BIDWELLS

BABRAHAM RESEARCH CAMPUS
FIRST PROPOSALS CONSULTATION (REGULATION 18) – DEC 2021
PLANNING REPRESENTATIONS
APPENDIX 8 : TRANSPORT STRATEGIC OVERVIEW AND ACCESS AND MOVEMENT STRATEGY

Stantec

Babraham Research Campus

Transport Strategic Overview and Access and Movement Strategy (AMS)

November 2021

On behalf of **Babraham Research Campus Limited**

Project Ref: 332210580/5501 | Rev: A | Date: November 2021

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Document Control Sheet

Project Name: **Babraham Research Campus**

Project Ref: **332210580**

Report Title: **Transport Strategic Overview and Access and Movement Strategy**

Doc Ref: **5501/001**

Doc status: **FINAL**

Date: **November 2021**

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Revision	Date	Description	Prepared	Reviewed	Approved
Rev A	Sept 21	FINAL DRAFT	NTP	MI	MI
Rev B	Nov 21	FINAL	NTP	MI	MI

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1 Introduction

1.1 Background

1.1.1 Stantec UK Ltd has been appointed by Babraham Research Campus (BRC) Ltd to prepare this Transport Strategic Overview and Access and Movement Strategy report in support of representations to the First Proposals stage of the emerging Greater Cambridge Local Plan (Regulation 18 consultation) and in respect of Land at Babraham Research Campus.

1.1.2 The existing Campus comprises a range of Research and Development (R&D) buildings, conferencing and meeting facilities and business support services located on the north-west and south-east side of Babraham Hall, a 19th century Grade II Listed Building, situated within a parkland setting. There are currently over 60 companies, with 1,500 employees, and 300 academic researchers (including PhD students). The Campus also includes The Close, a development of 47 houses, including a Nursery.

1.1.3 Babraham Research Campus is currently identified within the First Proposals version of the emerging Greater Cambridge Local Plan, under Policy S/BRC, as a Policy Area, with a proposed policy direction to remove the developed area of the Campus from the Green Belt and to allocate an additional area for employment development of 17.1 hectares within and adjoining the existing built area of the Campus .

The area subject to expansion and removal from the Green Belt is shown on Figure 1 below.

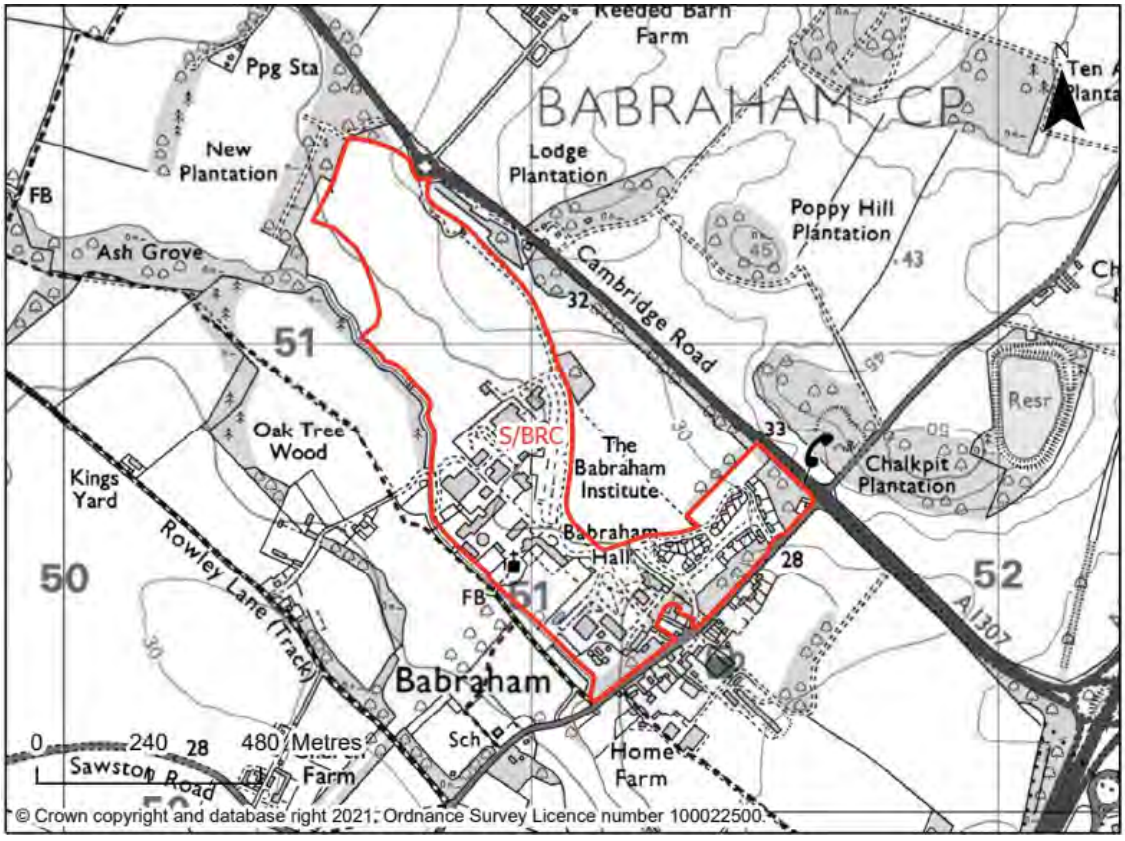


Figure 1: Site Location of Proposed BRC Expansion

1.1.4 The draft Policy S/BRC notes that the development will need to take steps to include sustainable travel opportunities, including the opportunities provided by Greater Cambridge Partnership's Cambridge South East Transport (CSET) scheme.

1.1.5 This report therefore sets out the access and movement ambition and commitments that complement the BRC at this stage of the emerging Local Plan process in fulfilling the BRC's commitments to sustainable transport and its aim of developing and facilitating world leading science and research. BRC's strategy is based on the concept of realising long-term value to their stakeholders and investors, and capturing the multifaceted benefits resulting from a sustainable expansion that integrates with existing and committed walking, cycling and public transport networks such as the CSET scheme, so that the expansion has excellent connectivity with surrounding areas by these modes, as well as continued permeability through the campus site.

1.1.6 This Access and Movement Strategy is being used to inform the new Campus Strategy Plan and emerging Illustrative Masterplan, prepared by Norr Architects, attached at Appendix A. This shows potential development zones as follows:

- R&D Development Zone– expansion comprising about 23,440sqm of additional R&D floorspace on undeveloped land to the immediate edge of the Campus;
- R&D Redevelopment Zone – circa 12,050sqm of new academic and commercial life science research and development facilities and amenity space on previously developed land within the existing Campus;
- Housing, Amenity and Community Zone – low density redevelopment of 40 houses on existing site to be replaced with up to 160 new dwellings, 930sqm of new nursery provision and a small new retail provision, for campus staff key workers, visiting scientists and PhD students at the Campus. In addition, circa 3.5 hectares of land within the south-eastern corner of the Campus will be retained as amenity land for the use of the Campus and the local community; and
- Supporting Infrastructure and Renewable Energy Zone – redevelopment of existing farm complex to accommodate circa 2,950sqm of new estate facilities accommodation on land to the south of the River Granta.

1.1.7 These development zones have been determined taking into account existing / committed internal and external transport infrastructure. The layout of each development zone will be integrated with the existing high quality internal sustainable transport network to offer the most direct links across the site and to external sustainable travel infrastructure to encourage walking, cycling and public transport use, whilst also allowing for onsite security needs and high-quality landscaping requirements. The existing onsite theme of prioritising cyclists and pedestrians over motorised vehicles will be continued for each development zone, with cycle parking located close to main building entrances and linked to appropriate desire lines. The existing arrangement to direct all motorised employment traffic through the A1307 access roundabout will be continued to limit impact on the adjacent Babraham Village.

1.1.8 A successful transport strategy for the development will be fundamental to the delivery of the Campus expansion. The strategy will not be based on the way mobility has been planned in the past, because that would reinforce car dependent behaviour. The strategy will instead embrace a change in focus away from "highways" to a much more holistic "transport" approach, where mobility is provided by sustainable travel modes. This way, we tackle the following serious challenges of perpetual car use:

- Climate change – road transport is the largest contributor to greenhouse gas emissions in the UK. Decarbonising transport is imperative to cutting our greenhouse gas emissions and therefore addressing climate change, to assist the UK in delivering net zero carbon emissions by 2050;

- Air pollution – related to greenhouse gas emissions, air pollution is one of the main environmental risks to human health in the UK, and the fourth greatest threat to public health after cancer, heart disease and obesity;

- Lack of physical activity – increasing car use is a major contributing factor to lower levels of physical activity, and this is one of the top 10 causes of disease and disability in England. Lack of physical activity is related to increases in obesity, risk of disease and problems with mental health and well-being;

- Road Safety – about 1,800 people are killed on Britain's roads annually, and nearly 25,000 seriously injured, as a result of road traffic accidents. About 85% of these accidents involved human error; and

- Inequality and Social Isolation – not everyone has access to a car. Designing new developments for car use therefore limits opportunities for many to access employment and key services and other facilities, and this can result in deprivation. It also reduces the opportunities for social interaction as there are fewer opportunities for people to stop and meet each other in the street. This can result in feelings of social isolation, particularly for the elderly, and which can have adverse mental health consequences.

1.1.9 The transport strategy for the expansion of the Babraham Research Campus will address these challenges so that it meets employees' needs to travel to work by a choice of sustainable travel modes, along with promoting healthy lifestyles and delivering a sustainable, vibrant, and socially inclusive workplace.

1.2 Structure of this Report

1.2.1 The way we have planned for access, movement and mobility in the past is described in the following section, along with how this needs to change to address future mobility challenges.

1.2.2 Section 3 summarises the transport policy context which will frame the transport vision and the strategy to deliver this vision for the Campus expansion, and Section 4 describes the existing transport infrastructure surrounding the site;

1.2.3 Section 5 goes onto outline the future transport context and opportunities that will be available to the site, specifically focusing on the Greater Cambridge Partnership's (GCP's) Cambridge South East Transport (CSET) scheme's sustainable commitments that would benefit the existing campus and future expansion.

1.2.4 Section 6 discusses the opportunities and constraints for the site.

1.2.5 The vision for the Campus expansion is then presented in Section 7, along with the transport strategy to deliver this vision.

2 Planning for Access, Movement and Mobility

2.1 The Way We Have Planned for Mobility in the Past

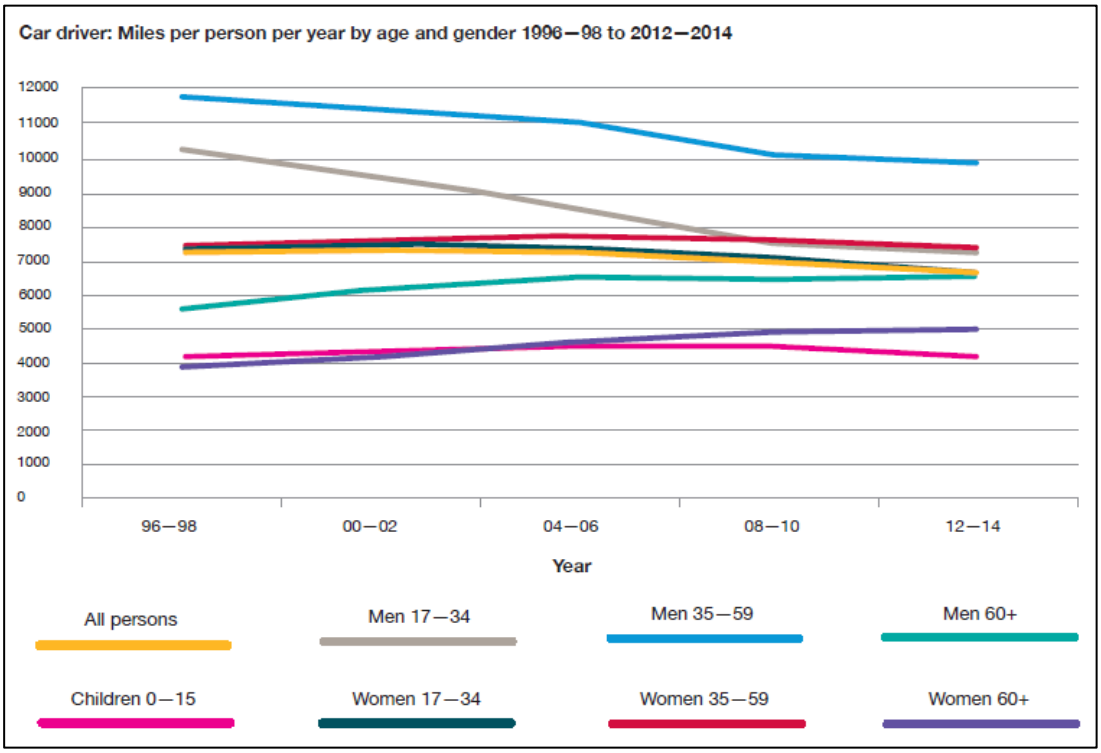
2.1.1 How we have planned for the transport effects of development has undergone little significant change since the publication of Planning Policy Guidance Note 13: Transport (PPG13) over 25 years ago. A proposed development's transport demand is predicted based on historic travel patterns and characteristics, and then transport services and infrastructure are provided to meet that predicted transport demand.

2.1.2 Because car use has historically been the main mode of transport for many journeys, and public perception and concerns of new development have remained focussed on continued private car use in the future, local planning authorities often adopt a precautionary approach by securing highway improvements as transport mitigation. This is fuelled by concern that sustainable travel alternatives will not be effective in mitigating a new development's transport impacts.

2.1.3 This is little more than a modified version of the out-dated 'predict and provide' approach to transport assessment which continues to reinforce car dependent behaviour, rather than engendering sustainable and active travel patterns. New highway capacity is provided as transport mitigation, leading to a self-fulfilling prophecy whereby people end up driving because it is relatively the easiest way to move around, rather than necessarily being what people want or prefer.

2.2 Is this the Way Mobility should be Planned for the Future?

2.2.1 Even before the Covid-19 pandemic, travel patterns, behaviours and attitudes were changing, and we were witnessing a decline in the use of the private car. The graph below indicates a decline in the number of miles driven in a car between the mid-1990s and the mid-2010s.



2.2.2 The reduction in car travel is particularly marked amongst younger people, whose propensity to travel by car has fallen over the last 20 years. Whilst the older generation are generally travelling by car a little more, the trend for younger people is away from car travel

2.2.3 New technologies are emerging at the same time as these behavioural changes in travel patterns. These technologies primarily include smart phones and mobile data, smart ticketing, micro-mobility through the use of electric scooters in towns and cities, and other mobile apps that allow much better understanding and awareness of the range of travel options available other than the private car.

2.2.4 Even before the Covid-19 pandemic, these changes were having significant implications for how we plan future transport provision. It is too early to fully understand the impacts that the pandemic may have on travel demand and travel preferences in the medium and long-term, however it has demonstrated that new technologies have enabled significant change in the short term on how we live our lives, primarily the ability to be flexible in working from home. At the same time, it must be recognised that not all occupations lend themselves to working from home.

2.2.5 The transport strategy for the expansion of the Babraham Research Campus will need to be flexible and resilient so that it is responsive to future changes. Despite the uncertainty of Covid-19, this will mean a development that is relevant to the way people will be living and travelling in the future, rather than based on historic travel patterns that have perpetuated the use of the private car.

3 The Transport Policy Context

3.1 Introduction

3.1.1 National and local transport policies form an important basis for the transport strategy for the Site. They are summarised below, the overall theme being to reduce the need to travel, particularly by private car.

3.2 National Planning Policy Framework (2021)

3.2.1 The NPPF contains the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development, meaning development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

3.2.2 In 'Promoting sustainable transport' (under Section 9), the NPPF advises that transport issues should be considered at an early stage in development proposals so that:

- The potential impacts of development on transport networks can be addressed;
- Opportunities from existing and proposed infrastructure, and changing transport technology and usage, are accommodated;
- Opportunities to promote walking, cycling & public transport use are identified & pursued.
- The environmental impacts of traffic and transport infrastructure can be identified, assessed, and considered, including appropriate opportunities for avoiding and mitigating any adverse effects; and
- Patterns of movement, streets, parking, and other transport considerations are integral to the design of schemes and contribute to making high quality places.

3.2.3 At the same time, the NPPF recognises that opportunities to maximise sustainable transport solutions will vary from urban to rural areas.

3.2.4 It notes that new developments should:

- Take up appropriate opportunities to promote sustainable transport modes, given the type of development and its location;
- Achieve safe and suitable access to the site for all users;
- The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and
- Cost effectively mitigate, to an acceptable degree, any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety.

3.2.5 At paragraph 111, the NPPF advises that:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

3.3 South Cambridgeshire Local Plan (2018)

3.3.1 The above national transport policy aims are reflected in South Cambridgeshire District Council's (SCDC's) Local Plan 2018. This includes Policy TI/2 'Planning for Sustainable Travel', which requires that "*Development must be located and designed to reduce the need to travel, particularly by car, and promote sustainable travel appropriate to its location.*"

3.3.2 The Local Plan notes that South Cambridgeshire is predominantly a rural district, meaning that the car will remain an essential mode of travel for some, and that the car has a role in improving access to local services and facilities. However, the benefits of enabling travel by non-car driver modes are considerable, relating to improved health through walking and cycling, reduced emissions and improved operation of the highway network in terms of congestion and road safety.

3.3.3 All development should strive to offer real travel choice for all people by non-car modes appropriate in scale and kind to the development, and the Local Plan notes that car and cycle parking provision can be used as part of a comprehensive approach to achieving this. Policy TI/3 'Parking Provision' notes that *"Car parking provision should be provided through a design-led approach in accordance with the indicative standards"* [referred to in Section 2 of this report]. Furthermore:

Car parking provision will take into consideration the site location, type and mix of uses, car ownership levels, availability of local services, facilities and public transport, and highway and user safety issues, as well as ensuring appropriate parking for people with impaired mobility.

The Council will encourage innovative solutions to car parking, including shared spaces where the location and patterns of use permit, and incorporation of measures such as car clubs and electric charging points

3.4 Transport Policy Summary

3.4.1 The above transport policy and guidance context will form the basis of the transport strategy for the campus expansion. Reducing the need to travel by car is an important part of this strategy, so the development's car parking provision will account for this and meet that permitted by adopting the relevant Local Plan standards at the time of any forthcoming planning application. The expansion's transport strategy will focus on non-car modes of travel to the site, capitalising on the area's accessibility by public transport and cycling, as well as on foot. The Greater Cambridge Partnership are planning significant improvements to enhance this accessibility as part of the Cambridge South East Transport scheme, and this is described in more detail in the following sections.

4 Existing Transport Conditions Context

4.1 The Way People are Travelling

4.1.1 The existing Babraham Research Campus undertakes annual surveys of staff travel patterns and behaviours. Due to the Covid-19 pandemic, the most recent survey took place in October 2019, and is attached at Appendix B.

4.1.2 The purpose of the staff surveys is to understand existing staff travel behaviour, as well as the mode of transport that individual employees currently use for travel to the Campus as a baseline. The 2019 survey also asked staff if they would use the equivalent of the GCP's CSET public transport scheme.

4.1.3 The 2019 mode shares for journeys to the Campus are shown in Table 1 below, including those working from home.

Mode of Travel	% of Staff
Walk / Run	2.7%
Cycle	10.4%
Electric Cycle	0.2%
Car Driver – Alone	49.1%
Car Sharing – Car Driver	5.4%
Car Share – Passenger	3.7%
Motorbike	0.1%
Train	0.9%
Public Bus	3.2%
Guided Bus	0.3%
Park & Ride Bus	0.3%
Campus Shuttle Bus	6.0%
Kick Scooter	0.1%
Worked from Home	1.7%
Away from the Office (Meetings etc)	1.0%
Annual Leave / Sickness	14.5%
Other	0.4%
TOTAL	100%

Table 1: Main Mode of Travel that Babraham Campus Staff Usually Use for Journeys to Existing Campus, including Staff Note Travelling to Site

4.1.4 The above data indicates that 17.6% of staff did not travel to the Campus due to working from home, meetings, and annual leave / sickness. The percentage working from home, at 1.7%, is clearly reflective of pre-pandemic conditions.

4.1.5 For staff actually travelling to the site, the mode shares have been rebalanced to remove those away from the office / working from home / annual leave. The corresponding mode shares are shown in Table 2 below.

Mode of Travel	% of Staff
Walk / Run	3.2%
Cycle	12.6%
Electric Cycle	0.2%
Car Driver – Alone	59.3%
Car Sharing – Car Driver	6.5%
Car Share – Passenger	4.5%
Motorbike	0.1%
Train	1.1%
Public Bus	3.9%
Guided Bus	0.4%
Park & Ride Bus	0.4%
Campus Shuttle Bus	7.2%
Kick Scooter	0.1%
Other	0.5%
TOTAL	100%

Table 2: Main Mode of Travel that Babraham Campus Staff Usually Use for Journeys to Existing Campus, Excluding Staff Not Travelling to Site

4.1.6 Of staff travelling to the Campus, about 66% of drive a car to the site, either alone or with a passenger. This car driver mode share is less than the district-wide car driver mode share for people working in South Cambridgeshire from the 2011 Census, which was 75%, and this is reflective of the good non-car accessibility of the site and the Campus's travel initiatives through its Travel Plan.

4.1.7 A plot showing the postcode of respondents to the Campus staff survey questionnaire is attached at Appendix C. The postcode data itself is not available due to data protection issues, so it is not possible to analyse further – for example, the mode share of respondents. The plot indicates the prominence of Cambridge as the home location for the majority of existing staff, with clusters also at Haverhill, Sawston and Cambourne, with a more dispersed patter of home locations for other workers.

4.1.8 The existing site Travel Plan notes that about 8% of workers travel up to a mile to work. A mile is a reasonable walking distance and at a speed of 3mph, would involve a journey of about 20 minutes. Isochrones of walking distances up to 25 minutes, at an average speed of 3mph, are shown in Figure 2, which indicates that Babraham village itself is within a reasonable 20 – 25 minute walk. The walking mode share for the existing Campus is about 3%, so the location of about 8% of existing staff within a reasonable walking distance of the site indicates that there is potential for this walking mode share to increase in the longer term. The existing infrastructure available for walking to the site is described below.

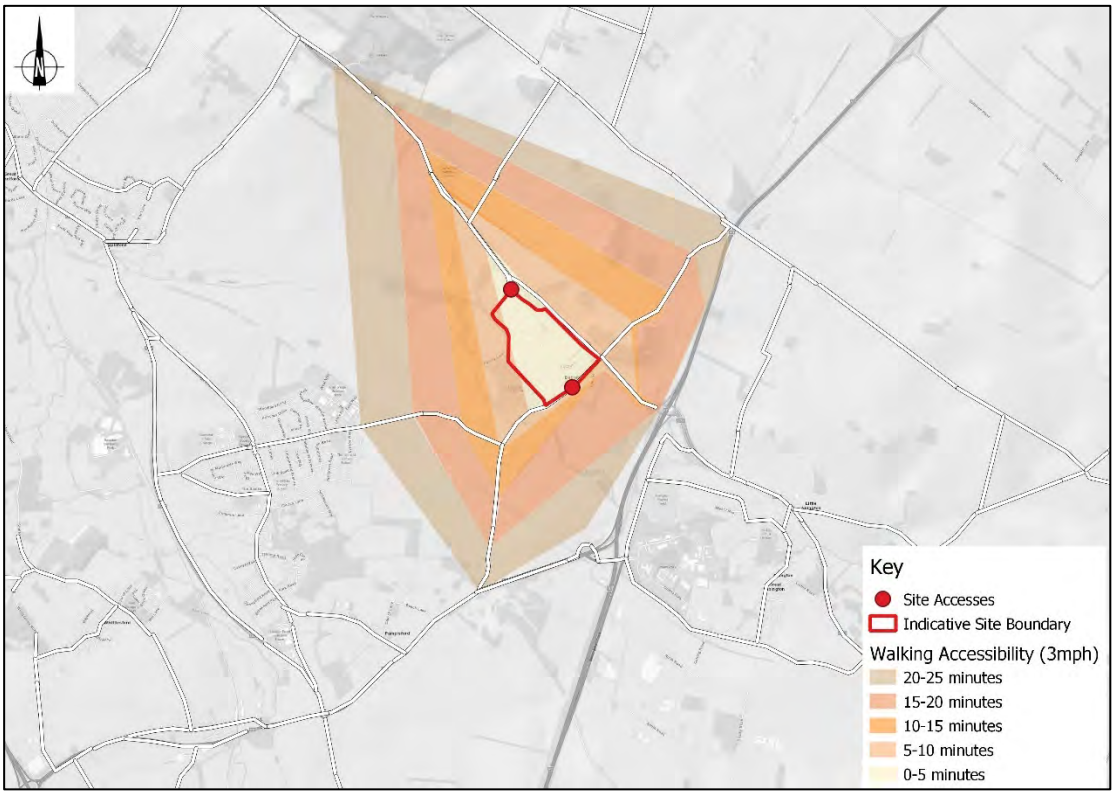


Figure 2: Walk Isochrones for expansion site

4.1.9 The Travel Plan also notes that about 34% of workers travel up to five miles to work. The Department for Transport's Local Transport Note 1/20 'Cycle Infrastructure Design' advises that a journey of five miles is an achievable distance to cycle for most people, which at an average cycling speed of about 12mph is equivalent to a 25-minute cycling journey time. Isochrones of cycling distances up to 25 minutes, at an average speed of about 12mph, are shown in Figure 3, which indicates that Sawston, Great Shelford, Linton and parts of South Cambridge is within a reasonable 20 – 25 minute cycle ride.

4.1.10 The cycling mode share for the existing Campus is about 13%, so the location of about 34% of existing staff within a reasonable cycling distance of the site indicates that there is potential for this cycling mode share to increase. The infrastructure available for cyclists to the site is described below.

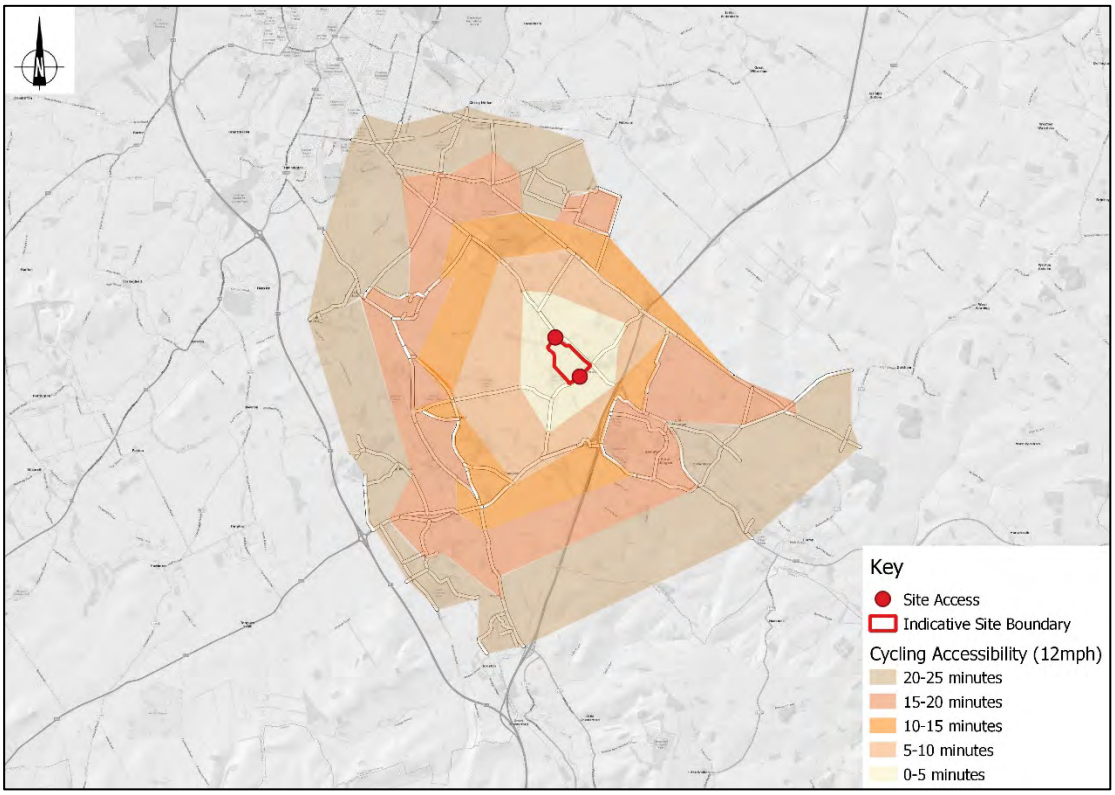


Figure 3: Cycle Isochrones for expansion site

4.2 Existing Walking and Cycling Infrastructure

4.2.1 Figure 4 shows the existing local and wider walking / cycling infrastructure. There are public footpaths that run to the southwest of the site providing recreational connections to Sawston and Stapleford to the west, and the village of Babraham and Great Abington to the southeast. There is also a network of existing cycle paths shown on these plans.

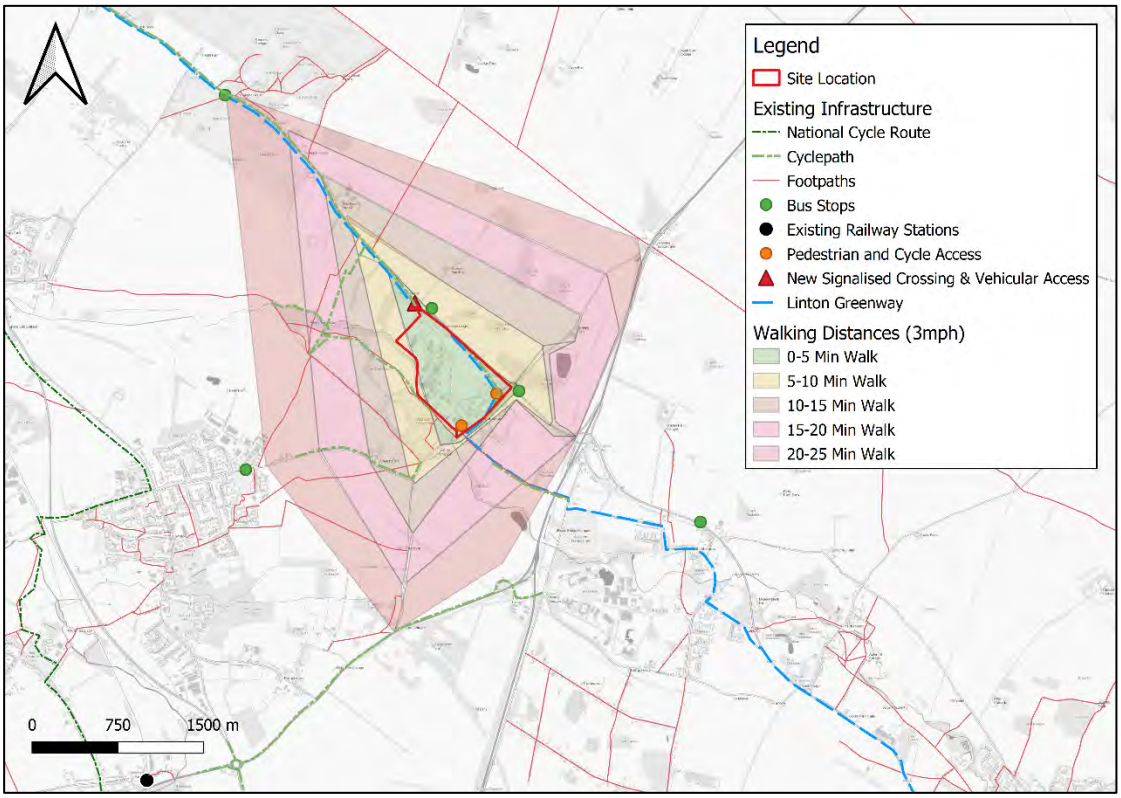


Figure 4: Existing Walking / Cycling Infrastructure (Local)

4.2.2 As shown in Figure 4, part of the Greater Cambridge Partnership's (GCP's) Linton Greenway runs through the Babraham Research Campus along the northeastern boundary and provides a high quality, segregated connection for pedestrians and cyclists between Linton and Cambridge. To the southeast of the Campus, the Greenway crosses the A11 via an existing footbridge connecting with the village of Great Abington and the Granta Park research campus. To the northwest, the Greenway runs alongside the A1307, passing Wandlebury and then connecting with the Cambridge Biomedical Campus.

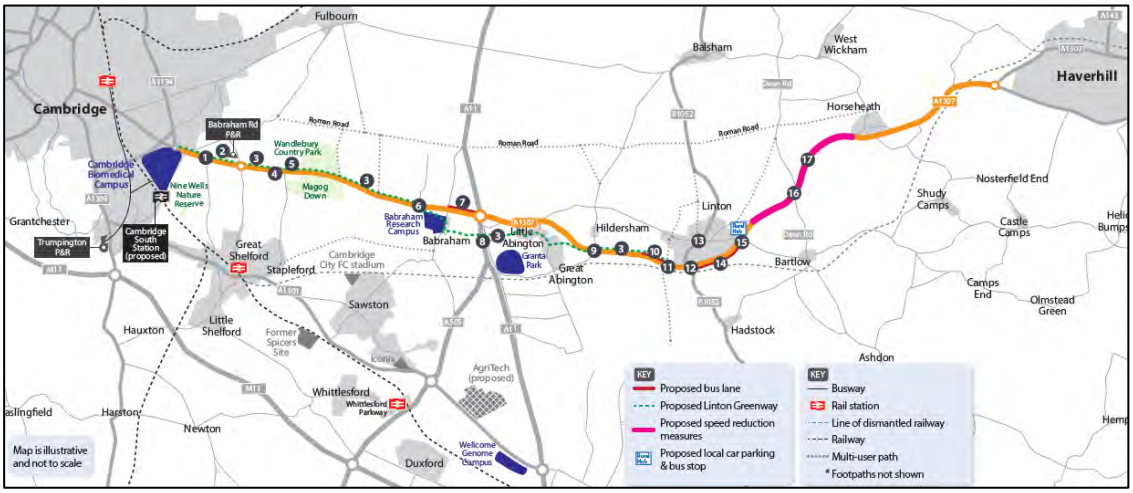
4.2.3 The Linton Greenway is part of the GCP's wider Cambridge South East Transport (CSET) scheme. Phase 1 of the CSET scheme is being delivered by the GCP and involves a series of on-route improvements along the A1307 between Cambridge and Haverhill, including through the Babraham Research Campus, for pedestrians, cyclists, and public transport users, and to improve road safety for all users. It includes a new Toucan crossing of the A1307 immediately southeast of the site access roundabout as shown in Figure 5 below, and new shared footway / cycleway running northwest of the site access roundabout towards Cambridge as shown in Figure 6 below. The crossing allows a safe crossing of the A1307 for users of the bus services that stop on the A1307 for Campus users, as described below, and the shared footway / cycleway aids pedestrian and cycle connection with Cambridge. Notwithstanding the climb up to Wandlebury, the accessibility described above indicates that parts of South Cambridge are within a reasonable cycling distance of the site.

4.2.4 Part of the greenway passes through the campus and BRC provided the land via a permitted path agreement for the multi user path to be built on. Within that agreement the County Council have responsibility for the "black-top" maintenance and BRC undertake the general maintenance. This is a public route and takes users away from roadside paths increasing safety. The section within BRC ownership is approximately 0.75 miles long. BRC also provided funding in 2014 towards the construction of the greenway between Wandlebury and the campus roundabout.

Figure 5: New Toucan Crossing on A1307 Immediately Southeast of Site Access Roundabout

Figure 6: New Shared Footway / Cycleway as Part of the Linton Greenway, on A1307 Immediately Northwest of Site Access Roundabout

4.2.5 Details of other elements of the Phase 1 CSET scheme are shown in Figure 7 below.



ITEMS KEY

1. Granham's Road junction - right-turn lane
2. Extra cycle storage at Babraham Road P&R
3. Linton Greenway
4. Haverhill Road/the Gog Farm Shop junction safety improvement
5. Multi-user underpass at Wandlebury
6. Signalised crossing at roundabout
7. Eastbound bus lane at A11
8. Multi-user crossing of A11 via improved footbridge & underpass
9. Signalised Hildersham crossroads with Toucan/Pegasus crossing
10. Peak-hour eastbound bus lanes on approach to Linton Village College and safety improvements at Dalehead Foods junction
11. Linton Village College signal upgrade
12. Signalised junction with Linton High Street
13. Measures to ease bus movements in Linton
14. Westbound bus lanes on approach to B1052 junction
15. Bartlow Road roundabout and rural hub
16. Dean Road crossroads – close central reserve
17. Speed reduction measures Horseheath to Linton

Figure 7: CSET Phase 1 Schemes

4.2.6 Phase 2 of the CSET scheme involves a new public transport route from the A11 via Sawston and Shelford to the Cambridge Biomedical Campus. A Transport and Works Act Order application for the scheme is planned to be submitted to the Secretary of State for Transport in Autumn 2021, with planned opening in 2025. Alongside this new public transport route will be a new path for walkers, cyclists, and horse riders, similar to the one along the existing guided busways.

4.2.7 Further details of the Phase 2 CSET scheme are presented in Section 5 on Longer Term Transport Context.

4.2.8 Within the existing Babraham Campus is a well-defined, high quality walking and cycling network, supported by a 20mph speed limit on the Campus's internal roads. Speeds within the site are currently policed via digital speed indicators to keep drivers to the limits. These are connected to an ANPR system and speeds are recorded. Any speeding over a threshold figure is followed up by the BRC security manager to the individual on an escalation procedure for repeat offences.

4.3 Public Transport

4.3.1 There are existing bus stops immediately southeast of the existing campus site access roundabout on the A1307, which are served by the Stagecoach Number 13 / 13A / X13, which serves Cambridge city centre, Addenbrooke's Hospital, Babraham Research Campus, Great Abington, Linton, and Haverhill. The frequency is every 30 minutes from early morning to after the evening peak hour, Monday to Friday. The timetabled journey time from the A1307 stop at the site access to Cambridge city centre (Drummer Street) is about 26 minutes.

4.3.2 The site is about 3.5 miles northeast of Whittlesford Railway Station, which can be accessed form the proposed development site through the Campus, along High Street through Babraham, and then onto the A505, which has a segregated shared footway / cycleway connecting High Street with Whittlesford Parkway station and running alongside the A505. The station is within a reasonable 15 – 20 minute cycle ride of the Campus via this route. There are sheltered cycle spaces at the station, so users do not need to carry their cycles on the train. Greater Anglia operates services stopping at Whittlesford Parkway which call at Cambridge, Audley End, Bishop's Stortford, Stansted Airport, London Liverpool Street, Ely, and Norwich, amongst other places.

4.3.3 The Babraham Institute has operated a staff shuttle bus linking Cambridge with the Campus via Great Shelford and Sawston for some time now. This was set up to take campus staff key workers, visiting scientists and PhD students living in Cambridge to the site. There were two services travelling to the Campus in the morning peak period, and two services travelling back to Cambridge in the evening peak period. The popularity of this service is indicated in the staff shuttle bus mode share for journeys to work to the Campus of about 7%. Unfortunately due to Covid-19 this service has temporarily closed, but it's success prior to Covid-19 demonstrates how a similar service would benefit the expansion in the future. Furthermore, following negotiations between the Institute and Stagecoach, an agreement has been reached to provide discounted and flexible travel, for work purposes for the Institute's staff and any other participating companies on site. Staff who used the shuttle service are now transferring to the Stagecoach service, which again demonstrates a successful sustainable travel scheme in this location.

4.4 Local Highway Network

4.4.1 The local highway network is shown on Figures 1 in Section 1. Vehicular access to the existing Babraham Research Campus is via the existing 4-arm roundabout on the A1307, with the northeastern arm forming a private access

4.4.2 The A1307 is the main route between Cambridge, Linton, and Haverhill, and bypasses the village of Babraham to the east. It is a single carriageway road, subject to the national speed limit of 50mph at the site access roundabout, and with streetlighting provided at the site access roundabout. The roundabout was constructed by the campus in 2007 under a S106 for their first masterplan to remove the old access point in the village

4.4.3 The GCP's CSET project notes that there is congestion and road safety concerns along the existing route and alignment of the A1307, and regular users of the road will experience this. However, this is why the CSET Phase 1 scheme is proposing a series of walking, cycling and public transport improvements as identified above, to address concerns about capacity and safety. Phase 2 will provide significant public transport capacity to alleviate congestion concerns along the A1307, as noted in the following section.

4.4.4 As part of these measures, the site access roundabout has recently been improved, to provide a new shared footway / cycleway and to widen the A1307 northwest entry (from the Cambridge direction) and lengthen the extent of the two-lane section, as indicated in Figure 8 below.

Figure 8: Photograph Showing Northwest Entry to A1307 Roundabout

4.4.5 About 2.5 miles to the northwest of the site access roundabout, the A1307 meets Cherry Hinton Road / Hinton Way / Babraham Road via a 4-arm roundabout junction, with Babraham Road providing onward access to Cambridge, and Cherry Hinton Road providing access to the Babraham Park and Ride site.

4.4.6 About 0.7 miles to the southeast of the site access roundabout, the A1307 meets High Street Babraham via a priority T-junction, with High Street forming the minor road and with no movements allowed from High Street turning right out onto the A1307. High Street provides access to the village of Babraham. There is no vehicular access into the Research Campus from High Street.

4.4.7 About 1.1 miles to the southeast of the site access, the A1307 meets the A11 via a grade separated junction. The A11 provides access to Newmarket to the northeast, and the M11 to the southwest. The A1307 continues southeast to provide access to Linton and Haverhill.

5 Longer Term Transport Context

5.1 Introduction

5.1.1 This section investigates the future longer term transport context around the expansion site.

5.2 Planned Transport Improvements

5.2.1 Greater Cambridge Partnership (GCP) are planning significant transport improvements along the A1307 corridor between Cambridge and Haverhill as part of the Cambridge South East Transport (CSET) scheme. Phase 1 of CSET has been described in the previous section. Phase 2 is a major public transport, walking and cycling infrastructure scheme. It is made up of three key elements:

- A dedicated public transport link between the A11 and the Cambridge Biomedical Campus, running immediately to the south of the Babraham Research Campus, with potential connections into the Babraham Research Campus itself;
- A new Travel Hub facility near the A11/A1307 junction; and
- New cycling, walking and equestrian facilities running alongside the public transport link.

5.2.2 The proposed route of the CSET Phase 2 scheme is shown in Figure 9 below.

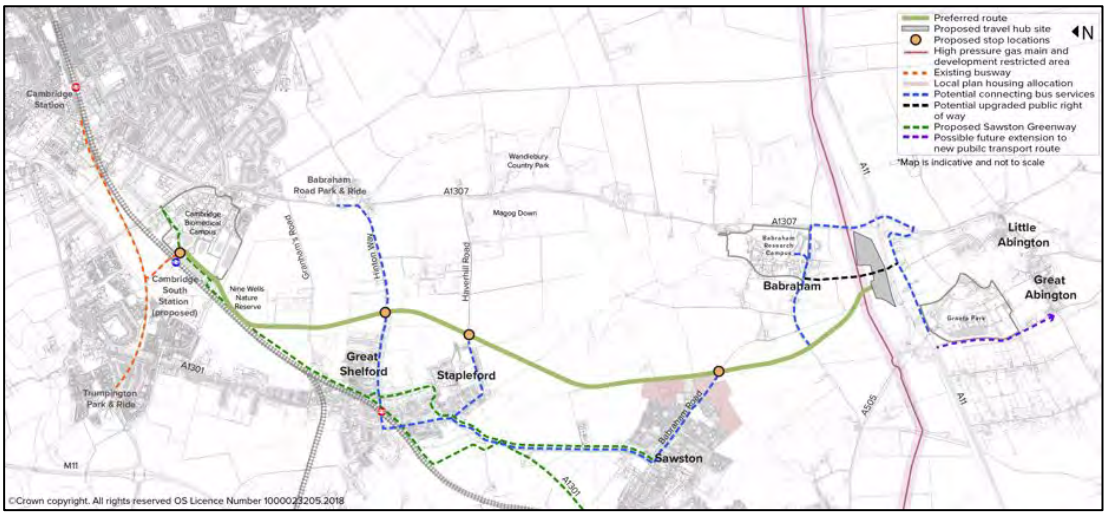


Figure 9: CSET Phase 2 Route Alignment

5.2.3 The CSET Phase 2 scheme will transform the accessibility of the existing Babraham Research Campus and therefore proposed expansion site by non-car modes. It will provide a high-quality public transport link with Sawston, Stapleford and South Cambridge, including the proposed Cambridge South railway station at the Cambridge Biomedical Campus. The public transport services would be unaffected by congestion, enabling more reliable journey times and allowing public transport to compete more effectively with the private car.

5.2.4 It forms a key part of the GCP's plans for providing high quality sustainable travel options across the Greater Cambridge area. The scheme will seek to connect people to places of employment and allow communities to grow sustainably in the coming years, by creating better and greener transport networks, reducing congestion, and making better use of limited road space by prioritising sustainable transport.

5.2.5 To assess the vehicular impact of the CSET scheme, the GCP have undertaken a robust highway impact assessment of impacts of the scheme for a 2026 future year and a 2036 future year. The transport modelling assessment demonstrates that the proposals would not have a negative impact on the levels of traffic surrounding the proposed Travel Hub and would improve or retain the same level of service at the A11/A1307 junction in both the AM and PM peak compared to a scenario where the CSET scheme does not come forward.

5.2.6 A Transport and Works Act Order application for the scheme is due to be submitted in Autumn 2021, and the current programme envisages an opening year of 2025. It would therefore be operational and significantly improve the non-car accessibility of the existing Babraham Research Campus and the proposed expansion.

5.2.7 The latest Babraham Research Campus annual travel survey asked the question whether staff would use "*an off road public transport route as currently under review by Greater Cambridge Partnership for the A1307 South East corridor*". Of the responses, 52.1% of staff said they would use the GCP public transport scheme, which provides confidence that existing and future staff at the Campus would reduce their dependence on the private car by uptake of the CSET public transport scheme.

6 Transport Opportunities and Constraints

6.1 Introduction

6.1.1 This chapter builds on the previous section and highlights the potential transport opportunities and constraints to promote sustainable travel to and from the Site.

6.2 Constraints

6.2.1 The following constraints relating to the Site will need to be mitigated:

- Existing vehicle speeds along A1307.
- Existing capacity constraint A1307 and wider road network.
- Need to significantly increase sustainable travel modes to help Government meet their Net Zero Carbon Target by 2050.
- Rural location.

6.3 Opportunities

6.3.1 The Site offers the following opportunities:

- Proximity to existing and committed cycle paths.
- Proximately to existing footpaths and Public Rights of Way (PRoWs).
- Proximity to and easy access to existing frequent public transport services along A1307.
- Recent improvements to cycle infrastructure along A1307.
- Recent improvements to main site access roundabout for capacity.
- Recent improvements to crossing facilities and access to public transport services along A1307.
- Direct access onto A1307.
- Potential to increase internalisation of trips with combined expansion of R&D facilities and residential dwelling for campus staff key workers, visiting scientists and PhD students at the Campus
- Proximity to future sustainable growth corridor and GCP's CSET sustainable commitments.
- Proximity to Linton Greenway.
- Potential to extend buses into the site.
- Walking/cycling access to the east only with one main point of vehicle access.

7 Access and Movement Strategy

7.1 Planning for the Transport Mobility Needs of the Future, Not the Past

7.1.1 The vision for the existing Babraham Research Campus and Expansion is to continue to offer and expand on a healthy, socially inclusive, and well-connected place, where staff and residents can travel easily within, around and beyond the campus by sustainable modes of travel. This will address the key consequences of otherwise unfettered growth in the use and reliance on the private car, and therefore:

- Help decarbonise the transport system for the campus and surrounding area, meaning reduced greenhouse gas emissions and impacts on climate change;
- Reduce air pollution;
- Continue to increase physical activity through increased active modes of travel such as walking and cycling; and
- Fewer road traffic accidents.

7.1.2 An important element in achieving this vision is to continue the Campus's development of a transport strategy, for the existing site and future expansion, that does not perpetuate historic patterns of travel and mobility, which have been focussed primarily on use of the private car. As indicated earlier, the relationship people will have with the private car will be quite different in the future, due to changing patterns of travel, developing technologies and new attitudes to mobility. To achieve a healthy, socially inclusive, and well-connected place, the future transport strategy therefore needs to build on the Campus' existing sustainable strategy and continue to have flexibility to allow for these and other transformative changes.

7.1.3 Fundamentally, we must recognise that a healthy, socially inclusive, and well-connected place is not one where travel by private car can continue unfettered. Do we want a campus in which people are physically and mentally healthy? If the answer is yes, a key aspect will be the continued delivery of a transport strategy that reduces the use of the private car and connects with and uses the committed sustainable transport infrastructure (GCP's CSET). This means turning transport planning on its head: instead of providing transport infrastructure and services based on past national experience, which would lead to increased capacity for the private car, the expansion's strategy will continue to prioritise people's safety, health and well-being, air quality and the non-car travel choices available to them.

7.2 Reducing the Need to Travel by Car and Build in Healthy Lifestyles

7.2.1 The Babraham Research Campus Expansion will include a range of measures and facilities, which are being promoted so that existing and future staff of the expansion can meet many of their day-to-day needs within the site, therefore reducing the need to travel further afield. For example, the expansion in R&D facilities combined with additional on-site residential dwellings, for campus staff key workers, visiting scientists and PhD students at the Campus, will reduce the need for staff and visitors to travel to/from off-site and therefore increase the internalisation of movements generated by the site. This will reduce the expansion's impacts on transport infrastructure and services in the wider area.

7.2.2 Achieving this strategy objective will be partly a function of the facilities and services provided within the expanded site, and how the masterplan is designed. The expansion will include a comprehensive network of foot and cycle paths to provide safe, logical, convenient, and attractive links internally to the existing Campus's R&D facilities, facilities and also residential

dwellings used for campus staff key workers, visiting scientists and PhD students at the Campus.

7.2.3 Furthermore, an important element of the design of the expansion masterplan will be to enable easy permeability and connectivity by walking and cycling with the surrounding area, via existing sustainable infrastructure and in particular via GCP's CSET infrastructure. This will provide opportunities for staff and visitors of the existing campus and expansion to be able to access the site on foot or cycle, and therefore limit the number of car trips generated by the existing R&D facilities and future expansion.

7.2.4 Undertaking physical exercise will therefore be an inherent part of day-to-day life within the site as a result of it being a walkable and cyclable Campus. Such physical activities can enhance physical health, by helping to reduce the risk of various diseases and cancers. It can also enhance mental health and well-being. Not only can physical exercise in itself help alleviate depression and anxiety, being able to walk to meet other staff/visitors and researchers on a day-to-day basis will increase the opportunities for social and professional engagement and interaction.

7.2.5 Public Health England has found that good masterplan design has a profound impact on health and well-being by providing layouts in which opportunities for social and professional interaction and active travel are maximised. The existing and proposed expansion's internal layout will therefore create a high-quality development, engendering the feeling of a sense of 'place' in which staff and visitors experience pleasant landscaping, outdoor social areas and 'shared accesses' not 'roads' within the site. This will help with the vision of creating a healthy, socially inclusive, and well-connected campus.

7.3 Maximising Opportunities for New Types of Mobility

7.3.1 Mobility patterns are changing. We are travelling less. For example, pre-covid, car driver and passenger travel has reduced by 11% in England since 2002. The reduction in car travel is particularly marked amongst younger people, whose propensity to travel by car has fallen over the last 20 years, in men by some 47%. Whilst the older generation are generally travelling by car a little more, the trends amongst younger people away from car travel will have significant implications for how we plan the transport provision for the campus expansion.

7.3.2 Travel patterns have changed significantly as a result of the Covid-19 pandemic, with significant reductions seen in vehicular traffic, increases in cycling and walking, and of course significant increases in the number of people working from home. We cannot tell at this stage how long-lasting these changes will be, but they demonstrate that we need to have the flexibility to allow for changing travel patterns in the future when we design proposals and the transport infrastructure and services to serve them.

7.3.3 As indicated earlier, the transport policy context is changing too. The Government have published a 'Road to Zero' strategy, which sets out the objective that all new cars and vans will be effectively zero emission by 2040. Its recent policy paper "Decarbonising Transport: Setting the Challenge" starts the discussion on what is needed to deliver the reduction in emissions required across all modes of transport to achieve this and stay within the carbon budgets until then. It suggests electric car charging points for all new homes, that public transport and active travel will be the natural first choice for our daily activities, and that we will need to use our cars less and be able to rely on a convenient, cost-effective, and coherent public transport network.

7.3.4 New technologies, changing travel patterns and the focus on zero carbon will play a pivotal role in how we plan new developments. The transport strategy and planning for the campus expansion will need to be flexible and resilient so that it is responsive to these changes in order to maximise the resulting opportunities for new types of mobility. This will mean a

development that is relevant to the way people will be living and travelling in the future, rather than based on historic travel patterns that have perpetuated the use of the private car. For example, if all new homes are to have charging points, then this will need to be replicated at places of work – such as the campus – the developing masterplan includes for EV Charging bays and the ducting infrastructure to potentially connect more bays with a charging point in the longer term future to meet demand. The Local Plan First Proposals Consultation Document suggests that 30% of all spaces will be 'active' spaces, i.e. with charging infrastructure installed and available for use, and a further 30% of spaces will be 'passive', i.e. with ducting in place ready to have the charging point installed.

7.4 Prioritising Walking and Cycling for Local Trips

7.4.1 High quality walking and cycling connections will continue to be provided to link the existing campus and expansion with existing and committed sustainable infrastructure. This will include internal footways and cycleways connecting to the new shared footway / cycleway, that forms part of the Linton Greenway, on the A1307 immediately northwest of the Campus's site access roundabout.

7.4.2 Walking and cycling will be encouraged as part of a Travel Plan that will be prepared for the expansion and this Travel Plan will build on the existing successful Campus Travel Plan. An existing Travel Plan Co-ordinator will continue to promote the Travel Plan, and provide new staff with transport information as part of the induction process to identify how walking and cycling can meet their travel needs whilst also assisting with healthy and active lifestyles.

7.4.3 Walking and cycling are important recreational activities in themselves, providing valuable opportunities for healthy and active lifestyles and improving well-being. The campus expansion will therefore provide high quality access to the surrounding countryside, including the Linton Greenway and the numerous footpaths and bridleway surrounding the campus.

7.4.4 Through the promotion of walking and cycling, and the accessibility of the high-quality walking and cycling infrastructure linking the existing campus and expansion with existing and future high quality committed sustainable transport infrastructure, the expansion will achieve the important objective of prioritising walking and cycling for local trips both within the site and with surrounding residential areas.

7.5 Maximising the Use of Public Transport

7.5.1 As part of the expansion, Babraham Research Campus will work with the GCP to develop a public transport strategy that makes full use of the committed CSET public transport strategy and infrastructure. This could include new and / or extensions of the CSET committed bus services into the site. To maximise the use of public transport, the strategy for the campus expansion will include proactive encouragement to staff and visitors to use these improved bus services. This would be part of the continued updates to the existing Campus Travel Plan.

7.5.2 The internal walking and cycling routes outlined above will also provide connections to the existing bus services operating along the A1307 that have and will continue to be improved as part of CSET Phase 1. Specifically, the new Toucan Crossing over the A1307 at the campus's main access will encourage increased public transport travel modes through the offering of a safe route to both eastbound and westbound bus stops.

7.5.3 Internal footways and cycleways will also be connected up to the future committed public transport route that will run south of the site as part of CSET Phase 2.

7.5.4 The changing travel patterns described earlier suggest that people are more and more likely to choose travel by such sustainable modes instead of the private car, and it will be important

that conventional transport planning for the campus and its proposed expansion, where improvements are based on historic car use, does not prejudice this outcome.

7.5.5 With these public transport measures, staff visitors of the campus would have a good quality alternative to the private car.

7.6 Private Car Strategy

7.6.1 The site has significant frontage with the A1307, from which the main vehicular access is already taken and will continue to be used as part of the expansion.

7.6.2 Within the site, and as per the existing internal layout, access roads will continue to be designed in accordance with the latest design standards (those relevant at the time of planning submission), meaning the needs of pedestrians and cyclists will be prioritised and considered from an early stage in the design of the layout in preference to the private car.

7.6.3 As outlined above the developing masterplan includes for EV Charging bays and the ducting infrastructure to potentially connect more bays with a charging point in the longer term future to meet demand.

7.6.4 Car parking provision will be balanced at a level which recognises likely demand, but also seeks to deter habitual car use for journeys that could be made by non-car modes. To meet this balance the existing campus parking : floor area ratio will be continued into the expansion, or reduced, to allow levels much lower than current / future maximum local policy ratios. The Local Plan First Proposals Consultation Document proposes moving towards a more design-led approach to car parking provision, which takes into account a site's accessibility by non-car modes and its reliance on the private car, so this will be the basis for establishing the car parking strategy for the BRC expansion

7.6.5 Car club spaces should also be provided as part of the expansion, so that staff can have access to a car but do not need to own one. This assists with efficient use of the private car.

7.6.6 As part of any planning application for the campus expansion, a detailed Transport Assessment would be undertaken, the scope of which would be agreed with highways officers of Cambridgeshire County Council. The Transport Assessment would provide a detailed technical assessment of the impact of the expansion on the operation of local transport networks, including the road network, along with the resulting appropriate mitigation. The traffic impacts of the expansion are likely to be significantly reduced by the benefits of the site location in the context of the committed CSET sustainable transport improvements. At this stage in the planning process, there is no evidence to suggest that the traffic impacts of the expansion, with appropriate mitigation and taking account of committed sustainable infrastructure, would be severe.

7.6.7 It is recognised that opportunities to maximise sustainable transport solutions will vary from urban to rural areas, and the adopted South Cambridgeshire Local Plan notes that South Cambridgeshire is predominantly a rural district, meaning that the car will remain an essential mode of travel for some, playing a role in improving access to local services and facilities.

7.6.8 Sustainable travel options will not, therefore, be suitable for all staff at the expanded BRC. However, the CSET being delivered by the GCP will significantly enhance the non-car accessibility of the site, and recent travel surveys of existing staff at the Campus found that 52% of respondents would use such a facility. The Linton Greenway will further enhance the site's non-car accessibility. The benefits of enabling travel by non-car driver modes are considerable, relating to improved health through walking and cycling, reduced emissions and improved operation of the highway network in terms of congestion and road safety.

7.6.9 A key part of the BRC's transport strategy is therefore to maximise the use of non-car modes of travel to access the site, therefore tackling habitual use of the private car. This means utilising the committed CSET sustainable infrastructure and devising a transport strategy which embraces behavioural and technological changes that are already taking place, and where many people in the future choose not to travel by the private car. It also recognises the serious health and environmental concerns that continued car use will bring, along with the associated levels of traffic congestion. The focus for transport mitigation and improvements will therefore been on non-car modes of travel and looking to the future, rather than perpetuating car use by planning the strategy on the basis of past travel patterns where car travel has dominated.

7.6.10 Therefore, the expansion does not envisage the need for significant highway infrastructure improvements, beyond that committed as part of GCP's CSET, as this would only make it easier to travel by car. However, the expansion would assist with the delivery of highway improvements where these would address road safety concerns.

7.7 AMS Summary

7.7.1 With the measures and initiatives set out in this section, it is considered that the Access and Movement Strategy for the site will deliver a sustainable expansion to the existing campus, which continues to reduce the need to travel by car, promotes non-car modes of travel, connects with future committed strategic sustainable transport infrastructure, and is therefore in accordance with local and national transport policies.

7.7.2 Figures 10 and 11 present the existing and committed sustainable infrastructure in the context of the site.

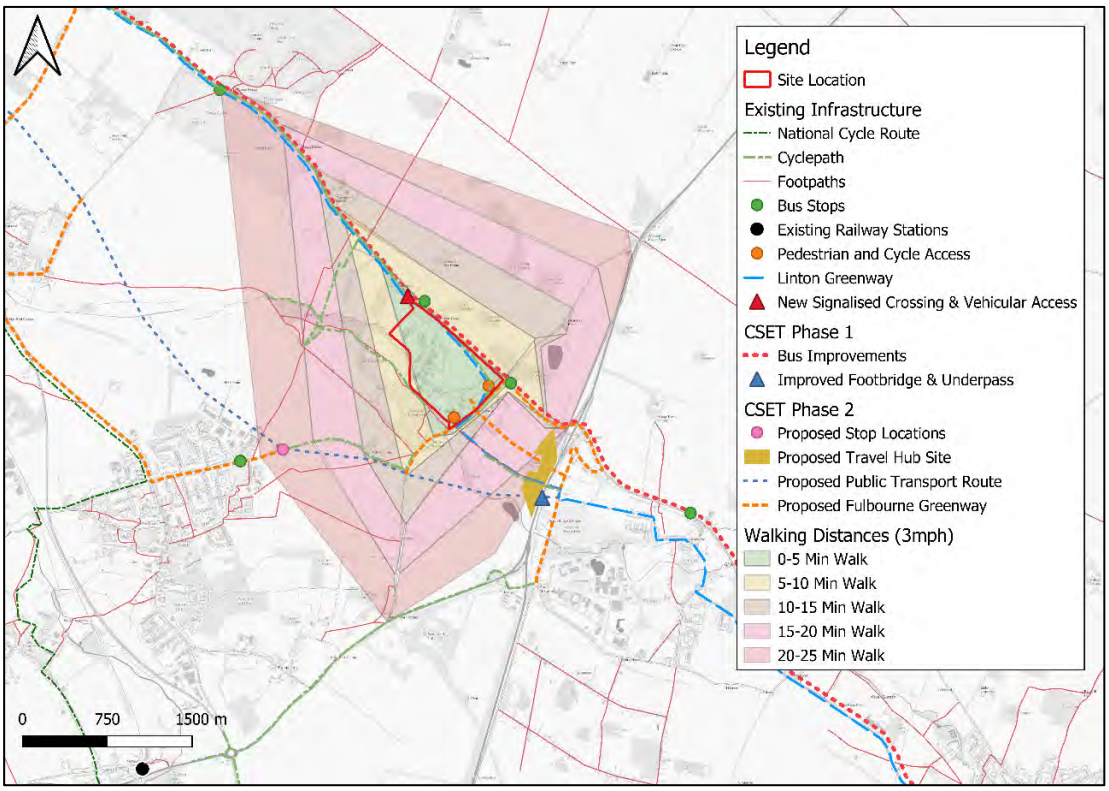


Figure 10 - Sustainable Connectivity and Access Plan (Local)

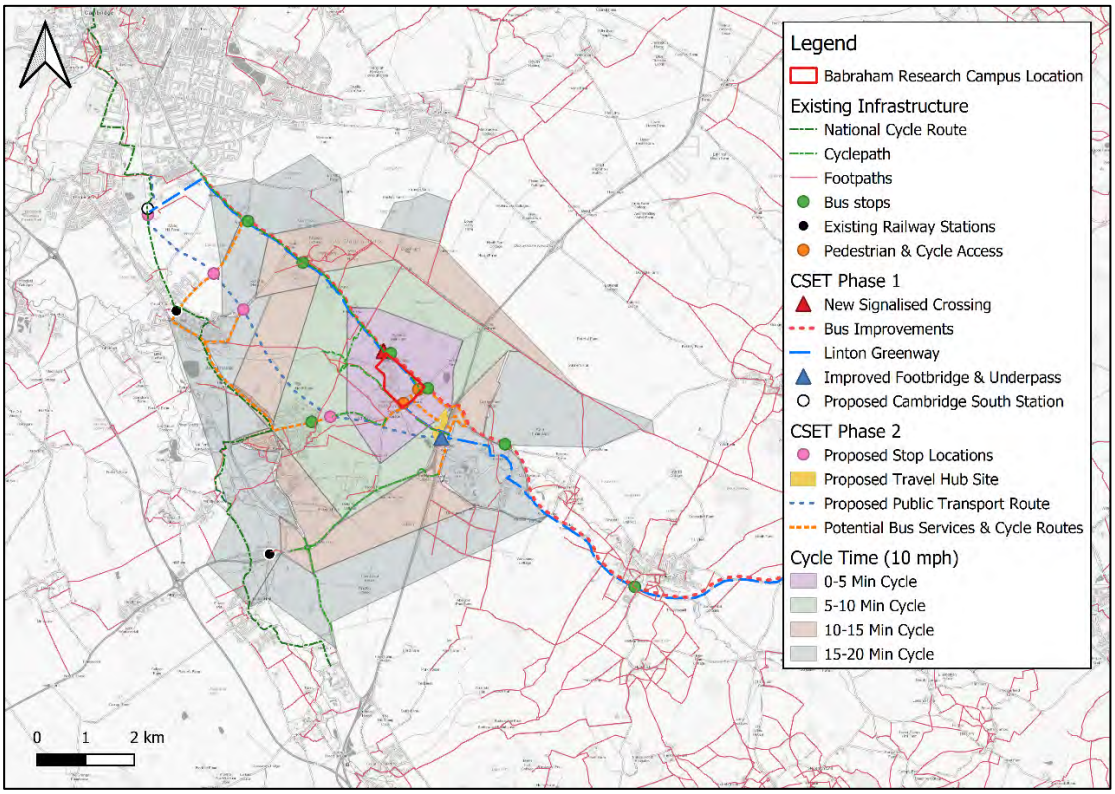


Figure 11 - Sustainable Connectivity and Access Plan (Wider)

8 Conclusion

8.1.1 This Transport Strategic Overview and Access and Movement Strategy sets out the high-level transport strategy for the expansion of the Babraham Research Campus to assist with the Regulation 18 'Preferred Options' stage of the emerging Greater Cambridge Local Plan. It seeks a sustainable expansion that is integrated with existing and committed (CSET) walking, cycling and public transport networks, so that the expansion has excellent connectivity with surrounding areas by these modes, as well as continued permeability through the campus site.

8.1.2 With the implementation of the expansion strategy combined with the GCP's sustainable CSET commitments, it is considered that the expansion is deliverable, accords with national and local transport policy guidance, and that therefore there are no transport nor highways reasons why the Babraham Research Campus Expansion should not be allocated for development in the Greater Cambridge Local Plan.

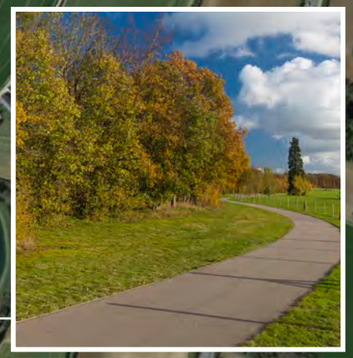
Appendix A Campus Strategy Plan and emerging Illustrative Masterplan

Campus perimeter woodland

Arable land

R&D development zone

R&D redevelopment zone



Historic parkland retained

River Granta corridor
and wet woodland

Arable land

Renewable energy
and support infrastructure

Meadow land

Housing and amenity zone

Community land

CAMPUS STRATEGY PLAN

ILLUSTRATIVE MASTERPLAN

KEY:

- Existing woodland
- Existing historic parkland
- Existing amenity grassland and areas of ornamental planting
- Existing arable field with introduced skylark plots
- Existing or recently planted scrub planting
- Existing chalk scrapes
- Proposed chalk scrapes
- Proposed woodland planting
- Proposed woodland copse planting
- Proposed individual trees
- Proposed orchard trees
- Proposed scrub planting
- Proposed species rich grassland with wildflowers
- Proposed amenity grassland and areas of ornamental planting
- Proposed wetland
- Proposed or restored pond
- Proposed arable field margins with strengthened hedgerows
- Proposed building locations
- Proposed roads/cycleways/parking areas

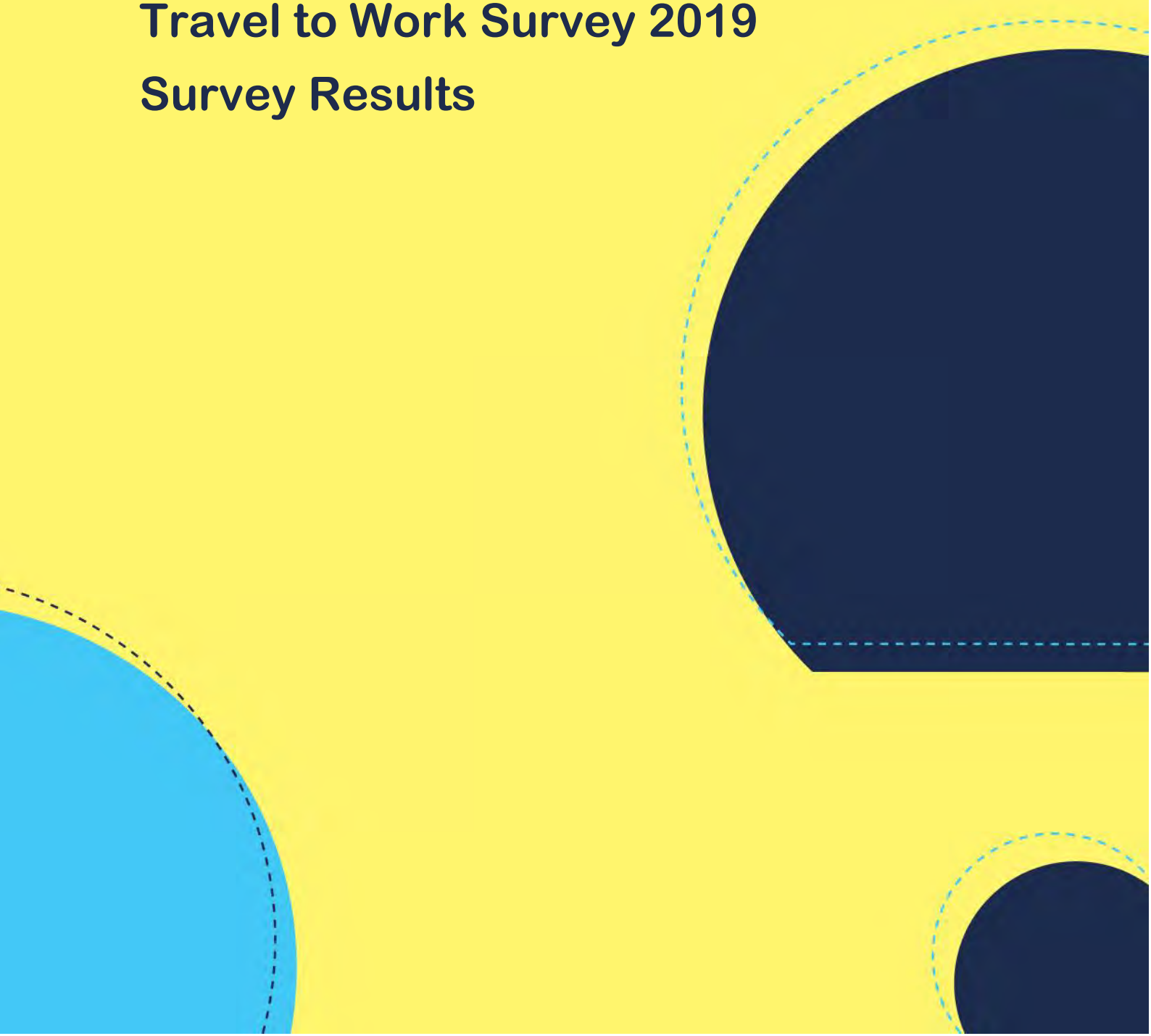
Appendix B Existing Campus Staff Travel Surveys

smartjourneys

Babraham Research Campus

Travel to Work Survey 2019

Survey Results



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Date: 06/12/2019

Revision Number: 1.0

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CONTENTS


transforming how we commute, for good.

1.0 INTRODUCTION

From Monday 14th October to Friday 25th October 2019 Babraham Research Campus collected data for its Annual Travel to Work Survey, to establish staff commuting behaviours. The survey was designed and managed by **smart journeys** on behalf of the Campus. The survey was distributed electronically to approximately 120 employees who are located across its Cambridge site.

Based on employee responses, the survey provides a clear picture of the way employees travel to work. Results will be used to inform and develop a Travel Plan for Babraham Research Campus. The business is committed to conducting a travel survey every year in order to monitor and measure the impact and progress of the Travel Plan initiatives.

Results show that 69% of staff live relatively 'close' to the workplace (i.e. within 40 mins) and that these individuals have the greatest potential for adopting more sustainable travel. The survey captured details of journey length and duration by mode travel and distance from the workplace. It also identified that financial considerations, convenience and travel duration were common factors influencing the choice of mode of travel. Combined, these insights will help develop a case to persuade more staff to choose more sustainable modes of travel to work.

1.1 METHODOLOGY

The Travel to Work Survey recorded data relating to the way employees travelled to work from Monday 7th October to Friday 11th October 2019. The survey was available online (using a customised link) for three weeks, closing on Friday 1st November 2019, and collected a total of 450 responses.

Using an online survey allowed a greater level of detail on specific issues, without lengthening the survey for those who did not need to answer additional questions through filtering.

All questions in the survey provided a set of suggested answer categories. Several questions allowed respondents to give more information via free text if they had ticked 'Other' rather than one of the specified categories. A full list of 'Other' responses can be found in Appendices 3 and 4 (page 32-42).

It should be noted that rounding is applied to all percentage results, this is done to obtain a value that is easier to report and communicate.

2.0 MODAL SHARE COMPARISON

(5 days – Monday 7th October to Friday 11th October 2019)

Figure 0.1 shows the breakdown of the 2019 results by main mode of travel. The findings of the travel survey are used to set targets for maintaining or increasing the proportion of staff who travel to work by sustainable modes. This table will be updated annually to compare results from previous years.

Figure 0.1

Mode	2009	2017	2018	2019			
Walk/Run	4.03%	4.15%	4.8%	2.7%			
Cycle	12.08%	9.97%	11.8%	10.4%			
Electric bicycle	-	-	0.4%	0.2%			
Drive Alone	53.64%	65.79%	53.6%	49.1%			
Car Share (Driver)	16.36%	10.99%	6.3%	5.4%			
Car Share (Passenger)			3.0%	3.7%			
Motorbike/Moped	2.34%	0.27%	0.5%	0.1%			
Train	0.78%	1.40%	0.8%	0.9%			
Public Bus	8.31%	5.66%	5.2%	3.2%			
Park&Ride Bus	-	-	-	0.3%			
Guided Bus	-	-	0.4%	0.3%			
Campus Shuttle Bus	-	-	5.1%	6.0%			
Taxi	-	-	0.3%	0.1%			
Worked at Home	0.78%	1.35%	2.1%	1.7%			
Business miles (away from the office)	-	-	-	1.0%			
Annual Leave, non-working day (part-time, sickness)			5.7%	14.5%			
Other	-	-	-	0.4%			
Participation (no of respondents as a percentage of total staff)	22%	35%	40%	38%			

3.0 HEADLINE RESULTS

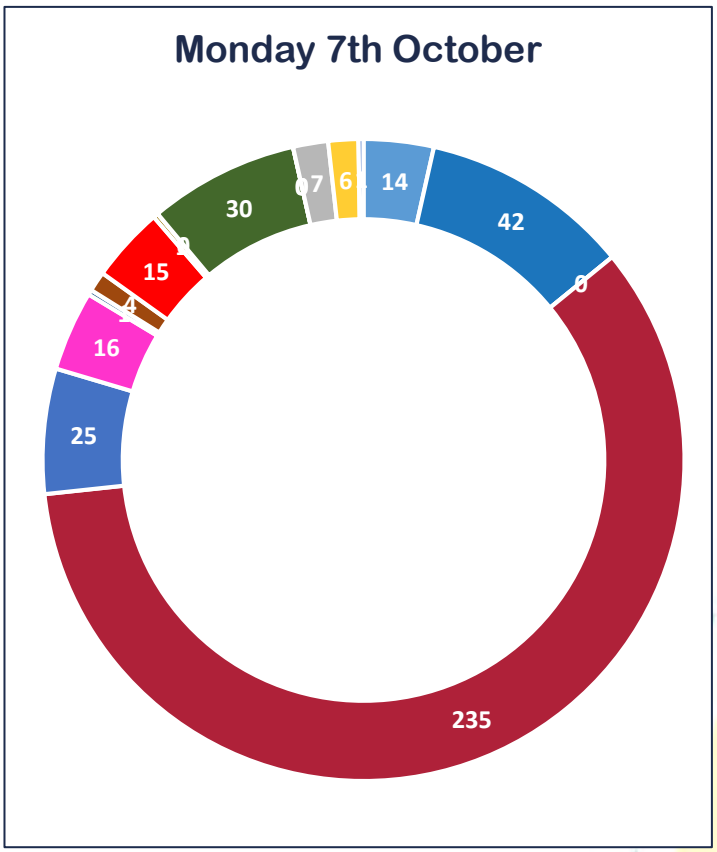
Figure 0.2 analysis data from all 450 respondents who completed the survey.

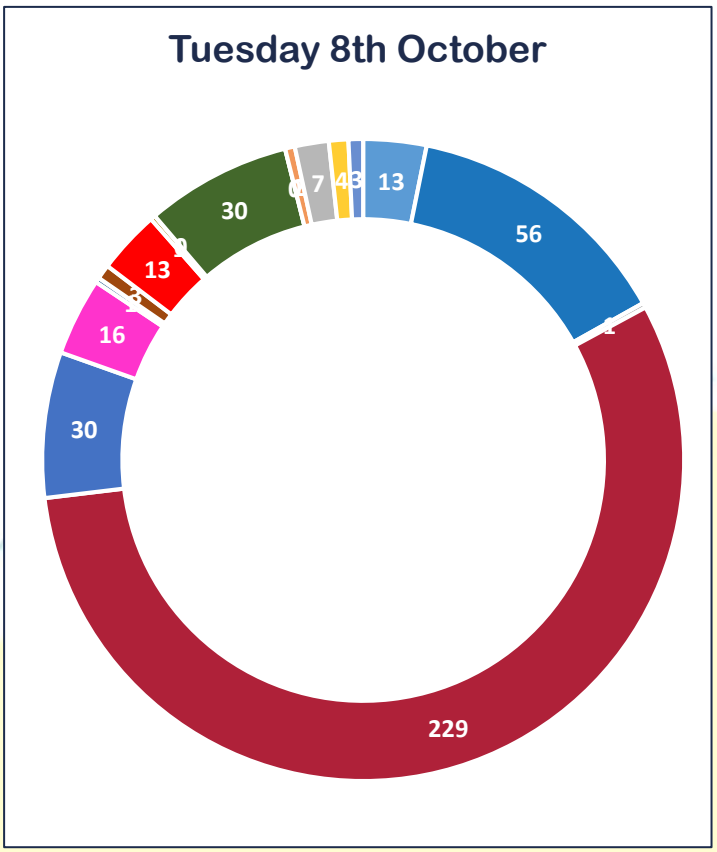
Figure 0.2

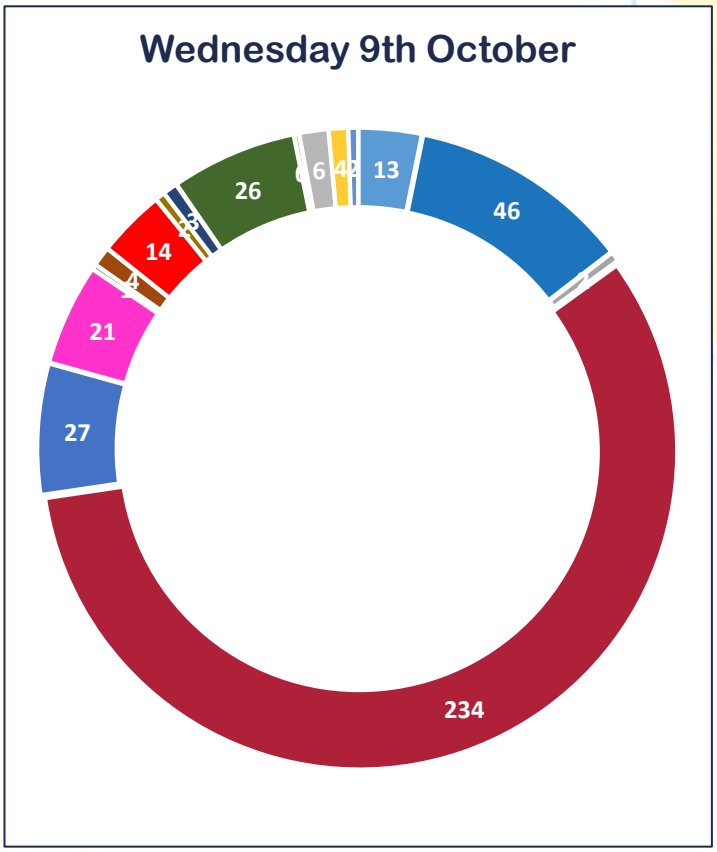
Site name	Babraham Research Campus		
Number of respondents	450		
Percentage of workforce	38%		
Number of trips recorded	2006		
Longest distance travelled by mode (miles)	Drive Alone	91 Miles	
Shortest distance travelled by mode (miles)	Walk	<1 Mile	
Modal split Monday - Friday	Walk	63	2.7%
	Cycle	244	10.4%
	Electric Bicycle	4	0.2%
	Drive Alone	1152	49.1%
	Car Share (Driver)	126	5.4%
	Car Share (Passenger)	86	3.7%
	Motorbike/moped	3	0.1%
	Train	20	0.9%
	Public Bus	76	3.2%
	Guided Bus	7	0.3%
	Park & Ride Bus	8	0.3%
	Campus Shuttle Bus	140	6.0%
	Taxi	3	0.1%
	Worked at Home	41	1.7%
	Business miles (away from the office)	23	1.0%
	Annual leave, part-time or sickness	339	14.5%
	Other	10	0.4%
Modal split Saturday - Sunday	Walk		
	Cycle	-	-
	Electric Bicycle	-	-
	Drive Alone	-	-
	Car Share (Driver)	-	-
	Car Share (Passenger)	-	-
	Motorbike/moped	-	-
	Train	-	-
	Public Bus	-	-
	Guided Bus	-	-
	Park & Ride Bus	-	-
	Taxi	-	-
	Kick Scooter	-	-
	Worked at Home	-	-
	Business miles (away from the office)	-	-
	Other	-	-

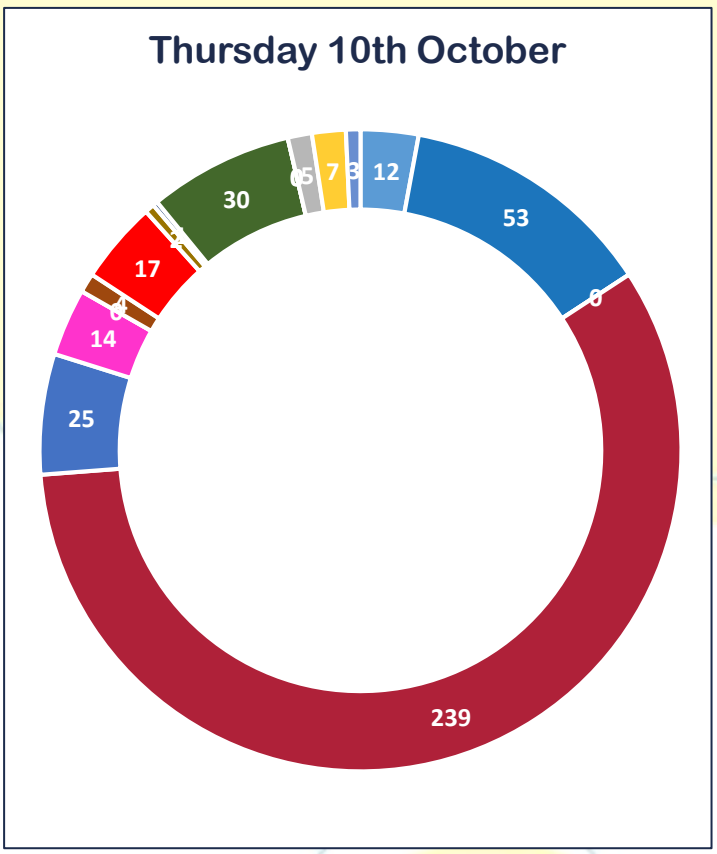
4.0 DAILY MODAL SPLITS

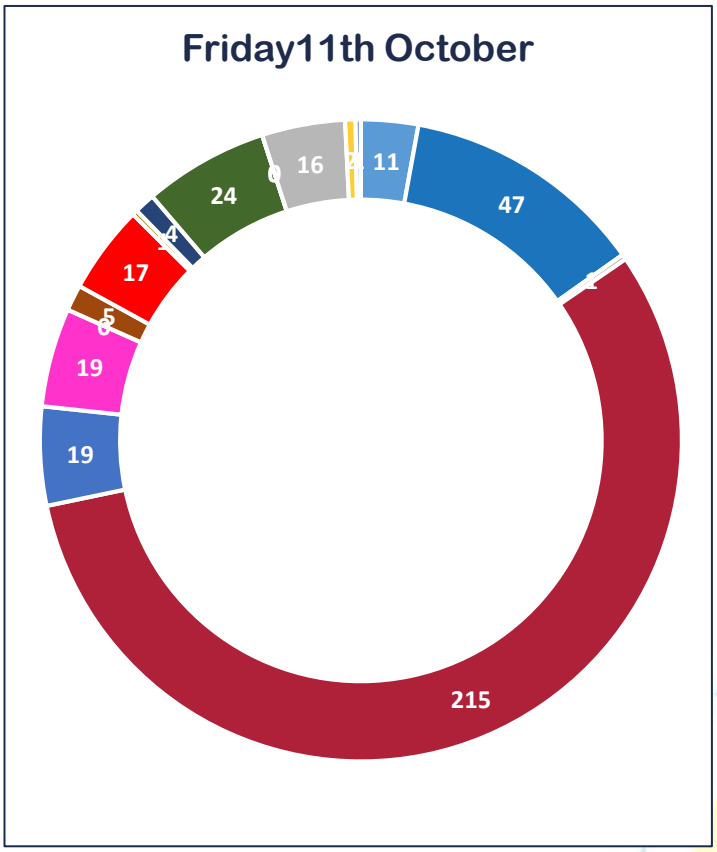
Monday 7th October to Friday 11th October 2019

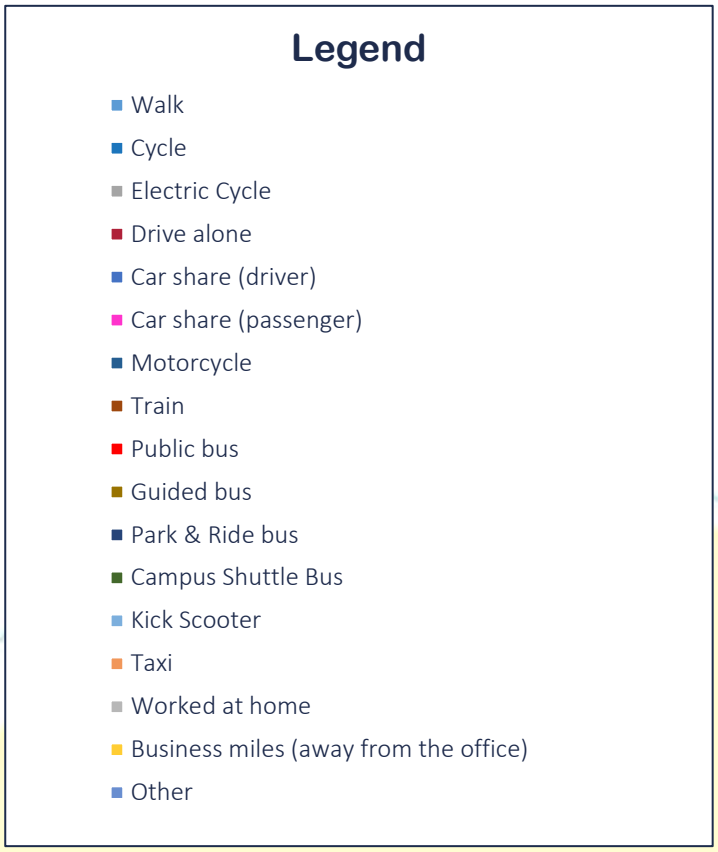









Friday11th October
11
47
1
215
19
19
5
6
17
4
24
0
16
2
1


Legend
Walk
Cycle
Electric Cycle
Drive alone
Car share (driver)
Car share (passenger)
Motorcycle
Train
Public bus
Guided bus
Park & Ride bus
Campus Shuttle Bus
Kick Scooter
Taxi
Worked at home
Business miles (away from the office)
Other

5.0 SURVEY FINDINGS AND REVIEW

5.1 Gender

The survey considered the gender balance of responses.

Figure 0.3

62%
(280)

Female

36%
(162)

Male

Other/Prefer not to say

2%
(8)

5.2 Age

The survey considered the age of respondents to analyse if this would impact transport modes. 85% of respondents were aged between 25-44 years old.

Figure 0.4

Please select your age category			
Answer Choice		Response Percent	Response Total
1	Below 25	10.2%	46
2	25 to 34	34.7%	156
3	35 to 44	25.4%	114
4	45 to 54	19.8%	89
5	65 and above	9.1%	41
		answered	449

5.3 Working Patterns

In order to assess the extent to which working patterns impacts staff travel choices the survey then invited staff to provide details of their working arrangement. Majority of staff 88% (394) worked full time.

Figure 0.5

Which of the following options best describes your working hours?			
Answer Choice		Response Percent	Response Total
1	Full time	87.6%	394
2	Part time (less than 37 hours per week)	11.6%	52
3	Part time (less than 3 days per week)	0.9%	4
4	Shift work	-	-
5	School term time only	-	-
7	Night working	-	-
		answered	450

5.4 Working days

The survey collected information on the number of days a week each respondent worked. You can see that during Monday to Friday, Friday was the quietest day with 85% of respondents working on that day.

Figure 0.6

During the below week which days did you work?			
Answer Choice		Response Percent	Response Total
1	Monday 7th October	88.6%	397
2	Tuesday 8th October	91.3%	409
3	Wednesday 9th October	90.6%	406
4	Thursday 10th October	92.0%	412
5	Friday 11th October	85.3%	382
6	Saturday 12th October	3.1%	14
7	Sunday 13th October	2.9%	13
8	I did not work on any of those days (e.g. annual leave)	3.8%	17
		answered	448

5.5 Duration of Commute

The survey collected information on the duration of time it takes staff to travel to work. The majority of staff (91%) commute to work time in less than 1 hour.

Figure 0.7

On a normal day what is the duration of your commute to work?			
Answer Choice		Response Percent	Response Total
1	20 mins or less	26.0%	113
2	21 to 40 mins	42.6%	185
3	41 to 60 mins	22.4%	97
4	61 to 90 mins	6.5%	28
5	91+ mins	2.5%	11
		answered	434

5.6 Commuting distance

The survey collected data on the distance staff travel to get to work. The data shows that on average 54% of respondents distance to work, is within 10 miles of the workplace.

Figure 0.8

On a normal day what is the duration of your commute to work?					
	Monday 7th October	Tuesday 8th October	Wednesday 9th October	Thursday 10th October	Friday 11th October
Under 1 mile	16	16	17	17	16
Under 2 miles	2	2	3	3	1
Under 3 miles	13	13	13	13	10
Under 5 miles	37	39	38	42	35
Under 10 miles	142	146	148	148	146
Total journeys	210	216	219	223	208

6.0 TRAIN JOURNEYS

6.1 Starting train station

Three respondents selected that they travel by train (Figure 0.9), routing was added to the survey and those selecting train as a transport option, were asked which station they started their journey from.

Figure 0.9

Please select which train station you started your train journey from?		
Answer Choice		Response Total
1	Bury St Edmunds	1
2	Letchworth	1
3	London Kings Cross	1
4	Royston	1
5	Waterbeach	1
6	Other	1
	answered	6

6.2 Travel to start station

Further questioning was asked to understand how staff travelled to their starting train station.

Figure 0.10

When travelling to your local train station, which mode of transport is usually taken?			
Answer Choice		Response Percent	Response Total
1	Walk/Run	50.0%	3
2	Cycle	33.3%	2
4	Drive Alone	16.7%	1
5	Car Share (incl being dropped off)	-	-
7	Bus	-	-
8	Motorbike	-	-
9	Connecting train/tube	-	-
10	Taxi	-	
11	Other	-	-
		answered	6

6.3 Train ticket

The survey asked the type of tickets staff purchased. This was asked to determine which employees could access the 10% train discount through **smart journeys.**

Figure 0.11

When travelling to your local train station, which mode of transport is usually taken?			
Answer Choice		Response Percent	Response Total
1	Single/return daily ticket	66.7%%	4
2	Weekly (anything less than 1 month)	-	-
4	Monthly (anything over 4 weeks)	16.7%	1
5	Annual season ticket	16.7%	1
6	Carnet tickets	-	-
7	Other	-	-
		answered	6

6.4 Rail discount

Currently two respondents can access the train discount (monthly and annual season tickets only) though none respondents made use of it.

Figure 0.12

Did you claim the 10% discount on your rail ticket?			
Answer Choice		Response Percent	Response Total
1	Yes	-	-
2	No	100%	1
		answered	1

7.0 CAR SHARING

7.1 Car sharing driver

Respondents were asked to state who they normally car share with. 64% of car sharers, share their journey with someone who lives at the same address.

Figure 0.13

Please provide more information about who you shared your journey with:			
Answer Choice		Response Percent	Response Total
1	Colleague (who lives at the same address)	25.0%	11
2	Colleague (who lives at a different address)	15.9%	7
3	Family/partner/friend and I dropped them off on the way work (lives at the same address)	38.6%	17
4	Family/partner/friend and I dropped them off on the way work (who lives at a different address)	6.8%	3
5	Family/partner/friend and I dropped them off at school, college, university on the way to work.	6.8%	3
6	Other (please specify):	6.8%	3
		answered	44

7.2 Car sharing passenger

Respondents were asked to state who they normally car share with. 58% of car share passengers, share their journey with someone who lives at the same address.

Figure 0.14

Please provide more information about who you shared your journey with:			
Answer Choice		Response Percent	Response Total
1	Colleague (who lives at the same address)	16.1%	5
2	Colleague (who lives at a different address)	22.6%	7
3	Family/partner/friend and I dropped them off on the way work (lives at the same address)	41.9%	13
4	Family/partner/friend and I dropped them off on the way work (who lives at a different address)	3.2%	1
5	Family/partner/friend and I dropped them off at school, college, university on the way to work.	16.1%	5
6	Other (please specify):	16.1%	5
		answered	31

7.3 Car sharing platform

Respondents were asked if they found their car sharing matches, through www.camshare.co.uk. No respondents had found a match through the platform.

Figure 0.15

Did you find your car sharer through the journey matching site www.camshare.co.uk?			
Answer Choice		Response Percent	Response Total
1	Yes	0.0%	0
2	No	100%	18
		answered	18

7.4 Car share registrations

Respondents were asked if they had registered their journey on www.camshare.co.uk with. Five respondents said they had used the scheme.

Figure 0.16

Have you signed up to the journey matching website www.camshare.co.uk, to register to share your car journey or look for others travelling in same direction?			
Answer Choice		Response Percent	Response Total
1	Yes	8.5%	5
2	No	91.5%	54
		answered	59

8.0 DRIVE ALONE

8.1 Parking

Staff who indicated that their main mode of travel is by car, either alone or car sharing were asked where they park. Figure 0.17 indicates that over half of respondents (99%) who drive to work, park at work.

Figure 0.17

On the days that you travelled to work by car, where did you park?			
Answer Choice		Response Percent	Response Total
1	On-site parking (at work)	99.3%	280
2	In a private pay and display car park	-	-
3	Park & Ride site	-	-
4	In a nearby residential area and walked the last part of my journey	-	-
5	In a residential area and cycled the last part of my journey	-	-
6	At my local train station/bus stop (near my home) and continued my journey on public transport	-	-
7	I was passenger and was dropped off at work	0.7%	2
8	Other	-	-
		answered	282

8.2 Fuel Type

The below chart (Figure 0.18) displays the fuel type and the engine size of cars used by staff to travel to work. The majority (60%) use a petrol car under 2.0 litres – further calculations can be carried out to analyse the carbon impact of commuting to work.

Figure 0.18

What fuel type did the vehicle you travelled in use?				
Answer Choice		Response Percent	Response Total	
1	Petrol – Less than 1.4 litre	28.4%	80	
2	Petrol – 1.4 to 2.0 litre	29.1%	82	
3	Petrol – more than 2.0 litre	2.1%	6	
4	Diesel – Less than 1.7 litre	14.9%	42	
5	Diesel – 1.7 to 2.0 litre	16.3%	46	
6	Diesel – more than 2.0 litre	5.3%	15	
7	Hybrid	2.1%	6	
8	Electric	1.8%	5	
9	Other	-	-	
		answered	282	

8.3 Alternative to driving

The following questions was intended to highlight if respondents would consider an alternative to driving. 58% of respondents said they would consider an alternative.

Figure 0.19

Would you consider an alternative to driving?			
Answer Choice		Response Percent	Response Total
1	Yes	58.2%	164
2	No	41.8%	118
		answered	282

8.4 Alternative modes

This question followed on from question 8.3 and asked respondents which modes they would consider. 64% of respondents indicated that they could cycle to work (includes electric bike). Bus and Train were also popular alternative options for staff. Respondents to this question were able to select more than one choice and, therein, the percentages quoted represent the proportion of all car drivers that selected each mode.

Figure 0.20

Which of these modes would you consider?			
Answer Choice		Response Percent	Response Total
1	Walking	7.3%	12
2	Cycle	49.4%	81
3	Electric Bicycle	14.6%	24
4	Car Share	31.1%	51
5	Motorcycle/Moped/Scooter	9.1%	15
6	Train	26.8%	44
7	Public Bus	30.5%	50
8	Guided Bus	23.2%	38
9	Campus Shuttle Bus	40.9%	67
9	Taxi	1.8%	3
11	Other (please specify):	3.0%	5
		answered	164

8.5 Reasons for driving alone

This question considered the reasons why those people who travel by car (alone) do so. Respondents to this question were able to select more than one reason and, therein, the percentages quoted represent the proportion of all car drivers that selected the option.

Figure 0.21

What is preventing you from using an alternative mode to driving?			
Answer Choice		Response Percent	Response Total
1	Take too long	65.8%	183
2	Cost more than driving	38.5%	107
3	I have to drop child/children at school	22.3%	62
4	I have no public transport close to my home	29.1%	81
5	I have a disability that impacts the way I travel	1.1%	3
6	I cannot find anyone to car share with	11.5%	32
7	Weather conditions	16.9%	47
8	Need car for my work	4.7%	13
9	Personal safety	10.1%	28
10	Other (please specify):	16.9%	47
		answered	278

8.6 Drive alone distance summary - journeys

The below chart (**Figure 0.22**) displays the distance staff drive in their car (alone) to the workplace. The table is made up of a sub set of 108 drive (alone) journeys under 10 miles from Monday 7th October– Friday 11th October, making up 20% of all journeys to work **(Figure 0.28 page 29).** The table displays that 30% (45) of all car journeys to work (alone) are under 5 miles and 63% (95) of all car journeys to work are under 10 miles.

Figure 0.22

	Mon 7th Oct	Tues 8th Oct	Wed 9th Oct	Thurs 10th July	Fri 11th Oct	Total journeys
Under 1 mile	-	-	-	-	-	-
Under 2 miles	2	1	2	2	3	10
Under 3 miles	3	2	2	4	4	15
Under 5 miles	4	3	3	5	5	20
Under 10 miles	10	9	9	11	11	50

8.7 Drive alone distance summary - respondents

The below chart (**Figure 0.23**) displays the number of respondents driving (alone) in their car to the workplace. The table is made up of a sub set of 237 respondents who drive (alone) to work during the week of Monday 7th October – Friday 11th October. The table reports only on drive (alone) journeys which are 10 miles or less. The table displays that 83 respondents drive a distance to work of under 5 miles and that 237 respondents drive a distance to work of under 10 miles.

Figure 0.23

	Mon 7th Oct	Tues 8th Oct	Wed 9th Oct	Thurs 10th July	Fri 11th Oct	Total respondents
Under 1 mile	-	1	1	2	4	6
Under 2 miles	2	2	2	3	4	8
Under 3 miles	7	6	6	7	10	19
Under 5 miles	25	24	23	26	20	50
Under 10 miles	96	88	96	96	43	154

9.0 BESPOKE QUESTIONS

9.1 A1307 South East corridor

The following question was asked to gauge the interest in a potential new off road public transport link for the A1307 South East corridor.

Figure 0.24

Would you use an off road public transport route as currently under review by Greater Cambridge Partnership for the A1307 South East corridor?			
Answer Choice		Response Percent	Response Total
1	Yes	52.1%	163
2	No	47.9%	150
		answered	313

9.2 Reasons for driving alone

This question considers the reason that would prevent respondents using the new public transport link mention in question 9.2.

Figure 0.25

What would be preventing you from using the proposed Autonomous Metro connecting central Cambridge to Babraham?			
Answer Choice		Response Percent	Response Total
1	I don't travel to work via Cambridge (or along the proposed route)	75.3%	113
2	I have to drop child/children at school	8.0%	12
3	I need my car for work purposes	1.3%	2
4	I have a disability that effects the way I travel	0.7%	1
8	Other (please specify):	14.7%	22
		answered	150

10.0 TRAVEL PLAN ACTIONS 2019/2020

Travel Plan measures

Figure 0.26

MODE	MEASURE	DESCRIPTION
ALL SUSTAINABLE MODES	Travel Plan Coordinator (TPC)	Appoint a Travel Plan Coordinator to oversee the implementation, administration and management of the Travel Plan. The role will be responsible for providing guidance, support and advice on travel related matters to staff and visitors.
	Travel Information Pack (TIP)	Develop a Travel Information Pack for staff and visitors. The pack will include all the necessary information required to help make informed decisions about journeys to/from the workplace and it will encourage the use of sustainable options.
	New starter travel pack	Work with HR to promote sustainable travel choices to new starters during the recruitment/induction process. Starting a new job is a great time to change travel behaviours before habits have embedded.
	Personalised Travel Planning	These 1-2-1 sessions are aimed at assisting staff to identifying their travel choices and will highlight the benefits associated with sustainable travel. This service is free of charge to staff
	Social media	Keep your eye on **smart journeys** social media posts (Twitter and LinkedIn – links below), blogs and its quarterly newsletter which will list details of sustainable travel initiatives throughout the year. **LinkedIn –** *www.linkedin.com/company/smartjourneys* **Twitter –** *@smartjourneys*
WALKING	Promotion of Walk to Work Week	Promote 'Walk to Work Week' by running a series of events such as lunch time walks and competitions (team and individual). To promote the campaign further and to engage

		staff, provide pedometers and walking related items to give away and aid as incentives
	Walkability route map	The creation of a walking reference map to identify the most accessible and walking friendly routes to the workplace
	Walking Champion	Identify a Walking Champion to promote the benefits of walking to staff through promotional campaigns.

CYCLING	Cycle to Work Scheme	Set up a cycle to work scheme. The scheme allows employees to spend on bikes and equipment, tax-free, making a claimed saving of up to 42% on the overall value.
	Cyclist shower and changing facilities	Ensure there is enough provisions to shower, store wet clothes (drying room), lockers/storage to store towels and equipment and access to an iron, to accommodate cyclists.
	Additional cycle parking and facilities	Continue to ensure that an overprovision of cycle parking is provided within close proximity to site buildings in order to accommodate, and promote, an increase in cycling. Also consider installing secured locked cycle storage, if bike crime is an issue.
	Park & Ride cycle storage	Consider funding secure locked cycle storage at your local Park & Ride site, for staff to use. Alternatively, promote this solution and provide more details (costs etc.) Contact your local Park & Ride site for more information.
	Cycle repair stands/equipment	Consider installing a static heavy duty bike repair stand and cycle pump Stand, in a communal area for employees to carry out small bike maintenance repairs: - *http://www.cyclepods.co.uk/cycle-storage-products/bike-repair-stand/* - *http://www.cyclepods.co.uk/cycle-storage-products/cyclepods-pump-xl/.* Ensure basic cycle repair equipment is available to staff in case of an emergency, e.g. spare inner tubes/repair kits and a bicycle pump.

	Cycle Champion	Identify a Cycling Champion to promote the benefits of walking to staff through promotional campaigns.
	Bikeability route map	Direct staff to websites such as *http://www.cyclemaps.org.uk/* where staff can download PDFs of cycle maps across the UK and *www.cyclestreets.net/,* which plots bike-friendly routes. Also promote *https://www.cyclinguk.org/journey-planner* for journey planning.
	Bicycle security tagging	As part of your **smart journeys** membership, request smart journeys to deliver an event on bike security. The team will come on-site, speak to staff and provide wrap around barcode stickers as a preventative measure to reduce bike crime *https://shop.immobilise.com/5-x-wrap-around-tamper-resistant-barcode-stickers/*
	Cycle safety awareness	Deliver a cycle safety session, remind staff the rules of the highway, e.g. the need for adequate bike lights during the winter months, and the dangers of riding on footpaths etc. - educate staff on how to bike safely in the local community.
	Bike Doctor cycle maintenance session	Fund regular Dr Bike sessions to ensure that staff maintain their bikes in a safe manner. The Dr Bike sessions also encourage those who have not ridden a bike in a while, to dust these down and bring them back to life.
	Bike maintenance course	The fear of getting a puncture on the way to and from work, could be preventing individuals from using this transport mode. Consider running annual bike maintenance training sessions, which educate staff on how to make simple bike repairs, saving employees money and building confidence.
	Cycle skills training	A refresher course on cycling skills could be useful for anyone returning to cycling. National standards cycle training, under the Bikeability brand, has come a long way from the days of 'cycling proficiency', and it's not just for kids. Instructors are listed online at *https://bikeability.org.uk*.

	Cycling awareness dates/campaigns	Build engagement activities/campaigns around the following cycle awareness days: - International Winter Bike to Work Day - Ride to Work Week - National Bike Month (May) - Bike to School Day - Bike Week - Ride to Work Week - Cycle to Work Day
	Cycle breakfast	Deliver regular 'cycle to work' days with rewards for those who cycle e.g. a free coffee or a breakfast.
	Rewards cycling to work	Offer additional rewards to staff who cycle such as: - Financial reward in lieu of a car parking space - Points which can be exchanged for benefits.
	Cycle challenge	To create some buzz and competition between colleagues, develop a cycle challenge. Set up a leader board on Starva and offer spot prizes to those participating.
	Provision of short term loan bikes	To discourage staff from taking their cars out at lunchtime, to drive a short distance to pick up a sandwich. Provide a fleet of pool bikes, which can be loaned out to staff.
	E-bike promotion	Organise electric bicycle awareness days and invite local dealerships to visit the workplace and promote e-bikes to staff.
	Remove abandoned bikes	Clear away abandoned bicycles from the cycle parking areas to free up space.
	Bicycle business trips miles	Offer bicycle business trip mileage, which can be paid tax free up to 20p/mile. https://www.gov.uk/expenses-and-benefits-business-travel-mileage/rules-for-tax.
	Report Highway faults	Staff can report highway faults including potholes, kerbs, verges, flooding, hedges and trees, public rights of way, road markings, road signs and traffic signals through the *highway reporting tool.*
	Promote cycle discounts	Encourage staff to use the **smart journeys** cycle supplier discounts. Employees have access to

		10% discount in-store at retailers like Halfords and Cotswold.

BUS	Installation of Real Time Passenger Information (RTPI) units	Contact the Smart Cambridge team to discuss getting a real-time smart panel installed. The smart panels display the following travel data: - Bus positions and timings - Bus departure times - Train departure times https://smartcambridge.org/smartpanel/info/
	Promotion of the 'Motion Map' app	Encourage staff to download the Smart Cambridge travel app 'Motion Map'. The innovative journey planning app using 'real-time' data, helps commuters to plan their public transport journeys around the city.
	Bus Champion	Identify a Bus Champion to promote the benefits of travelling by bus to staff through promotional campaigns.
	Promotion of 'Catch the Bus' Week	'Catch the Bus Week' takes place each year during the month of July. Contact your local bus provider (Stagecoach) and ask for details and support in promoting the bus during this time.

RAIL	Promote the 10% Rail discount	**smart journeys** can provide promotional materials to help promote the 10% rail discount.
	Rail Champion	Identify a Rail Champion to promote the benefits of travelling by train to staff through promotional campaigns.
	Season Ticket Loan	The cost of an annual season ticket is often significantly cheaper than the cost of running a car (fuel only). A season ticket loan offers a solution to support staff who can't afford to pay the large upfront travel cost. The loan can be reimbursed through employees pay each month.

CAR PARKING	Car parking policy	Develop a car park management policy. Offering free accessible parking for all, only generates more long-term issues. If parking is

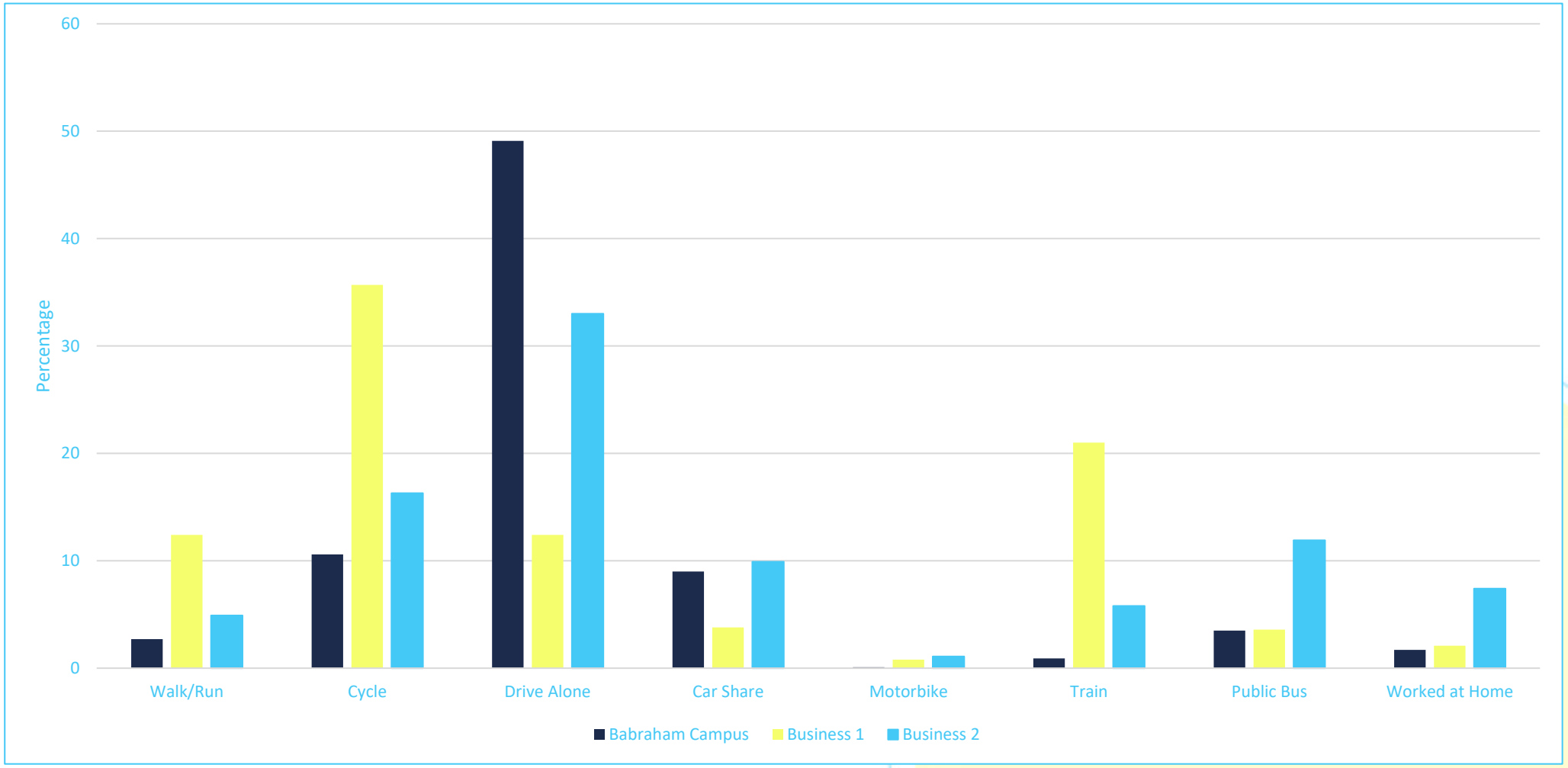
		freely available to all, it will not encourage staff to use sustainable alternatives.
	Exclusion zone	As part of your car park management policy, develop an exclusion zone, staff living 2-3 miles from the site should not be offered parking.
	Designated parking spaces for car sharers	Parking is also a hot topic in the workplace and offering priority parking to those willing to car share, acts as a great incentive. The car sharing bays also visually reminder those struggling to park daily on this sustainable alternative.
	Car sharing promotional events	There are many benefits to car sharing; saving money, lowering congestion and reducing your carbon footprint. Develop a bank of marketing materials to promote this sustainable mode.
	Car share mapping	Speak to **smart journeys,** through its membership you can be provided with A1 maps that visually pin, those employees who live in clusters and close proximately of each other. These maps act as a prompt to encourage staff to consider sharing the other travelling in the same direction.
	Develop a 'Guaranteed Ride Home' policy	To break-down barriers of those employees not willing to share, due to concerns of an emergency happening and they will not be able to get home; develop a 'Guaranteed Ride Home'. This means if an emergency was to occur, the employer will pay for that member to get home e.g. taxi fare.
	EV charging infrastructure	By 2022, it is expected that there will be over 1 million electric vehicle (EV) drivers in the UK. Ensure your workplace has the infrastructure in place to manage this future demand.
	Charge for workplace parking	Parking charges make driving to work a less attractive option for employees. Revenue generated from parking can form a Sustainable Travel Fund. Income can be used to encourage alternative transport modes and fund from some of the initiatives listed.

	Develop a home-working policy	Establish an employment policy for home working. A clear guideline/framework for staff provides a better work-life balance which in

REDUCING THE NEED TO TRAVEL		return optimises performance and reduces the need to travel.
	Provisions of laptops	Provide staff with the tools needed, to work more flexibly.
	Promote the use of teleconference/video conference facilities	With modern day technology, staff/client meetings no longer need to be face-to-face. Invest in the rights tools to lower business miles.

11.0 BENCHMARKING

The table below compares travels modes for **Babraham Research Campus** with comparable organisations based in Cambridgeshire.



APPENDIX 1 – MODAL SPLITS

The table below (**Figure 0.28**) breaks down travel modes by day.

Figure 0.28

This section is about your inbound journey to work during Monday 7th October to Friday 11th October 2019								
Answer Choice		**Monday 7th Oct**	**Tuesday 8th Oct**	**Wednesday 9th Oct**	**Thursday 10th Oct**	**Friday 11th Oct**	**Response Total**	**Percentage**
1	Walk/Run	14	13	13	12	11	63	2.7%
2	Cycle	42	56	46	53	47	244	10.4%
3	Electric Bicycle	-	1	2	-	1	4	0.2%
4	Drive Alone	235	229	234	239	215	1152	49.1%
5	Car Share (Driver)	25	30	27	25	19	126	5.4%
6	Car Share (Passenger)	16	16	21	14	19	86	3.7%
7	Motorbike	1	1	1	-	-	3	0.1%
8	Train	4	3	4	4	5	20	0.9%
9	Public Bus	15	13	14	17	17	76	3.2%
10	Guided Bus	1	1	2	2	1	7	0.3%
11	Park & Ride Bus	-	-	3	1	4	8	0.3%
12	Campus Shuttle Bus	30	30	26	30	24	140	6.0%
13	Kick Scooter	-	-	-	-	-	3	0.1%
14	Worked from home	-	2	1	-	-	41	1.7%
15	Business miles (away from the office)	7	7	6	5	16	23	1.0%
16	Other	71	61	73	58	86	349	14.9%
							2345	100.0%

APPENDIX 2 - 5 DAY WEATHER REPORT

Mon 7th October	Tues 8th October	Wed 9th October	Thurs 10th October	Fri 11th October
Light drizzle 12 c.	Partly Sunny 13 c	Partly Sunny 14 c.	Mostly Cloudy 14 c.	Mostly Cloudy 15 c.

APPENDIX 3 – STAFF COMMENTS

What is preventing you from using an alternative mode to driving? Other……

I already cycle more than I drive so this question is not applicable

No bus stop near my gym which I visit en route to work.

Campus doesn't provide a bus from Royston

I need to have my car avaliable to come and go as I want I have to pick up and drop off my dog daily

Complex family requirements

I have to let my dogs out some lunchtimes

There is no transport link from Whittlesford Parkway.

I usually drive once per week, term time, due to attending a class soon after work

going somewhere after work

Half day at off site meeting - so had to drive to get into work on time

More time options for the Company Bus

Flexibility

Illness

rest from cycling and faster

My hours are sometimes flexible. Having my own transport enables that flexibility.

variable work patterns on/off site activities

too expensive, as I'd still need my car for other things

i use the car on bootcamp days

Reduces flexibility (+ takes too long)

Minimal showering / changing facilities, few lockers to store changes of clothes etc.

Late hours on the day I drove (Wednesday)

I enjoy it

Have commitments after work that require car

There isnt a suitable cycle lane from Linton to Babraham and its too dangerous to cross the A1307

No suitable public transport route directly from Great Chesterford to Babraham

not enough campus bus times

I took the bus for 8 years and it cause a lot of hassel with delayed buses

unreliable public transport, public transport takes significantly longer than driving

I usually travel by bike and bus but had to travel at unusual times on the one day I drove.

Bad public transport connections.

I would have to go further away from work to catch public transport

I don't have a good enough bike / gear

Nobody else works my hours (shift)

Often go somewhere straight from work which makes car shares difficult. Too far to cycle. No bus.

There are no direct public transport or other links close to my work place from where i live

Irregular working hours

Convienience

I would need to find someone who also works a short day (ie finish at 2.15pm)

to far to cycle everyday, no public transport from home to work if did use it would be a 2.5hrs

The Babraham Institute is very difficult to get to by public transport.

Public transport to work from where I live takes over 2 hours each way

I would happily switch to an electric car but cannot afford to

I use train/cycle during summer, travel off peak for cost, but do not like cycling on dark evenings

If other, please specify

Needing to do something else en route such as shopping

lazy

Public transport would take me into town, but would need to swap and come out again. Too long/far/££

the flexibility and time saving a car offers has no comparison and in a hectic life is a must for me

APPENDIX 4 – STAFF COMMENTS

Comment on how your employer could improve services and incentives to encourage you/others to travel more sustainably? …

Adding a train station close to campus

on the week-end, I have to cycle to Babraham. There are no lights on the bikepaths, and it is scary. I almost hit another bike last sunday evening. Although, when you bike in the night, the car do not dim their lights, which is dangerous too. Also, close to the Babraham rundabout, the cars barely stop to let people from the bus or bikes go. It is so dangerous, that I only try to get out at the main Babraham campus stop, and not the one further away, because the car won't let me ever cross the road.

MORE PAY/ MORE INCENTIVES

More commuter buses available and more times, schemes to offer cheaper train travel or bus travel

more bus times. Stop earlier than the police station on the way to BI

We need decent facilities for cycling ie drying for wet gear and changing and showering rooms with lockers

If there was a bus route from Great Chesterford to Babraham down the A11 I would consider using the bus. At the moment the GC bus goes to Cambridge via Sawston using a very long route and doesn't stop at Babraham. Even getting to Sawston takes a long time.

Don't see how the employer could improve services. Buses are too infrequent, non-punctual, too expensive and take too long. To reach bus stops near Campus, one has to cross the A1307 with no pedestrian crossing and insufficient lighting. There is no shelter from the elements, and at least one of them has no lighting at all. Very unplasant to wait for a bus service that might be delayed or cancelled altogether during autumn/winter time.

Pay for local staff to travel in by bus or introduce cycle to work scheme

Subsidised train/bus tickets Organising car shares

Salary sacrifice bike purchase scheme Develop app for car pooling

I'm not sure my employer could help, but the county council could definitely improve public transport to enable me to get to work

Commuter bus with increased time travels in the morning.

Mini-bus pick up from local areas

As the winter approaches and cycling becomes increasingly more challenging - an extended commuter bus service would be appreciated. The number 13 bus is exceptionally expensive (£4 single, £7 return) and if working weekends which I frequently have to do in order for my cultured cells to survive, this adds undue financial burden as well as stress due to the infrequent and slack timings of the stagecoach service. A bus in the morning, afternoon and evening on weekends would be greatly appreciated by many I would imagine.

N/A I live too far away unless a scheme where an electric vehicle was offered in replacement for my car.

Bigger lockers, rewards to cyclists (free breakfast or money incentives),

The local bus service isn't great and not reliable - I've waited for over an hour for a bus. If the park had a shuttle bus service that picked up from the main streets and not just at the train station, I might be persuaded to travel by bus. However, I have a long-term disability that

makes sitting, standing and waiting exceptionally painful - so reliability and duration of travel is key. Particularly when carrying heavy briefcases and laptops.

My employer already subsidises the Babraham commuter bus and takes part in the cycle to work scheme. However, I do not take the commuter bus because it is too infrequent and I need the flexibility to come and leave at different times.

I can't afford to live closer to work to be able to commute to work in a more sustainable way.

I am open to change the way I travel but most incentives and Greenway plans are focussed on people who live in Cambridge or on the major routes like Cambrigde North, Cambourne or South to Haverhill. I live West along the A605 corridor where there are no buses or cycle paths and no plans as far as I am aware; buses do not even come to the village and roads are suicidal. Even with a cycle paths along the A603 it would still be an over 30ml roundtrip which is quite far and most importantly I couldn't drop off or collect from school (which I need to do because there are no buses).

More frequent bus service

Babraham are good at catering for cyclists, I like the free servicing that they offer. The maintenance of Rowley Lane could be better and cleaning up after hedge trimming, as I nearly always end up with a puncture.

Campus shuttle bus from other locations e.g. Newmarket, Saffron Walden - it is difficult and time consuming to get to work from areas like these where there is little or no train service (and if there is, it means going into Cambridge and catching a bus from there... if I were to travel to work via public transport it would take me minimum 1h39min according to Google Maps compared to a 20-25 min car journey)

free yearly bike "MOT"

Promote car share

The Research Campus could institute a campus wide car sharing scheme or if there is already one make it more accessible and increase awareness, perhaps offer incentives for car sharing.

provide towels for use in the shower and more locker space/hooks for hanging wet clothes if the weather in inclemment

Providing transport to the campus from common areas (eg. train station) which is cheap and will not make the overall journey too long. Making an easy way to see if other people have a similar route to encourage drive share

It Couldnt

Subsidise purchase of a bicycle, and/or annual bus pass? The Babraham shuttle is not an option for anyone with atypical working hours.

lower travel fare

A work bus running between Shelfords/Sawston to Babraham would be quite useful, especially during winter months.

Rewards for cycling regularly. Rewards for using transport other than cars or motorbikes - eg public transport

better bus service

I would consider cycling when I don't have to factor in dropping off my children and the site does provide bike racks and areas for bicycles. I have found most forms of public transport are expensive and not always reliable so I would not use public transport.

green scheme cycle to work

More frequent campus shuttle bus

I am just waiting for my daughter to learn to cycle and then we will both cycle to school/work

Cheaper campus bus with more services at morning and afternoon rush hour

My employer already has several schemes in place to encourage others to travel in a more sustainable way. Although I feel I am too old to cycle to work anymore.

Car sharing event

I work for a charity and they already encourage us to use bikes. I will likely use my bike more in Summer. But for now the X13 would be the most convenient option but its almost £100 per month! I spend max £25 a month on petrol. The site bus times arnt as convenient even though it costs a bit less

Make the shuttle bus cheaper and with more options

More frequent bus shuttles

I sometimes use the campus shuttle bus to commute to work, but the arrival/departure times are extremely inconvenient. There needs to be an arrival and departure time between 8-9 AM and 5:30-6:30 PM. The current arrival/departure times are too early or late for me to consistently use the shuttle bus service. In particular, I often notice that the 6:40 PM bus has more empty than filled seats.

Improve cycling infrastructure on campus: - More covered bike racks. The existing ones are used to capacity. - Space for drying cycling clothes. E.g. put provision in shower units (racks etc). Lobby for better maintenance of cycle track Addenbrooks-Babraham: Reduce overhanging vegetation etc.

Improved electric charge points at all buildings Make site entrances easier for bikes to swipe in via access gate

Provision of hairdryer in ladies shower

Car share schemes can work well

The public bus and the campus bus are both very expensive, the campus bus is slightly cheaper but runs even less frequently than the public bus

I would have to get two buses and it would take too long and expensive. There are only buses to cambridge city centre or railway station from my area.

Have the campus bus run more, have a bus leaving at 4 from the site

Expanded schedule for the commuter bus (i.e. more buses available)

Help paying for public transport

Campus bus service is fairly inflexible - I walk 25 mins to get to the bus stop, there are no stops closer than that.Campus have said before they cannot afford to improve the service as they are a charity - perhaps they could include the overheads in the rent for buildings onsite to encourage use of the service.

Drying room for cycle wear which gets wet in raining conditions

To be able to travel to work by cycle from Cambridge, you need a good cycle given the distance and the Gog Magog hill. It would be a good incentive if the institute would join the

cycle-to-work scheme to make this more accessible to its employees. Other incentives would be providing bike lights (it gets very dark in autumn and winter).

financial stimulations to those who use public transport/walk/cycle to work

Make sustainable transport options cheaper and more regular

More commutter bus times

I would very much like to travel to work by public transport but there are no safe links between many rural villages and bus routes/park and rides/cycle paths etc and no plans to address this. This is not only a huge problem for commuters but also for 6th form students who have to get into Cambridge for their education but there is little provision for this in rural areas.

Direct busses to Cherry Hinton from Babraham campus avoiding Adenbrooks. Cycle lane along Lime Kiln Road. Cycle Lane to Fulbourn.

The cycle path between addenbrookes and the babraham institute has several regions with minor junctions which are concealed, which creates potential areas for collisions between cyclist and cars. This could be improved by making these openings more visible so that cyclist can see cars pulling out easier. This could be done by cutting back vegetation or making the openings wider. Removing hazards and reducing commuting times for cyclists might encourage more people to do it.

More services for the campus shuttle bus would be helpful!

The shuttle bus times are not very convenient, you either get into work at 07:40 which is too early or at 09:00 which is normally later than that due to road works in central Cambridge at the moment. The times later are also inconvenient as if you miss the bus at 17:10 you have to wait until 18:40 to get a bus. It would be helpful if there was a bus in-between the morning times which gets you in at 8:30 and a bus that leaves in the evening at 5:30/5:45.

Improved crossing for walkers and cyclists near the campus roundabout, such as traffic lights or pedestrian crossing.

I really enjoy using the Babraham shuttle. It's convenient and cheap. I just wish there were more buses back to Cambridge on the afternoon!

The buses to come on campus should be free to use to encourage more people to use Green Travel. Improvements for cycling routes for cyclists (speed bumps for cars, speed limits, better signage).

Babraham Institute is not part of the Cycle to Work Scheme. Joining this scheme would help employees purchase bikes and particularly more expensive e-bikes, which are useful for longer commutes.

Provide a station with bike tools in case a repair is needed

Free commuter bus

They could partly/fully cover the costs of users of the Babraham Research Campus shuttle bus or public bus.

Maybe consider a bike scheme - where people leaving could sell their bikes to Babraham for a very small amount of money/ for free and new employees could buy/ get these bikes.

Greater routes for campus buses going from North and South cambridge not just the city.

provide alternate shuttle bus for commuters arriving at the train station.

Offer more shuttle bus services and at more frequent times.

Safer bike lanes. The one on Babraham road has not enough separation from main traffic that circulates at high speed on some segments. The proposition of Greater Cambridge Partnership seems as a very good alternative. Safer crossing if coming on bike or public bus on Babraham road.

Keep using the Campus bus or helping to pay the public bus

Improved schedule of the shuttle bus, potentially running via the west side of Cambridge as well. The public bus is too expensive.

I know several people who live in my village who work on Campus, but with people starting and finishing work at different times, this wouldn't be cosst effective. so, not sure they could do anything. The SCDC could provide a similar red way system for people to cycle safely, currently I'd have to ride along the A505 and A1307 which would be dangerous.

I would rather have more shuttle bus services. Sometimes I need to be at work earlier so I do take the early shuttle bus but that means I need to stay longer at work and take the 17:00 o'clock computer bus. My extra working time is not paid, so I end up taking the city bus which is more expensive and I have to pay double tickets for a day. Also, coming early and leaving early is something that I would prefer for my day, so you can avoid traffic and return home not too late. And last computer bus is always late due to traffic, so more times available makes you more flexible on leaving time, in case you arrive late due to traffic.

You would need to cut the time it takes the commuter bus to get from Parker's piece to the campus. My commute on that bus can take door to door up to 1 h - 1 h 15 min. Whilst i am paying city centre prices in rent this is an unacceptable commute time. I can drive in (from the city centre) in 30-40 min (and have increase flexibility in my working hours). Additionally the cost of driving alone, is around the same as the bus. However, making the commuter bus free for all BI staff could change my mind regarding the bus or increasing the number of trips the bus makes to increase the flexibility of working.

Make more bus links between the small villages around Cambridge and Babraham research campus. Too dangerous to cross the M11 roundabout near duxford to cycle and would take too long having to cycle through sawston to avoid major roads to Babraham

Not sure.

Run the campus shuttle at more times and to more stops, encourage use of it through better advertising and subsidies. Take notes from the Wellcome Campus.

A campus bus serving Abington, Linton, Haverhill etc. areas instead of having to pay the relatively expensive public bus fare

More Commuter buses from Babraham and Cambridge. New commuter bus route, via Newmarket road/Coldhams Lane/Perne Road (similarly to Sanger Commuter bus) Cheaper, more reliable and more frequent public bus.

General culture in my office leads car drivers to mock people who cycle. It's disgraceful. My colleagues often taunt me with videos of cars hitting cyclists, the insinuation being "it's what you deserve".

The Greater Cambridge Partnership proposals for A1307 route assumes travel from central cambridge (from the north) or Haverill, It does not link up Whittlesford or Shelford stations or the Sanger Centre campus at Hinxton. I would consider walking up to 0.5mile to take a public transport option if that were available.

I'd travel more sustainably if there were more buses via Harston or more off-road cycle routes or cyclepath-ed roads, which I don't think my employer can fix. At the moment a 20 min car journey would be closer to 2 hours by bus, and also they stop at 6, and I'm not quite up to road biking yet, so car it is.

Make bus timetable more frequent and stop in other places

Reimburse for public transportation. Increase operating hours for campus bus (more options in morning and evening)

I am OK with my car

I would travel to work by public transport but it would take 1.5 hours as oppose to 20 minutes - needs a bus from Fen Ditton area to addenbrooks else you have to go via city centre

need safer access for bicycles - could do with specific bridge at entrance to site

Cycle to work scheme. Encouraging working from home

I would cycle more regularly but we don't have a means to dry our clothing before travelling home & there is nothing worse than having to put back on wet clothing.

A commuter minibus from South of the Babraham site to cover town's and villages such as Saffron Walden, Linton, Great Chesterford, Duxford etc. The Wellcome Genome Campus has this service in operation. This could possibly be combined with the Granta Park site if there are limited numbers. The public bus is too infrequent, expensive and takes too long. Also, more regular bike servicing on site as when advertised this gets booked up within minutes. More incentives for people to cycle, like a monthly free breakfast if you cycle to work.

Ask stagecoach to reduce their fares as it is extorsion and to improve their punctuality. Maybe extend the route of the Commuter bus to the north of cambridge, it does not stop at the city centre!!

More flexible working hours perhaps?

If there was a frequent bus from Cambridge station that connected with the trains from Royston I would be inclined to use it.

Direct transport from Newmarket to Babraham

I would cycle if there was an off road route alongside the A11 from Newmarket to Babraham/Granta Park

Subsidise the cost of public transport

Push local councils to fund cycling infrastructure from surrounding towns and villages. For example the exit from Royston is incredibly dangerous.

support working from home.

Better shower & changing facilities for cycling

Encourage and incentivise car sharing

Cash incentives, options such as petrol money for car sharing.

Not sure my employer can do anything. Cambridge needs far better public transport than it currently has and that's beyond their control.

No coments

Encourage lift sharing by giving gift vouchers and providing an easy way to see people from your area? (obviously GDPR issues).

Lobby for better public buses to the Babraham Campus

Suitable times. Parking. Cost. Incentives.

Campus liftshare scheme

A well publicised car share system would be good - I'm not sure if Babraham campus has one.

Reduce the number of people commuting by encouraging people to work from home where possible (office based employees specifically) - robust IT infrastucture needs to be in place e.g. laptops, skype, etc. Some people commute by air from other countries for the week (which isn't captured in this survey), this should be considered when recruiting. Encourage lift sharing - a communication system could be set-up across the campus to enable this, currently you may not know that someone working on campus lives near you. Employers don't have control over public transport but this needs to be greatly improved, even where good public transport is available e.g. guided bus into Cambridge, this often does not link up well with the next route so is not feasible as it takes too long to wait for a connection and then take the next route. Public transport is also too expensive and needs to be more reliable. Better cycle path network is also needed.

The commuter bus should run from further north, in the Arbury area

Bus from the station to campus would encourage me to get the train.

re A1307 - I work at Babraham, so only about a mile travel on the A1307, and I need my car for work, collecting and transporting temperature and time sensitive samples between Babraham, Addenbrookes, Madingley, Downing College.

When I was without a car, and entirely reliant on public transport (train/ bus) my travel time increased by two hours each direction and my travel budget tripled. This was not sustainable and I was back driving as soon as possible. There is no direct public transport option from where I live and the improvement scheme mentioned in the survey only covers the route to Haverhill whereas I live in Suffolk (Newmarket) so to me this scheme is irrelevant. I drive a 2nd hand diesel car because it's what I can afford and it is very economic to run, now if I could say switch to the Hybrid or electric there would 1) have to be available in the second hand market and I suspect require sustainable subsidies to make this affordable. 2) the infrastructure to support a mass take-up of electric cars for instance would require far more charge points along the route traveled to make the prospect feasible. To sum up. While I am in favour of changing behaviour to help the environment I do feel somewhat constrained to keep doing what I am doing because I don't see the prospect of any dramatic changes to the things listed above that will come online any time soon.

None. The only way I can effectively travel in from a rural village is by car, and i need flexibility in times of travel for children.

Working from home

More frequent shuttle buses between city centre/train station & campus.

I have considered buying an electric car but note that there are little/no charging points on the campus. My employer already offers me the flexibility to work from home which helps to break up the weekly time/mileage spent in commuting. The trouble is anyone living > 10 miles from a city needs a car to get anywhere as public transport does not serve rural areas very well.

I would be happy to use the autonomous metro from Cambridge to Babraham if the trains from Elmswell to Cambridge were cheaper and if the metro was situated close to the station.

Currently the bus stop for the shuttle bus or the no.13 picks up nowhere near the train station in Cambridge which would make me late for work and so prevents me from getting the train in to work.

Within Cambridge there are possibilities but for me, having used public transport before and experiencing journeys that took 3.5 hours I would NEVER use public transport again.

I believe they do a great job of promoting sustainable transport and cycling initiatives already. If anything they should shout louder about it within the campus internal workplace.

There is no viable alternative for somebody that lives 30 miles away and is time constrained by having children.

As i live in a rural village with virtually no public transport links, the best option for me is car sharing and working from home. On average my current lift-share and I manage to share 3 days/week (alternating who drives) and I work from home 1 day a week.

There's not really much to do in my case - I could move closer to Cambridge and rent but it's too expensive (I'm trying to save to buy a house).

The only reason we (my fiancé and I) travel from such a long distance away is that it is the only realistic affordable option. House price in or near Cambridge rival that of London prices, however there are no discretionary living allowance or salary increases like in London. If there was Some form of discretionary payment to assist people to live closer by I would be more than happy to cycle to and from work. In the current state the income of two people on base Scientist/Technician wage is not enough to cover the cost of living close by and child care. It is actually cheaper to commute, though there are trade off like it takes over an hour each way, we don't get to see very much of our daughter and it means we are out of the house for 10-12 hours a day sometimes. On top of that my Fiancé is also required to work some weekends and has to commute alone o those days. TLDR; Cost of living too much, wages too low, cheaper to commute, more than happy to live closer/take public transport if it was available.

As with every time I complete this. The road provisions are dreadful around Cambridge. Any sort of hold up/bad weather/etc brings everything to a standstill. Yes, let's all say we will use green power to get to work. It isn't feasible so please do not have it in for the poor car driver. I spend a fortune every year getting to and from work and I do not want (un)expected delays etc. Let's widen the roads especially at pinch points. Plenty of room to add concrete and tarmac. I would be happy to move jobs and be head of road planning....

Improve transport links to Babraham research campus

Work bus

My employer already does enough to encourage travel to work more sustainable, but absence of public transport and fare train fees are not an incentive for my employer and for me to use them.

Please use the box below to comment on how your employer ...

My employer could not change my decision. If there was a safe off-road cycle path from my village to the Babraham site I would happily use it. I do not feel comfortable cycling in the road with traffic.

Public bus discounts

Financial incentives for bike commuting. For example, as small amount of money per mile cycled. My previous employer (VIB, in Belgium) had a program of this type.

Increase number of shuttle buses

sort out the Newmarket round about to the A14 next TIA build a train station in Soham before I retire. sort the buses out...cheaper ticket better service...make them turn up good luck with that...

One major issue that prevents many people from cycling to and from Babraham, particularly during the winter months, is the lack of any lights on the road between Cambridge and Babraham, making the cycle path very dangerous.

I currently use the Stagecoach Gold service provided for by the Cambridge City Council. However, this is expensive and can be unreliable. I would prefer to use the Babraham shuttle service. However, the two services offered (in the morning and evening) are not very convenient- either I have to arrive late, leave early or leave late if I was to use this service. If more options would be offered, I would almost certainly utilise this service. For those living in central Cambridge, more frequent shuttles would be convenient and help improve sustainability.

Lighting on the bike path along Babraham Rd would allow me to cycle on Fridays (when I don't have child drop off to do) for more of the year. It is extremely dark in winter and I wouldn't feel safe. This is more a matter for the council than my employer though.

Subside public transport or invest in a communal more-frequent transport

Campus shuttle bus at more regular intervals, hard to work normal hours when the bus gets you in after 9am but the previous one stops ay 7:20am

Cycle scheme

Not much my employer or the campus could do. I live in Royston, there's no off-road cycle provision along much of the A505 and it's too dangerous to cycle on the road. Combination of train (to Cambridge) and cycle is a possibility, but it's quite a long way from Cambridge station out to Babraham. A Cambridge South station near CBC might help. Occasionally I use the walk-train-bus option but that takes 90 minutes door-to-door at best with good connections.

Would be good to offer 3 campus shuttle buses rather than the 2 currently provided (am and pm).

I commute 40 miles each way, I don't think there is another more sustainable way that wouldn't increase my travel time significantly.

I feel Babraham do a good job in encouraging sustainable travel. I am now considering purchasing a bike and cycling in a few days per week as my schedule allows it.

Provide more frequent bus services to/from campus

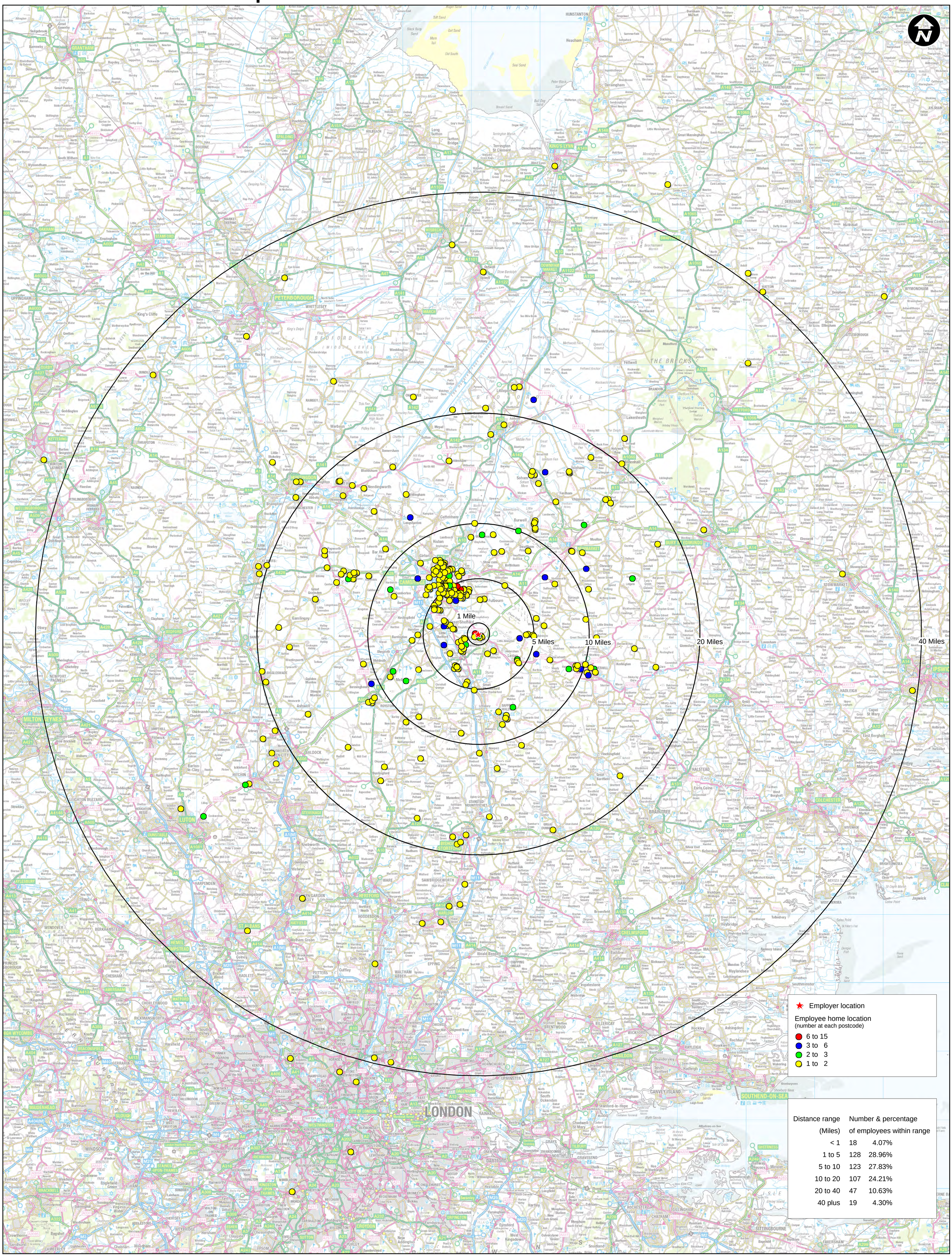
APPENDIX 5 – SURVEY POSTER

transforming
how we commute,
for good.

www.smartjourneys.co.uk

Appendix C Existing Campus Staff Post Code Plots

Babraham Research Campus



Distance range (Miles)	Number	& percentage of employees within range
< 1	18	4.07%
1 to 5	128	28.96%
5 to 10	123	27.83%
10 to 20	107	24.21%
20 to 40	47	10.63%
40 plus	19	4.30%

travel CAMBRIDGESHIRE

The information on this map may only be used for the purposes of developing and promoting travel choices to the employees of Babraham Research Campus

Title: Babraham Research Campus Map 1 using full postcode
Author: Tom Parker
Date: 13/04/2017
Scale: 1:240,000 @ A1

Babraham Research Campus