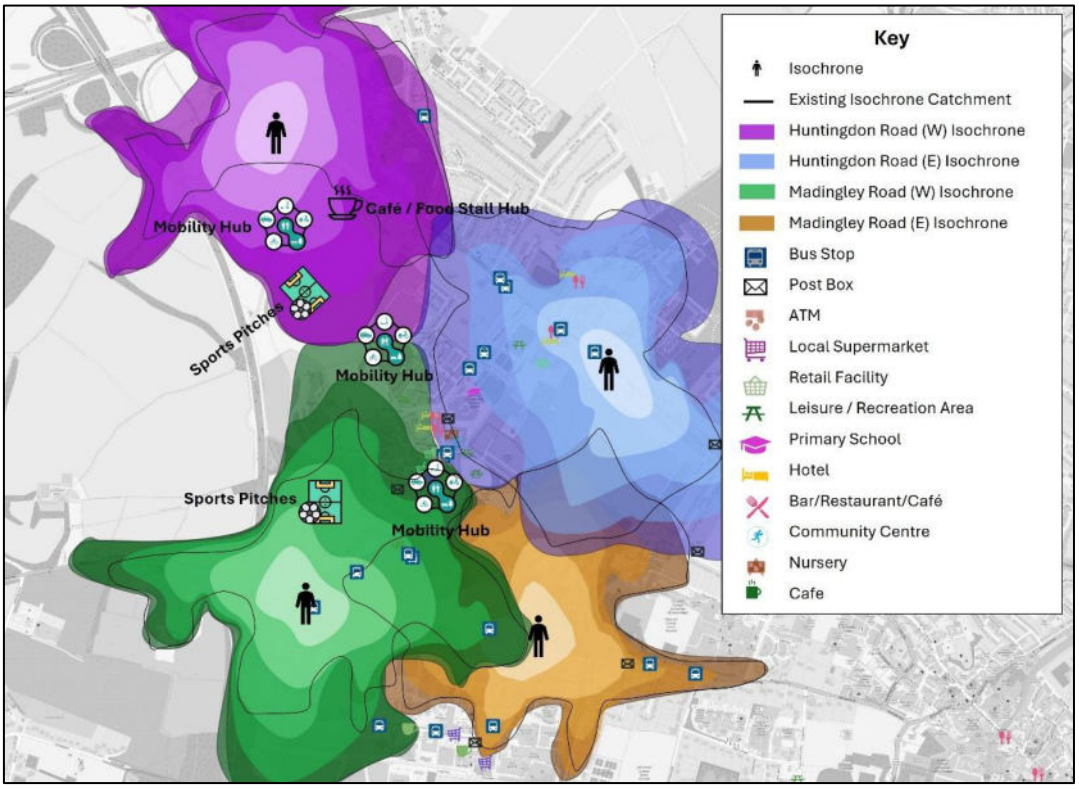


15.2.3 Figure 15.1 illustrates the enhanced walking accessibility from the existing Local Centre at Eddington resulting from the proposed active travel routes within the NWCM. The improved connectivity ensures that future development plots across NWCM, including key amenities such as the Mobility Hub at Cartwright Avenue, will be accessible within a 10-minute walk or less of the existing Local Centre.

Local Communities

15.2.4 Figure 15.2 illustrates a future (with NWCM in-situ) 10-minute walking isochrone from nearby settlements on Huntington Road and Madingley Road, respectively.

Figure 15.2: Future Phases 10-Minute Walking Isochrone-Local Communities – 2 Minute Increments and amenities with walking distance



15.2.5 The 10-minute walking isochrone illustrated in Figure 15.2 illustrating future accessibility of settlements on Huntington Road and Madingley Road, respectively, shows that the NWCM will improve pedestrian accessibility from surrounding settlements. Residential areas along Huntington Road and Madingley Road fall within the isochrone, indicating that key NWCM destinations on the masterplan will be accessible on-foot.

15.2.6 Of particular note is the northwestern area of the NWCM, which demonstrates an improvement in pedestrian accessibility due to the proposed active travel routes. This area, previously more peripheral in terms of walkable access, is now integrated within the 10-minute isochrone.

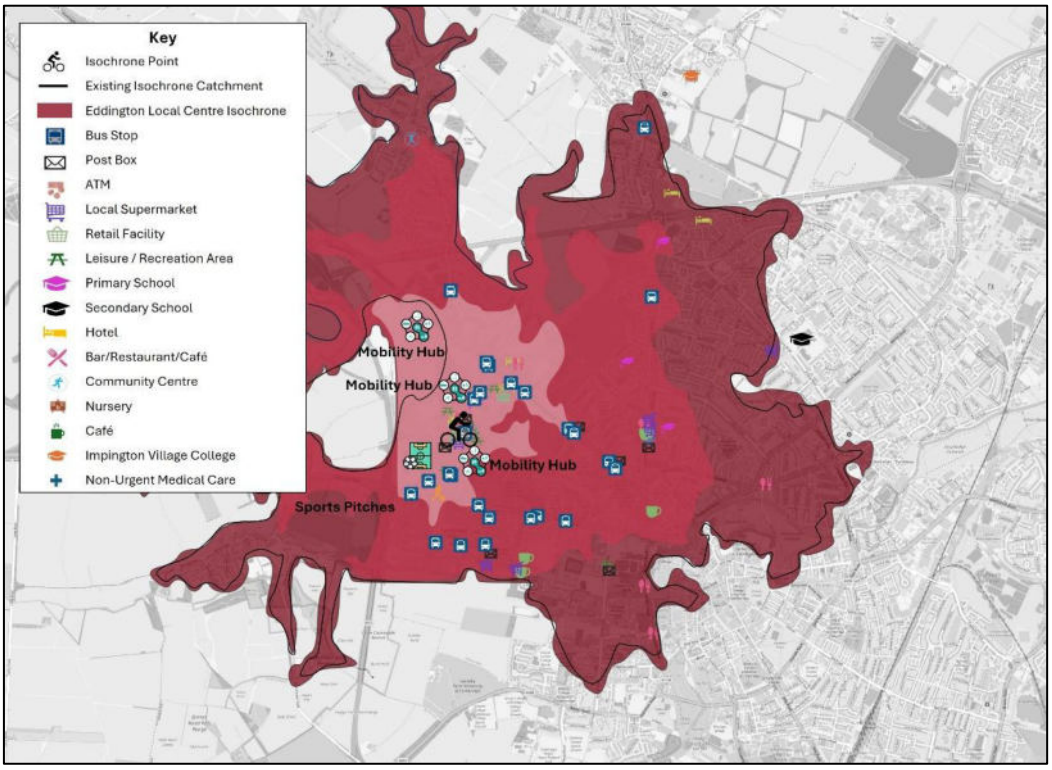
15.2.7 This enhanced connectivity supports mode shift objectives by promoting walking as a viable and attractive travel option for local journeys.

15.3 Future Cycle Accessibility

Eddington

15.3.1 Figure 15.3 illustrates the future 15-minute cycle accessibility (5-minute increments) from the Eddington Local Centre, taking into account the proposed active travel infrastructure associated with the NWCM and other committed schemes in the local area.

Figure 15.3: Future Baseline with NWCM 15-Minute Cycling Isochrone – Eddington (5-Minute Increments)

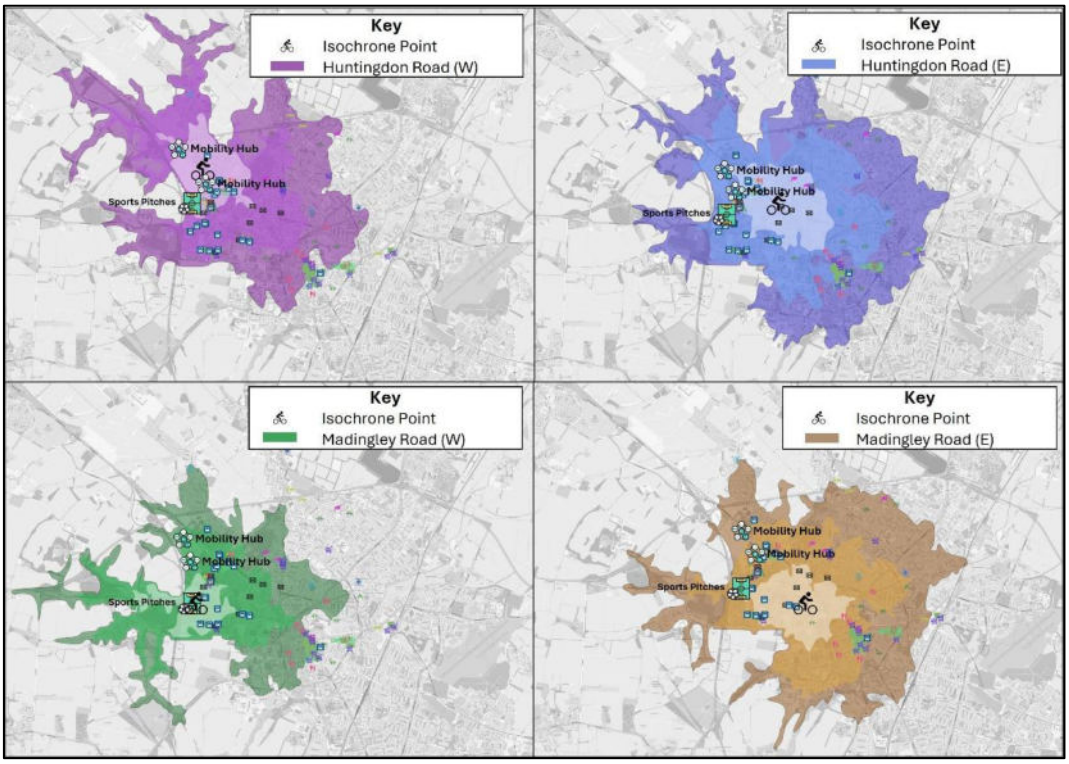


15.3.2 Figure 15.3 shows the improved cycling accessibility from the existing Local Centre at Eddington, facilitated by the proposed active travel routes within the NWCM. This enhanced connectivity ensures that future development areas across NWCM, including key new amenities such as the Mobility Hub at Cartwright Avenue and other Future Phases amenities, will be within a 15-minute cycling distance from the existing Local Centre.

Local Communities

15.3.3 Figure 15.4 shows a future (with NWCM in place) 15-minute cycling isochrone from nearby settlements along Huntingdon Road and Madingley Road. The isochrone is presented in 5-minute increments to demonstrate the progressive improvement in local cycling accessibility to and from the NWCM.

Figure 15.4: Future Baseline with NWCM Development 15-Minute Cycling Isochrone – Local Communities (5-Minute Increments)



15.3.4 The 15-minute cycling isochrone illustrated in Figure 15.4 demonstrates the future accessibility of settlements along Huntingdon Road and Madingley Road, highlighting the improved connectivity provided by the NWCM. Residential areas along these key corridors fall within the isochrone, indicating that destinations within the NWCM masterplan will be easily accessible by cycle from surrounding communities.

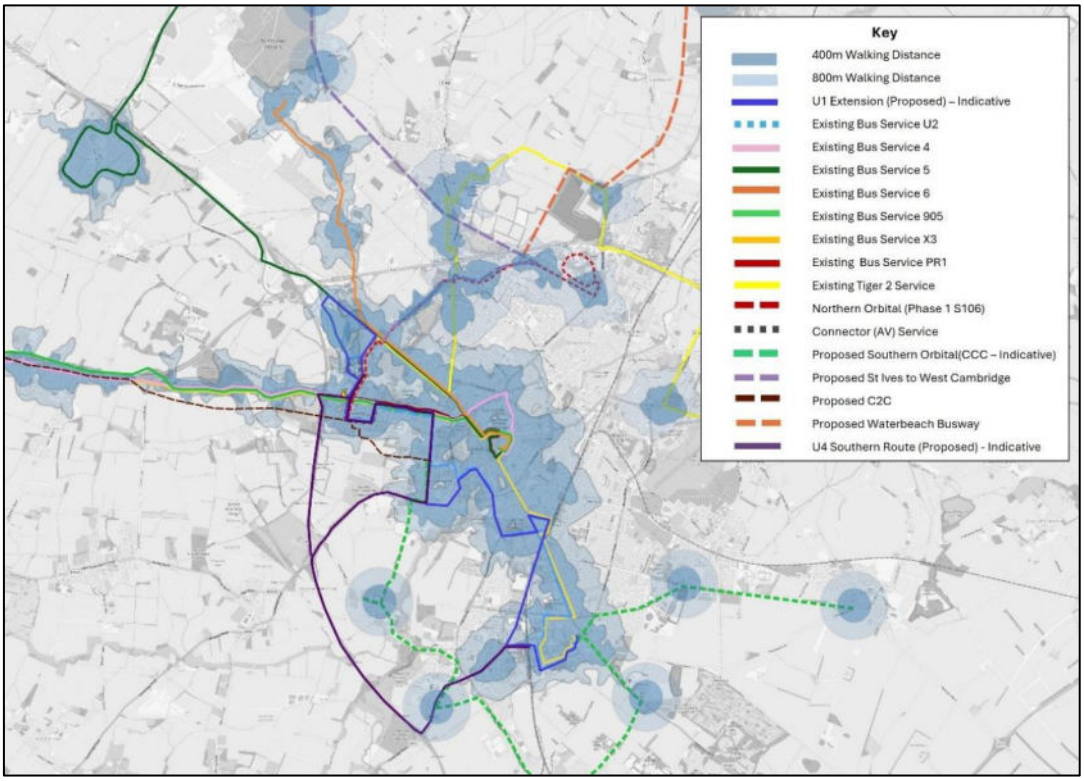
15.3.5 The northwestern area of the NWCM, in particular, shows an improvement in cycling accessibility due to the introduction of new active travel routes associated with the proposed development. Previously more restricted in terms of cycle access, this area is now well integrated within the 15-minute cycling isochrone.

15.4 Future Public Transport Accessibility

15.4.1 An accessibility review has been undertaken to assess the future accessibility of the site via proposed bus services. This bus service included the proposed routes detailed in Section 5 of this TA, as well as routes linked to the NWCM detailed in Sections 11 & 12 of this TA. This includes the proposed alterations to the U1/U2 and the potential explorations for the U3 and U4 services.

15.4.2 While the exact locations of future bus stops are currently unknown, estimated stop locations have been identified based on likely placements within nearby settlements. Isochrones have been generated from these estimated bus stop locations to indicate potential walkable access. 400m and 800m isochrones have been applied to each of the proposed stops.

Figure 15.5: Future Baseline with NWCM Bus Accessibility (400m and 800m Isochrones)



Note: Routes are marked as indicative where proposals are still emerging. All routes are provisional and subject to operator requirements, stakeholder consultations, and final confirmation

15.4.3 As shown in Figure 15.5, future public transport accessibility is demonstrated in the figure, showing an extension in 400m and 800m walking distance accessibility coverage from the baseline, now potentially encompassing settlements such as future phases of Northstowe, Waterbeach New Town, Histon/Impington, Grantchester, Great Shelford, Fullburn, and Cherry Hinton, as well as employment areas such as Cambridge Science Park. The future bus services coupled to the NWCM will also improve accessibility within the site, and along Huntingdon/Madingley Road. As part of the NWCM bus strategy, increasing frequencies to existing services (e.g., U1/U2) are also to be explored.

15.5 Future Accessibility Summary

15.5.1 Table 15.1 provides a summary of the future accessibility walking and cycling times to a range of nearby settlements, areas of employment, public transport nodes, facilities and services accounting for committed schemes, infrastructure and NWCM. For consistency, walking and cycling times are taken from a centroid point of Eddington.

15.5.2 Walking and cycling times are based upon an average speed of 5km/h for walking and 19km/h for cycling, based off information contained within the National Travel Survey (NTS) 2016.

Table 15.1: Future Site Accessibility Summary (Active Travel)

Category	Name	Approximate Distance	Walking Time (Minutes)	Cycling Time (Minutes
Public Transport	Onsite Bus Stops	100m	1.0	0.5
	NWCM Travel Hubs serving Cambridge Station and Camb North	100m	1.0	0.5
	Madingley Road P&R	550m	7.0	2.0
	Huntingdon Road Bus Stops	750m	9.0	2.5
	Madingley Road Bus Stops	700m	8.5	2.0
	Drummer Street Bus Station	3.5km	-	11.0
	Cambridge Railway Station	5km	-	16.0
	Cambridge North Railway Station	5.5km	-	17.5
ATM	ATM	100m	1.0	0.5
Post Box	Post Box	100m	1.0	0.5
Post office	West Hub – Cambridge West	1.4km	19	5
Employment	Various NWCM Employment	100m	1.0	0.5
	Cambridge West (UoC)	1km	12.0	3.0
	Cambridge City Centre	2.5km	30.0	8.0
	Cambridge Biomedical Campus	8km	-	25
Education	UoC Primary School	100m	1.0	0.5
	Darwin Green Secondary School	1km	14	4
	Chesterton Community College	3.5km	-	11
	North Cambridge Academy	4.5km	-	15
	Parkside Community College	5.4km	-	17
	Impington Village College	5.4km	-	17
	Cambridge West (UoC)	1km	14	4
Healthcare	NWCM GP Surgery	100m	1.0	0.5
	NWCM Senior co-living	100m	1.0	0.5
	Huntingdon Road Surgery	1.6km	19.0	5.0
	Bridge Street Medical Centre	2.8km	-	9.0
	Arbury Road Surgery	3.4km	-	11.0
	Addenbrookes Hospital	8km	-	25
Retail	Sainsburys Supermarket, Eddington	100m	1.0	0.5
	Outspoken Cycles	100m	1.0	0.5
	Londis, Huntingdon Road	850m	10.0	3.0
	Aldi, Histon Road	2km	24.0	6.0
	Iceland, Histon Road	2km	24.0	6.0

Leisure	Hotel	100m	1.0	0.5
	NWCM Sport Pitches	100m	1.0	0.5
	Brook Leys	100m	1.0	0.5
	Storeys Field Community Centre	100m	1.0	0.5
	Various onsite leisure amenities	100m	1.0	0.5
	Play areas (various)	100m	1.0	0.5
	Allotments	100m	1.0	0.5
	Cambridge City Centre	2.5km	30.0	8.0
	Jesus Green	3km	-	10.0
	Parkers Piece	3.5km	-	11.0
	Coe Fen	3.4km	-	11.0
Hospitality	Dulcedo	100m	1.0	0.5
	Douce	100m	1.0	0.5
	La Pizzica	100m	1.0	0.5
	The Astronomer	100m	1.0	0.5
	Dutch	150m	1.5	0.5

15.5.3 As shown in Table 15.1, and summarised within this chapter of the TA, the range of facilities, amenities and services within suitable walking and cycling distance from NWCM site increase when accounting for future schemes, infrastructure and NWCM. This further highlights the overall accessibility of the Site with regards to existing active travel infrastructure provision, the local environment, the land uses proposed, and on and off-site transport infrastructure proposed. Where gaps were identified within the existing accessibility analysis, NWCM has been developed to account for these missing amenities through on site provision of the missing amenity, evolution of the masterplan, improvements to the Site accessibility to these amenities located off-site or off-site committed provision.

16 IMPACT ASSESSMENT

16.1 Introduction

16.1.1 The key to delivering a development of this scale from a transport perspective will be the delivery of genuine modal choice between the Site and places where people want and need to go. Sections 11, 12 and 14 set out the proposals for facilitating and encouraging sustainable travel modes. Consideration is given within this section as to whether the forecast travel demand can be adequately accommodated on the existing and improved sustainable networks proposed and existing highway network.

16.1.2 A Multimodal Impact Assessment has therefore been undertaken accounting for the agreed trip generation and distribution for Future Phases, as detailed in Appendix I and Section 13. This impact assessment is summarised and concluded below.

16.1.3 It is important to note that the NWCM Quantum of Development includes for a number of flexible land uses that includes for a maximum GFA for each, that can be interchanged. This TA deals with this flexible approach by assessing the impact of the worst case development scenario, by accounting for the maximum GFA for land use scenarios that maximises car driver trip generation. Specifically the flexibility between co-living, student accommodation vs C3 land uses has been dealt with through assessing the maximum C3 proposed (which will generate the highest trip rate per GFA) alongside student accommodation (which will generate negligible car trips during the peak hours as per co-living). Overall, the flexibility to replace and interchange C3, student and co-living land uses will have negligible impact on the outputs of this TA that has assessed a worst case development scenario. Furthermore, the impact assessment of each plot will be dealt with through separate Reserved Matters Transport Statements.

16.2 Assessment Scenarios

16.2.1 To the determine the future impact of the proposed NWCM quantum of development the following scenario years have been used as agreed with CCoC:

- Baseline - 2024
- 'Opening' year – 2027
- Minimum 5 years post 'opening' year – 2033 (chosen to allow for peak construction)
- Future post 'opening' year for National highways strategic planning – 2038

16.2.2 The following trip demand scenarios have been assessed:

- **'Consented' Scenario** – Assuming trip generation & mode share as forecast in 2012 – used as a comparison scenario for the highway network impact
- **'Core' Scenario** – Trip Demand forecast and evidence through various Phase 1 and UoC surveys (as detailed above)
- **Plausible 'Core' Scenario** – **Sensitivity** test to assess impact of more PT trips distributed towards Cambridge growth areas, such as NECAAP and CBC.

16.3 Walking

16.3.1 Whilst noting that this planning application currently includes for a Parameter Plan, to test the viability of the proposed development scheme and encourage Active Travel, pedestrian infrastructure has been designed into the NWCM in detail. Pedestrian movements will be focused on trips between plots, key amenities, and close external destinations accounting for more interaction between internal and local neighbourhood land uses. This has been designed into the Parameter Plan and Design Code, and will continue to be developed as the NWCM is developed.

16.3.2 Pedestrian movements will peak around the school, local amenities, and around residential and community hubs. And this has been and will continue to be taken in to account when developing the NWCM

16.3.3 2m footways will be provided along both sides of Cartwright Avenue and also through a matrix of pedestrian infrastructure within and through each plot to link residential land uses with key community and employment land uses. Wide pedestrian crossing points will also be provided at regular intervals along Cartwright Avenue and large pedestrianised areas will be provided at key community hubs.

16.3.4 As outlined previously, the Planning for Walking Toolkit[2] and 'Cambridgeshire's Active Travel Toolkit'[3] have been used as a robust toolkit to test the developing NWCM for active travel movements and specifically walking needs. Below are key elements extracted from the toolkits applied throughout the evolution of the NWCM:

- **Strategic Active Travel Connections** – NWCM proposes to provide for and upgrade numerous walking connections through the site to education, shops and local services alongside strategic links to Cambridge City. These have been outlined in the NWCM Design Code, and include new crossings over Huntingdon Road, segregated connections up to Madingley Road, segregated connections to Huntingdon Road (for example Bunkers Hill) and provision for pedestrians through the Storeys Way.
- **Connections to PRoW network** – NWCM proposes to improve PRoW 99/5.
- **Seamless well signed active travel connections** – the NWCM Wayfinding strategy will provide and signpost direct connections from/to key onsite travel hubs, employment land uses, and local communities within UoC land ownership and up to the NWCM boundary.
- **High quality walking routes** - Safe, direct, convenient, attractive and fully accessible walking routes are included within the NWCM, including the provision of Shared Gardens running perpendicular to Cartwright Avenue connecting residential and employment land uses to key leisure locations.

[2] Mayor of London (March 2009)

[3] Cambs Active Travel Toolkit for new development (March 2024)

- **Liveable Neighbourhoods** – NWCM has evolved to self-enforce slow vehicle speeds through street design, for example Shared Gardens, community lanes, large car free areas (Eddington Centre bus gate and residential plots).
- **Active travel routes delivered before occupancy** – NWCM transport strategy is and will continue to be delivered in advance of occupation for key routes through the site.
- **Construction Access** – the CTMP will allow for safety of residents and employees during the long term construction period.

16.4 Cycling – Core Scenario

16.4.1 Whilst noting that this planning application currently includes for a Parameter Plan, to test the viability of the proposed development scheme, the proposed on site cycle infrastructure and the Peak Hour and Daily NWCM cycle flows through the Site from each internal plot, as detailed in Section 13 for the 'Core Scenario' outlined above[4], have been analysed against LTN 1/20. It should be noted that this assessment provides for a worst case sensitivity test whereby all cycle movements are assumed to use the entirety of each cycle link. Whereas, in practice some trips will be shorter and join the link later on. The cycle movements as calculated and presented in Section 13 therefore overestimate the number of movements along each cycle route, and this should be accounted for when assessing against LTN 1/20.

16.4.2 Figure 16.11 below summarises the peak hour cycle flow calculated in Section 13 vs cycle lane widths provided for NWCM cycle links. Figure 16.2 then goes on to identify pinch points in cycle demand throughout the NWCM.

[4] The difference between the 'Core' and 'Plausible' Scenarios will have negligible impact on cycling impact through the NWCM

Figure 16.1: Peak Hour Cycle Flows Vs Cycle Infra Widths

Link	Two-Way Peak Hr Demand	Cycle Lane Width
1	1,500	3.1m Segregated Bi-Directional
2	200	3-5m shared
3	300	3m Segregated
4	300	3m Segregated
5	1,300	3m Segregated
6	300	2 X 2m Segregated
7	500	2 X 2m Segregated
8	300	2 X 2m Segregated
9	300	2 X 2m Segregated
10	1,600	3m Segregated
11	0	On carriageway
12	100	On carriageway
13	1,400	3m Segregated
14	1,900	3.3m Segregated
15	900	3-5m shared
16	2,100	3m Segregated
17	200	3 - 5m Shared
18	200	3.3m Segregated
19	100	2 X 2m Segregated
20	300	2 X 2m Segregated
21	1,100	3m Segregated
22	100	3-5m shared
23	1,200	3-5m shared
24	200	2 X 2m Segregated
25	500	3m Shared
26	0	3-5m shared
27	300	3m Shared
28	0	3-5m shared
29	300	3m Shared
30	200	3.1m Segregated Bi-Directional
31	100	3m Shared
32	100	3m Shared

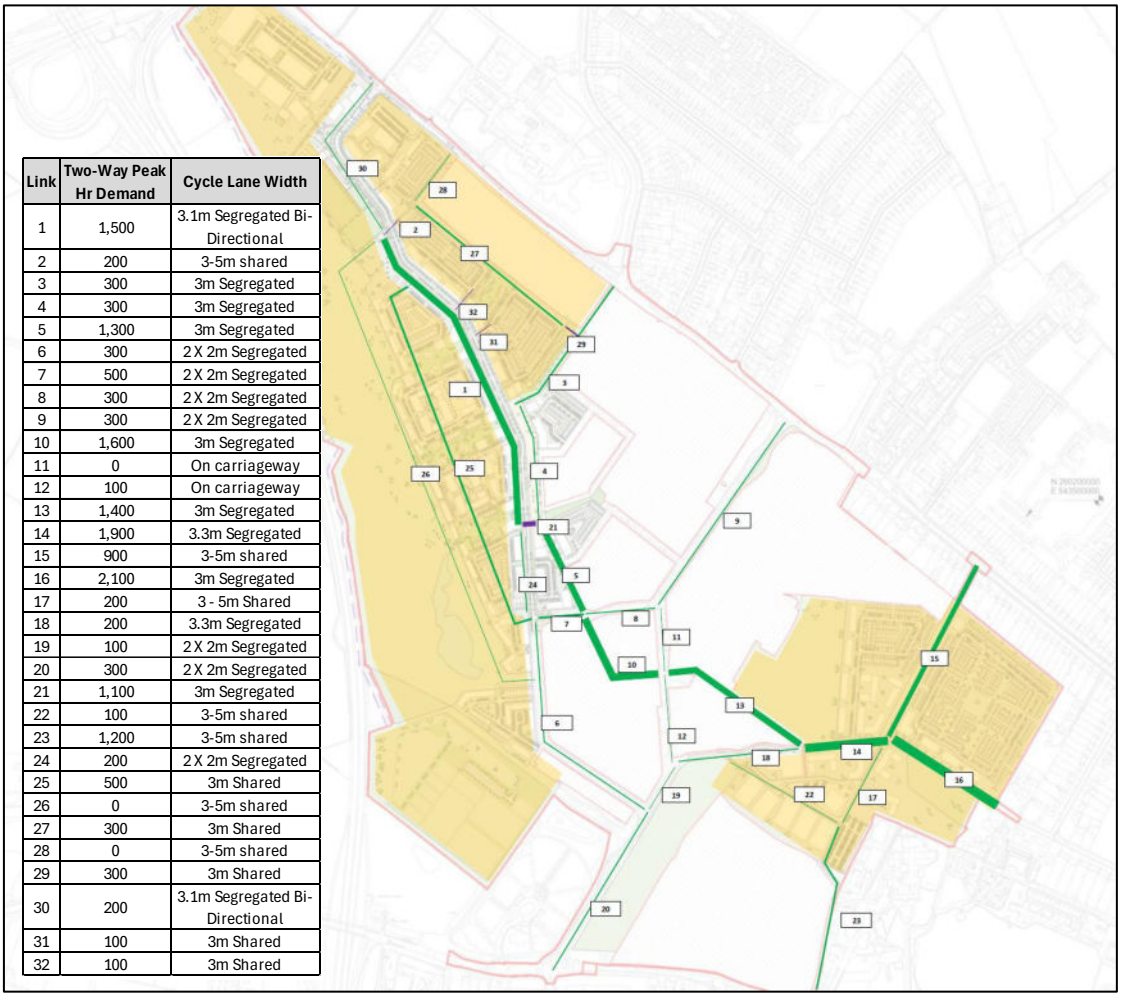
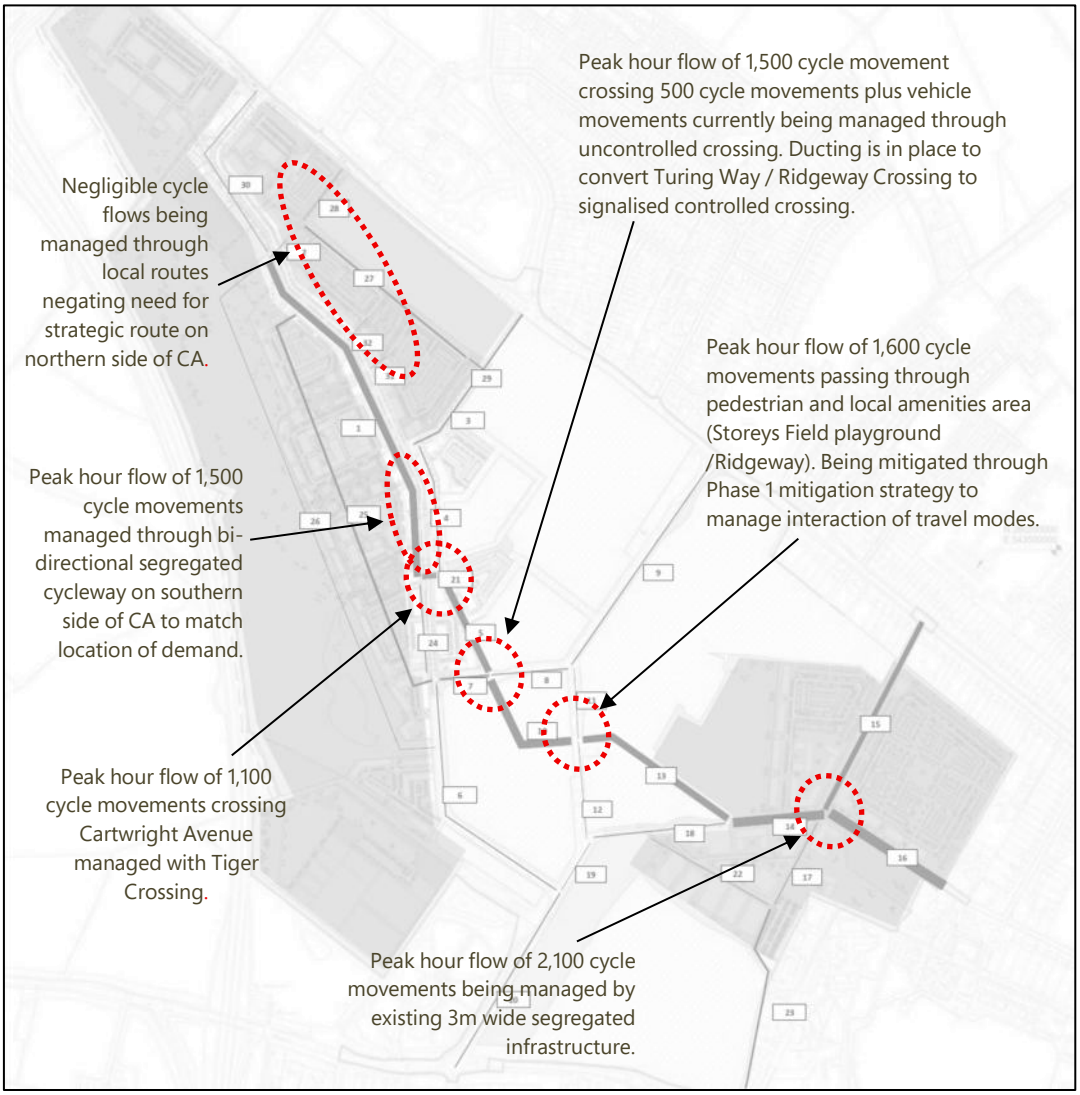


Figure 16.2: NWCM Cycle Demand Pinch Points



16.4.3 As shown in Figure 16.2, the segregated Bi-Directional cycle lane along Cartwright Avenue and the Ridgeway will take a majority of cycle trips through the Site, and will be designed and implemented to do so. Based on the illustrative scheme, which provides a robust assessment of development scenarios, a peak of 1,600 two-way movements per hour and 5,300 daily cycle movements are predicted within the centre of the Site along Cartwright Avenue. Increasing to 2,100 peak hour and 6,600 daily movements to the east of the Site. These numbers provide a robust peak along each section as cyclists will be joining and leaving the cycleway throughout.

16.4.4 Cycle Infrastructure Design Guide LTN 1/20 recommends a desirable minimum 2-way cycleway width of 3m[5] for peak hour cycle flows >300-1,000 and absolute minimum of 3m for peak hour cycle flows greater than 1,000. The entire Bi-direction cycleway through the Site will therefore meet LTN 1/20 absolute minimum width of 3m, including the eastern Gravel Hill end where flows are highest. As cyclists will be joining and leaving the cycleway at various points along its

[5] based on a saturation flow of 1 cyclist per second per metre of space. For user comfort a lower density is generally desirable

length, and the analysis undertaken provides an absolute worst case test, a majority of the Bi-directional cycleway will meet LTN 1/20's recommended minimum width. A majority of the wider NWCM proposed cycle infrastructure will also meet LTN 1/20's recommended minimum width. Nevertheless, there may be pinch points within the proposed NWCM cycle network, due to the highly successful and exemplar mode share already witnessed for Phase 1. These pinch points have and will continue to be mitigated through the Design Code, as the Parameter Plan progresses into a detailed planning application and detailed design, to limit the risk of pinch points occurring and mitigate and manage high volumes of demand.

16.4.5 When analysing cycle flow to/from each plot, it is clear that the majority of cycle movements along Cartwright Avenue will be from the southern plot (nearly 70% of total daily cycle movements from all NWCM plots) and therefore cyclists will be on the same side as the Bi-directional cycleway. This analysis has been fed into the NWCM to guide the scale, location, route and ultimate decision to recommend a Bi-directional cycleway along Cartwright Avenue that ties into the existing Bi-directional Ridgeway and out beyond Gravel Hill to the east. Additional routes will then be provided through both the northern and southern plots to accommodate the lower flows of cycle movements and also provide for all desire lines, therefore limiting the need number of cyclists needing to cross Cartwright Avenue when compared to a Uni-directional cycleway being provided on both sides of Cartwright Avenue.

16.5 Public Transport – Plausible Scenario

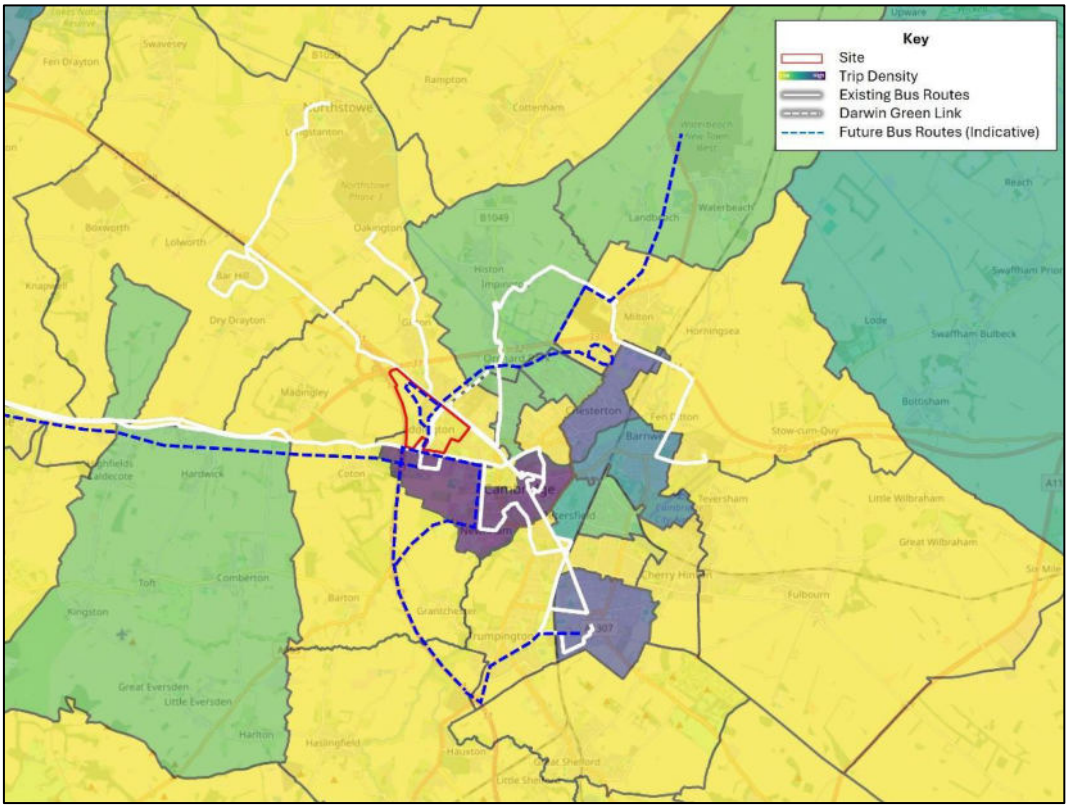
16.5.1 In light of the proposed bus strategy outlined in Sections 12 & 14, the impact of expected public transport trips has been analysed against the Public Transport Heat Maps and Distribution presented in Section 13 accounting for the 'Plausible' Scenario' whereby the focus in job growth at NECAAP and CBC has been accounted for as a sensitivity test. As outlined in Section 13 and Appendix H & I, the number of additional jobs expected at key growth areas of Cambridge have been matched against the current distribution zones (MSOA) and then a new weighted distribution of PT trips towards these growth areas has been used.

16.5.2 Table 16.1 compares the bus demand to key destinations against existing proposed bus service passenger capacity when accounting for additional job growth at NECAAP and CBC. Figure 16.4 then shows how the Bus Strategy (Sections 12 & 14) will accommodate the peak Bus Demand to key destinations (highlighted as purple on the demand heat map) as calculated in Section 13.

Table 16.1: Bus Demand Vs Bus Service Passenger Capacity

Key Destination	New Passenger Demand	Peak Hour			
		Existing		Proposed / Future	
		Bus Services	Passenger Capacity	Bus Services	Passenger Capacity
West Cambridge + CBC	337	U1 + U2 @ 4 services per hour	160	U1 + U2 uplift to 6 services per hour.	80 additional passenger supply
				Aspiration for new U4 to CBC and Cambridge Station	240 additional passenger supply if 10 min frequency
				U1 + U2 + U4	Total = 320 additional passenger supply plus existing Mad Rd services.
NE Growth Area	57	-	-	S106 U3 Northern Orbital Service	80 passenger supply if half hourly
Cambridge East	31	Tiger 2 hourly service	40 passengers	Tiger 2 hourly service	40 passenger supply
Girton	Nominal	Service 6 @ 2 services per hour	80 Passengers	Service 6 @ 2 services per hour	80 passenger supply
Cambourne & Hardwick	6	Service 4 @ 3 services per hour	120 Passengers	Service 4 @ 3 services per hour	120 passenger supply
Histon & Impington	7	Tiger 2 hourly service	40 passengers	Tiger 2 hourly service	40 passenger supply

Figure 16.3: Peak Bus Demand Vs Bus Strategy



16.5.3 As shown in Figure 16.3, all key origins and destinations expected for NWCM trips by bus are served by existing local services, including the U 1 & 2. The only key origins & destinations currently not served by an existing bus route is the NE Growth Area and this will be served by the Northern Orbital (termed U3) route in the future through the Phase 1 S106.

16.5.4 Accounting for the robust development scenarios, the NWCM Trip Model predicts a one hour peak of 281 bus trips to/from west Cambridge plus 56 bus trips to/from south Cambridge (CBC), totalling 337 bus trips. These key destinations are already served by the U1 & U2 and 337 hourly trips would translate into 56 new trips every 10 minutes at peak times. Increasing the U1 & U2 to a 10 minute frequency, plus accounting for other existing services linking into Cambridge City and then south to CBC via the busway, will accommodate these expected NWCM trips by bus. Furthermore, accounting for changing working patterns, passengers are expected to 'peak spread' their journeys rather than focus on one peak hour. Despite this predicted demand being met, the proposed Transport Strategy includes for the potential to provide a new southern Orbital through an Express (termed U4) service to/from CBC and Cambridge Station. This additional service would further enhance provision to this key southern growth area from NWCM.

16.6 Highway – Core Scenario

16.6.1 Given the significant sustainable mode share success at Eddington, the approved car driver trip envelope agreed in 2012 will not be exceeded, even with the maximum development levels proposed. The impact assessment has therefore focused on the demand vs supply of sustainable transport infrastructure; including walk/cycle routes Level of Service (LoS) and bus frequency / provision vs demand. Nevertheless, the impact of Future Phases has been assessed on the local road network by comparing the proposed NWCM quantum of development ('Core' Scenario outlined above[6],) against the 2012 consented trip budget ('Consented' Scenario outlined above) at link & junction level, future baseline flows and then where necessary through junction capacity analysis.

Trip Budget

16.6.2 As detailed in Chapter 13, the table below provides a comparison between the consented trip budget for North West Cambridge (Phases 1 and 2) as set out in the 2012 Transport Assessment, and the updated trip forecasts developed through this assessment that represent a robust illustrative development scheme.

16.6.3 To enable a like-for-like comparison, 2025 counts (excluding through traffic) have been used to determine Phase 1 trips already built and occupied, allowing the 2012 trip budget to be directly compared with the combined total of forecasts for Phase 1 and Future Phases based on the current methodology and existing Phase 1 surveys.

Table 16.2: Trip Budget Comparison

	AM Peak Hour			PM Peak Hour		
	Arr.	**Dep.**	**2-Way**	**Arr.**	**Dep.**	**2-Way**
NWC - Consent	899	817	1,716	812	923	1,735
2024 Traffic Flows, less through-traffic (2025 ANPR data)	321	282	603	216	230	445
Future Phases	469	172	640	179	560	739
NWCM - Revised	789	454	1,243	394	790	1,185
Net Difference	**-110**	**-363**	**-473**	**-418**	**-133**	**-550**

16.6.4 The comparison shows a substantial reduction in forecast peak hour vehicle trips when compared with the original 2012 consented trip budget. In the AM peak the new NWCM robust

[6] The difference between the 'Core' and 'Plausible' Scenarios will have negligible impact on highway impact around the immediate vicinity of the site, especially given the significantly high vehicle trips estimated for the 'Consented' Scenario.

development scheme forecasts 473 fewer two-way trips, while the PM peak shows a reduction of 550 two-way trips. This reflects an evidence-based methodology suggestive of a significant shift towards sustainable travel behaviours in more recent years.

Trip Budget by Link and Junction

16.6.5 Further to comparing the total trip budget, the difference between consented and proposed trips across the network have been analysed. The flow diagrams showing the differences across all links and junctions are attached in Appendix J and a summary is provided in the table below.

Table 16.3: Trip Budget Comparison by Junction / Link

	AM Peak Hour			PM Peak Hour		
	Consent	Revised	Net Difference	Consent	Revised	Net Difference
Junctions						
Hunts Rd NW Access	812	501	**-310**	793	459	-334
Hunts Rd East Access	933	787	**-146**	986	738	-248
East Parcel - Access via Garrod Street	518	197	**-321**	676	289	-388
Eddington Ave / Madingley Rd	576	426	**-149**	611	429	-182
Girton Rd / Hunts Rd	413	379	**-35**	443	332	-110
Hunts Rd / Lawrence Weaver Rd	462	337	**-125**	438	295	-143
Hunts Rd / Castle St / A1134	462	337	**-125**	438	295	-143
Maddingley Rd / JJ Thomson Ave	111	81	**-30**	111	78	-33
Maddingley Rd / M11 Slips	743	576	**-167**	772	520	-252
Links						
Eddington Avenue N	529	630	**101**	599	573	**-26**
Eddington Avenue S	576	426	**-149**	611	429	**-182**
Cartwright Avenue N	612	204	**-407**	525	185	**-341**
Cartwright Avenue E	586	256	**-330**	534	267	**-266**

Hunts Rd west of NW Access	630	462	**-168**	646	435	**-211**
Hunts Rd east of NW Access	382	336	**-46**	414	297	**-117**
Hunts Rd East of Lawrence Weaver Rd	462	337	**-125**	438	295	**-143**
Madingley Rd West of Eddington Ave	465	345	**-119**	500	351	**-149**
Madingley Rd West of P&R	465	345	**-119**	500	351	**-149**
Maddingley Ave East of Eddington Ave	111	81	**-30**	111	78	**-33**
Maddingley Ave East of Maddingley Rise	111	81	**-30**	111	78	**-33**
Madingley Rd West of M11	73	56	**-17**	72	50	**-21**
M11 South of Madingley Rd	392	289	**-103**	428	300	**-128**
M11 North of A14	559	411	**-149**	577	389	**-188**

16.6.6 The comparison continues to show a substantial reduction in forecast peak hour vehicle trips across the wider highway network, reducing in scale further from the Site, when compared with the original 2012 consented trip budget.

16.6.7 At the three Site access junctions the net difference shows a reduction of between ~300 – 500 vehicles across each junction as a whole. The net difference on Madingley Road is ~270 vehicles adjacent to the Site, reducing to ~40 – 65 away from the Site, and ~235 - 370 vehicles on Huntingdon Road.

16.6.8 On the strategic road network the net difference shows a reduction of ~300 on the M11.

Percentage impact

16.6.9 Further to comparing the total trip budget, the percentage impact of NWCM has been analysed across the network by comparing 2038 NWCM flows against 2038 Baseline Flows for the 'Core' Scenario outlined above and in Section 13[7],. The flow diagrams showing the percentage impact across all links and junctions are attached in Appendix J and a summary is provided in the table below for key junctions and links.

[7] The difference between the 'Core' and 'Plausible' Scenarios will have negligible impact on highway impact within the agreed geographical area assessed

Table 16.4: Percentage Impact Across Highway Network

	AM Peak Hour			PM Peak Hour		
	2038 Baseline	**2038** NWCM	**% Difference**	**2038 Baseline**	**2038** NWCM	**% Difference**
Junctions						
Hunts Rd NW Access	961	280	**29%**	1,081	299	**28%**
Hunts Rd East Access	990	388	**39%**	722	460	**64%**
East Parcel - Access via Garrod Street	0	197	**-**	0	289	**-**
Eddington Ave / Madingley Rd	2,748	222	**8%**	2,691	261	**10%**
Girton Rd / Hunts Rd	1,738	129	**7%**	1,901	153	**8%**
Hunts Rd / Lawrence Weaver Rd	1,959	176	**9%**	2,118	187	**9%**
Hunts Rd / Castle St / A1134	2,097	176	**8%**	2,346	187	**8%**
Maddingley Rd / JJ Thomson Ave	2,132	42	**2%**	2,129	47	**2%**
Maddingley Rd / M11 Slips	5,986	311	**5%**	5,932	301	**5%**
Links						
Eddington Avenue N	1,018	231	**23%**	818	295	**36%**
Eddington Avenue S	983	222	**23%**	808	261	**32%**
Cartwright Avenue N	220	204	**93%**	53	185	**348%**
Cartwright Avenue E	220	256	**116%**	53	267	**504%**
Hunts Rd west of NW Access	961	241	**25%**	1,081	276	**25%**
Hunts Rd east of NW Access	741	115	**16%**	1,028	137	**13%**
Hunts Rd East of Lawrence Weaver Rd	1,603	176	**11%**	1,717	187	**11%**
Madingley Rd West of Eddington Ave	2,116	180	**9%**	2,154	213	**10%**
Madingley Rd West of P&R	2,255	180	**8%**	2,319	213	**9%**

Maddingley Ave East of Eddington Ave	1,483	42	**3%**	1,544	47	**3%**
Maddingley Ave East of Maddingley Rise	1,951	42	**2%**	1,998	47	**2%**
Madingley Rd West of M11	2,009	29	**1%**	2,649	31	**1%**
M11 South of Madingley Rd	7,956	151	**2%**	8,282	183	**2%**
M11 North of A14	8,983	214	**2%**	9,977	246	**2%**

16.6.10 When comparing the 2038 NWCM flows against 2038 Baseline flows at the three site access junctions, NWCM increases flows by between 64 - 8% percentage, with the increase just 8-10% at the Madingley Road access. The net increase in vehicles on Madingley Road is 1 - 10% and 25 - 11% vehicles on Huntingdon Road.

16.6.11 The net increase in vehicle movements is then 7 – 8% at Girton Rd / Hunts Rd, 9% at Hunts Rd / Lawerence Weaver Rd, 2% at Madingley Road / JJ Thomson Ave, 8% at Hunts Rd / Castle St / A1134 and 5% at Madingley Road / M11 Slips.

16.6.12 On the strategic road network the net increase in flows is 2% on the M11 then reducing on the A428 and A14 further afield.

16.6.13 Based on this percentage impact analysis the following junctions have been assessed further for capacity:

- Proposed Active Travel crossings over Huntingdon Road
- Hunts Road / Cartwright Avenue NW Site Access
- Hunts Rd / Eddington Ave East Site Access
- Madingley Road / Eddington Ave Site Access
- Maddingley Road / P & R Access
- Madingley Rd / M11 Slips

Capacity Modelling

16.6.14 Capacity Modelling Outputs are summarised in Appendix K and the full model outputs in Appendix L. In summary the following can be concluded from the capacity model outputs:

- **Proposed Active Travel crossings over Huntingdon Road**
  - The two proposed Active Travel crossings over Huntingdon Road are predicted to operate within capacity in the future design year of 2038 with the full development open and operational.

- **Hunts Rd / Cartwright Ave NW Site Access**

  - This proposed junction layout is predicted to operate within capacity in the future design year of 2038 with the full development open and operational.

- **Existing Hunts Rd / Eddington Ave Site Access / Lawrence Weaver Road**

  - This junction is predicted to operate beyond capacity in future years. However, the redistribution of traffic via Cartwright Avenue has a positive impact on the capacity of the junction.

  - The junction is shown to operate with betterment in the critical AM when comparing the future years with NWCM against future baseline years due to the redistribution of existing through traffic via Cartwright Avenue. In the PM peak, NWCM has a slight negative impact on capacity when comparing the future years with NWCM against future baseline years.

  - Additionally, if the signal timings and signal heads are changed to provide the right turn movement from Huntingdon Road a green light at the same time as the opposing northbound movement, and therefore give way, the junction is predicted to operate with significantly more capacity and better than the without NWCM baseline scenarios. The additional capacity is gained by allowing these right turn movements to find gaps in northbound traffic and therefore clear the queueing generated through the short right turn lane that currently blocks the ahead movement. This is especially beneficial for when a bus is waiting to turn right and therefore block the dominant ahead movement.

- **Existing Madingley Rd / Eddington Ave Site Access / P&R Access**

  - This junction is predicted to operate at capacity in the future 2033 baseline scenario and then beyond capacity in all other future baseline scenarios. Whilst the junction is predicted to operate with queues and delay in the 2038 future baseline year scenario, the junction is predicted to operate significantly better in the 2033 future year scenario with the full NWCM development included when compared to the 2038 baseline scenario which includes full committed

growth, but without NWCM development. This shows that NWCM does not have a significant impact on this junction relative to long term future cumulative background growth. It is expected that the background growth will be mitigated through; the redistribution of Madingley Rd traffic, C2C, and the GCP's Madingley Rd corridor improvements.

- **Existing Maddingley Rd / M11 Slips Junction**

  - Whilst this junction is predicted to operate with queues and delay in the 2038 future baseline year scenario, the junction is predicted to operate significantly better in the 2033 future year scenario with the full NWCM development included when compared to the 2038 baseline scenario which includes full committed growth, but without NWCM development. This shows that NWCM does not have a significant impact on this junction relative to long term future cumulative background growth. It is expected that the background growth will be mitigated through; the redistribution of Madingley Road traffic, C2C, and the GCP's Madingley Road corridor improvements.

17 SUMMARY & CONCLUSIONS

17.1 Summary

17.1.1 KMC Transport Planning Ltd ('KMC') is retained by the University of Cambridge (UoC) (the 'Applicant') to provide transport planning advice and prepare supporting technical documentation in association with the planning application process which will see the development of Future Phases of the North-West Cambridge Masterplan ('NWCM') for residential, employment, academic, retail and supporting uses (referred to as 'Future Phases' throughout this document).

17.1.2 The first phase of North West Cambridge is being built out pursuant to an Outline planning permission granted in 2013 (LPA refs, S/1886/11 & 11/1114/OUT) and subsequent Reserved Matters Applications. The new community formed by Phase 1 is named Eddington.

17.1.3 The challenge for Future Phases is to ensure that the ingredients that make Eddington successful are identified, maintained and enhanced.

Proposed Development

17.1.4 The UoC is seeking Outline Planning Permission ("OPP") for the Future Phases of the NWCM. The Outline Planning Application ("OPA")(all matters reserved except for means of access to the public highway) seeks planning permission for:

"*a phased mixed use development, including demolition of existing buildings and structures, such development comprising*

- *Living Uses, comprising residential floorspace (Class C3/C4, up to 3,800 dwellings), student accommodation (Sui Generis), Co-living (Sui Generis) and Senior Living (Class C2);*
- *Flexible Employment Floorspace (Class E(g) / Sui Generis research uses);*
- *Academic Floorspace (Class F1); and*
- *Floorspace for supporting retail, nursery, health and indoor sports and recreation uses (Class E (a) – E (f)).*
- *Public open space, public realm, sports facilities, amenity space, outdoor play, allotments and hard and soft landscaping works alongside supporting facilities;*
- *Car and cycle parking, formation of new pedestrian, cyclist and vehicular accesses and means of access and circulation routes within the Site;*
- *Highway works;*
- *Site clearance, preparation and enabling works;*
- *Supporting infrastructure, plant, drainage, utility, earthworks and engineering works."*

Stakeholder Engagement

17.1.5 The transport aspects of the proposed development have been subject to comprehensive pre-application discussions with the Greater Cambridgeshire Shared Planning Service (GCSPS), as the local planning authority, Cambridgeshire County Council (CCoC) as the local highway authority, and National Highways at the government agency body who maintain the Strategic Road Network (SRN).

17.1.6 A series of community consultation workshops were also undertaken in October 2024, November 2024, December 2024, March 2025 and April 2025 to gather local community feedback on the emerging development proposals. A separate community Transport Workshop was also held in June 2025, to gather feedback on Phase 1 and key considerations for the Future Phases.

17.1.7 Quality Panels (QP) for the NWCM were held in November 2024 and April 2025. The panels were made up of a number of nationally respected built and natural environment professionals who critiqued the emerging development proposals and identified where the design and strategy could be improved to achieve the best possible outcomes. In addition, two Joint Development Control Committee Briefings (JDDC) have been held. The feedback from these have been incorporated into the proposed OPP.

Policy Summary

17.1.8 A summary of the policy and guidance documentation is shown in Table 17.1 below alongside how the proposed development is policy compliant. These key transport design principles, standards, policy and guidance have been considered throughout the development of the masterplan proposed for the Future Phases of the NWCM, as illustrated throughout this TA and other documents accompanying the planning application.

Table 17.1: Policy and Guidance Documentation Summary

Policy Document	Description	Development Compliance
National		
National Planning Policy Framework (2024)	The NPPF is a UK planning policy guiding sustainable development. Section 9 of the NPPF (2024) outlines national policy on promoting sustainable travel.	A vision led approach from the early stages of the planning process has been used, including early engagement with local communities, stakeholders and authorities. Sustainable transport modes are prioritised throughout and safe and suitable access to the Site can be achieved for all users. This TA also demonstrates that the development does not lead to

		unacceptable impact on highway safety or capacity.
National Planning Practice Guidance (2014)	The PPG contains a suite of guidance, with is continually being updated. This guidance is intended to assist all stakeholders in determining whether an assessment may be required and, if so, what level and scope the assessment should include.	The scale and nature of the development proposals at North West Cambridge mean that a Transport Assessment and Travel Plan are required to support the planning application. The scope of this Transport Assessment, and other supporting transport documentation such a Travel Plan, was informed by the PPG.
Planning for the Future – National Highways (2023)	This document was produced by National Highways, who are the overseeing organisation for the management of the strategic road network and all-purpose trunk roads within England. Within this document, National Highways outline sustainability principles that should be considered in new development within Paragraphs 28 and 29, respectively. This includes the location of development, sustainable transport access/solutions, and opportunities to maximise walking, wheeling, cycling and public transport.	The impact of the proposed development on the strategic highway network has been fully considered throughout this Transport Assessment. The masterplan prioritises active travel and public transport to reduce dependence on private cars. Its location, supported by both existing and planned infrastructure, reinforces this sustainable transport approach.
Strategic Road Network and the Delivery of Sustainable Development (2022)	The circular applies to the whole strategic road network and outlines how National Highways will engage with the planning system. The circular states that walking, cycling and public transport must be the natural choice for those able to use it. National Highways states it will: "*Support development promoters and local authorities in applying the principles of Manual for Streets, the National Design Guide on Movement, inclusive mobility, and local transport note 1/20 to ensure priority is given to pedestrian and cycle movements, and that well-considered parking, servicing and utilities infrastructure for all users is incorporated into development proposals*"	The proposed development has been designed to promote travel by walking, cycling, wheeling and other sustainable measures (e.g., public transport). Infrastructure has been designed accordingly.
Active Travel England (2023)	ATE are the government's executive agency sponsored by the DfT and responsible for making walking, wheeling, and cycling the preferred travel mode choice for everyone. ATE will apply their latest 'Active Design' guidance, released by Sport England in May 2023, supported by Active Travel England and the Office for Health Improvements and Disparities, to consider developments on which they are consulted. The guidance provides a toolkit for developers, officers, and consultants to ensure that 'activity for all' is at the heart of new developments.	The proposed development aligns with core ATE guidance, placing active travel at the top of the user hierarchy and shaping the design around this principle.

Cambs Active Travel Toolkit for new development	The Cambridgeshire Active Travel Toolkit for New Developments (referred to as the 'Toolkit') allows the effective assessment of walking and cycling provision for all scales of new development in Cambridgeshire. This Toolkit aims to 'ensure that all new housing and business developments are built around making sustainable travel, including cycling and walking, the first choice for journeys'.	NWCM has evolved with reference to this new 2024 toolkit.
Manual for Streets (2007)	Manual for Streets (MfS), which provides guidance on the design, construction and maintenance of residential streets. It is also noted that MfS should be considered as a starting point for good design, and that the principles it espouses should not be applied blindly but should be interpreted in the light of new innovations and technologies.	The masterplan has been designed with reference to the core design principles set out in MfS.
LTN 1/20 (2020)	Local Transport Note 1/20 'Cycle Infrastructure Design' was published by the DfT in July 2020. The note provides guidance to local authorities and developers on delivering high quality cycle infrastructure.	The masterplan has been designed in accordance with the core design principles set out in LTN 1/20.
Local		
Cambridge Local Plan (2018)	The document sets out the strategic vision for sustainable growth in Cambridge alongside specific policies to help guide new developments. Policy 80 "Supporting sustainable access to development" states that development will be supported where it demonstrates that prioritisation of access is by walking, cycling and public transport and it is accessible for all. Policy 81 "Mitigating the transport impact of development" states that developments will only be permitted where they do not have an unacceptable transport impact.	The proposed development prioritises sustainable transport modes—walking, cycling, wheeling, and public transport—while ensuring accessibility for all users, including wheelchair users. This TA confirms the development will not result in unacceptable transport impacts, considering both highway capacity and sustainable travel networks.
South Cambridgeshire District Local Plan (2018)	The South Cambridgeshire District (SCDC) Local Plan guides the future development of South Cambridgeshire up to 2031. Policy TI/2 states that development must be located and designed to reduce the need to travel, particularly by car, and promote sustainable travel. Policy TI/2 also states that planning permission will only be granted for developments where the Site has (or will attain) sufficient integration and accessibility by sustainable modes of transport.	The proposed development has been designed in accordance with the SCDC Local Plan, as described within this TA. Sustainable modes of transport have been placed at the top of the user hierarchy, and a range of active travel and public transport routes/services have been designed to integrate with the wider area, intending to serve both existing and new communities.
Cambridge and Peterborough Combined	The LTCP is the "long term strategy to make transport in Cambridgeshire and Peterborough better, faster, greener and more accessible for	Through a comprehensive on & off-site transport strategy the proposed development will

Authority LTCP (2023)	everyone". The plan aims to "discourage individual private car use" by "making active travel, public and shared transport the natural first choice" .The LTCP vision is as follows: "A transport network which secures a future in which the region and its people can thrive"	continue to facilitate, enhance and promote journeys by sustainable modes of transport to help achieve the vision and subsequent aims of the LTCP. The development has also prioritised walking, cycling and public transport over private car use, aligning with the key LTCP goal.
Cambridgeshire Active Travel Strategy (2024)	The Strategy sets out to increase and further improve the proportion of journeys within Cambridge and the wider region that are made by active modes of travel such as walking, cycling, and wheeling.	Through a comprehensive on & off-site transport strategy and travel planning, the proposed development will continue to facilitate and promote journeys by sustainable modes of transport to assist in the aims and objectives of the Cambridgeshire Active Travel Strategy.
Cambridgeshire Transport Assessment Requirements (2024)	The guidance was published in 2024 by CCoC as the Local Highway Authority. The guidance sets out the requirements for when a TA is required, and what it should contain.	This TA has been prepared in accordance with the CCoC TA guidance..
North West Cambridge Area Action Plan (2009)	The NWC AAP provides the basis for the initial planning permissions and for further detailed planning, including masterplanning, and approval of individual phases of development through a range of policy.	The proposed development has been prepared in accordance with policy outlined in the AAP, including with reference to car and cycle parking standards.
Greater Cambridge Sustainable Design and Construction (SPD) (2020)	The SPD provides the guidance for Greater Cambridge on Electric Vehicle (EV) parking and infrastructure, as well as Car Club Provision.	To promote sustainable living, EV charging and car club provision has been derived in accordance with the guidance outlined in the SPD.
North West Cambridge Approved Design Code and Guidelines (2013)	The North West Cambridge Design Code was approved by CCoC in 2013 for the previous outlined consent. Th Design Code provided the next level of detail for design parameters than those within the parameter plans and outline planning application. The aim of the Design Code is to ensure a consistently high quality level of design and outcome is achieved throughout North West Cambridge.	Key transport design principles have been incorporated into the Future Phases of the NWCM , as outlined in this TA and supporting planning documents.
Other		
The Planning for Walking Toolkit, Mayor of London (March 2009)	A handbook providing advice for planners and designers in the redesign and creation of public realm, including streets, off-road footbaths and public spaces across London. The document emphasises the importance of embedding good practice urban design principles in the planning and design process.	Whilst this is a toolkit for London, it provides an exemplar review process and design guide, that has been used to support, test and develop the NWCMP.

Site Accessibility

17.1.9 The accessibility if the site has been assessed for Active Travel and Public Transport, accounting for the existing baseline, future baseline and future baseline with NWCM.

17.1.10 The site performs excellently at present and is well connected to the wider Cambridge area. The proposals as part of this application will build on this as follows:-

- New Northern Orbital Bus Route between NWCM and Cambridge North and Science Park.
- Active Travel links across and along Madingley Road – including onsite wayfinding within UoC land ownership, continued evolution of NWCM, Madingley Road Corridor Improvements being delivered by Cambridge West and GCP, and NWCM Active Travel links tying in with Madingley Road improvements at the NWCM boundary.
- Additional cycle infrastructure - NWCM will provide uni-directional cycle lanes for inbound and outbound movements at northern end of Huntingdon Road and local plus strategic Active Travel Links through NWCM.
- Two new Active Travel crossing over Huntingdon Road, new footway section along Huntingdon Road to fill the existing gap, improvements to PRoW 99/5, and local plus strategic Active Travel Links through NWCM.
- Provide an uplift in U1 & 2 bus services, diversion of U1 service via Cartwright Avenue, provision of Northern Orbital (Phase 1 S106) by UoC termed U3, and provision of Southern Orbital by UoC termed U4.

17.1.11 Further to the above improvements to accessibility, NWCM includes for a number of new land uses that will serve Eddington, NWCM and nearby communities with new essential amenities, such as; various employment opportunities, allotments, sports and community space, additional travel hubs, additional Voi hubs, student accommodation, Key Worker housing, and Senor Co-Living plots. This reduces the need to travel off-site for day to day amenities.

Impact Assessment

Walking

17.1.12 The masterplan has been developed to cater for high volumes of pedestrian movements expected at NWCM, 2m footways will be provided along both sides of Cartwright Avenue and also through a matrix of pedestrian infrastructure within and through each plot to link residential land uses with key community & employment land uses. Wide pedestrian crossing points will also be provided at regular intervals along Cartwright Avenue and large pedestrianised areas will be provided at key community hubs.

Cycling

17.1.13 The highly successful Ridgeway which runs through Phase 1 Eddington has set the precedent for future cycle infrastructure. A detailed assessment of cycle trip demand has informed key desire lines and cycle infrastructure design. This includes a Bi-directional cycleway along Cartwright Avenue and a network of cycle route through the local neighbourhoods and along the western edge of the Site.

17.1.14 Pedestrian and cycle priority will provide at all side road junctions.

Public Transport

17.1.15 All key origins and destinations expected for NWCM trips by bus are served by existing local services, including the U 1 & 2. The only key origins & destinations currently not served by an existing bus route is the NE Growth Area and this will be served by the Northern Orbital (termed U3) route in the future through the Phase 1 S106.

17.1.16 Accounting for the robust development scenarios the NWCM Trip Model predicts new between 36 - 53 trips every 10 minutes at peak times. Increasing the U1 & U2 to a 10 minute frequency, plus accounting for other existing services linking into Cambridge City and then south to CBC via the busway, will accommodate these expected NWCM trips by bus. Furthermore, accounting for changing working patterns, passengers are expected to 'peak spread' their journeys rather than focus on one peak hour. Despite this predicted demand being met, the proposed Transport Strategy includes for the potential to provide a new southern Orbital through an Express (termed U4) service to/from CBC and Cambridge Station. This additional service would further enhance provision to this key southern growth area from NWCM. The U4 service forms part of the University's wider transport strategy.

Highway

17.1.17 Analysing the NWCM Vehicle Trip Generation has shown a substantial reduction in forecast peak hour vehicle trips when compared with the original 2012 consented Trip Budget. In the AM peak, the new NWCM robust development scheme forecasts 473 fewer two-way trips, while the PM peak shows a reduction of 550 two-way trips. This reflects an evidence-based methodology suggestive of a significant shift towards sustainable travel behaviours in more recent years.

Transport Mitigation Strategy

17.1.18 In summary the following on and off site mitigation is proposed to be secured by planning conditions/ obligation as part of the NWCM Transport Strategy:

- Uplift in U1 & U2 Bus Services
- Diversion of U1 Service via Cartwright Avenue
- Two new active travel crossing point over Huntingdon Road
- Shared footway/cycleway provision along Huntingdon Road to fill the gap between Girton and A14.
- Uni-Directional cycle lanes along Huntingdon Road at its northern end.
- NWCM Wayfinding within UoC land ownership.
- Additional Voi Hubs on-site.
- Additional Travel Hubs on-site.
- New signalised junction between Cartwright Avenue and Huntingdon Road.
- Upgrade to Eddington Avenue / Huntingdon Road signalised junction to include a right turn giveway movement and indicative right turn green arrow into Eddington.

17.2 Conclusions

17.2.1 In transport terms Eddington is exceptional due to the high uptake in sustainable modes of travel, as evidenced through Phase 1 surveys to date. The Chartered Institution of Highways and Transportation highly commended the development within the Creating Better Places award, as a real-world example of a Decide and Provide approach to transport planning where the outcomes sought were designed for and the benefits have been subsequently reaped. These benefits are comprehensively monitored and reported by the Eddington transport team to Cambridgeshire County Council (CCoC) and have provided the foundation for this Transport Assessment.

17.2.2 Following implementation of the Transport Strategy, NWCM is forecast to have a negligible impact on the operation of the local highway network. Safe and suitable access is already provided in addition to new access provision.

17.2.3 NWCM is expected to follow in the path of Eddington and produce a high proportion of Sustainable Trips and low proportion of SOVs. With the Transport Strategy focusing on Active Travel and other Sustainable Modes, such as Public Transport, this TA demonstrates that the high demand in walking, cycling, wheeling and Public Transport trips can be managed effectively.

17.2.4 This TA demonstrates that NWCM complies with local and national policy.

17.2.5 Given the above, where no unacceptable transport safety issues will result and where impacts are not severe, NWCM should be considered acceptable on transport grounds.

UNIVERSITY OF
CAMBRIDGE