

Feasibility study

Isleham to Fordham

06 December 2023



About Sustrans

Sustrans is the charity making it easier for people to walk and cycle. We connect people and places, create liveable neighbourhoods, transform the school run and deliver a happier, healthier commute. Join us on our journey. www.sustrans.org.uk.

Registered Charity No. 326550 (England and Wales) SC039263 (Scotland).

Our vision

A society where the way we travel creates healthier places and happier lives for everyone.

Our mission

We make it easier for people to walk and cycle.

How we work

- **We make the case for walking and cycling** by using robust evidence and showing what can be done.
- **We provide solutions.** We capture imaginations with bold ideas that we can help make happen.
- **We're grounded in communities,** involving local people in the design, delivery and maintenance of solutions.

What we do



Contact us

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1. Executive summary

This report looks at potential new walking and cycling routes between Fordham and Isleham. East Cambridgeshire District Council are keen to provide better facilities for residents and visitors and Sustrans is keen to look at ways that the two communities can be linked with the National Cycle Network and with other routes studied in the area.

The study considers five possible alignments for new provision and looks at the pros and cons of each. The options are linked in many ways and it is possible that variations of these could emerge as the favoured route. For all options it is clear that good links within both Isleham and Fordham are needed if the investment in links between the communities is to be justified. This is particularly challenging in Fordham, where traffic volumes are greater than in Isleham, so a major change to traffic flows is proposed in Fordham to allow roadspace to be reallocated to create safe space for cycling. (This has already been suggested as part of the [Burwell to Fordham Feasibility Study](#) also produced by Sustrans). For Fordham it is important that there are good links with the Fordham Employment Area to the south of the village and the report includes recommendations for this which were also suggested in the Burwell to Fordham study.

The five options are shown in Figure 1.1.

Points to note about the options:

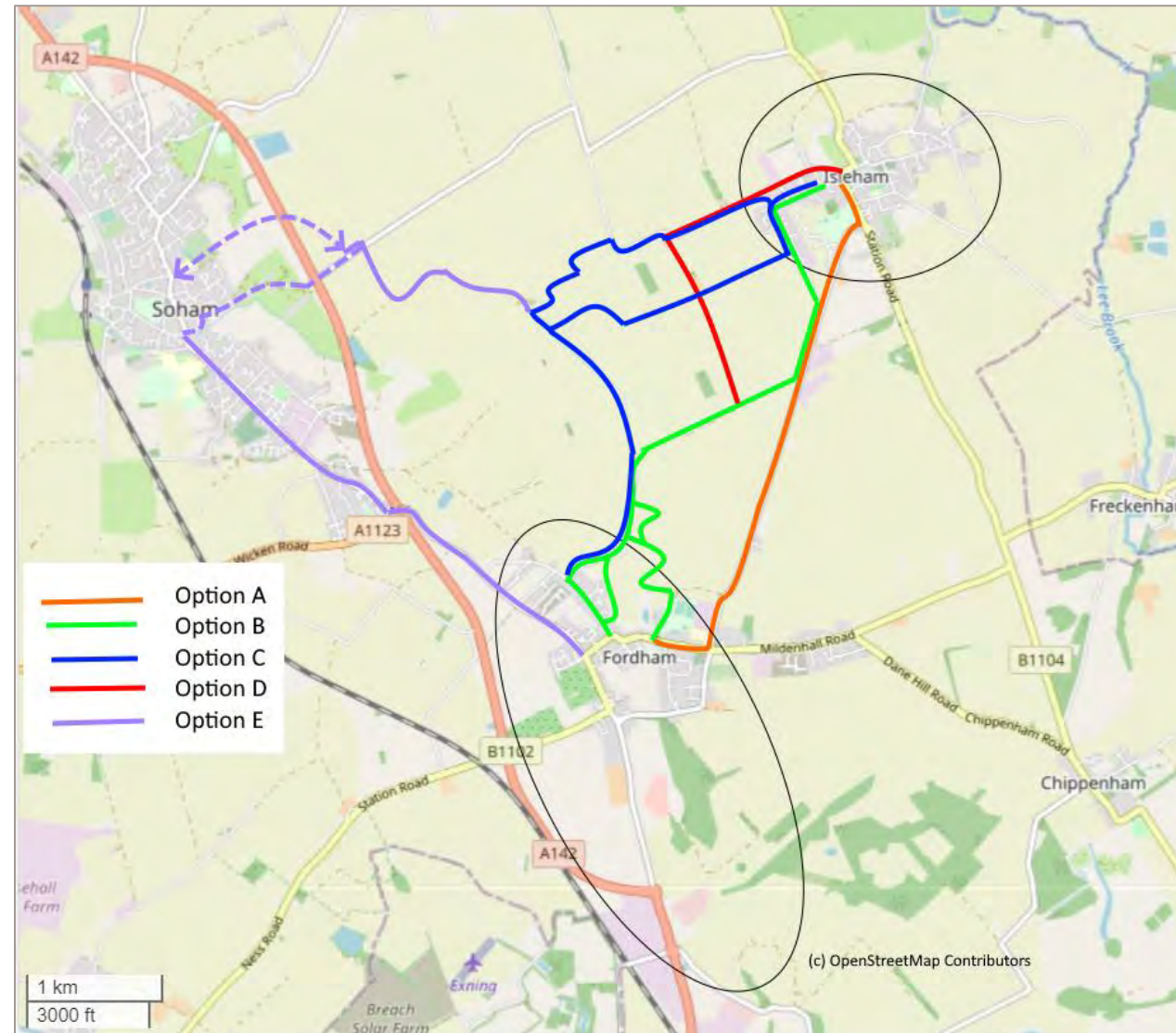


Figure 1.1 – Route options overview

- **Option A** is the obvious alignment, it is direct and links well with the two communities and is less isolated than other options. Three different ways of achieving this route are considered, with changes to traffic flows necessary for two of these. One of the biggest challenges is the link into Fordham near Fordham Primary School and without a good link the whole route will not work. There are ways that this option could be delivered relatively cheaply and it could undoubtedly be a good route, but changes to traffic flows may be challenging. If traffic flows are to remain largely unchanged land acquisition would be an issue.

- **Option B** is an attractive alignment, especially if it uses the Isleham Nature Reserve, but that would bring ecological challenges. Whilst much of the land needed for the route is part of Cambridgeshire County Council's rural estate private land would still be needed for the link with Isleham.
- **Option C** has not been fully surveyed, but the proposed route would run along the edge of agricultural land and it can be delivered entirely within land that is part of Cambridgeshire County Council's rural estate. A lot of discussions would be needed as to how any facilities could fit in with farm operations, but this is certainly an

option with good possibilities especially when considered with Option E.

- **Option D** is a variation on Option B and C again within Cambridgeshire County Council's rural estate (apart from within Isleham itself). It has potential and is to consider as part of discussions with landowners.
- **Option E** was beyond the scope of this study but has been included because it strengthens the case for Option C. This is because it shows that Options C and E combined could form links between Isleham and Fordham, Isleham and Soham and Fordham and Soham. Option E needs private land and more land that forms part of Cambridgeshire County Council's rural estate and importantly links with the edge of Soham in an area designated for potential growth.

All options have attractions, and all options rely on changes being made in Isleham and Fordham and between Fordham and Fordham Employment area. The Business Case for all options is weakened by the relatively low populations compared to urban areas, but it is strengthened by the proximity of the settlements (within easy cycling distance) and the fact that there are no major crossings or high cost items identified in the study.

Option E does not make sense on its own but the case for Option C and Option E is strong even if Option E takes longer to deliver. Given the benefits of Option A it would be desirable to deliver this as well as Option C, especially given that changes to traffic flow for Option A could deliver good benefits at low cost.

2. Introduction

Sustrans has been asked to look at options for new walking and cycling routes between Fordham and Isleham, in East Cambridgeshire, as part of a series of reports. This request has come from the District Council who are looking to improve local facilities and want to progress plans for routes, so that when funding becomes available, they can bid for funding. The objective of the report is to identify the advantages and disadvantages of the various options, so that further consultation can be had with the local community, local employers, and landowners to consider the best way forward.

2.1 Background to the project

There is a well-established cycling culture in and around Cambridge, but although people do cycle in Fordham and Isleham the numbers are much lower than in the Cambridge area and between the two communities cycling levels are low.

To address this sort of issue local and national policies have been giving high priority to walking and cycling, as well as offering the potential for major funding in future.

Locally East Cambridgeshire District Council has developed a Cycling and Walking Routes Strategy and this route forms part of the strategy.

Sustrans has also been reviewing the National Cycle Network and this review noted that the National Cycle Network is a local asset with incredible reach, connecting people and places across the UK and providing traffic-free spaces for everyone to enjoy.



The review identified that the Network is used by a broad range of people – walkers (for over half of journeys) and people on cycles, as well as joggers, wheelchair users and horse riders – but there is a lot more we can do to make it safe and accessible for everyone. The Network's routes have great potential for improvement. The character and quality vary hugely, and whilst 54% of the Network is Good or Very Good, 46% is Poor or Very Poor.

The review included a vision for a UK-wide network of traffic-free paths for everyone, connecting cities, towns, and countryside, loved by the communities they serve.

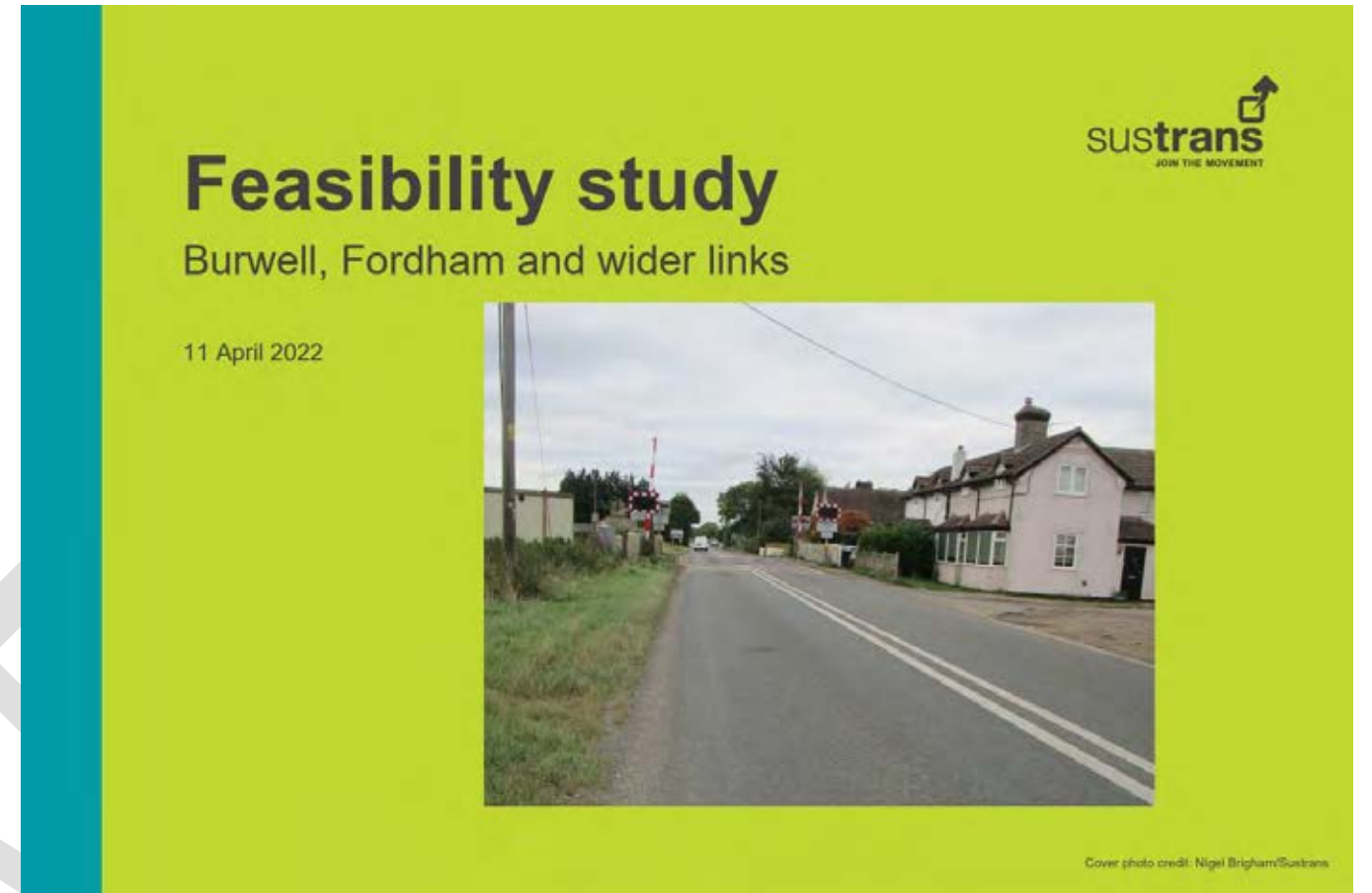


Figure 2.2 – There is some overlap between this study and the April 2022 study, which is currently on the East Cambridgeshire District Council [website](#).

2.2 Purpose of the project

- To describe the current problems, obstacles, and propensity to walk and cycle in the area.
- To identify at least one high quality route that can be delivered between Fordham and Isleham. (Sustrans is also aware that links with Soham are being considered and has chosen to consider if there are merits in incorporating links with Soham as part of any new route.)
- To consider ways to improve links within communities.
- To rank the route options in terms of benefits and costs and to consider ways to deliver improvements, including timetables and costings.

3. NCN principles

3.1 Why we have the NCN principles:

The National Cycle Network design principles set out key elements that make the Network distinctive and need to be considered during design of new and improved routes forming part of the Network.

Where the Network is not traffic-free it should either be on a quiet-way section of road or be fully separated from the carriageway.

For a National Cycle Network route on a quiet-way section of road traffic speed and flows should be sufficiently low with good visibility to comply with design guidance for comfortable sharing of the carriageway.

Signs and markings should highlight the Network.

Principle 1:

Traffic-free or quiet-way

Where the Network is not “traffic-free” it should either be on a quiet-way section of road or be fully separated from the adjacent carriageway.

For a National Cycle Network route on a quiet-way section of road the traffic speed and flows should be sufficiently low enough to encourage cycling for all ages and abilities.

It should have good visibility to comply with design guidance to allow for comfortable sharing of the carriageway.

Signs and road markings should highlight the Network.



Figure 3.1: Safe crossing for all, helping continuity on traffic free routes.

Principle 2:

Wide enough to accommodate all users.

Width of a route should be based on the level of anticipated usage, allowing for growth. A minimum width of 3m shall be delivered.

Where it is not possible to deliver this, all other avenues should be fully explored before path widths are reduced.

Physical separation between users should be considered where there is sufficient width and a higher potential for conflict between different users.

Structures should be designed to maximise movement space. A minimum path width between parapets of 4m shall be maintained.



Figure 3.2: Adequate space for all users that allows for growth and busy times, with separation of cyclists and pedestrians.

Principle 3:

Designed to minimise maintenance.

A maintenance plan should be put in place during the development process.

Construction quality should be maximised to minimise future maintenance needs.

New planting should be kept well clear of the path.

Sufficient tree work should be undertaken as part of construction to minimise future issues.

Routes should be managed in a way that enhances biodiversity.



Figure 3.3: Easily maintained.

Principle 4:

Signed clearly and consistently

Signage should be a mix of signs, surface markings and wayfinding measures.

Every junction or decision point should be signed.

Signage should be part of a network-wide signing strategy directing users to and from the route.

Signage should direct users of the Network to trip generators such as places of interest, hospitals, universities, colleges.

Signage should be used to increase route legibility and branding of routes.

Signage should help to reinforce responsible behaviour by all users.



Figure 3.4: Clear signing

Principle 5:

Smooth surface that is well drained.

Path surfaces should be suitable for all users, irrespective of age, ability, or mobility needs.

Path surfaces should be maintained in a condition that is free of undulations, rutting and potholes.

Path surfaces should be free draining and verges finished to avoid water ponding at the edges of the path.

In, or close to, built-up areas a Network route should have a sealed surface to maximise the number of path users.



Figure 3.5: Smooth, tarmac surface, accessible for all non-motorised users

Principle 6:

Fully accessible to all legitimate users.

All routes should accommodate a cycle design vehicle 2.8 metres long x 1.2 metres wide.

Any barriers should have a clear width of 1.5 metres.

Gradients should be minimised and as gentle as possible.

The surface should be maintained in a condition that makes it passable by all users.



Figure 3.6: Convenient access for all legitimate users.

Principle 7:

Feel like a safe place to be.

Route alignments should avoid creating places that are enclosed or not overlooked.

Consideration should be given as to whether lighting should be provided.



Figure 3.7: Safe for all

Principle 8:

Enable all users to cross roads safely.

Road crossings should be in accordance with current best practice guidance.

Approaches to road crossings should be designed to facilitate a slow approach speed to a crossing, have enough space for several users to wait safely.

Signalised road crossings should be designed to minimise the wait time for NCN users. Where possible advanced notification systems should be used.

All grade separated crossings should provide step-free access.



Figure 3.9: Safe crossing for all

Principle 9:

Be attractive and interesting.

Network routes should be attractive places to be in and pass along.

Landscaping, planting, artwork, and interpretation boards should be used to create interest.

Seating should be provided at regular intervals along a route.

Opportunities should be taken to enhance ecological features.



Figure 3.10: Attractive and interesting areas

4. Guidelines, Standards and Policy

4.1 National Guidance

The most relevant guidance is listed on the Sustrans website at <https://www.sustrans.org.uk/for-professionals/infrastructure>.

Local Authority Guidance and policies are also relevant. Examples of relevant guidance are given in this chapter.

LTN 1/20 Cycle Infrastructure Design and its implications for design options.

Although LTN 1/20 is issued as guidance, its adoption will also be a condition for Government funding of all local highways' investment, as well as new cycle infrastructure;

"It will be a condition of any future Government funding for new cycle infrastructure that it is designed in a way that is consistent with this national guidance. The Department for Transport will also reserve the right to ask for appropriate funding to be returned for any schemes built in a way which is not consistent with the guidance. In short, schemes which do not follow this guidance will not be funded." (Extract from Foreword LTN1/20)



Figure 4.1.1 Guidance documents



Figure 4.1.2. LTN 1/20 Core Design Principles.

The Government set out its ambitions to see a “step change in cycling and walking in coming years” in Gear Change – A bold vision for cycling and walking (Department for Transport, July 2020).

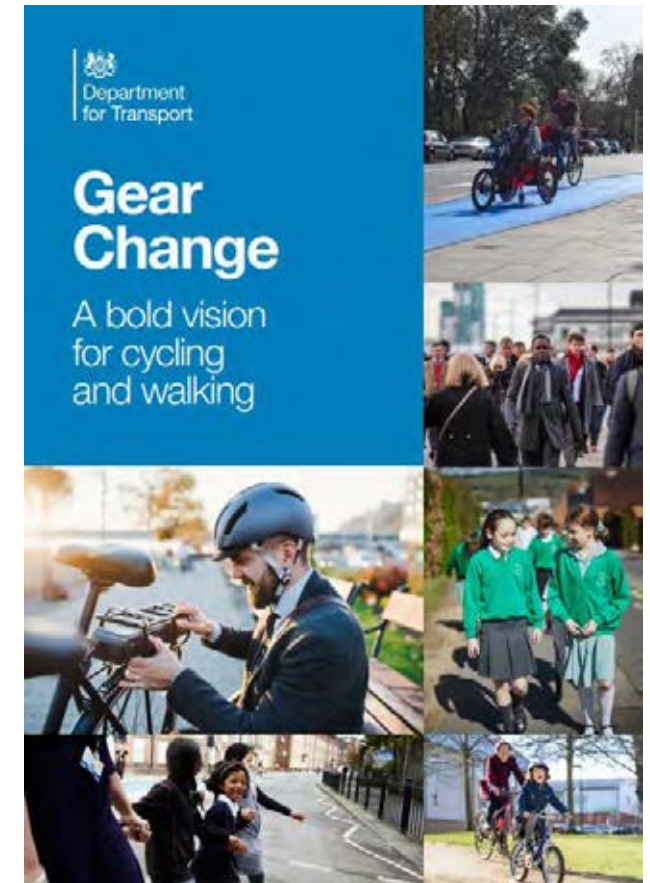


Figure 4.1.3 Gear Change Cover

Gear Change sets out key design principles, which are the basis for the updated national guidance for highway authorities and designers.

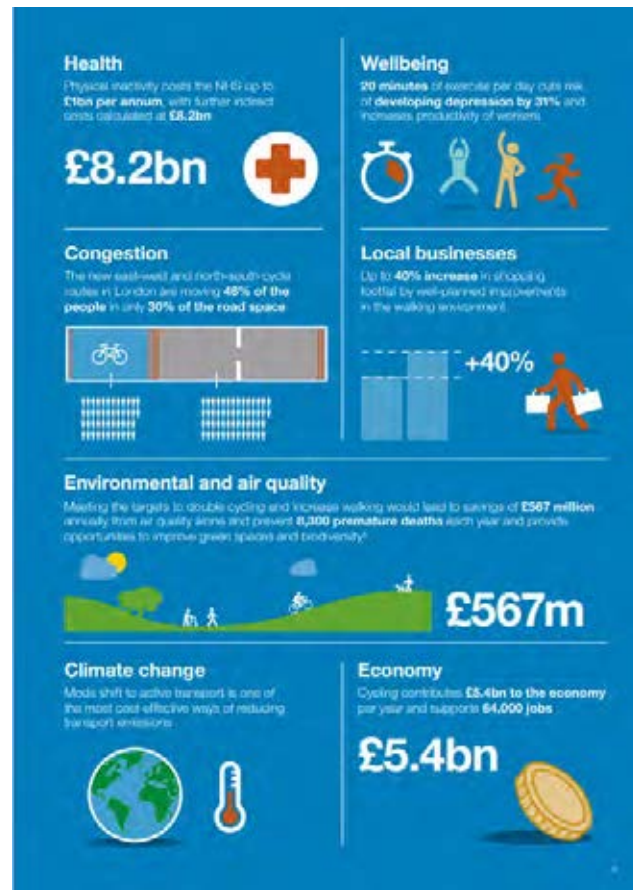
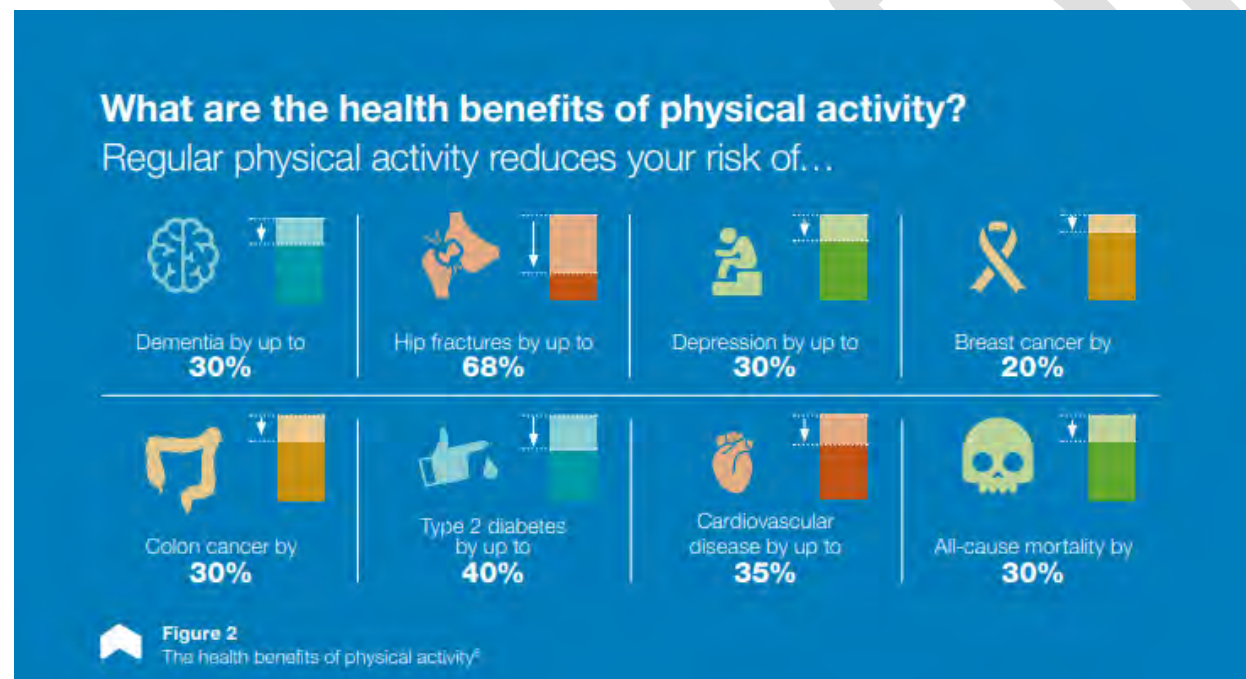


Figure 4.1.4 Extract from Gear Change

Figure 4.1.5 Extract from Gear Change



LTN 1/20 has been taken as the starting point when considering design options for this scheme. Some of the major implications in relation to the space needed for cycling, to ensure that the guidelines are met are:

- Properly protected bike lanes, cycle-safe junctions and interventions for low-traffic streets are needed for the whole scheme, with little scope for exceptions.
- Cycle infrastructure should be accessible to everyone from 8 to 80 and beyond.
- On urban streets, cyclists must be physically separated from pedestrians and should not share space with pedestrians.
- Cyclists must be physically separated and protected from high-volume motor traffic, both at junctions and on the stretches of road between them.
- Cycle infrastructure should be designed for significant numbers of cyclists, and for non-standard cycles

Figure 4.1: Appropriate protection from motor traffic on highways

Speed Limit ¹	Motor Traffic Flow (pcu/24 hour) ²	Protected Space for Cycling			Cycle Lane (mandatory/advisory)	Mixed Traffic
		Fully Kerbed Cycle Track	Stepped Cycle Track	Light Segregation		
20 mph ³	0	Green	Green	Green	Green	Green
	2000	Green	Green	Green	Green	Green
	4000	Green	Green	Green	Yellow	Yellow
	6000+	Green	Green	Green	Yellow	Yellow
30 mph	0	Green	Green	Green	Yellow	Yellow
	2000	Green	Green	Green	Yellow	Yellow
	4000	Green	Green	Green	Yellow	Yellow
	6000+	Green	Green	Green	Yellow	Yellow
40 mph	Any	Green	Yellow	Yellow	Yellow	Yellow
50+ mph	Any	Green	Yellow	Yellow	Yellow	Yellow

■ Provision suitable for most people
■ Provision not suitable for all people and will exclude some potential users and/or have safety concerns
■ Provision suitable for few people and will exclude most potential users and/or have safety concerns

Notes:
 1. If the 85th percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
 2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow
 3. In rural areas achieving speeds of 20mph may be difficult, and so shared routes with speeds of up to 30mph will be generally acceptable with motor vehicle flows of up to 1,000 pcu per day

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Figure 4.1.6 Extract from LTN 1/20 (Figure 4.1) showing the type of provision needed depending on traffic volumes and speeds.

Table 6-1: Minimum recommended horizontal separation between carriageway and cycle tracks*

Speed limit (mph)	Desirable minimum horizontal separation (m)	Absolute minimum horizontal separation (m)
30	0.5	0
40	1.0	0.5
50	2.0	1.5
60	2.5	2.0
70	3.5	3.0

*Separation strip should be at least 0.5m alongside kerbside parking and 1.5m where wheelchair access is required.

26 Guidance on the use of tactile paving surfaces, DfT, 2007

27 Inclusive Mobility – A Guide to best Practice on Access to Pedestrian and Transport Infrastructure, DfT, 2002

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Figure 4.1.7 Extract from LTN 1/20 (Table 6-1) showing buffer distances between carriageway and cycle track.

LTN 1/20 notes that physical separation of cyclists from motor traffic can be an option in all situations but may not be necessary at lower speeds and lower volumes of traffic. This is an important factor in scheme design because measures that reduce traffic volumes and/ or speeds can change the requirements for provision for cyclists.

LTN 1/20 has many other implications for cycle infrastructure design and maintenance and needs to be read as a whole, to fully understand the required design standards (including the Cycling Level of Service Tool and Junction Assessment Tool). To justify expenditure on this scheme the whole scheme must be to a good standard and there should be no Critical Fails using the Cycling Level of Service Tool, with junctions to a good standard for all movements.

Figure 4.1 and Table 6-1 of LTN 1/20 show the appropriate protection from motor traffic on highways, with the aim being that traffic flow, speed and type of separation should fit within the green area. Space for cycling needs to allow for pedestrians and should be separated from motorised traffic by the desired or absolute minimum separation as outlined above. The absolute minimum is a last resort.

LTN 1/20 generally recommends that cyclists are segregated from pedestrians but suggests that; "Shared use may be appropriate in some situations, if well-designed and implemented." The guidance on widths for rural routes is given in Table 6-3, which states that a route's recommended minimum width is 3m. This is the width that has been used throughout this study.

For rural roads, the speed limit is generally 60mph or 50mph, which means that any path must be at least 1.5m from the edge of the carriageway. Paths also must be kept well clear of hedges, which could be another 2m, so with a 3m wide path that means that at least 6.5m of space is needed.

On routes separate from traffic, such as disused railways, this figure comes down to 5m since the 1.5m buffer isn't needed.

LTN 1/20 includes information about how routes should cross side roads and more major roads. In this case there are no major roads to cross routes, apart from when considering links with Soham and Fordham employment area where the A142 is a major barrier. The type of crossing required is dependent on traffic volumes and speeds and is given in Table 10-2 of LTN 1/20.

Healthy Streets

Healthy Streets is a measure of how healthy our environment is. It is a recognition that "Every decision we make about our built environment, however small, is an opportunity to deliver better places for people to live in and thereby improve their health."

(<https://www.healthystreets.com/what-is-healthy-streets>)

There are 10 evidence-based Healthy Streets indicators and streets can be assessed and given a score, which can be audited.

The expectation is that Local Authorities and designers should aim to improve the Healthy Streets score on their streets and for any new infrastructure an assessment should be made before design work starts and after a scheme has been delivered. To properly assess a street, traffic flow data is needed, and the professionals involved should have been trained in the process. For this study, it is premature to conduct Healthy Streets Audits, but it is essential that these are undertaken to guide engineers and planners when developing options. This will ensure that solutions are provided that benefit the end users and reflect the challenges raised by the audits.

Table 10-2: Crossing design suitability

Speed Limit	Total traffic flow to be crossed (pcu)	Maximum number of lanes to be crossed in one movement	Uncontrolled	Cycle Priority	Parallel	Signal	Grade separated
≥ 60mph	Any	Any	Green	Green	Green	Green	Green
40 mph and 50 mph	> 10000	Any	Green	Green	Green	Green	Green
	6000 to 10000	2 or more	Green	Green	Green	Green	Green
	0-6000	2	Green	Green	Green	Green	Green
	0-10000	1	Yellow	Green	Green	Green	Green
≤ 30mph	> 8000	> 2	Green	Green	Green	Green	Green
	> 8000	2	Green	Green	Green	Green	Green
	4000-8000	2	Green	Green	Green	Green	Green
	0-4000	2	Green	Green	Green	Green	Green
	0-4000	1	Green	Green	Green	Green	Green
	0-4000	1	Green	Green	Green	Green	Green

■ Provision suitable for most people
■ Provision not suitable for all people and will exclude some potential users and/or have safety concerns
■ Provision suitable for few people and will exclude most potential users and/or have safety concerns

Notes:
 1. If the actual 85th percentile speed is more than 10% above the speed limit, the next highest speed limit should be applied.
 2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow.

Figure 4.1.8 Extract from LTN 1/20 (Table 10-2) showing the type of crossing provision needed to cross roads.



Figure 4.1.9 Healthy Streets Factors

4.2 Local Authority Guidance and Policies

As the Strategic Transport Authority for Cambridgeshire and Peterborough, the Combined Authority published the Local Transport Plan in January 2020. Following the election of a new Mayor the Combined Authority Board has agreed to revamp the plan. The plan includes policies supportive of Active Travel.



Figure 4.2.1 - Local Transport Plan

As the highway authority Cambridgeshire County Council is the body that is responsible for the public highway in Cambridgeshire. Larger scale projects are prioritised each year by officers and members of the County Council. These arise from strategic plans, such as the Local Transport Plan and Transport Strategies, as well as more immediate maintenance and safety requirements. Transport

plans and policies are shown on the [County website](#).

The County Council also works with local communities to help deliver improvements to their highways and streets. Traffic calming, parking restrictions, speed limit changes and footway and pedestrian crossing improvements are some of the most common improvements and these are all relevant for active travel. A significant fund is the annual 20 mph fund which is next open for bidding on 15th January 2024 until 15th March 2024.

The County Council expects bids for 20 mph funding to fit into one of the following, which are all relevant for active travel. In general, a new 20mph limit should be in an area with features that justify a lower speed limit to drivers, for example, an area that has:

- evidence of traffic incidents or potential dangers within an existing 30/40mph
- vulnerable road users e.g. pedestrians (of all ability), cyclists, equestrian users and motorcyclists
- visible homes, shops, and business frontages
- a school or a school route
- a cycling route
- a quiet lane designation
- an area that would benefit from more active travel such as cycling and walking.



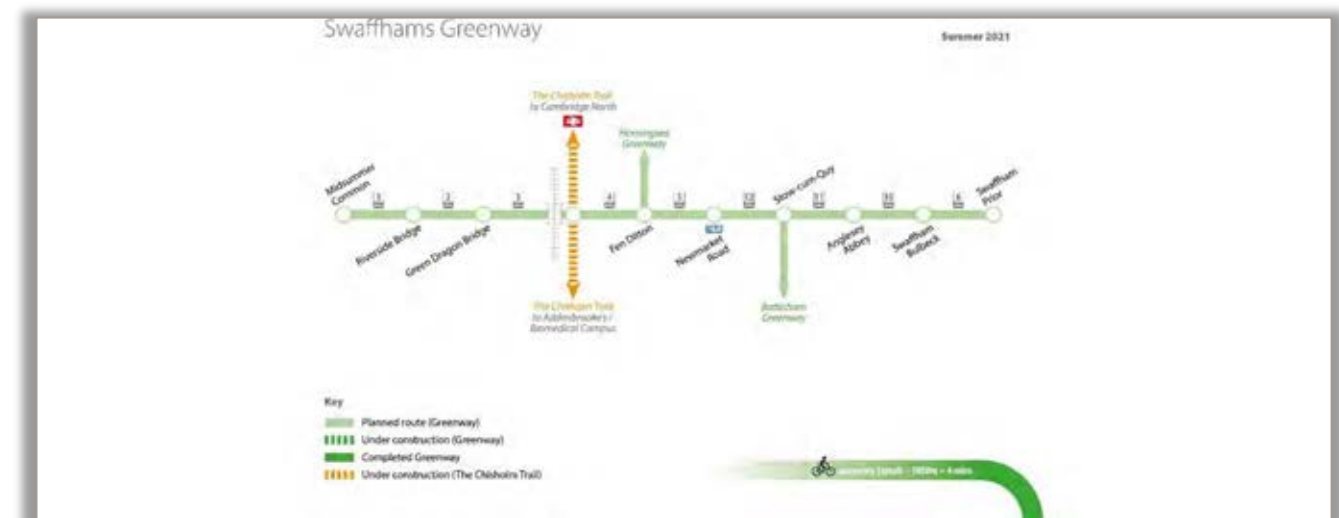
Figure 4.2.2 Recently completed 20mph zone in Haddenham.

The Greater Cambridge Partnership is leading on the development of the Greater Cambridge Greenways. The intention is that they “will make it easier both to travel in a pleasant and sustainable way into and out of Cambridge and to enjoy our countryside for leisure purposes. They will also help to make local journeys such as school and nursery runs safer and easier. In some cases, these are new routes, or routes with new sections, whilst others will be based on existing paths”. The Swaffhams Greenway will link Swaffham Prior with Cambridge as indicated below. Sustrans has also produced a study looking at links between Swaffham Prior, Burwell and Fordham. There is therefore potential to extend the Swaffhams Greenway all the way to Isleham.



Figure 4.2.3 - Cambridge Greenways Network Plan.

Figure 4.2.4 - Swaffham Greenway Plan.



The East Cambridgeshire Local Plan sets out future plans for the District and includes the following within section 2.4.1 Spatial Vision:

“Better cycling and pedestrian facilities and links will be provided, including segregated cycle routes along key routes linking towns and villages.....

There will be better access to the countryside and green spaces for local communities which helps to improve people’s quality of life...”



Figure 4.2.4 - East Cambridgeshire Local Plan.

There is an extremely limited bus service that runs once daily to Newmarket from Isleham. Since a more frequent service exists in Fordham, better greenway links between the communities would have a tangible benefit for longer journeys than wheeling or walking alone would accommodate. Furthermore, greenway connections to Soham railway station would vastly increase the transport options from Isleham or Fordham without a car with a relatively small investment.

4.3 Local Planning

The 2015 East Cambridgeshire Local Plan shows that the “Fordham area has seen the largest growth in floorspace and jobs over the last decade and is well placed strategically given its proximity to the A14/A11 transport corridor”. The plan has therefore identified further potential employment sites. This is to reduce the amount of out-commuting, the majority of which is done by car. It should be noted additionally that short journeys to local employment sites in the Fordham area will still be made by car without viable alternatives. The district’s desire to reduce the number of people travelling out of the region and by car to work would therefore point to greater cycling and walking infrastructure in the area being of particular significance in the council achieving their goals.

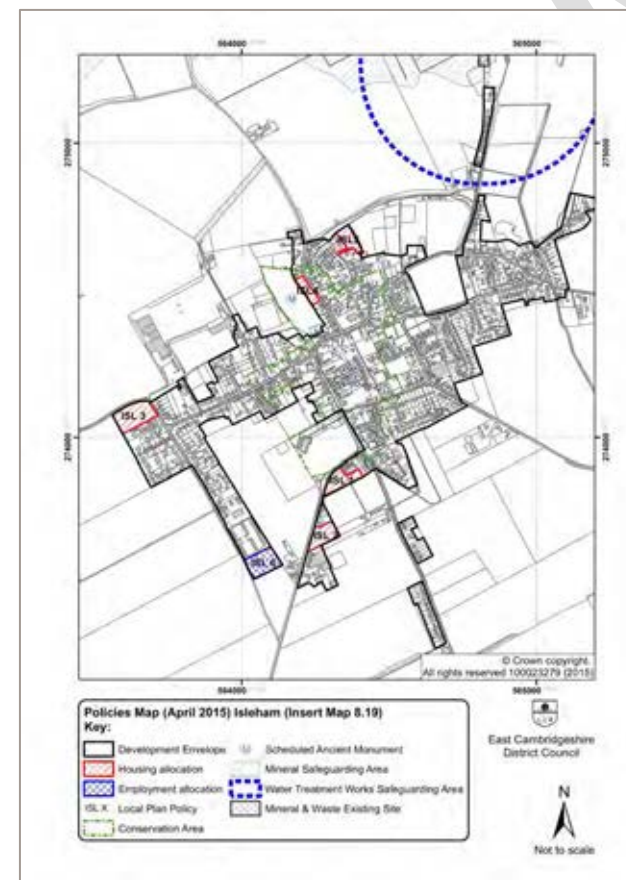


Figure 4.3.3 – Policy map for Isleham (policy map 8.19 of ECDC Local Plan)

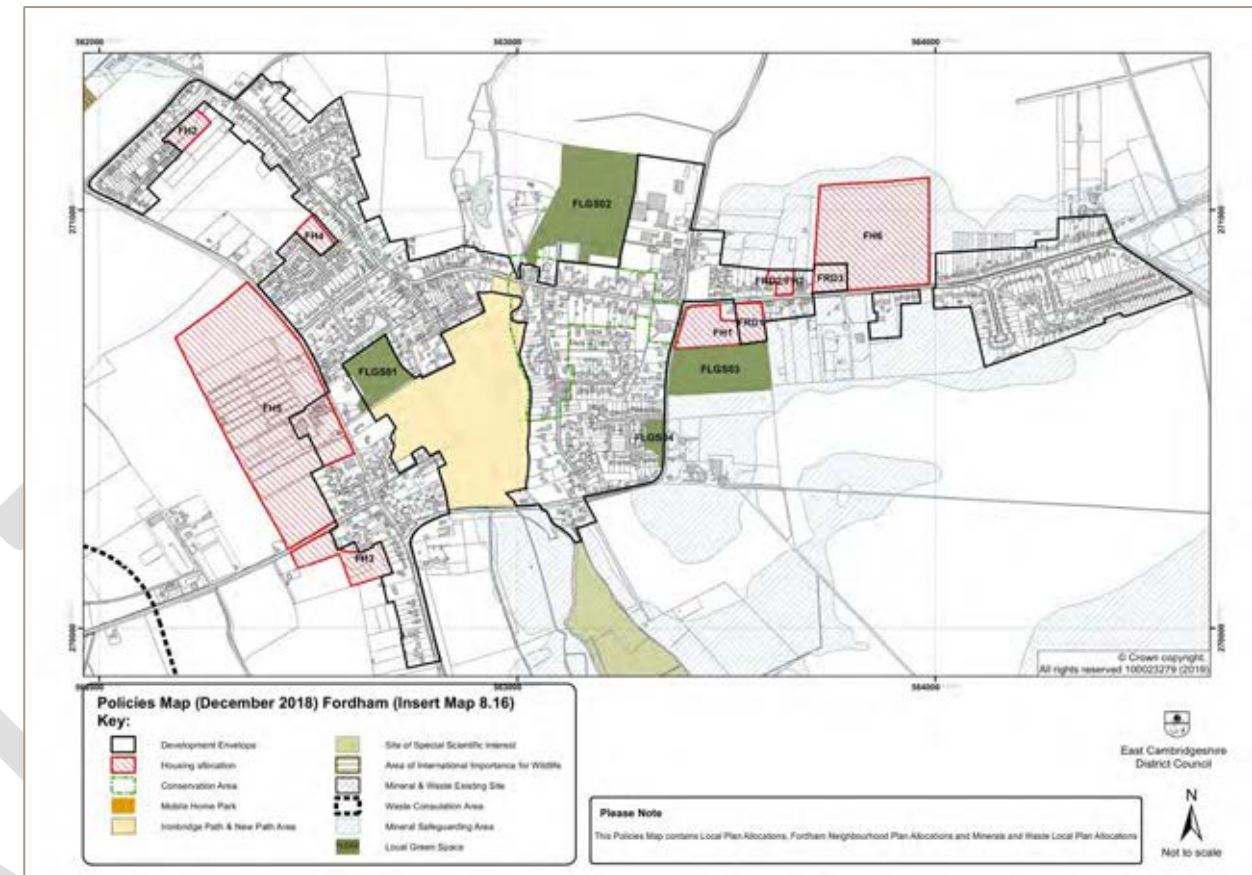


Figure 4.3.1 – Policy map for Fordham village (policy map 8.16 of ECDC Local Plan)

The local plan allocates little space for housing in Fordham village itself, as seen on the policy map in Figure 4.3.1, but growth is anticipated at the employment site to the south of the village (see Figure 4.3.2). Isleham, on the other hand, has experienced significant and sustained growth in population over the past few decades, and the local plan anticipates that this will continue. (See Figure 4.3.3). Whilst the Neighbourhood Plan for Isleham makes a point that it has already reached its growth quota up until 2041, many significant housing developments have been designated locally. A few of these sites are shown in Figure 4.3.4. Around a hectare of land was allocated just west of Hall Barn Road in the 2015 East Cambridgeshire local plan and has subsequently been given planning permission for 14 dwellings. A larger site around Bluebell Road is already under construction. These sites are highlighted as significance on the map. Housing allocations signify one thing in particular –

increased demand for transport infrastructure. If well managed, the following development process brings potential for local behaviour change regarding active travel and facilitation of active travel routes, be it through land, money, or both.

Both villages have produced neighbourhood plans. Isleham’s is “made”, whilst Fordham’s is still at referendum stages. Both plans make a point of increasing developer contributions from 15% to 25% to curb the unsustainable growth trends in both villages. Some of these trends contribute to car dependence. For instance, Isleham’s Neighbourhood Plan mentioned that Isleham’s primary school is over-subscribed and children in the village travel to Fordham and Soham. Pupils from Isleham could cycle to Fordham or Soham if conditions were good. A consultation document made in preparation for Fordham’s neighbourhood plan, however, showed that locals perceive the

pedestrian access between Isleham and Fordham as a “dangerous road”.

To address these factors, Project F of Fordham’s projects is to “enhance the public rights of way (...), including the potential for improved access for all users, and for extending and linking existing public rights of way”.

“Isleham has a close relationship with (...) neighbouring areas, sharing several services. Most residents have employment outside the village and many needs can only be met outside of the village. This because of the paucity of public transport has resulted in very high levels of car dependency.”

Despite this, both villages wish to retain a “significant gap” between each other and surrounding villages. This is to say that the rural land between villages acts not only as an important ecological asset, but also as a buffer between distinct built-up areas. The factors mentioned above, however, will necessitate an ecologically and socially sensitive bridging of this gap.

Both Fordham and Isleham have a relationship with Soham as their biggest nearby town and links with Soham are given some consideration in this study. Potential growth in Soham is therefore relevant, particularly growth on the Isleham side of Soham. (See Figure 4.3.5).

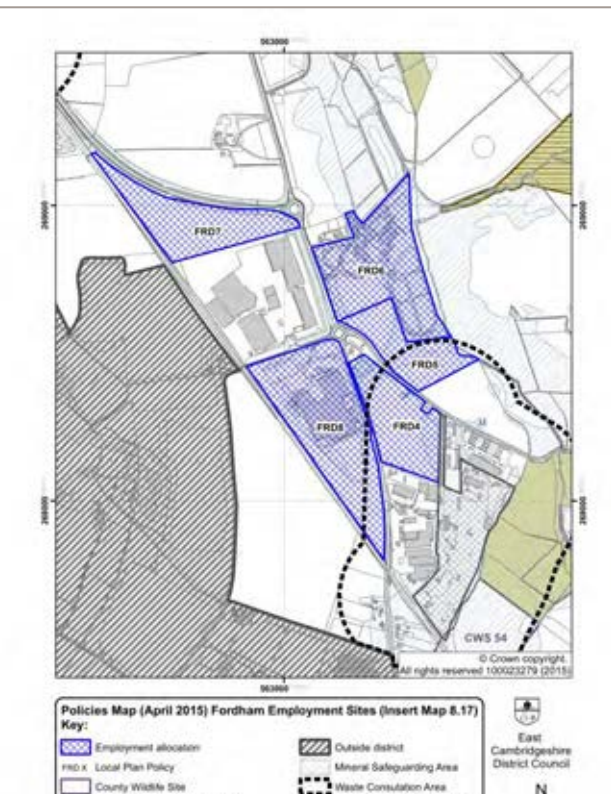


Figure 4.3.2 – Employment area south of Fordham village (policy map 8.17 of ECDC Local Plan)

Isleham’s neighbourhood plan mentions specific links that could be funded through developer contributions. One of which is a footpath to the nature reserve between Isleham and Fordham. Another is the creation of a circular walk or cycleway.

The following appears in the background section of the plan;



Figure 4.3.4 – Isleham housing development planning applications

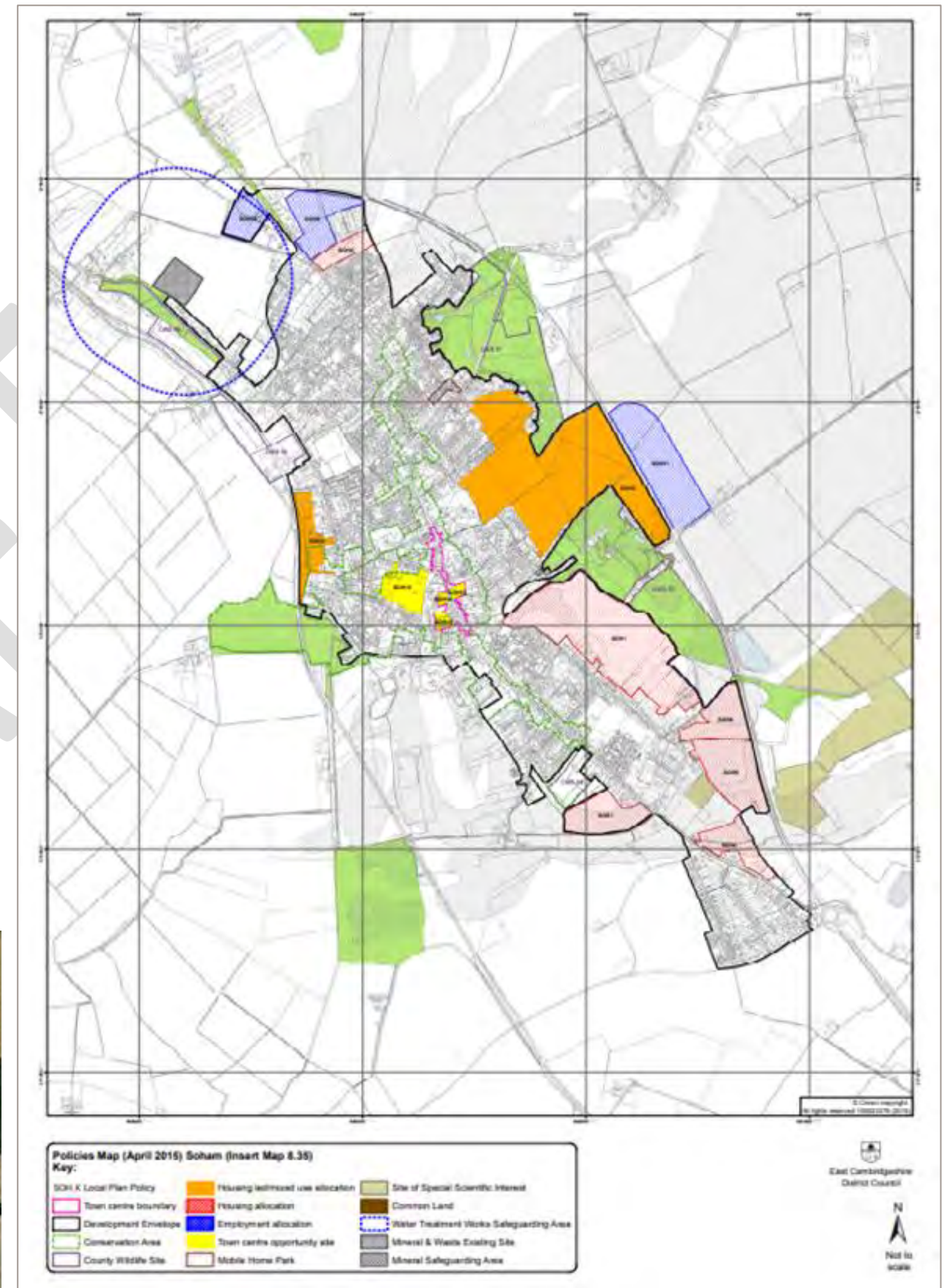


Figure 4.3.5 – Policy map for Soham (policy map 8.35 of ECDC Local Plan)

4.4 East Cambridgeshire District Council- Cycling and Walking Routes strategy.

East Cambridgeshire District Council has produced a Cycling and Walking routes strategy which was informed by public consultation in 2020. It includes information on the responses and an analysis of all the options put forward, such as the many proposed cycle routes as shown in Figure 4.4.1

The strategy shows interest and demand for a new route between Isleham and Fordham, but also between both villages and Soham, Newmarket, and Ely.

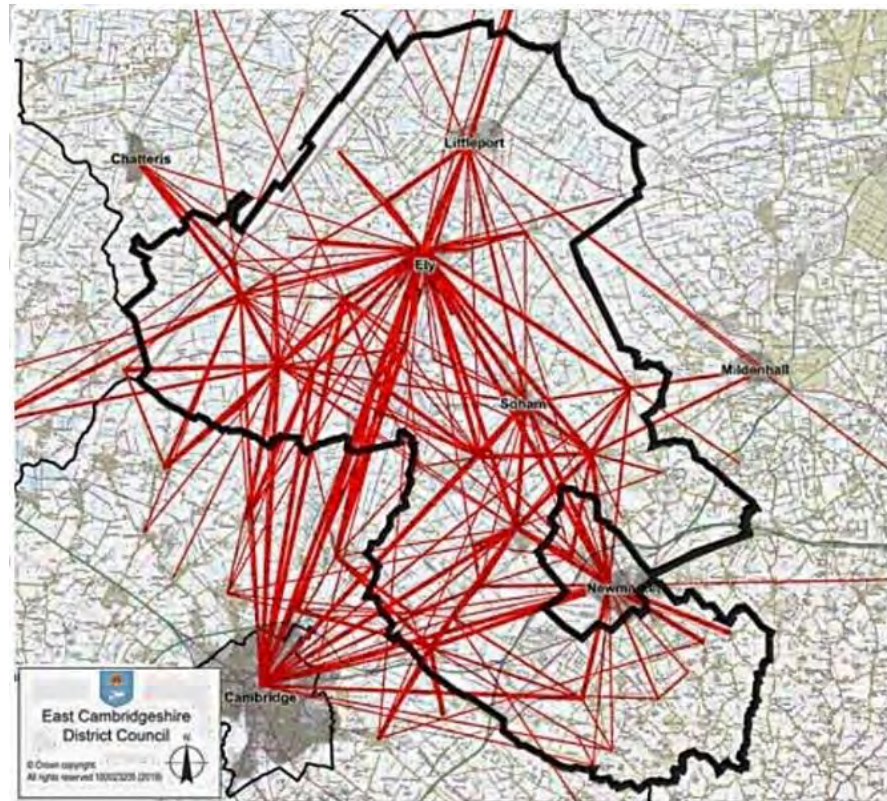



Figure 4.4.1 – Route requests map from or ECDC Walking and Cycling Strategy.

Figure 4.4.2 – Introduction from ECDC Walking and Cycling Strategy.

East Cambridgeshire District Council



East Cambridgeshire Cycling and Walking Routes Strategy

Introduction

East Cambridgeshire District Council (ECDC) is committed to improving the East Cambridgeshire strategic cycle/footpath network. Although it is not responsible for delivering cycling and walking infrastructure, the Council understands that it is essential that the appropriate infrastructure is in place to make cycling and walking an attractive and safe alternative to driving.

The Council recognises the health and wellbeing and environmental benefits of cycling and walking. In 2019, the Council passed a 'climate change motion', which declared a climate emergency and encourages modal shift away from vehicles towards cycling and walking which will help the Council to achieve its net zero carbon ambitions.

The District Council Corporate Plan 2021-2023 includes a promise to champion and improve the East Cambs strategic cycle/footpath network and a commitment to prioritise 5 cycle routes for feasibility exploration.

To inform this work a public consultation was held in 2020 asking people to identify new cycling and walking routes which the Council could prioritise to complete gaps in the network, especially those that will encourage more local walking and cycling journeys to access places of education, employment, health care, public transport and essential services.

A list of priority routes has been developed so that the Council has a set of schemes that are ready to submit when funding becomes available.

Via the consultation questionnaire, the Council also asked residents where they would like to walk or cycle to but cannot because the path is in disrepair, there is street clutter obstructing the footpaths or there is insufficient street lighting, or because there is not safe crossing point in the route.

Supporting infrastructure such as cycle parking, adequate signage and promotion of existing routes are also needed to encourage people to cycle and walk.

The Council recognises the importance of providing safe routes for equestrians in East Cambridgeshire. The strategy is focused on strategic not leisure uses. Horse riding is not considered to be a mode of transport used to access the places and services the Council has prioritised and so their provision is **not** included in this particular strategy.

The Active Travel Strategy for Cambridgeshire, being produced by Cambridgeshire County Council (CCC) will consider other means of travel that are not identified as active transport modes, such as e-scooters, mobility scooters and equestrians and the District Council will champion the inclusion of routes for equestrian use in that strategy.

5. Active Travel and usage of existing routes

Levels of Active Travel are determined by many factors including distance, topography, the ease of alternative modes, the quality of provision and the points of interest or destinations that people want to access.

5.1 Points of Interest.

Points of Interest (or local amenities) are a useful way of ascertaining where people might be drawn to, and therefore justify the existence of a route, guide its alignment, and give indicators of the nature of travel within and between towns. Figures 5.1.1-5.1.3 all show points of interest. A heat map across the wider area shows that quantitatively Fordham and Isleham have similar points of interest amounts. In this regard, adequate active travel routes between Isleham and Fordham to Soham would be more valuable.

The other two maps look at each village in more detail. Together, they show a disparity in what residents of each village have access to without a car. Isleham Primary School's swimming pool, for instance, is open to all children on certain evenings and holidays. Fordham, on the other hand, has a number of sports pitches. The different offerings each village presents, as well as the factors mentioned in the previous chapter, draws residents between the two.

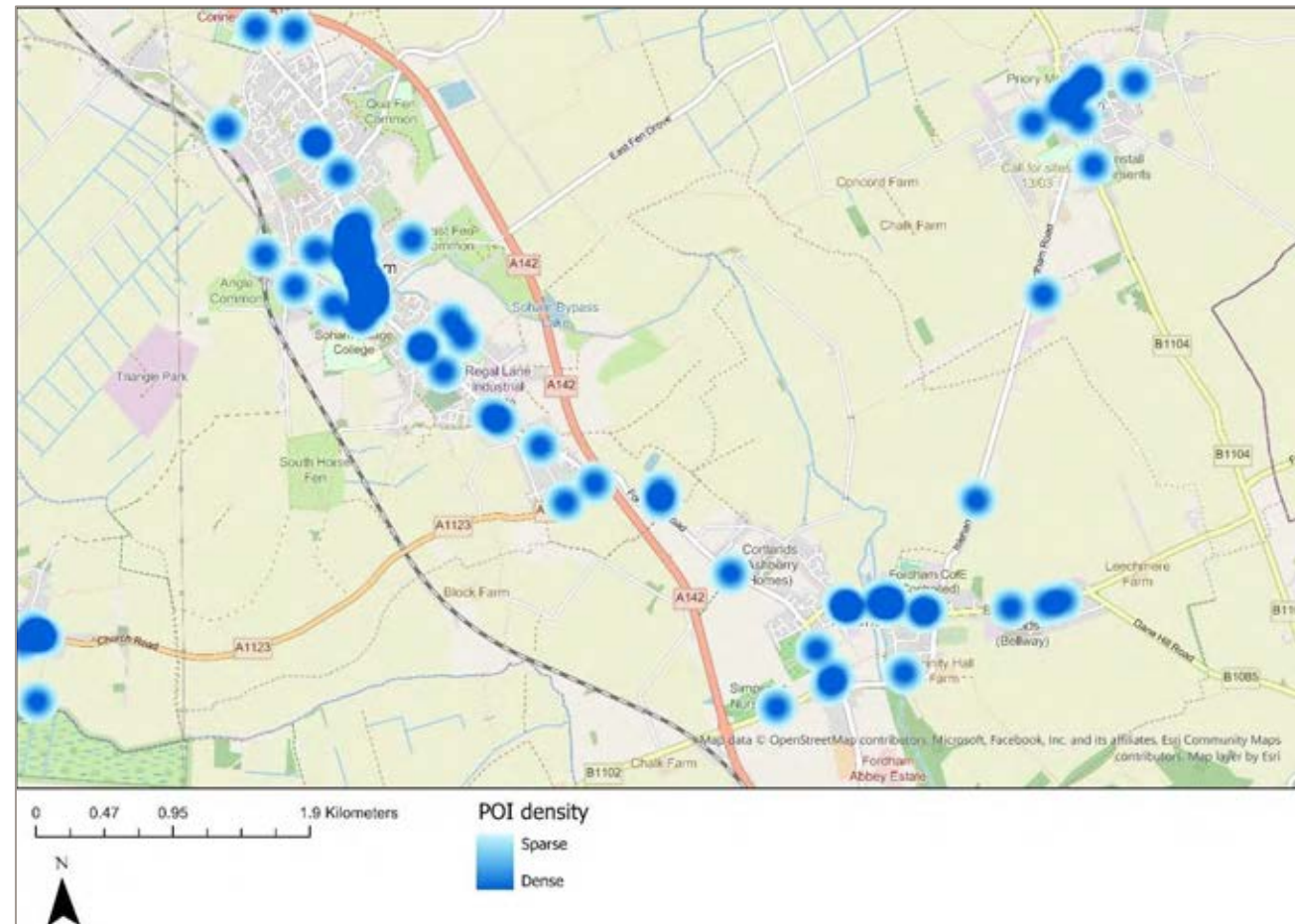


Figure 5.1.1 – Points of Interest

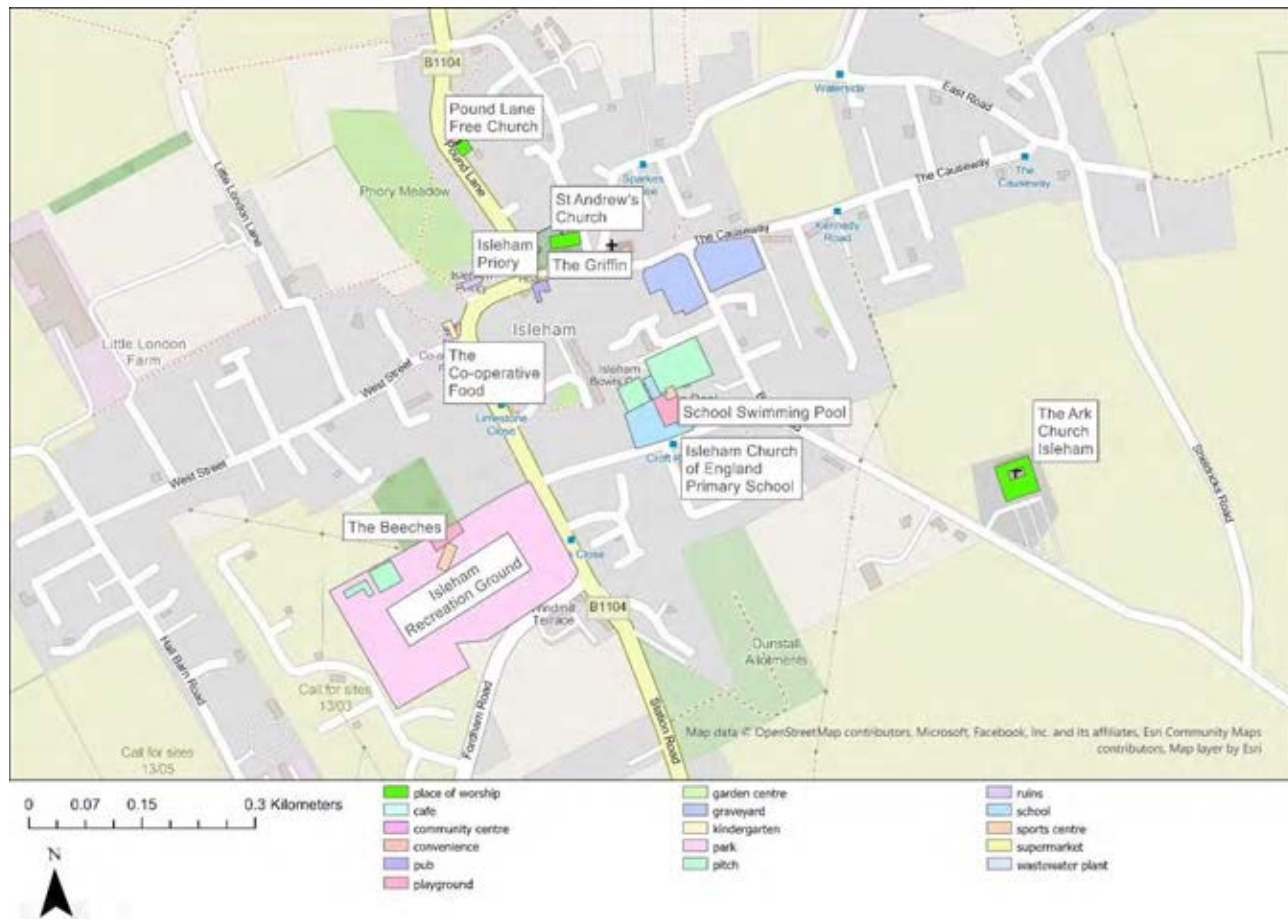


Figure 5.1.2 – Points of Interest - Isleham

5.2 Route Issues between Fordham and Isleham

There are currently two feasible ways to walk or wheel between Fordham and Isleham, as shown in Figure 5.2.1. The most direct option would be Isleham/Fordham Road. There is no equestrian route apart from the road. The road has no footway over most of its length and where it does have one, it is narrow and is missing dropped kerbs at junctions. Photos demonstrating these issues are shown on a map in Figure 5.2.2. The road has moderate traffic with a large proportion of heavy and wide vehicles with a number of industrial premises on the eastern side of the road. Needless to say, a wheelchair user would be unable to negotiate this route, and it would be unattractive to pedestrians and most cyclists.

There are two Public Rights of Way (PROWs) north of Fordham but connectivity between them is limited and path quality and width is inconsistent. The western PROW passes between housing at its start. As such it is very narrow, and it is currently unpaved. This is before it opens up into farmland, which, although attractive, presents a path of similar characteristics. A user would then join Fordham Moor, a lightly-trafficked road, for around 900m. Despite it lacking a footway, this is the most accessible section of any routes between Fordham and Isleham. It is well paved and is presumably mostly used by local farm owners since it doesn't serve as a through route. A user would then join a narrow, non-statutory path through farmland alongside a hedgerow. Again, the path is unpaved. After passing through the local nature reserve, the only way to Isleham is to join Fordham Road, encountering all the issues the road option presents, albeit for a shorter distance. This section of the road doesn't have a footway.

The route through the nature reserve is a far more attractive, albeit less direct option than following Isleham/Fordham Road alone, but nonetheless is only useable by an able-bodied pedestrian. A cyclist or wheelchair user would struggle with the width constraints as well as the surfacing of the ground. An overview of the route with photos is shown in Figure 5.2.3.



Figure 5.1.3 – Points of Interest - Fordham



Figure 5.2.1 – Map showing the existing route options between Fordham and Isleham



Figure 5.2.2 – Overview map showing Fordham Road route with photos.



Figure 5.2.3 – Overview map showing footpath route with photos.

When describing the issues faced by a route it is also important to find the issues faced within the villages themselves, since a route user could start their journey from anywhere within either village. LTN 1/20 places an emphasis on all decisions regarding mode of transport being based on the entire journey, from doorstep to destination. In its words, “a scheme is only as good as its weakest point”.

5.3 Issues within Fordham

Fordham village is bound by four main roads; Collins Hill, River Lane, Market Street, and Carter Street. Market Street faces a large amount of through traffic between Soham and Newmarket. The A142 serves as a bypass but a traffic counter on Fordham Road, the continuation of Market Street, indicates just above 4,000 vehicles daily. This is over the limit to be considered a viable on-road cycling route. As such, shared use paths exist alongside Market Street and Carter Street. However, they are narrow and they have cyclists give way to turning traffic, making them not only unattractive but also uncompliant with LTN 1/20 as well as the pedestrian prioritisation system that appears in The Highway Code. Footways in general are often narrower than 2m and notably missing from the southern side of Market Street alongside the garden centre. Parish Council meeting minutes have shown that there is desire for a 20mph speed limit to be introduced on Carter Street, although this is still a work in progress.



Figure 5.3.1 – Traffic on Soham Road, leads on to Market Street

Fordham has been studied in other Sustrans work, including the Burwell to Fordham feasibility study and a Story Map looking at the village in specific detail, although access to the latter is currently limited.



Figure 5.3.2 – Shared use paths in Fordham not compliant with LTN 1/20.



Figure 5.3.3 – Unofficial 20 sign on Carter Street

5.4 Fordham Employment Area

By its nature the Fordham employment area, just south of the village itself, is a source of many HGVs on local roads. The A142 is not appropriate for cycling and the scope for changing the nature of traffic on the road is limited if not non-existent. Any solution here would therefore need to be away from the carriageway on a dedicated cycle track or shared-use facility. A shared use path does exist on Newmarket Road but is of insufficient width and too close to the carriageway.



Figure 5.4.1 – Fordham employment area front entrance



Figure 5.4.2 – Shared use path on Newmarket Road (A142)



Figure 5.4.3 – Traffic around employment area (A142)

5.5 Issues within Isleham

Isleham is of a similar size to Fordham but faces a much lower amount of through traffic. One traffic counter indicates that the B104 (Mill Street) sees around 1800 vehicles a day. This would make on-road cycling theoretically more appealing, but the

speed limit is 30-40mph across most of the village, excluding an area of 20mph around the primary school. Footways are generally sufficient, but wide junction radii promote fast driving and divert pedestrians from their desire line.



Figure 5.5.1 – Mill Lane, Isleham. Near the Co-op

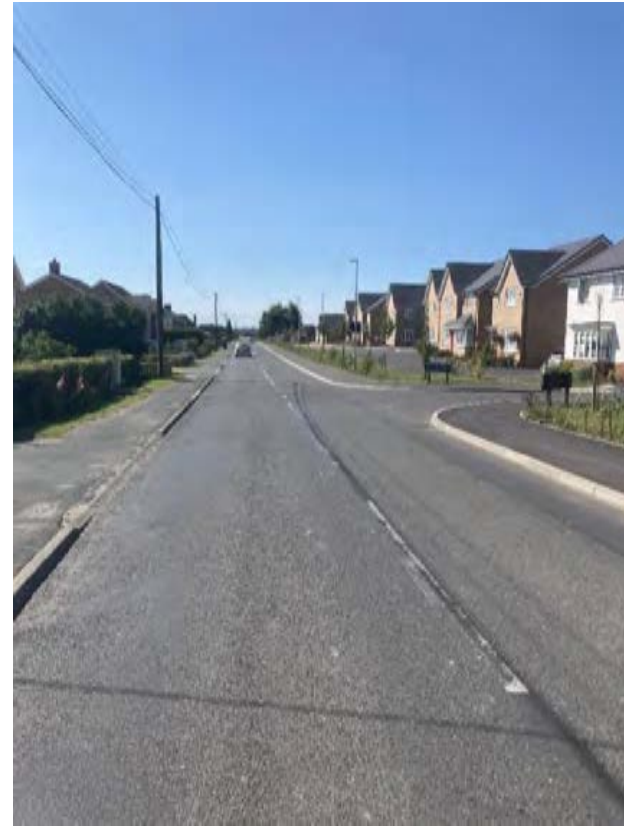


Figure 5.5.2 – Fordham Road, Isleham with view of side junction



Figure 5.5.3 – School safety sign, Isleham



Figure 5.5.4 – Pound Lane, Isleham

5.6 Incidents

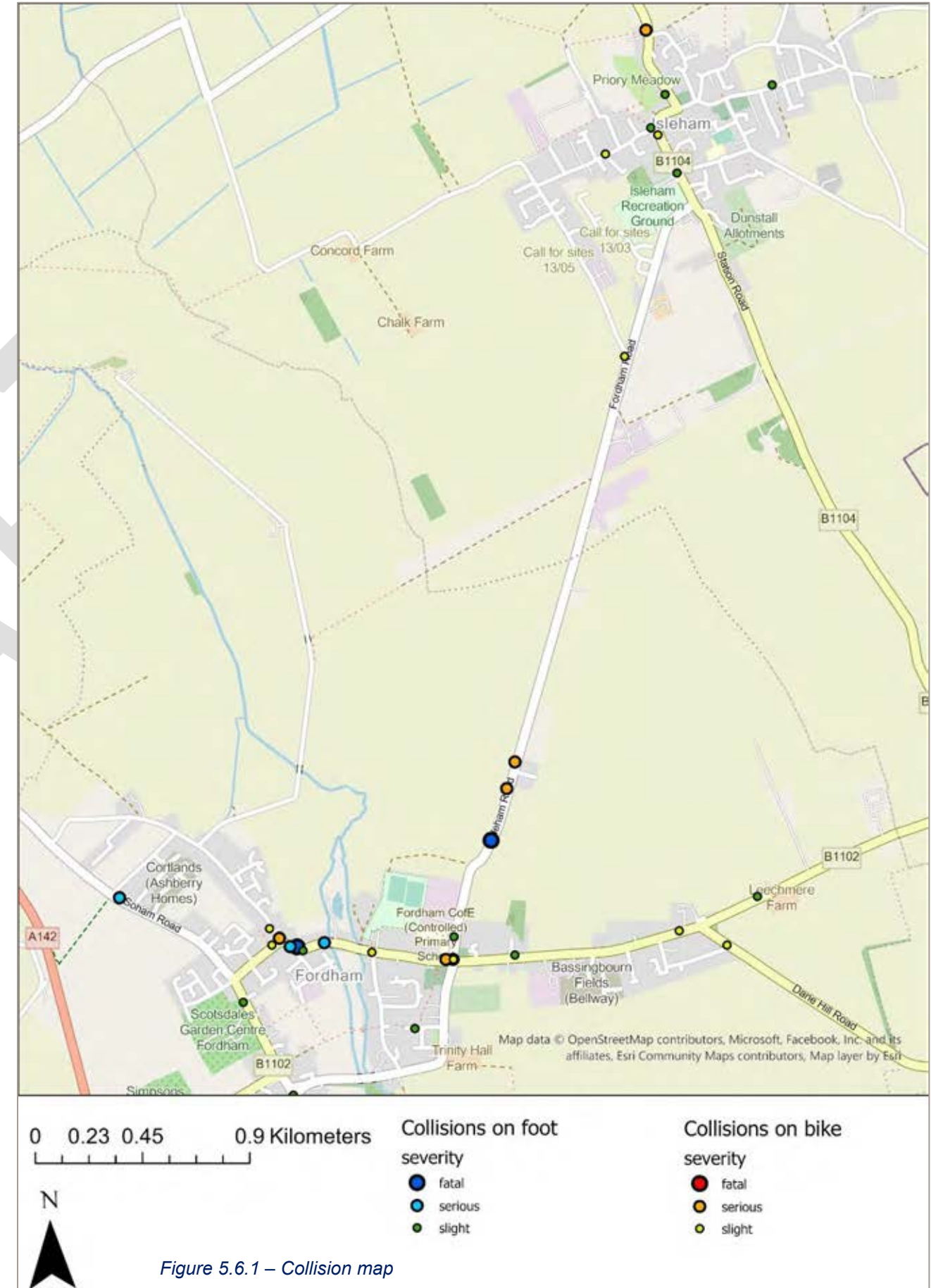
Incident data can demonstrate some issues. Numbers of Incidents are low as a result of the low population in general and the low rates of cycling in the area. It can be seen, however, that a fatal incident occurred to a pedestrian and two serious incidents occurred to cyclists shortly after where Isleham Road loses a footway, becomes national speed limit, and follows a bend. It can be concluded that major alterations should be made to that section of Isleham Road. Similarly, a fatal incident with a pedestrian occurred in Fordham at the junction between Sharmans Road and Carter Street, a pinch point in the village where footways are particularly narrow.

5.7 Distances and Travel Time

Google maps gives travel times as shown in Table 5.1, based on the centres of Communities as defined in Chapter 7. This shows that journeys are quick by car and this is clearly the dominant mode at present. Car journey time will be impacted significantly by congestion, whereas travel by bike or foot is likely to be more consistent time-wise. Travel times by bike are short and all journeys are within easy cycling distance, but walking is a less attractive option time-wise because of the distances involved (as well as the facilities).

Table 5.1 Journey time comparison by mode and journey

Origin	Destination	Mode	Journey Time
Isleham	Fordham	Car	6 mins
Isleham	Fordham	Bike	13 mins
Isleham	Fordham	Foot	59 mins
Isleham	Soham	Car	9 mins
Isleham	Soham	Bike	19 mins
Isleham	Soham	Foot	83 mins
Fordham	Soham	Car	6 mins
Fordham	Soham	Bike	13 mins
Fordham	Soham	Foot	58 mins



6. Design constraints

6.1 Environment Agency

As a part of the Fens, the area surrounding Isleham and Fordham was marshy and has a historical relationship with water. As one would anticipate, flood zones impact any resultant scheme of this study. Figure 6.1.1 shows a zone 3 flood zone lies around the River Snail and the surrounding ditches, meaning the area has a 1% chance of flooding annually. The zone is more predominant on land to the west of Isleham than land to the south, particularly affecting the area around Moor Farm. This means potential flooding would be a concern for a link to Soham. Whilst it would be ideal to avoid the zone completely, as in the Isleham Road option, the presence of flood zones is by no means a showstopper and Sustrans has a history of working sensitively with them, including in places such as Wicken Fen.



Figure 6.1.1 Flood map.

6.2 Geology

Related to the impact of flooding, the soilscape over the area can be seen in Figure 6.2.1 Most potential routes would sit on shallow soil over rock or limestone, excluding the northern half of Fordham / Isleham Road, which sits on deep, freely draining soil. More groundwork would need to be carried out before construction on this section of Isleham Road to ensure it is of sufficient depth. The soilscape in general, however, doesn't present major challenges to construction, although Fen roads are notorious for undulations and cracking as the land dries or dampens and moves. It will therefore be important to ensure that foundations are of a sufficient depth.

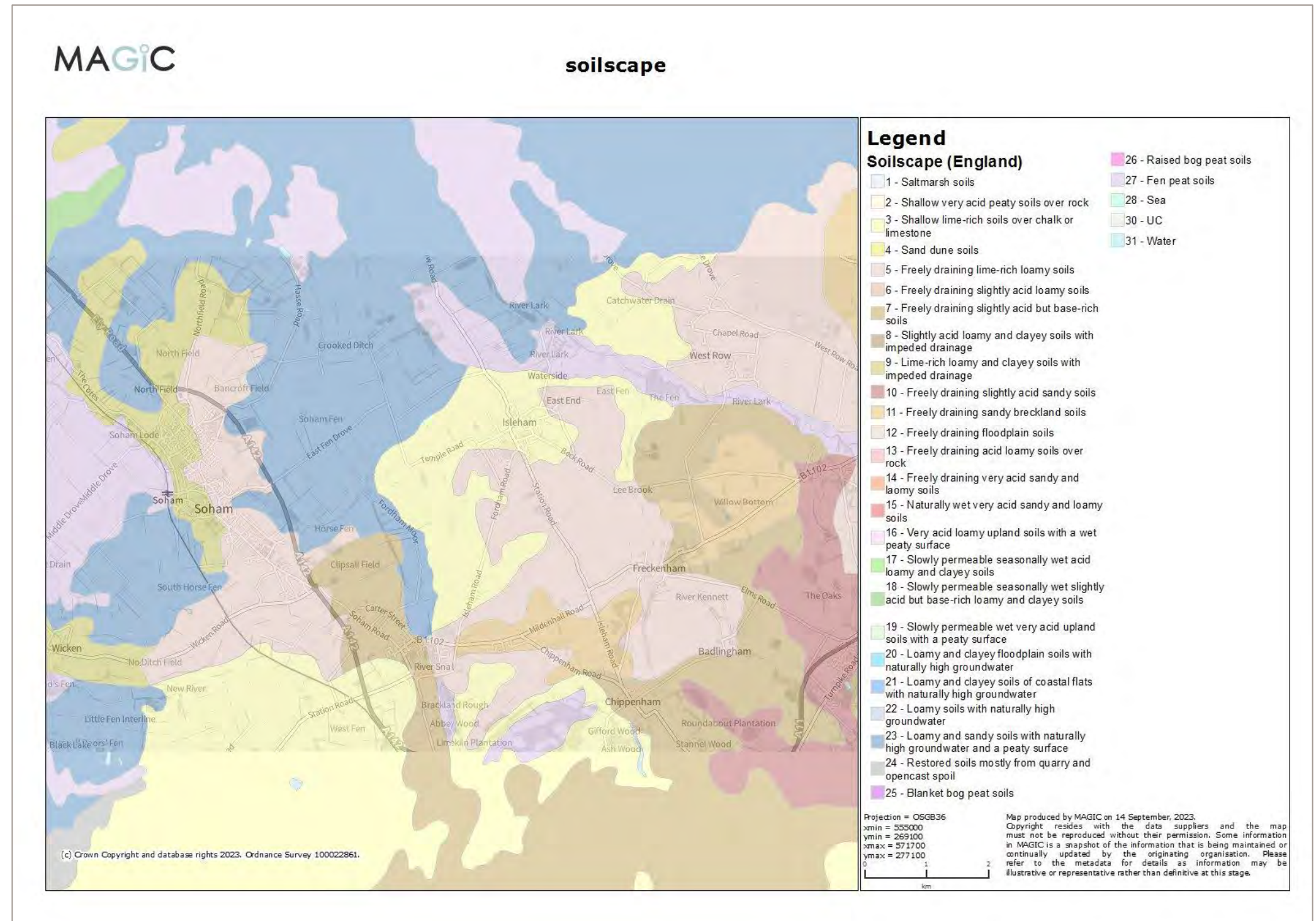


Figure 6.2.1 Geology map

6.3 Ecological constraints

The most obvious issues relate to the Isleham Nature Reserve and whether or where any route goes.

Sacrificing ecology for the sake of development and improved access has its obvious and implicit downsides, but by the time this scheme is underway it will also be subject to Biodiversity Net Gain (BNG) requirements. This means that any loss in biodiversity will need to be mitigated at a ratio of 1:1.1 and maintained over a 30-year period, presenting substantial financial and logistical hurdles. Trees and ecology are covered in more detail in Chapter 9.



Figure 6.3.1 – Grassland on Isleham Nature Reserve

6.4 Utilities

A search has expectedly revealed a plethora of electricity and gas utilities passing beneath most roads in each village. These would complicate any major reconstruction or re-alignment works, although these will largely take place outside of villages. The extent of disruptive works within villages would be installation of prefabricated kerbs to separate cyclists from vehicular traffic and the re-alignment of junction radii. Cadent will of course need to be engaged in further planning and design work,

Worth greater consideration, however, are any utilities between the villages, as these are the areas where more intensive construction activity would take place, such as resurfacing and path construction. A medium pressure gas main passes under Fordham / Isleham Road for its entire length. This could present obstacles for any works on the carriageway such as reallocation of road space.

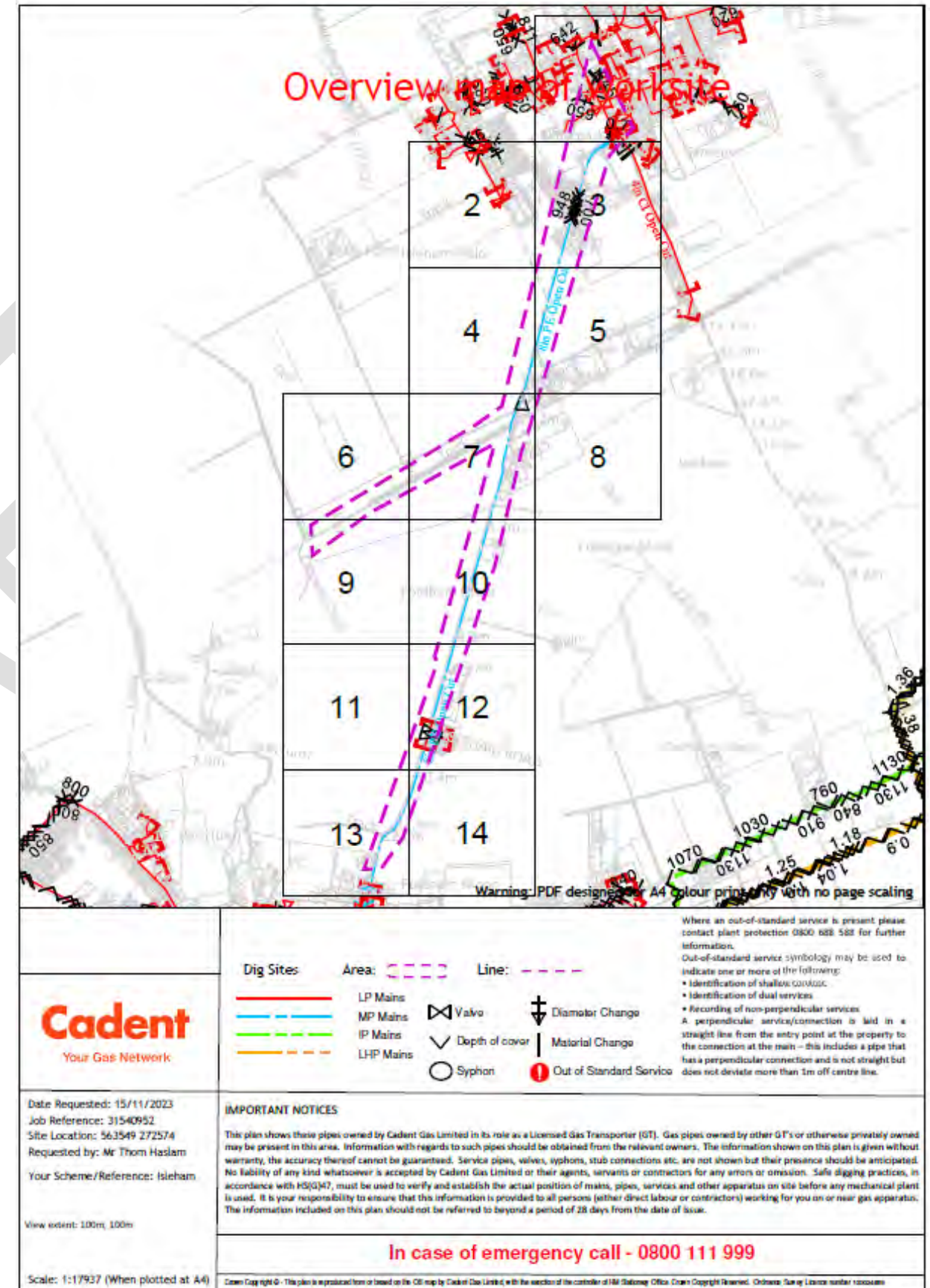


Figure 6.4.1 – Fordham Road Cadent map

6.5 Heritage and Historic Environment

Both towns have significant conservation areas, the larger of which being in Isleham. Any route going into the village would pass through the conservation area, but routes at this point would be on-road so this shouldn't present a major hurdle. The same can be said of the two scheduled monuments in Isleham. Again, these aren't impacted by the route alignment since the route would be on-road here regardless. Greater consideration is paid to the Neolithic era bowl barrow just off Fordham Moor. Overall, Historic England will need to be brought into the conversation as development of a route or routes progresses.

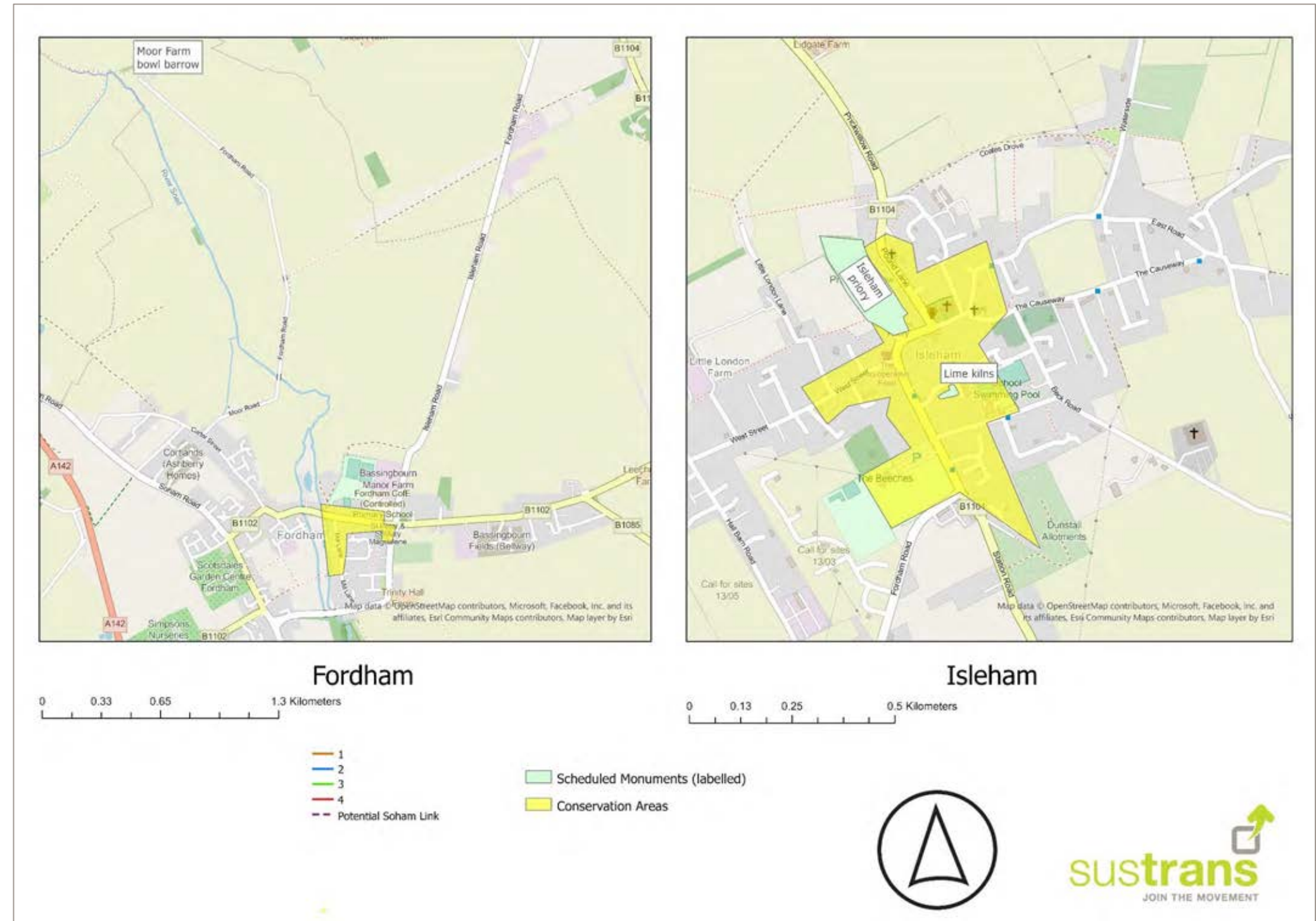


Figure 6.5.1 Scheduled Monuments and Listed Buildings map

6.6 Roads, river and rail crossings

There are no major roads to cross in the area, apart from for a potential link with Soham where the crossing of the A142 would present a major challenge and the link with Fordham Employment area which has similar issues. Any crossings of the A142 either need to be grade separated or signalled. The Soham to Newmarket rail link runs south of Fordham, and therefore isn't obstructive to any route options but nonetheless passes close to the Fordham employment area and Exning links.

The River Snail runs north of Fordham. The alignment of one option would cross it using the existing road bridge on Fordham Moor and a possible new bridge over the river is also discussed. The Fordham Moor road bridge structure itself, its surfacing, and the very light traffic that passes on it don't present any issues with people walking or wheeling on it. Access onto it from the riverside path, however, needs to be improved.



Figure 6.6.1 – River Snail bridge and associated access issues.



Figure 6.6.2 – River Snail bridge deck (Fordham Moor)

7. Route Options Appraisal

Any route between Isleham and Fordham needs to be useful for all of the residents of the villages. This is a big factor in prioritising the works needed, in choosing the best route alignment, and in identifying what links are needed.

For routes between the villages to work well there needs to be a good cycling and walking network within Isleham and within Fordham. Routes need to be as direct as possible from start to destination, for as many people as possible.

For the purposes of the study and in order to compare distances it is normal to select one location in each settlement and measure distances from that point. It should be considered, however that the main employment site at Fordham is some way south of Fordham itself so that also needs to be considered. Although links with Soham were not part of the brief they have been considered because it would be possible to link Isleham and Fordham, via Soham. This would be very indirect but would have other benefits given the facilities and public transport options within Soham. The locations shown in Figure 7.1, therefore, are:

- Junction of Carter Street and Sharman's Road, Fordham.
- A142 midway between roundabout and Landwade Road in the centre of the employment and growth area to the south of Fordham.
- The junction between Church Street and West Street, Isleham
- Red Lion Square, Soham.

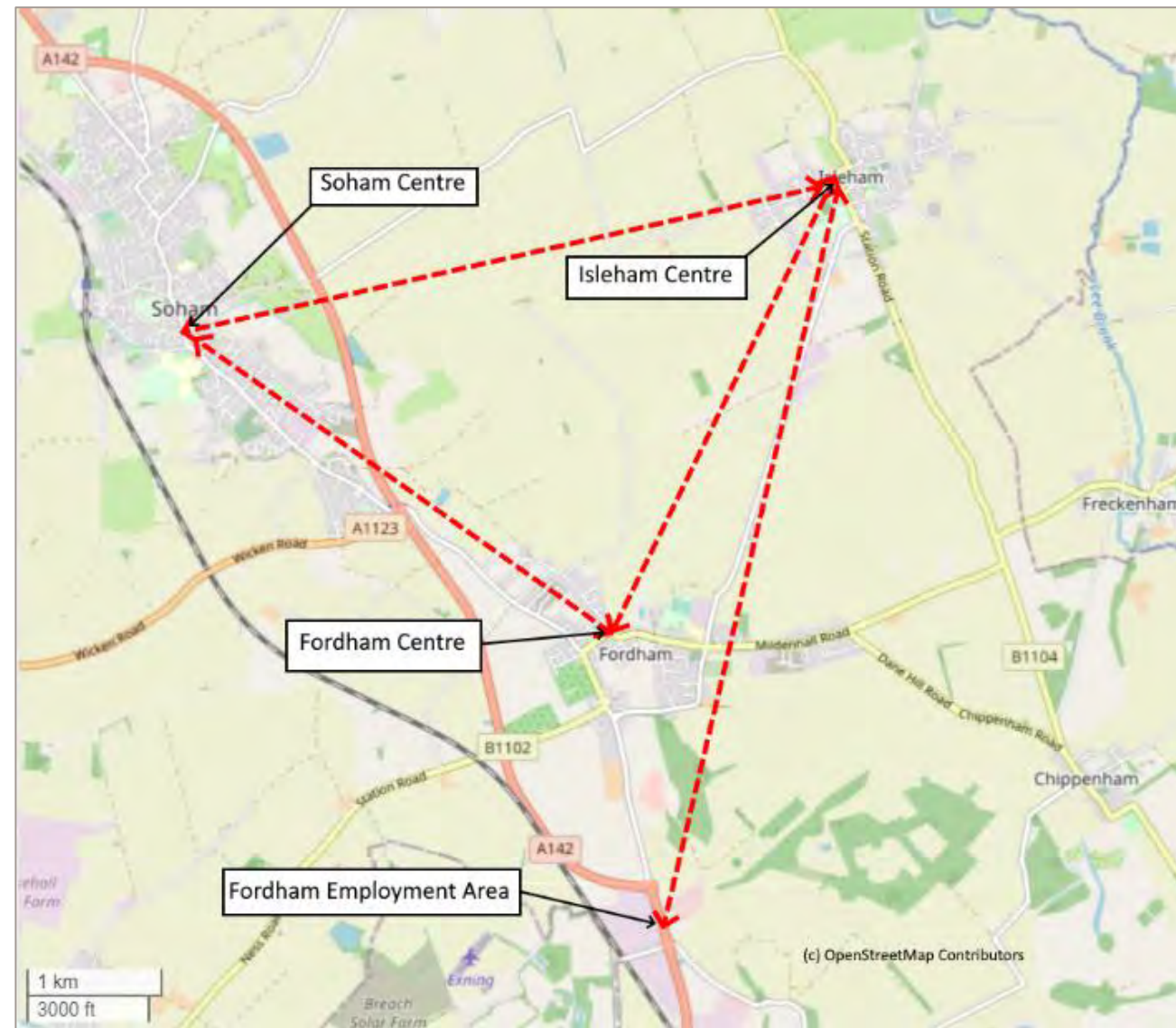


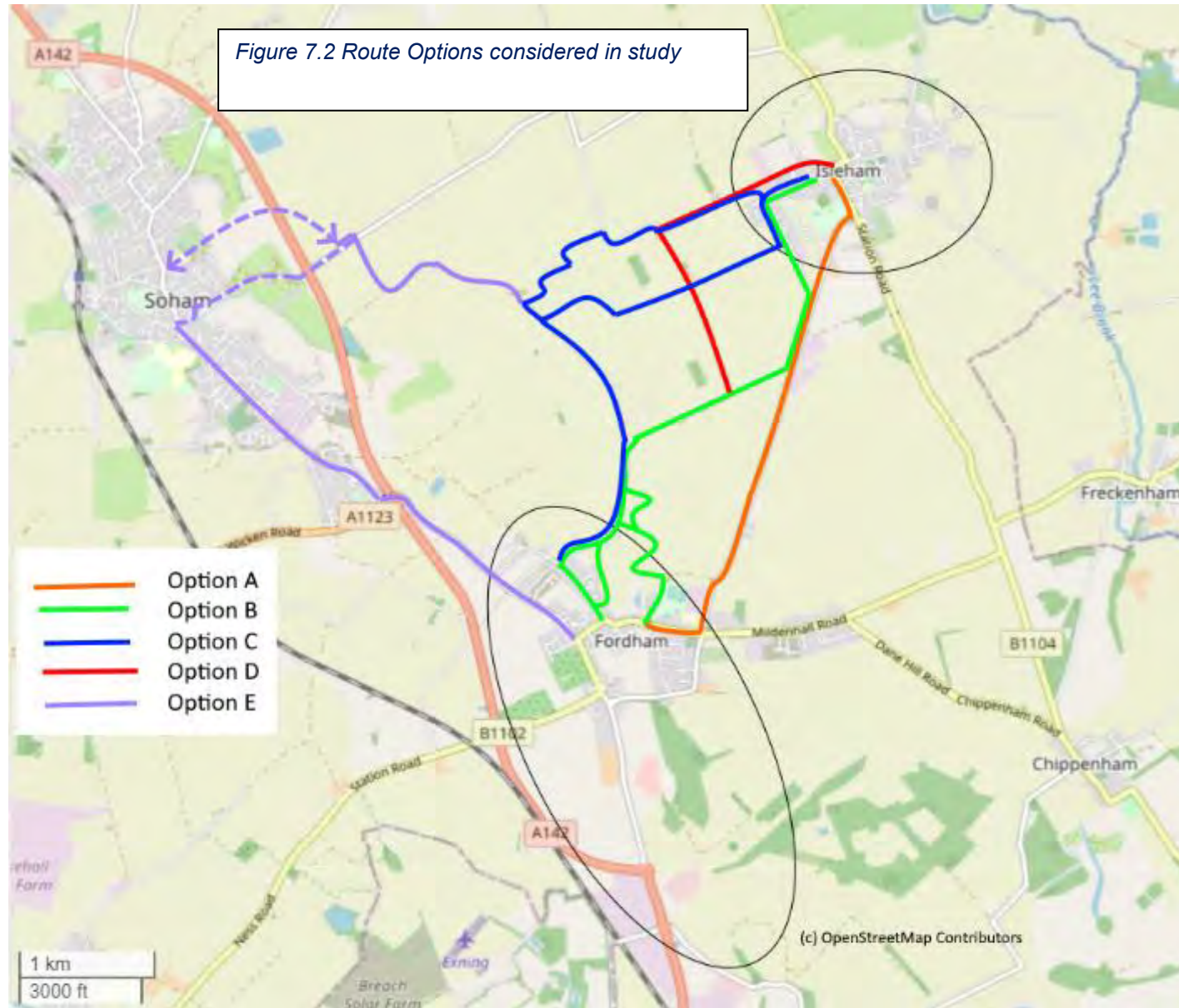
Figure 7.1 Map showing locations used for Route Appraisal

Within Isleham and Fordham (including between Fordham village and the employment centre) access to all properties should be compliant with LTN1/20 guidelines and that is relatively easy for many roads which are lightly trafficked and can be changed to 20mph roads, but it is a challenge for some of the busier roads in Fordham in particular. In addition, Healthy Streets principles should be adopted and Healthy Streets audits at an early stage may help to decide priorities.

The main route alignment options between the villages can be seen in Figure 7.2. Some of them present slight sub-options. The routes vary in how much they prioritise directness between the villages over a potential link with Soham, with the least direct option aligned more closely to the A142. Ideally, multiple options would be chosen to best serve residents of both villages as well as Soham. The routes are all considered in detail but are outlined as follows:

Option A. Whilst this option appears as only one line on a map, it presents a number of variations. A 3m path could be constructed alongside but set well away from the carriageway or the nature of the road (Isleham Road/ Fordham Road) could be changed so that either the whole road is suitable for mixed traffic usage or part of the carriageway is reallocated to form a shared path. This would be similar to what is recommended in Fordham itself, with Station Road providing an alternative route between Fordham and Isleham. Changing the nature of the road would be by far the cheapest option, although negotiations with the businesses along Isleham Road/ Fordham Road may present challenges. Constructing a new path away from the carriageway needs private land, but might be more appealing to local motorists. It would however be more expensive and would have a greater impact on local ecology.

Option B. This option has sub-options at the start. The more direct paths follow Public Rights of Way that connect Carter Street with Fordham Moor. Both rights of way options have difficulties. A road option could be to continue on Carter Street north-westerly then joining Fordham Moor from there, although this is less direct. Fordham Moor is a quiet and attractive road that leads towards the disused railway which is now a Local Nature Reserve. The route would then follow a field edge before either passing through the Local Nature Reserve or using a field edge alignment parallel with the reserve, but outside it. The route would then link with Fordham Road. Both Options A and B would make use of the final third of Isleham/Fordham Road via a 3m cycle segregated away from the carriageway, although a different approach to Isleham is considered for Option B compared to Option A (along Hall Barn Road as opposed to Fordham Road.)



Option D. This is a variation on Option B and uses a different route to link with the Local Nature Reserve at the Isleham end. Within Isleham an option using a Public Right of Way rather than Temple Road is considered and then an alternative alignment from Temple Road to the disused railway/ Nature Reserve is considered. Given that all options are dependent on the use of non highway land this option is worth considering in case it is one that landowners favour, although it does not seem as obvious alignment as Option C. At the Fordham end the route would be as Option C.

Option E. It would be possible to go from Fordham to Soham and then to Isleham and vice-versa. This would be a very long detour but is considered because there is potential for a good route that links Isleham and Soham and a good route that links Fordham and Soham based on an extension of Option C. It is also considered relevant because Soham is the biggest local centre with more facilities than either Fordham or Isleham and links with Soham are likely to be useful. The route links with Option C at the end of Fordham Moor and then continues from the end of the road through agricultural land following rights of way and field edges to link up with East Fen Drove near the A142. At this stage it is not possible to go into detail about the onward link with Soham. There is a current route via East Fen Common (that does not comply with LTN 1/20) but more importantly there is land designated as potential employment and housing land on both sides of the A142 and it is essential that any development there should provide good quality infrastructure for a coherent, direct, safe, comfortable and attractive cycling and walking route between Soham and East Fen Drove, including a safe crossing of the A142. A more direct route between Soham and Fordham following Fordham Road and Soham Road is also considered.

Option C . This would be as Option B at the Fordham end but would continue further along Fordham Moor, passing over the old railway bridge and continuing towards the end of Fordham Moor, along the quiet road. Two options are suggested to link Fordham Moor with Isleham and both involve the use of farmland (belonging to Cambridgeshire County Council) and both involve the use of field edge paths. The most obvious and direct route would lead to Hall Barn Road, Isleham, in an area of potential development, but an alternative option would lead to Common Gate Drove/ Temple Road, which is a quiet road that leads into Isleham.

Option A

Whilst this option appears as only one line on a map, it presents a number of variations.

A 3m path could be constructed alongside but set well away from the carriageway. Otherwise the nature of the road (Isleham Road / Fordham Road) could be changed so that either the whole road is suitable for mixed traffic usage or part of the carriageway is reallocated to form a shared path. This would be similar to what is recommended in Fordham itself, with Station Road providing an alternative route between Fordham and Isleham. Changing the nature of the road would be by far the cheapest option, although negotiations with the businesses along Isleham Road/ Fordham Road may present challenges. Constructing a new path away from the carriageway needs private land, but



Figure 7A.1 – The road is not suitable for all as it is.

might be more appealing to local motorists. It would however be more expensive and would have a greater impact on local ecology.

Broadly speaking there are 3 main sub-options that have been considered for Option A and these are considered later within the various sections.

- **Sub- option A.1 – Retained two-way traffic on Isleham Road/ Fordham Road with no restrictions.**

Given the traffic volumes and speeds on the road and the number of HGVs the road is not attractive for walking or wheeling at present. Confident cyclists will find the road acceptable, but current conditions are not suitable for all, so if there is no change to traffic flows a new cycleway or shared use path needs to be constructed away from the carriageway on private land. This is particularly challenging around Fordham Primary School. This is considered in more detail in the sections of route.

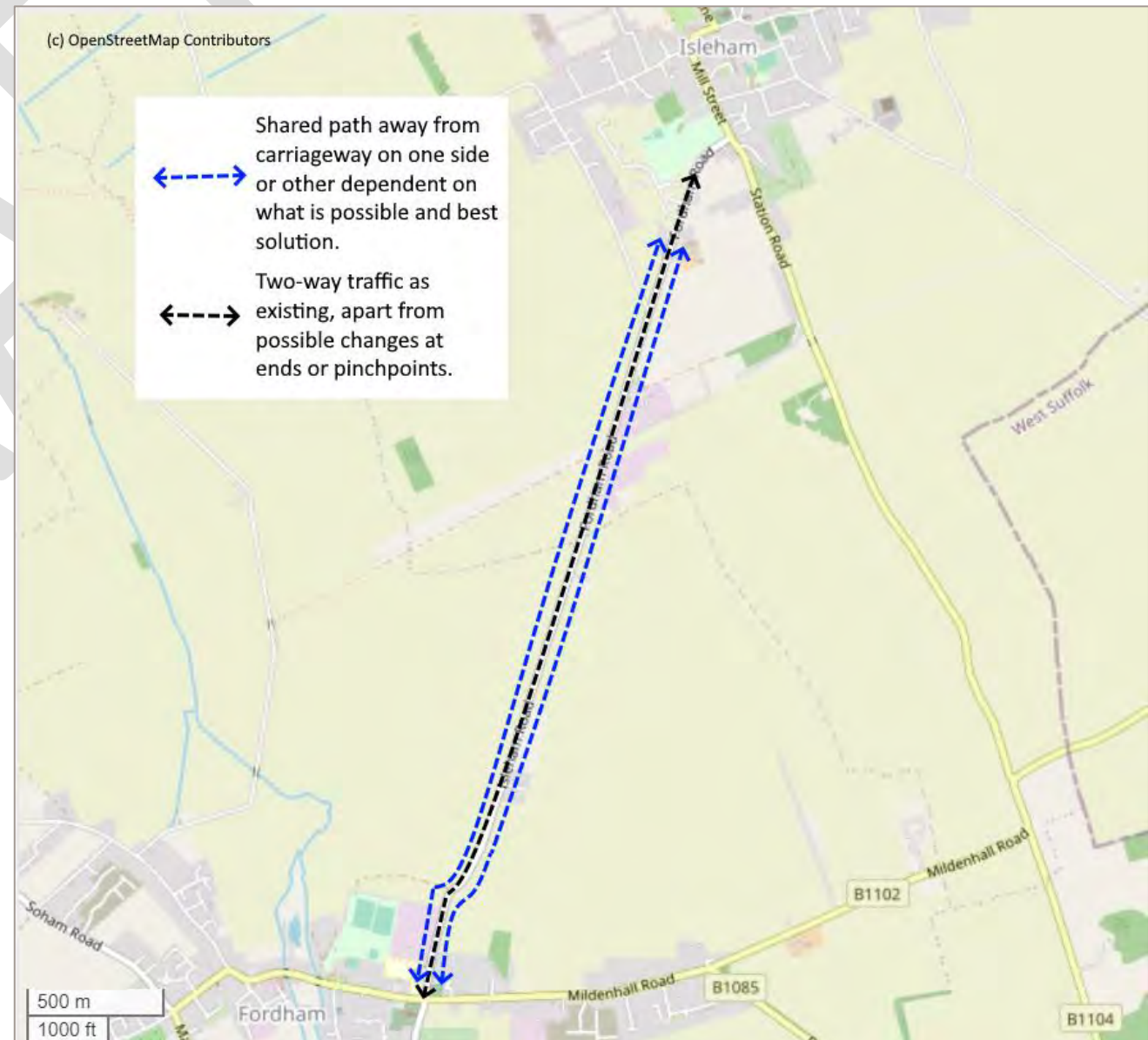


Figure 7A.2 – Retained two-way traffic and new path

- **Sub- option A.2 – One-way traffic on Isleham Road/ Fordham Road with roadspace reallocated.**

If Isleham Road/ Fordham Road were made one way – perhaps in conjunction with Station Road it would be possible to reallocate road space on Isleham Road/ Fordham Road (and potentially Station Road) to form a new path on the existing carriageway. This would have to be in conjunction with changed speed limits. (The speed limit would have to be 40 mph or less or there would not be sufficient space within the highway due to the need for a bigger buffer as speeds increase – see Figure

4.1.7). This is considered in more detail in the sections, with possible ideas shown in Fig 7A.3 and will need a lot of engagement with businesses and local residents.

- **Sub- option A.3 – restrictions on through traffic on Isleham Road/ Fordham Road with cyclists mixed with local traffic.**

If Isleham Road/ Fordham Road were closed to through traffic – perhaps at the railway bridge or near there it would still be relatively easy to drive between Fordham and Isleham via Station Road and it would transform Isleham Road/ Fordham Road into a quiet road. This would have to be in conjunction with changed speed limits and should create a suitable environment for cyclists to mix with traffic, although there may be some concern about HGVs. This is considered in more detail in the

sections, with the possible idea shown in Fig 7A.4 and will need a lot of engagement with businesses and local residents. An alternative to complete closure could be a weight limit on the road at a suitable location to limit hgv traffic and a change in speed limit ideally to 20 mph. Before this progresses as an option it is recommended that traffic surveys are carried out to understand better the nature of existing traffic flows and to therefore predict what could be achieved with modifications and whether this would comply with LTN 1/ 20 requirements.

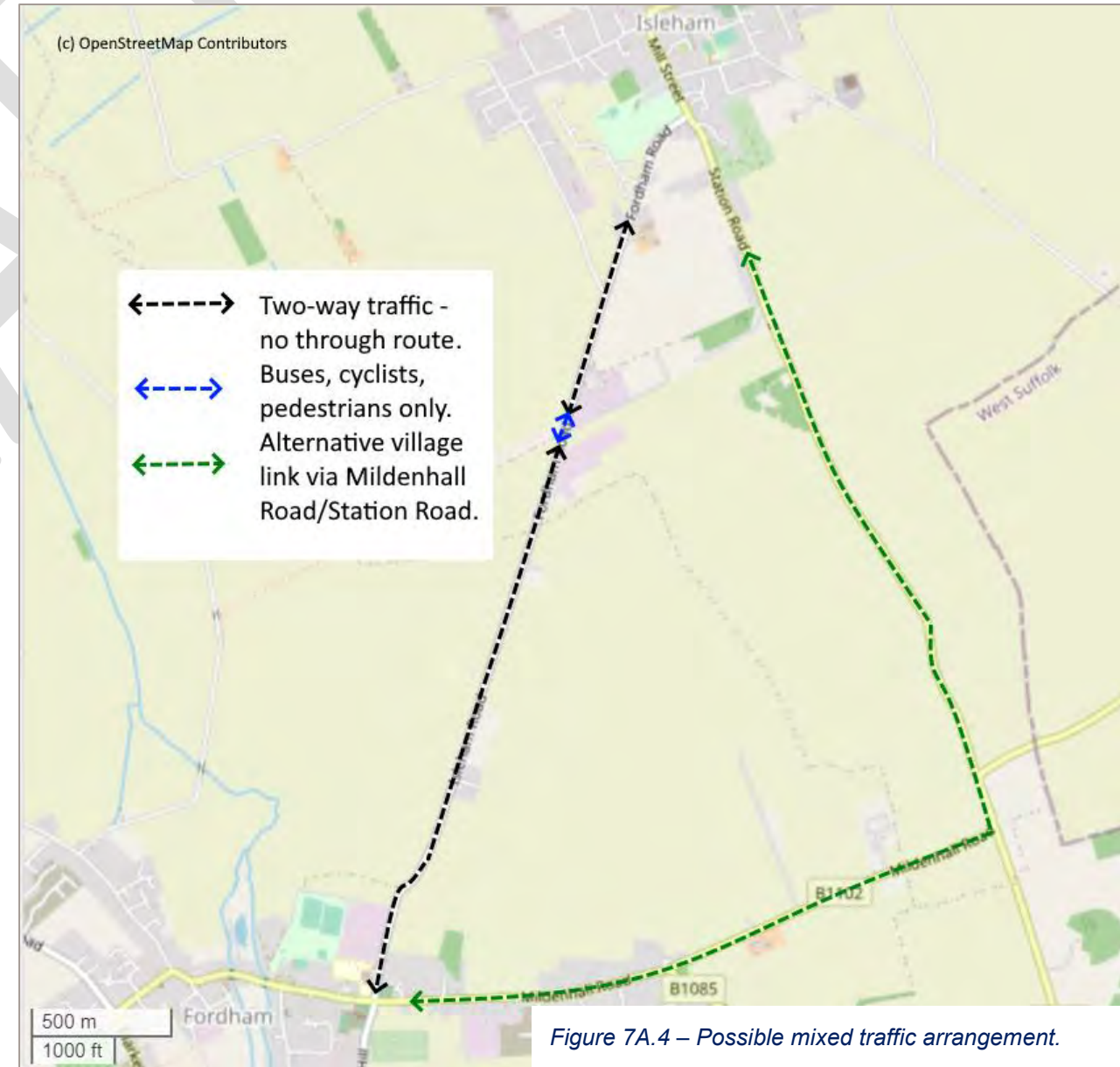


Figure 7A.5 – Route sub-sections



The route has been sub-divided into sections of route, as shown in figure 7A.5. This is in part to structure this route appraisal by the varying characteristics across all the routes, and in part to provide a continuity across the options in the hope of encouraging the adoption of multiple routes or sections of routes across options.

i. Fordham

As mentioned previously, traffic in Fordham is a significant issue. Although the village was bypassed some years ago, the former A142 still looks like an A road. The volume of traffic is much less than on the A142, but speeds can still be high, and it is an uncomfortable environment for walking and cycling.

The B1102 also carries significant traffic volumes which means that a large proportion of properties are accessed by a busy road. Traffic levels are just above 4,000 vehicles per day on Soham Road. Whilst this isn't far above an acceptable level for cycling according to LTN1/20, a considerable reduction in through traffic is hard to envisage without a major alteration to the village's road network. Such alterations, however, may be justifiable through the presence of the A142 bypass. If driving through rather than round were less convenient, on-road cycling provision may be acceptable with reduced speeds. This would be beneficial both from a cost perspective as well as in the interest of providing for as much of the community as possible.

Burwell to Fordham (a previous feasibility study carried out by Sustrans) showed that the only LTN 1/20 compliant solution would be the conversion of the village's roads to only allow for one-way traffic. This would allow enough space for a bi-directional cycleway, giving excellent provision for all local residents at relatively low cost. Simple segregation requires no changes to drainage and no excavation,

requiring fewer agreements to be made with third parties such as Cadent. Further details can be found in the Burwell to Fordham study, currently available on the East Cambridgeshire District Council website. This considers Fordham employment area as an important part of Fordham, which needs good links by foot and bike with Fordham itself.

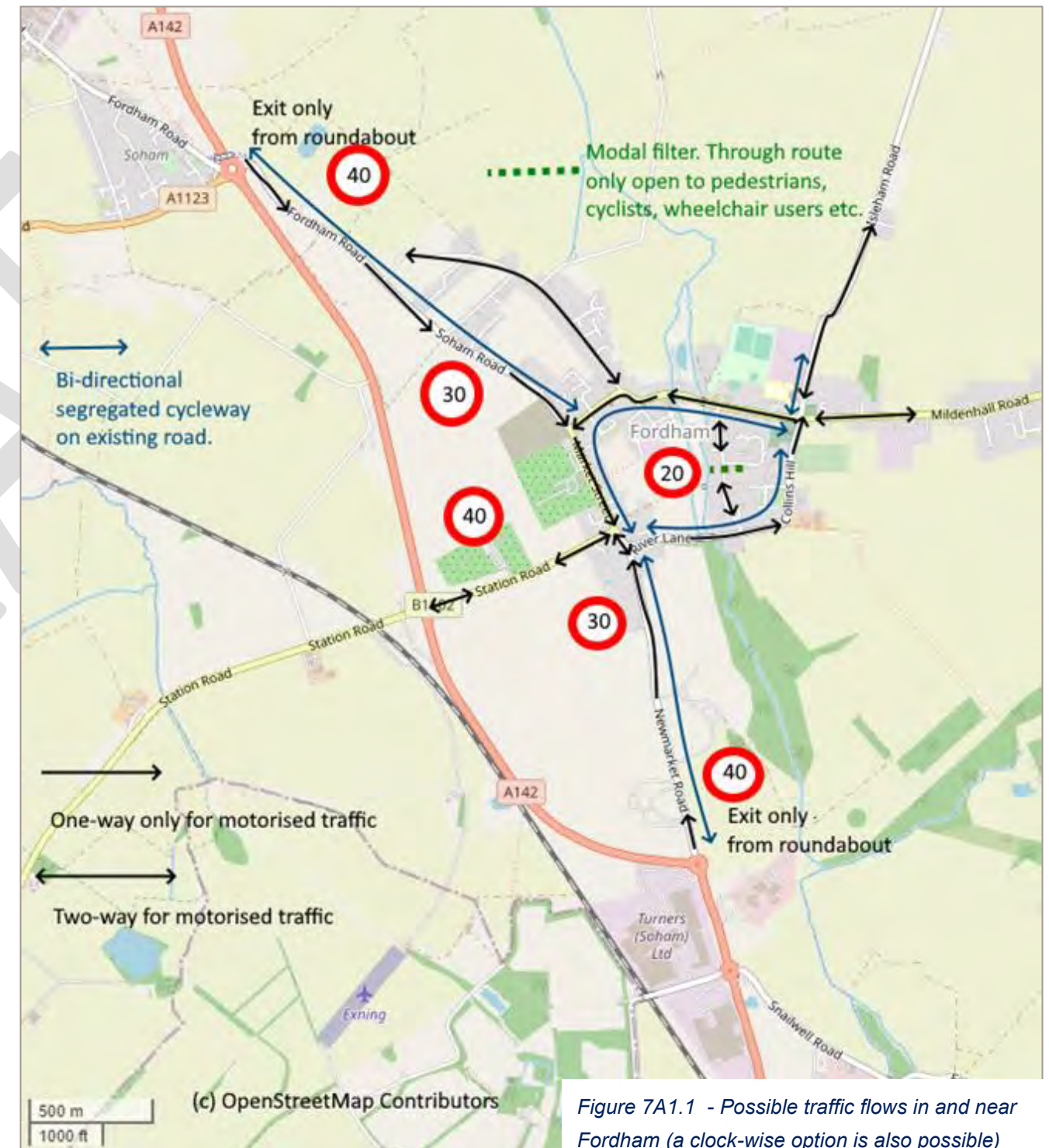


Figure 7A1.1 - Possible traffic flows in and near Fordham (a clock-wise option is also possible)

A link between Fordham and its employment area would directly lead onwards to Isleham via whatever route option is chosen. Its alignment will therefore remain consistent across all options. The recommendation made for this link in the Burwell to Fordham Feasibility Study is outlined below.

It is recommended that Newmarket Road be made one-way to allow for an LTN 1/20 compliant bi-directional cycleway. This would be an extension of the recommended one-way system in Fordham village itself. The A142 bypass and Station Road in Fordham (both of which are to remain two-way) about Newmarket Road to form a circular route. This would retain accessibility to any location by car but slightly reduce the convenience of doing so, especially in the instance of short journeys.



Figure 7A1.3 – Rosehill Highways showing segregated cycleway being established on existing carriageway

From the centre of Fordham to the point where Landwade Road meets the entrance to Turners there should be a segregated cycleway away from existing footways and set well back from the carriageway. There also needs to be a safe crossing of the A142, which will either need to be a bridge or a signalised crossing. There appears to be space for a segregated cycleway within the planted areas behind the highway boundary, along the A142 and near the employment sites, but the



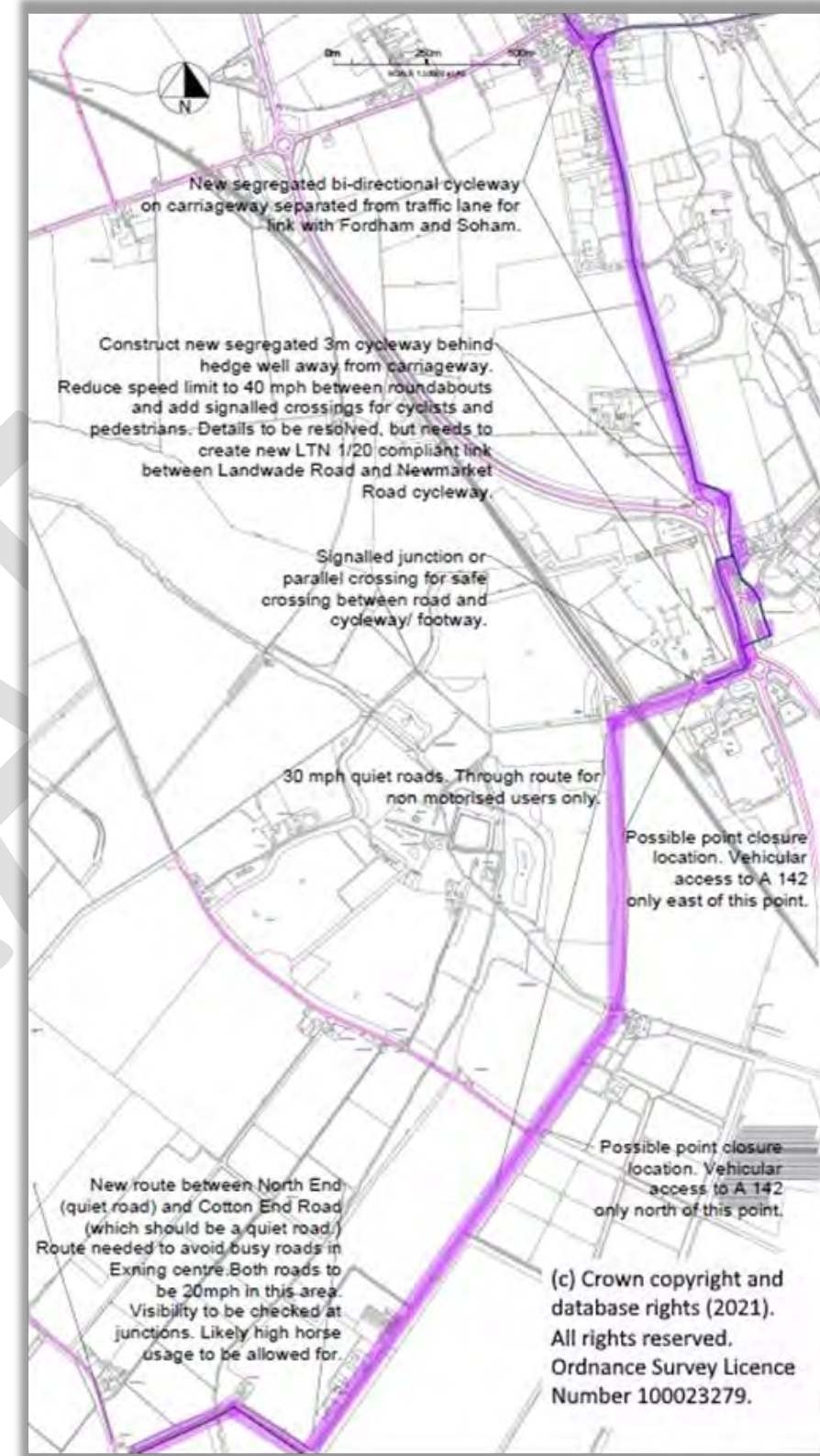
Figure 7A1.2 - Visualisation showing new segregated cycleway formed by reallocation of road space with one-way traffic flows.

area is likely to change and detailed design needs to be a part of any development, which must deliver LTN 1/20 compliant facilities and a safe crossing of the A142 in an area where there are a number of major gas pipes, as well as the ecology which recommends avoiding the woodland. In order to accommodate a signalised crossing a 40 mph limit needs to be established and this would be an appropriate location for this. An at-grade signalised crossing of the A142 is feasible at some point between the two roundabouts.



Figure 7A1.4 – View showing space away from the carriageway near the Turner's site that could be used for a new segregated cycleway. There are services as well as trees in this area and it will need surveying.

Figure 7A1.5 - Fordham employment area alignment drawing



For Fordham itself the one-way system envisaged in Figure 7A.1.1 or a similar clock-wise arrangement would allow the construction of segregated cycleways and would create a much more positive walking and cycling environment in the village. This will of course need a lot of consultation and community engagement and it will be important to understand all the farming and other operations in the area to ensure that these can be accommodated.



Figure 7A1.7 – Visualisation of Sharman’s Road showing potential arrangement.



Figure 7A1.8 – Temporary one-way arrangement in November 2023.

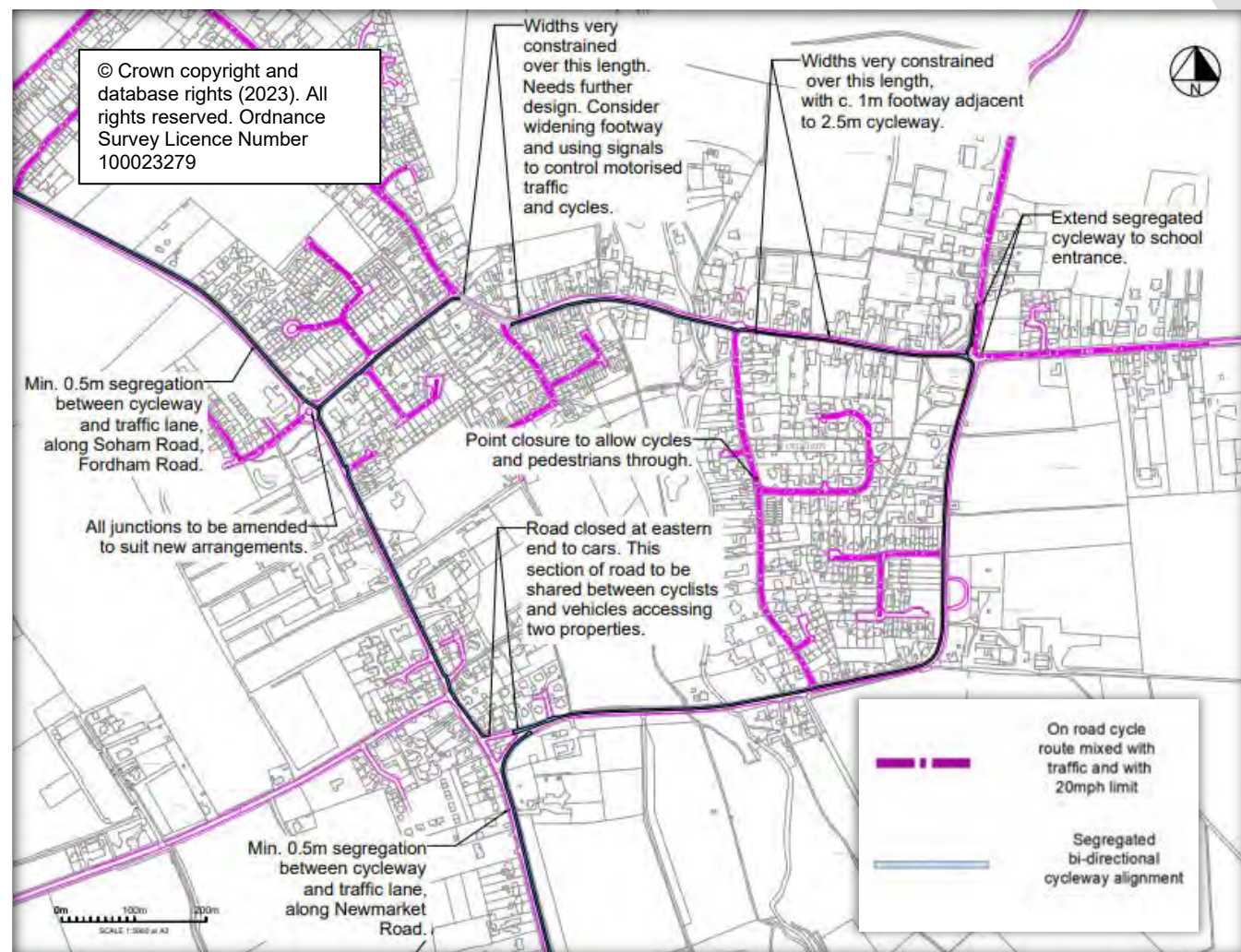
ii.

This option leaves Fordham on Isleham Road passing Fordham Primary School – an important local destination, that local children should be able to cycle to and from safely and comfortably.

Last year’s Burwell to Fordham study showed that the following visual would be feasible over this section of road with two-way traffic maintained, but with on-street parking by the school and cemetery removed. It is very important that the best possible access is provided to the school to give the young people good walking and cycling options.

Figure 7A1.6. – Drawing showing how cycleways could be provided with a one-way system.

Figure 7A2.1 - Visualisation of potential alterations around Isleham Primary School. Note that the details are dependent on the onward option along Isleham Road so the grass strip and junction may need to change.



iii.

As mentioned previously, the alignment of Option A actually presents three options; two of these options would see two-way traffic maintained over this section of Isleham Road and that would mean that a segregated cycleway as in Figure 7A2.1 would not be possible due to lack of space. Buildings line the road on either side here, and the space between them is around 9m. This would mean a short stretch of shared use would need to be put in place here while keeping the narrow footway on the other side of the road. This would be acceptable but less than ideal considering the proximity to the primary school – a point with road safety issues associated with the picking up of school children in cars. A drawing detailing specific measurements and recommendations for this section of route is found in Figure 7A3.4. It should be noted that this involves reducing the carriageway width to 4.8m in one location which is a minimum width acceptable within Manual for Streets Figure 7.1. In outline, the provision of an adequate shared use path of around 3.7m with a 0.5m buffer either side would require the removal of the footway on the eastern side of the road beyond the point where the footway on the western side of the road currently ends, just beyond the primary school. This may be seen as an admissible sacrifice since there is currently only a footway on one side of the road anyway. Moving the shared use path to the western side would remove the need to install a signalised crossing, by the school, but may need one to be added at iv. This would appear to be a good option for users.

If additional non-highway land can be used either to the west or the east of Isleham Road it would be possible to reduce the length of shared path on highway land and to have a segregated route set back from the highway. It may also be possible to change the position of the shared path to the eastern side if that is preferred but that would need additional crossing points and will need more design

work as well as community engagement to understand what would work best. It should also be noted that if a traffic restraint option is chosen for Isleham Road and the road is designated as 20 mph it would be appropriate to have cyclists on the road mixed with traffic on this section and a shared use path would not be needed.

There are therefore a lot of variables over this length depending on onward options and on whether additional land can be acquired.



Figure 7A3.1 – View of Isleham Road away from Fordham Primary School.



Figure 7A3.2 – View of Isleham Road towards Fordham Primary School.



Figure 7A3.3 – View of Isleham Road with farm adjacent.

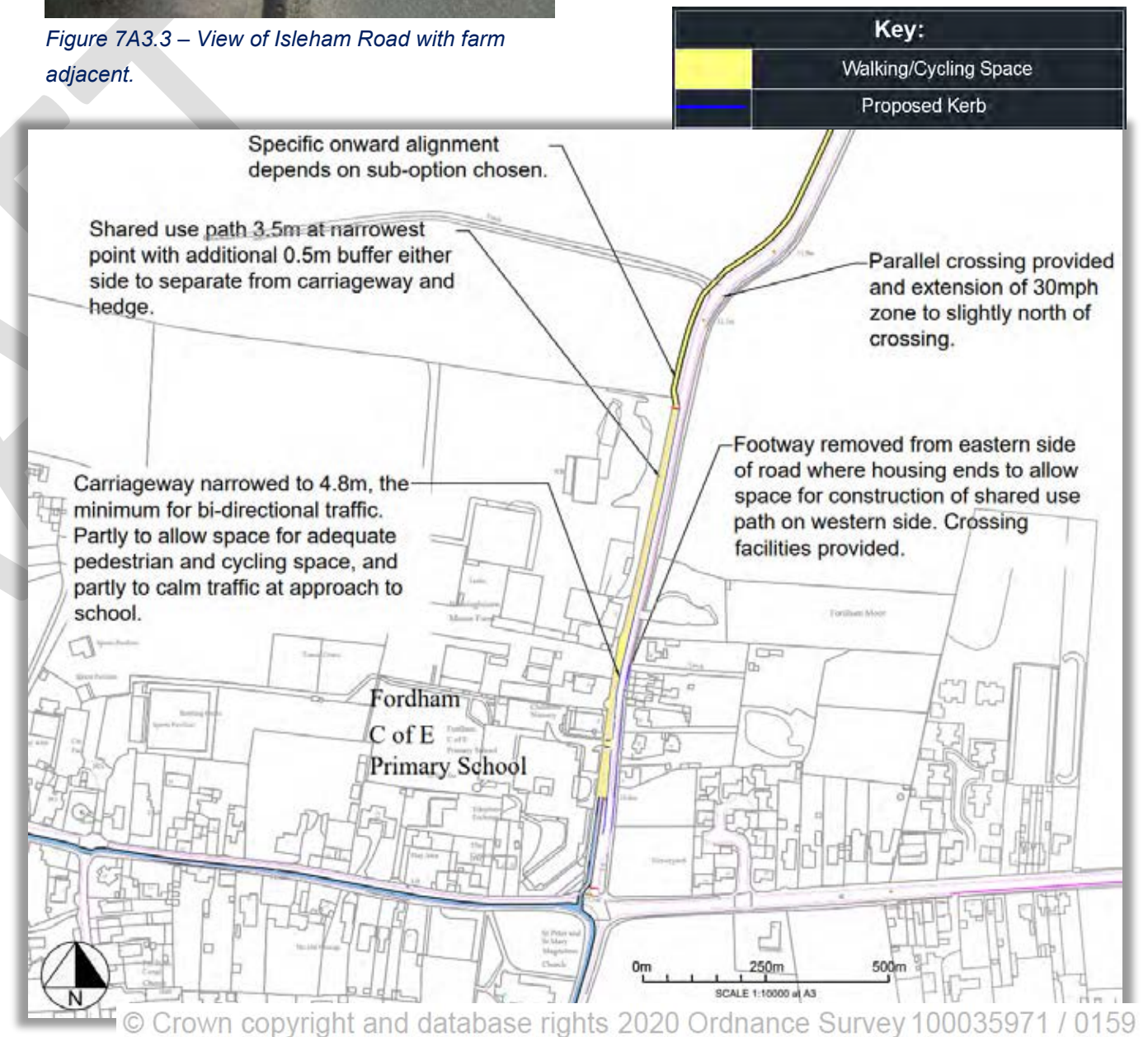


Figure 7A3.4 – Drawing showing possible layout subject to what is proposed further along Isleham Road.

iv.

Dependent on which option is chosen for Fordham Road it may be necessary to add a new crossing point in this area so that those using the existing footway from the north can cross the road. This would apply for the one-way option and retained two-way through traffic where the shared path in iii. is needed. The recommendation would be that if a crossing is needed it should be a zebra crossing on a raised table and the village 30 mph limit should be extended out to this location as a village gateway. See Figure 7A.3.4.



Figure 7A4.1 – View of Isleham Road with existing footway.

v.

Between the edge of Fordham and the bridge over the disused railway Road there are three options for Isleham Road as outlined earlier – sub options A1, A2 and A3. For section v. there is an existing footway between the village and the group of houses that are about 500m from the village edge. The options over this section are illustrated in Figures 7A5.2, Figures 7A5.3 and Figures 7A5.4. For Figure 7A5.2 any new shared path would need to be in field edges to the west of Isleham Road (left side in the Figures). This is due to lack of continuous space on the eastern side. For Figure 7A5.3 it would be possible for the one-way direction

to be reversed and the position of the path to be moved, as long as this linked with crossing arrangements at Fordham and Isleham. For the one-way option the speed limit would need to be reduced to 30 or 40 mph or the buffer would need to be increased and there is not space for that. For Figure 7A5.4 a 20 mph limit is recommended.



Figure 7A5.1 View towards Fordham with footway on left.

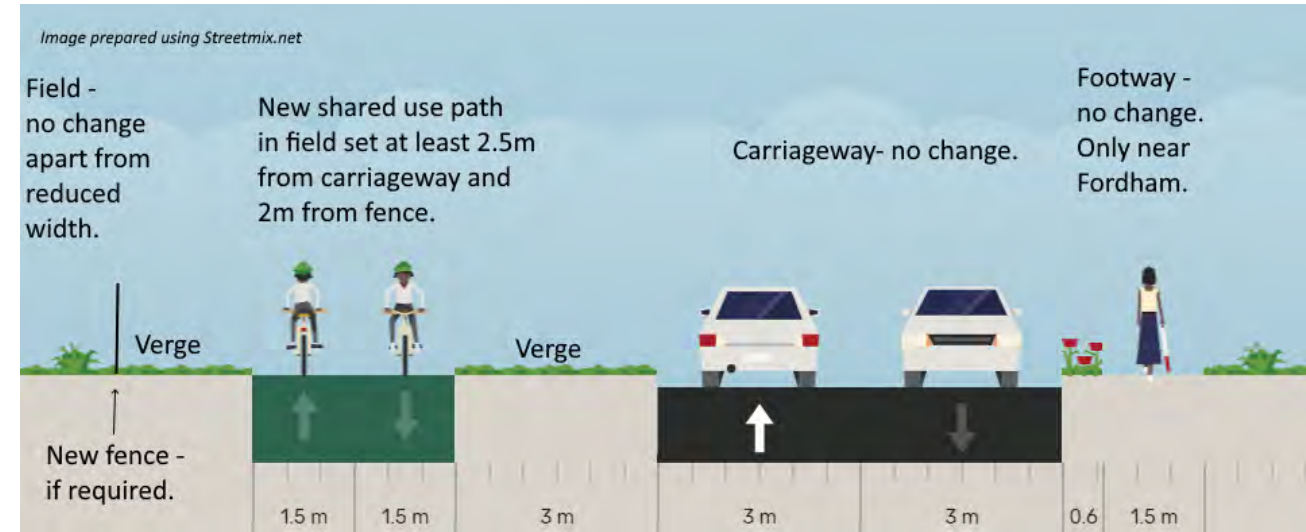


Figure 7A5.2 View towards Isleham showing existing traffic retained and new path in field edge.

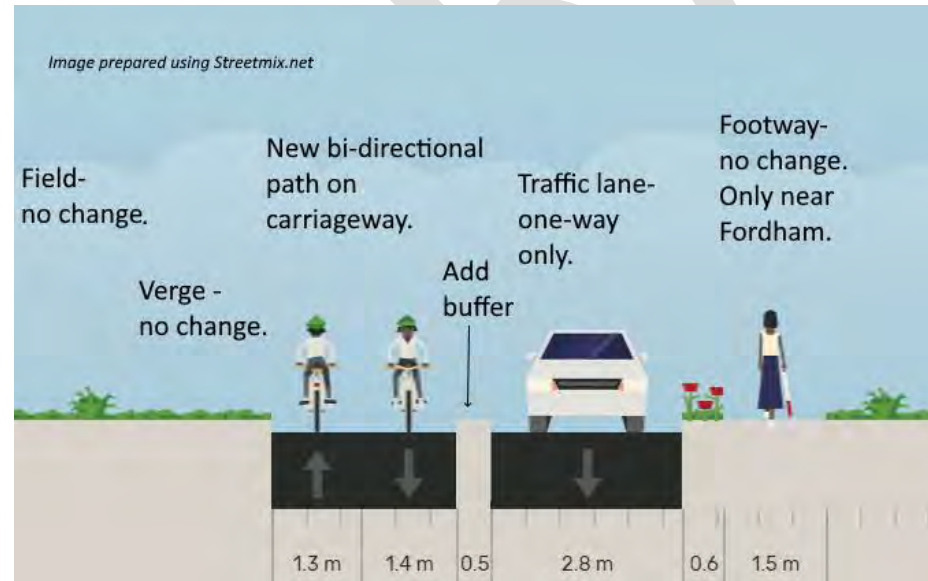


Figure 7A5.3 View towards Isleham showing new one-way system and re-allocated roadsapce.

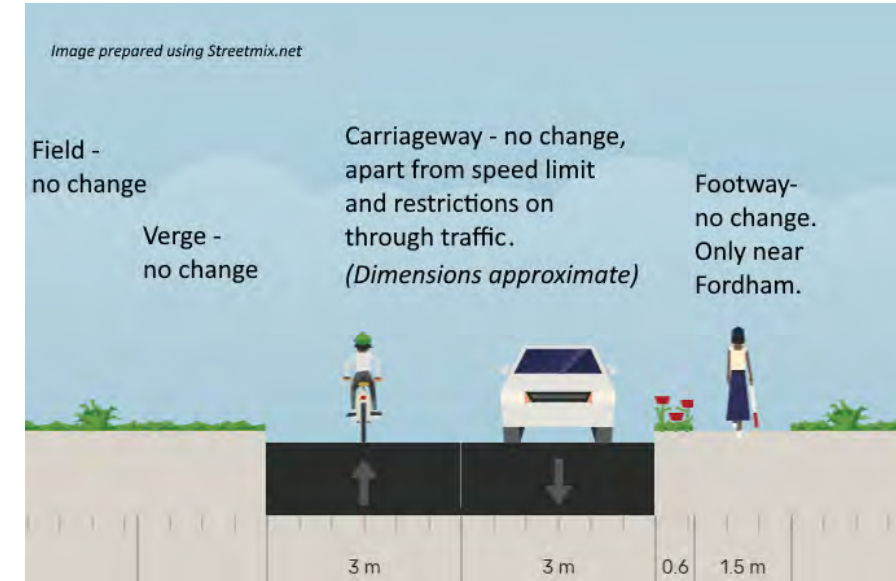


Figure 7A5.4 View towards Isleham showing mixed traffic arrangement.

vi.

As the route reaches the houses and the road that serves them there is a need to provide access for the residents who live there so that they can access both Isleham and Fordham. This means that they need a connection to any new provision and that connection will vary depending on the option chosen. For the options shown in Figure 7A5.2 and Figure 7A5.3 (new shared path and traffic arrangements as existing and new one-way system and re-allocated roadspace) it will be necessary to cross one or two traffic lanes to access the new facilities and it is suggested that a signalled junction with pedestrian and cycle provision will be needed. Again, depending on the option this may need speed limit changes and a speed limit of 30 mph would be appropriate by the houses. For the option as shown in Figure 7A5.4 traffic volumes and speeds should be low enough to allow crossing without signals but a zebra crossing near the junction is recommended to aid crossing and help to slow speeds.



Figure 7A6.1 - The existing junction.

vii.

As the route continues towards Isleham the options are the same as in section v. except there is no footway over this length, with no current provision for people to walk to Isleham, apart from on the road. Again, the only realistic option for any off-highway path would be on field edges to the west of the road, due to properties on the opposite side of the road.



Figure 7A7.1 - View towards Fordham showing field to the right.



Figure 7A7.2 - Business access to the east of Isleham Road near disused railway bridge.

viii.

Isleham Road becomes Fordham Road as it crosses over the former railway line. In this area there is limited verge space and any new shared path to the west of the road would have to be at a different level below the bridge and would have to use the existing access road to the nature reserve, so the route would be shared with occasional car traffic. Provision would need to be made at the interface between shared path and access road with bollards. The access road will need resurfacing and the existing gate, which is closed at night will need moving.

For the mixed traffic option there will need to be a point closure of the road to through traffic at some point or significant changes that alter the nature of the traffic along the road. The location can vary but for a point closure there will need to be suitable turning heads and a closure at the railway bridge seems an obvious location, especially with the Nature Reserve access road to the north of the bridge and the business access to the south of the bridge. The simplest arrangement for closure would be the installation of bollards at each end of the bridge ramp.

There is an occasional bus service along the road and if it was required to provide exemption for this bus service a bus gate would be needed. Cambridgeshire County Council does not currently have the powers for this, but it has to be assumed that they could get them at some point. For a weight limit restriction again the obvious location for a weight limit would be at the railway bridge, but this would need to be considered in consultation with the local businesses. A speed limit change would also need to be made alongside the weight limit and this will need extensive consultation and engagement. Prior to all this though it will be necessary to do traffic counts and speed checks to get more data on current traffic levels and whether

the changes to traffic speeds and the changes to hgv traffic would be satisfactory for mixed traffic within LTN 1/20.

For the one-way option provision would continue to be on the existing road.



Figure 7A8.1 - View towards Isleham and former railway bridge.



Figure 7A8.2 - Existing access road to Nature Reserve by former railway bridge.



Figure 7A8.3 – View towards Fordham and former railway bridge.

ix.

As the route continues towards Isleham the options are again the same as in section v. except there is no footway over this length, with no current provision for people to walk to Isleham, apart from on the road. Again the only realistic option for any off-highway path would be on field edges to the west of the road, due to properties on the opposite side of the road.



Figure 7A9.1 - View towards Fordham and former railway bridge.



Figure 7A9.2 – View towards Fordham and former railway bridge showing properties on one side of the road.

x.

At the Hall Barn Road junction there is a choice of routes to link with properties in Isleham – either along Hall Barn Road or along Fordham Road. For the continuation of the route along Fordham Road crossing provision is needed at the Hall Barn Road junction. The crossing arrangement will depend on speeds but allowance should be made for a signalled crossing at or set back from the junction.



Figure 7A10.1 - View of Hall Barn Road junction.

xi.

As the route continues towards Isleham the options are again the same as in section v. except there is no footway over this length, with no current provision for people to walk to Isleham, apart from on the road. Again for continuity the best option for any off-highway path would be on field edges to the west of the road. There is a significant housing development currently underway on the land surrounding Bluebell Road which appears to have left space between the existing footway and the new housing. Working with these developers could facilitate an off-road link further into Isleham. At a suitable location where space becomes more constrained it will be necessary for cyclists to join the carriageway, with pedestrians able to use footways. The road should be designated as 20 mph from at least the point where cyclists have to join the carriageway– see section xii.



Figure 7A11.1 - View towards Fordham showing where space becomes constrained besides the road.



Figure 7A11.2 - View towards Fordham showing where space becomes constrained besides the road in the distance.

xii.

Isleham does not appear to have the same traffic volume issues that Fordham does. Whilst numerous roads come into the village, none of them directly lead to large populations. Traffic could therefore be calmed with speeds brought down to 20mph, perhaps with a focus on changing junctions and improving crossings. In that way the entire village would be acceptable for mixed on-road cycling. Pedestrians would also benefit from the safer and more pleasant environment that currently only exists around the local school.



Figure 7A12.1 - View towards Fordham on Fordham Road showing that roadspace can be reallocated if that were required.

It is recommended that the priority for Isleham is tightening up junctions and making them safer and less intimidating (see Figure 7A.12.2). Traffic is not always as quiet as in Figure 7A.12.3, but lowering speeds is likely to be more achievable than lowering traffic volumes. Minimising traffic growth will of course be important.



Figure 7A12.2 – Existing 20 mph limit near Isleham Primary School.



Figure 7A12.3 – Fordham Road/ Mill Street/ Station Road junction where a redesign is recommended to make the junction safer and easier for walking and cycling.



Figure 7A12.4 – Mill Street at a quiet time.



Figure 7A12.5 – Mill Street would benefit from a 20 mph limit.

Some visualisations of potential changes are shown on the following page. These would need detailed design and further community engagement. They are an illustration of relatively small changes to bring speeds down and create a more attractive local walking and cycling environment.



Figure 7A12.6.– West Street/ Mill Street junction existing (below) and how it could look (above).

Figure 7A12.7– Fordham Road / Mill Street junction existing (below) and how it could look (above).

**Option A
Summary**

Comparative Length	4.4 km (Isleham Centre to Fordham Centre). (4.4km by road- 6.2km if one-way or road closure introduced)
Comparative Length	6.25 km (Isleham Centre to Fordham employment south) (8km by road if one-way or road closure introduced)
Likely estimated cost	<ul style="list-style-type: none"> • For off road: 2.75 km new path on fields, 1x signalled junction, 1 x parallel crossing, plus Isleham and Fordham costs, plus Fordham to Fordham employment area costs. • For one-way: 2.75 km new path on re-allocated roadspace, with kerbs, 1x signalled junction, 1 x parallel crossing, plus Isleham and Fordham costs, plus Fordham to Fordham employment area costs. • For mixed traffic: Bollards, plus new signage, plus Fordham to Fordham employment area costs.
Engineering difficulties	The biggest challenges are at the approach to Fordham and Fordham Primary School, where space is very constrained. For the mixed traffic option the engineering challenges are relatively minor.
Ecological issues	Nothing major raised. Loss of field edge or some loss of verge depending on options.
Land ownership issues	Needs agreement of landowners for field edge works.
Other issues	There are a number of alternatives which will need careful consideration and community engagement. For the mixed traffic option the number of HGVs is a concern and it will be important to understand local business needs.
Overall	This is the most obvious route for Isleham- Fordham, since it follows the most direct road. In terms of directness and concerns about isolation it scores well. The exact solution depends on community engagement, funding and whether private land can be acquired. This is an achievable route, but the most achievable version would involve significant changes to traffic flow so that will need community support.

Option B

Option B. This option has sub-options at the start. The more direct paths follow Public Rights of Way that connect Carter Street with Fordham Moor. Both rights of way options have difficulties. A road option could be to continue on Carter Street north-westerly then joining Fordham Moor from there, although this is less direct. Fordham Moor is a quiet and attractive road that leads towards the disused railway (Isleham Railway Local Nature Reserve). The route would then follow a field edge before either passing through the reserve area or using

a field edge alignment parallel with the reserve, but outside it. The route would then link with Isleham Road. Both Options A and B would make use of the final third of Isleham/Fordham Road via a 3m cycle segregated away from the carriageway, although a different approach to Isleham is considered for Option B compared to Option A (along Hall Barn Road as opposed to Fordham Road).

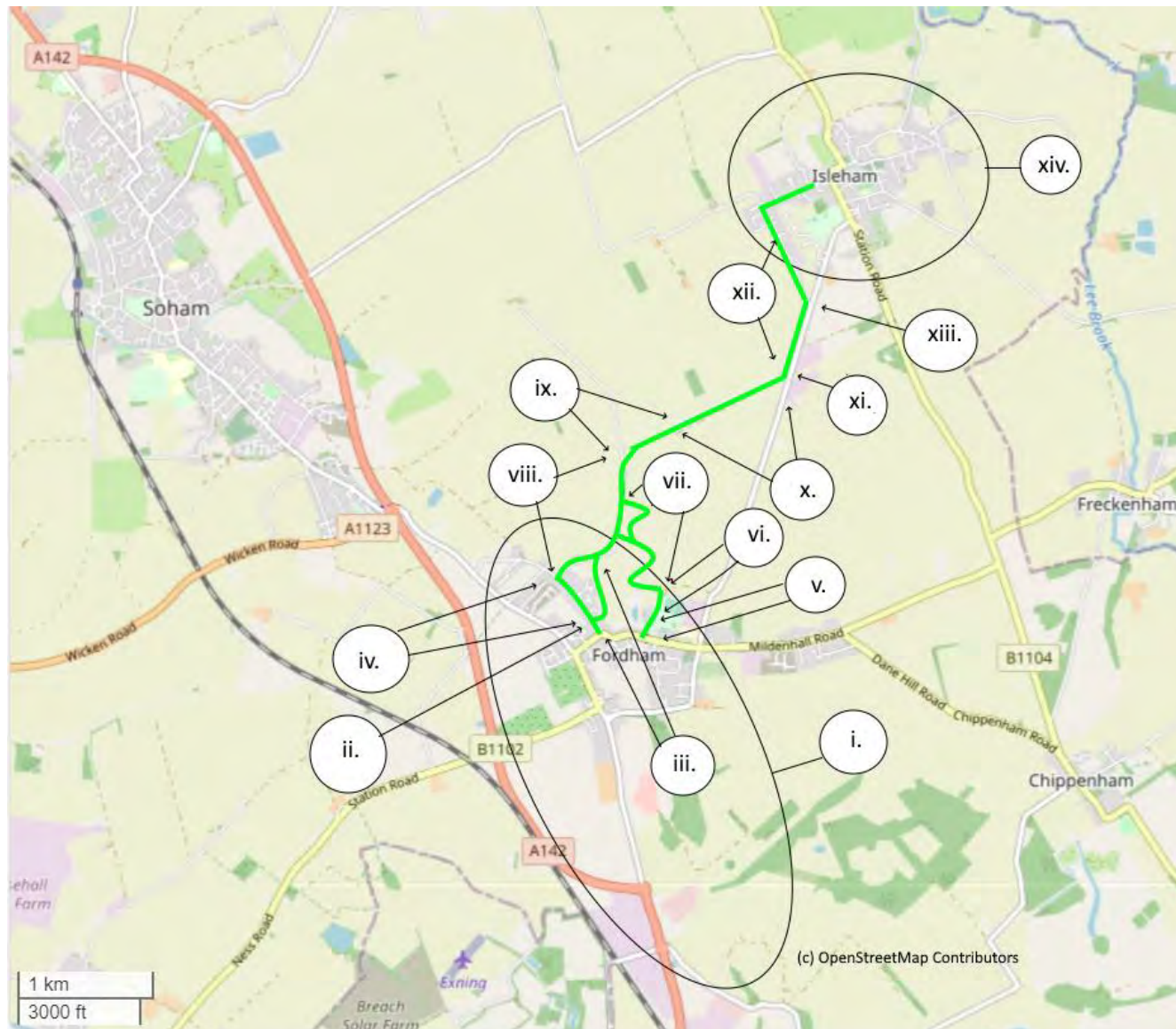


Figure 7B.1 – Route sub-sections

i.

The route starts on Carter Street, which has different characters - where it forms part of the B1102 (busy with commercial activity) and where it is not part of the B1102 (mostly relatively quiet and residential road). Different solutions are needed for the different parts of Carter Street, but essentially this is about improving provision for walking and cycling by these modes across the whole of Fordham. See section i. of option A. There are three sub-options for linking with Carter Street, using public footpaths or a quiet lane, but all need changes across Fordham so that local people can access them.



Figure 7B.1.1 – Carter Street where it is part of the B1102 at a quiet time.



Figure 7B.1.2 – Carter Street where it is not part of the B1102 and leading to a residential area.

ii.

This sub - option uses a public footpath that joins the quieter part of Carter Street between numbers 120 and 124 and the start of the route is its biggest weakness, due to the lack of available space between gardens. The distance between fences appears to vary between just less than 3m and just over 2m but the width is reduced significantly by hedges. The minimum width to accommodate a 3m path between fences should be 4m and this would only be possible by acquiring parts of one of the adjoining gardens and removing hedges. This might be possible but could be difficult especially given that there are alternatives. It is only worth pursuing if the landowners for the whole route were supportive and there was no need to use Compulsory Purchase Powers.



Figure 7B.2.1 – Carter Street where it is not part of the B1102 and with the red arrow at the start of the narrow public footpath.



Figure 7B.2.2 – The narrow section of path.

iii.

The public footpath continues to Fordham Moor across agricultural land, where users could join the road. It would be possible to use the public footpath alignment but that would mean surfacing a path across farmland and a more acceptable option might be to follow field edges. Whilst this would be an attractive route it does not have major advantages over iv. and is not recommended, particularly given the difficult link with Carter Street in Section ii.



Figure 7B.3.1 – The public footpath across field and a field edge alternative to the left.



Figure 7B.3.2 – The public footpath across the field.

iv.

Although less direct, it may be more realistic to imagine the route continuing on-road along Carter Street to where Fordham Moor meets Carter Street. (Fordham Moor is given the street name Moor Road at this point.) With Carter Street as a 20 mph road and relatively low traffic volumes this should be an acceptable route for cyclists to mix with traffic.



Figure 7B.4.1 – Carter Street where it is not part of the B1102 at the approach to Fordham Moor (on the right).

v.

The eastern sub-option is a highly attractive route. The public footpath connects to Fordham off Carter Street (where Carter Street forms part of the B1102), connecting onto a gravel path with housing on one side. The major issue with the public footpath is that the gravel path then connects to a narrow path that is not suitable for use. A better alignment would be to follow a similar alignment within the adjacent Recreation Ground. This would need to be agreed with the Parish Council and any alignment would probably need to be along the edge so as not to interfere with the various sporting and other activities.



Figure 7B.5.1 – Existing gravel path



Figure 7B.5.2 – Access to the Recreation Ground.

vi.

Although onwards, the public footpath alignment seems appropriate for paving with a wide existing path and limited biodiversity the Recreation Ground would be a better alignment, especially since the public footpath skirts round an ecologically sensitive area.



Figure 7B.6.1 – Recreation Ground



Figure 7B.6.2 – Recreation Ground access to field and link with public footpath.

vii.

Onwards, the public footpath follows the River Snail to Fordham Moor road bridge. This is an open attractive route until it approaches Fordham Moor where it becomes too narrow for use. The only ways that a wide surfaced route looks achievable would be to bridge over the River Snail and construct a new path on the opposite bank to the public footpath or to construct a new longer path on field edges around the private garden to join Fordham Moor further north. Both options need landowner's agreement and a new bridge would need additional consents. A bridge and new path is the shorter option by a long way, but both options are worth considering further.

As mentioned in the Issues with Existing Routes chapter, the existing access onto the bridge deck (Fordham Moor) isn't possible by wheel as it is. This is in part due to the gradient and in part due to the gate. The approach to the bridge on the opposite side of the river can be regraded and there should be no gate. This would be beneficial from an accessibility point of view.

Overall, this sub-option is rife with constraints on the public footpath alignment, but a route that approximately follows a similar alignment is

possible. This would link the Recreation Ground (which seems to be a focal point of community life) with Fordham Moor, providing potential for local circular routes and an onward link with Isleham if a route via Fordham Moor is developed. This route could be in addition to changes within Fordham but is not as high a priority as changes to the roads within Fordham, because that would improve access for more people.



Figure 7B.7.1 – Field edge path from Recreation Ground



Figure 7B.7.2 – Riverside path



Figure 7B.7.3 – Riverside path approach to narrow path. There would need to be a new bridge over the river in this vicinity.



Figure 7B.7.4 – Public footpath – too narrow for use.



Figure 7B.7.5 – Public footpath – too narrow for use. Any surfaced path would have to be on the other side of the river.



Figure 7B.7.6 – View from Fordham Moor. Any surfaced path would have to be on the right side of the river.

viii.

Fordham Moor is a quiet and attractive road that could be left as is and fit within the proposed route, at least within this sub section. A better option would be to designate it as a Quiet Lane and give it a 20mph limit. The process of designating it as a Quiet Lane involves extensive community engagement and has to follow procedures laid down in the relevant legislation.



Figure 7B.8.1 – Fordham Moor near Carter Street



Figure 7B.8.3 – Fordham Moor looking towards the former railway bridge and link path to the right



Figure 7B.8.2 – Fordham Moor

ix.

The route would follow a field edge path that branches off Fordham Moor. This field edge is a well walked path but is not a right of way and is well below standards for accessible wheeling and walking, being very narrow and unpaved. There is scope to widen and surface this path to 3m. The land forms part of the County Council Rural Estate. The route joins Fordham Moor at a farm access and then runs along the foot of the embankment that supports the road as it goes over the former railway bridge. The route then turns away from the road and follows a field edge until it joins with the wide open area of the Isleham Nature Reserve. The field that the route adjoins was part of a railway line, but has been converted to farmland over this section.



Figure 7B.9.1 – Track at foot of road embankment looking towards Fordham Moor



Figure 7B.9.2 Field edge path view towards Fordham Moor.



Figure 7B.9.3 – Track on field edge and view towards Fordham Road from road bridge (Fordham Moor).



Figure 7B.9.4 – Track on field edge looking towards where Figure 7B.9.3 image was taken.



Figure 7B.9.5 – View from edge of Isleham Nature Reserve looking towards field edge path and Fordham Moor in distance.

x.

As with section ix. this section was a former railway, but section x. retains more of the railway features and is now a very attractive Local Nature Reserve. Any works in this area will be challenging due to the need to protect habitats and the potential



Figure 7B.10.1 – View from the western end of the nature reserve showing the size of the site and some paths.

Biodiversity Net Gain implications. Any route through the area will need to be very carefully considered and may need detailed habitat survey depending on the alignment. Some alignments will undoubtedly be more sensitive than others. There are a number of worn routes with cut grass paths along the north and south of the former railway corridor and a narrower path between hedges to the south. (See Figure 7B10.1).

A route that went parallel with the disused railway but outside it on farmland is a serious alternative that could also form a good route. The route would either pass through the Local Nature Reserve or through a field edge alignment parallel with the reserve, but outside it, before linking with Isleham Road. The former would be highly attractive and benefit local residents by giving direct access to

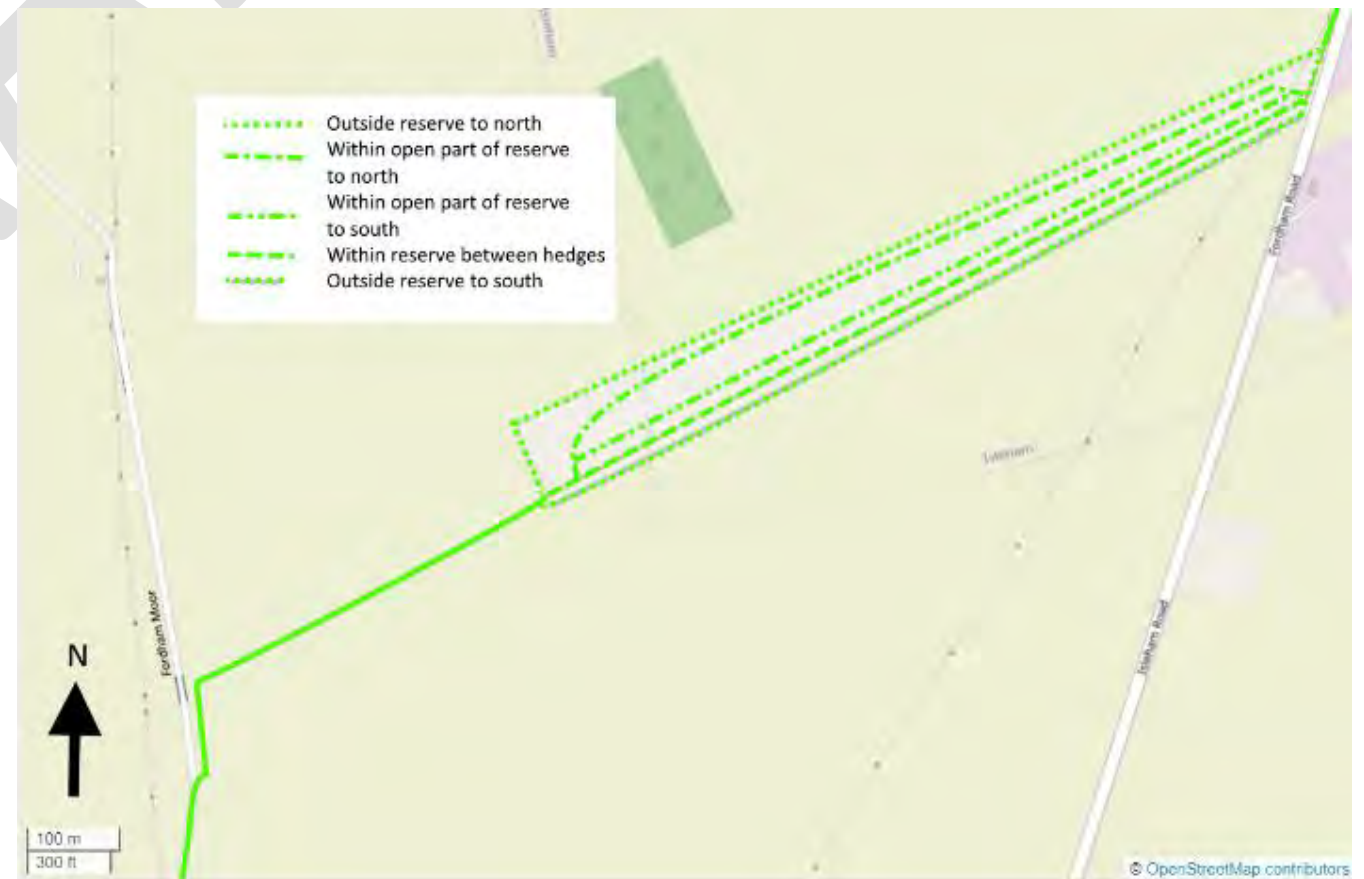


Figure 7B.10.2 – Plan showing some of the more obvious route options to consider.

local biodiversity and history. The latter may be the better option depending on the overall impact on ecology.

The most obvious options are set out in Figure 7B.10.2 with images of the different options.

For the route to the north and outside the reserve it would also be possible to avoid the reserve by creating a new route to the west of the reserve. (See Figure 7B.10.3). At the Fordham Road end of the reserve there is an existing access track that it might be possible to use shown in Figures 7B.10.6 and 7B.10.7



Figure 7B.10.3 – Field edge to the west of the reserve.



Figure 7B.10.4 – Field edge outside and to the north of the reserve.



Figure 7B.10.5 – View showing path on nature reserve and field edge behind hedge to the north of the reserve.



Figure 7B.10.6 – Access track outside and to the north of the reserve view towards Fordham Road.



Figure 7B.10.7 – Access track outside and to the north of the reserve view from Fordham Road.



Figure 7B.10.8 – Existing grass track within nature reserve on northern side view towards Fordham Road.



Figure 7B.10.9 – Existing grass track within nature reserve on northern side of open space with view towards Fordham Road.



Figure 7B.10.10 – View from near entrance to reserve from Fordham Road showing grass tracks to north and south of open space.



Figure 7B.10.11 – Existing grass track within nature reserve on southern side of open space with view towards Fordham Moor.



Figure 7B.10.12 – Existing grass track within nature reserve on southern side of open space with view towards Fordham Moor.



Figure 7B.10.13 – Existing path between hedges on southern side of nature reserve with view towards Fordham Road.



Figure 7B.10.14 – Existing path between hedges on southern side of nature reserve with view towards Fordham Moor.



Figure 7B.11.1 – Track connecting nature reserve with Fordham Road.



Figure 7B.12.1 – Hall Barn Road.



Figure 7B.10.15 – All options merge near the entrance to the reserve off Fordham Road.

xi.

To join Fordham Road most options would make use of a track that connects the nature reserve to Fordham Road . It is currently inaccessible by all users due to gravel and uneven terrain. It would therefore need to be repaved. This would be beneficial outside of the context of this route option.

xii.

Both Options A and B would make use of the final third of Isleham/Fordham Road via the various sub-options described in section a. (a 3m cycle segregated away from the carriageway, or alterations to the carriageway to allow for on-road cycling). A different approach to Isleham is considered for Option B compared to Option A – using Hall Barn Road as opposed to Fordham Road.

Hall Barn Road is lined with light industry units on one side and is allocated with residential dwellings on the other. It is just about appropriate for on-road cycling due to volume, although the size of vehicles related to the industrial units may limit its attractiveness. Additionally, there is no footway on the road. It would therefore be ideal if stipulations were made on the housing developers to provide active travel facilities on-site, catering for both pedestrians and cyclists.

West Street would link the route between the northern end of Hall Barn Road and Isleham centre. Unlike Hall Barn Road, West Street has a footway on both sides. It is also lightly trafficked. As a result, the street can be left as is to effectively work within the route.

xiii.

The junction of Fordham Road and Hall Barn Road provides a choice for route users. For those continuing towards Mill Street/ Station Road provision should be as in Option A with changes to the junction itself.



Figure 7B.13.1 – Hall Barn Road junction. Tightening the junction is recommended.

xiv.

For further information on the recommendations in Isleham centre, see Option A section xii.

Option B
Summary

Comparative Length	4.9 km (Isleham Centre to Fordham Centre). (4.4km by road - further if one-way introduced)
Comparative Length	7.3 km (Isleham Centre to Fordham employment south) (6.25km by road - further if one-way introduced)
Likely estimated cost	1.95 km new path on field edges or nature reserve, plus Isleham and Fordham costs, plus Fordham to Fordham employment area costs. Biodiversity net gain costs may be high depending on route chosen.
Engineering difficulties	The biggest challenges may be in any construction on the nature reserve if that were to happen, due to needing to protect habitats.
Ecological issues	There are various route options, which have differing impacts on ecology. These choices are significant and complex and are discussed in more detail in Chapter 9.
Land ownership issues	Needs agreement of landowners. Some land is part of County Council rural estate but not all.
Other issues	Uses Fordham Moor which would benefit from designation as a Quiet Lane.
Overall	If this route goes through the Nature Reserve it would be the most attractive route, but that has to be balanced against biodiversity issues. This is less direct than Option A, but would need less construction than an off-road path following Fordham Road/ Isleham Road and it has an easier link with Fordham than Option A.

Option C

Option C would be as Option B at the Fordham end but would continue further along Fordham Moor, passing over the old railway bridge and continuing towards the end of Fordham Moor, along the quiet road. Two options are suggested to link Fordham Moor with Isleham and both involve the use of farmland (belonging to Cambridgeshire County Council) and both involve the use of field edge paths. The most obvious and direct route would lead to Hall Barn Road, Isleham, in an area of

potential development, but an alternative option would lead to Common Gate Drove/ Temple Road, which is a quiet road that leads into Isleham.

i.

For further information of the recommendations in Fordham centre, see Option A

ii.

This would be as Option B at the Fordham end but would continue further along Fordham Moor, passing over the old railway bridge and continuing towards the end of Fordham Moor, along the quiet, attractive road. The remaining section of road is of a different quality to the previous, with a more uneven and damaged surface. This is in part associated with the use of heavy farm machinery and therefore will continue degrading at a faster than natural rate over time. This section is also slightly narrower than the previous. The precise width of course varies, but generally this section of route is closer to 3m whereas at the start of Fordham Moor is closer to 4m. This may not allow adequate space for route users to travel along the path at the same time as farm traffic, with the former needing to give way.

It may be unfeasible and even unnecessary to fully repave this section of road. Work could nonetheless be done to fill in some of larger faults on the road.

Figure 7C.1 – Route sub-sections



Figure 7C.2.2 – Fordham Moor near its end where the surface is poorer.

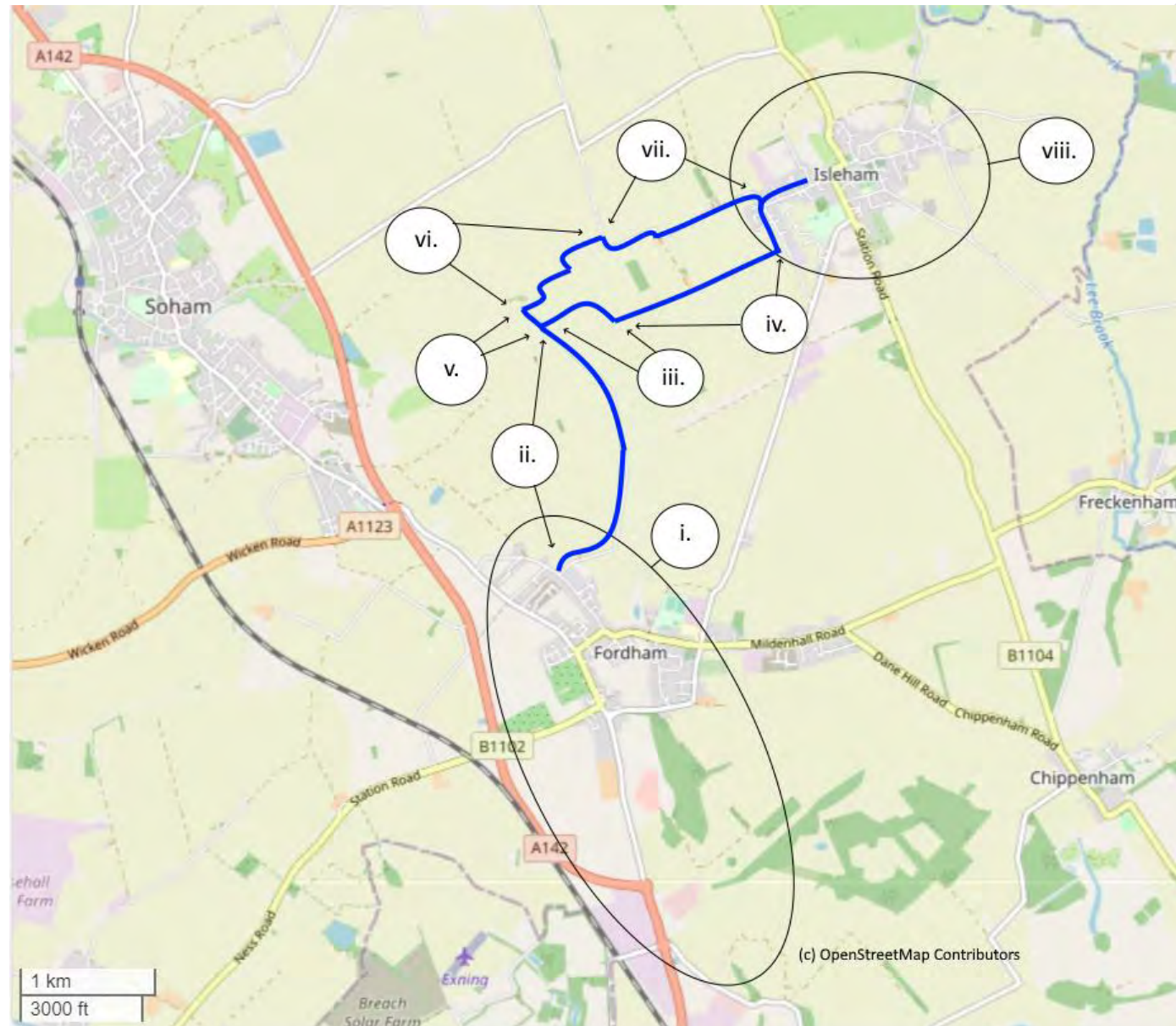


Figure 7C.2.1 – Fordham Moor.

iii.

Onwards, the route has not been surveyed because it is farmland with no rights of way, but it can be seen from boundaries and Google Earth. Any route would need landowner's agreement. The land is part of Cambridgeshire County Council's rural estate. Sub section iii would break off Fordham Moor slightly before its end to follow a perpendicular field edge. It is open land and with adequate width to be appropriate for paving. The route would then follow a drain for a short section.

iv.

The route would then follow a straight line of track that divides two fields to Hall Barn Road. The wear of the track indicates that it is currently used by vehicles, so agreement would need to be reached to come to an appropriate solution for fitting in space for active travel here.



Figure 7C.4.1 – The farm access joins Hall Barn Road here.



Figure 7C.4.2 – The farm access.

This alternative to iii. and iv. follows different field edges still on part of Cambridgeshire County Council's rural estate and would continue further along Fordham Moor, where the surface is in poorer condition than closer to Fordham. Surface improvements are recommended. .

v.

The route follows various field edges and a drain for this sub-section. Unlike the southern sub-option, it doesn't make use of trafficked farmland.



Figure 7C.5.1 – Fordham Moor at its end where surface improvements are recommended

vi.

The route would then lead to Common Gate Drove/ Temple Road, which is a quiet road which leads into Isleham. This demonstrates another advantage of the northern sub-option; it relies on a larger proportion of existing paved road, therefore in theory being cheaper and simpler. However the condition of Common Gate Drove is poor in places and surfacing works will be needed. The road is lightly trafficked and would benefit from being designated as a Quiet Lane with a 20 mph limit.

The exact position where the route would link with the public highway would need to be agreed. The public footpath alignment is across a field and is unlikely to be the preferred route.

On paper, the most obvious and direct sub-option is the southern one (iii. and iv.) due to its directness and the fact that it leads to Hall Barn Road, an employment and future housing area. Complexities of building on existing farm track and paving over a long distance in a flood plain, however, may draw decision-makers to the northern option.



Figure 7C.6.1 – The public footpath crosses this field. Seen from near where the footpath meets Common Gate Drove near the start of Temple Road.



Figure 7C.6.2 – Field entrance close to where the public footpath meets Common Gate Drove. This might be more appealing as an access.

vii.

Temple Road is a quiet road a good way to approach Isleham. It would benefit from Quiet Lane status and a 20mph limit.



Figure 7C.7.1 – Common Gate Drove where surface improvements are recommended. Figure



7C.7.2 – Temple Road.



Figure 7C.7.3 – Temple Road at the entry to Fordham.

viii.

The route would enter Isleham along West Street, which is relatively quiet. See Option A section xii. for more details on Isleham.



Figure 7C.8.1 – West Street .

**Option C
Summary**

Comparative Length	5.6 km(Isleham Centre to Fordham Centre). (4.4km by road - further if one-way introduced)
Comparative Length	7.9 km (Isleham Centre to Fordham employment south) (6.25km by road - further if one-way introduced)
Likely estimated cost	1.9 km new path on field edges, plus Isleham and Fordham costs, plus Fordham to Fordham employment area costs. (Depends on route agreed)
Engineering difficulties	The biggest challenges may be in any construction that also needs to accommodate farm traffic.
Ecological issues	Nothing major raised. Loss of field edge.
Land ownership issues	Needs agreement of landowners. All land is part of County Council rural estate.
Other issues	Uses Fordham Moor which would benefit from designation as a Quiet Lane.
Overall	This is less direct than Option A, but has an advantage in that it is entirely on County Council rural estate land and it has potential to link well with Soham (see Option E). There are a number of options subject to landowner's wishes.

Option D

This is a variation on Option B and uses a different route to link with the Local Nature Reserve at the Isleham end. Within Isleham an option using a Public Right of Way rather than Temple Road is considered and then an alternative alignment from Temple Road to the disused railway/ Nature Reserve is considered. Given that all options are dependent on the use of non highway land this option is worth considering in case it is one that landowners favour, although it does not seem as obvious alignment as Option C. At the Fordham end the route would be as Option C.

The route options have been sub-divided into sections of route, as shown in figure 7D.1. This is in part to structure this route appraisal by the varying characteristics across all the routes, and in part to provide a continuity across the options in the hope of encouraging the adoption of multiple routes or sections of routes across options.

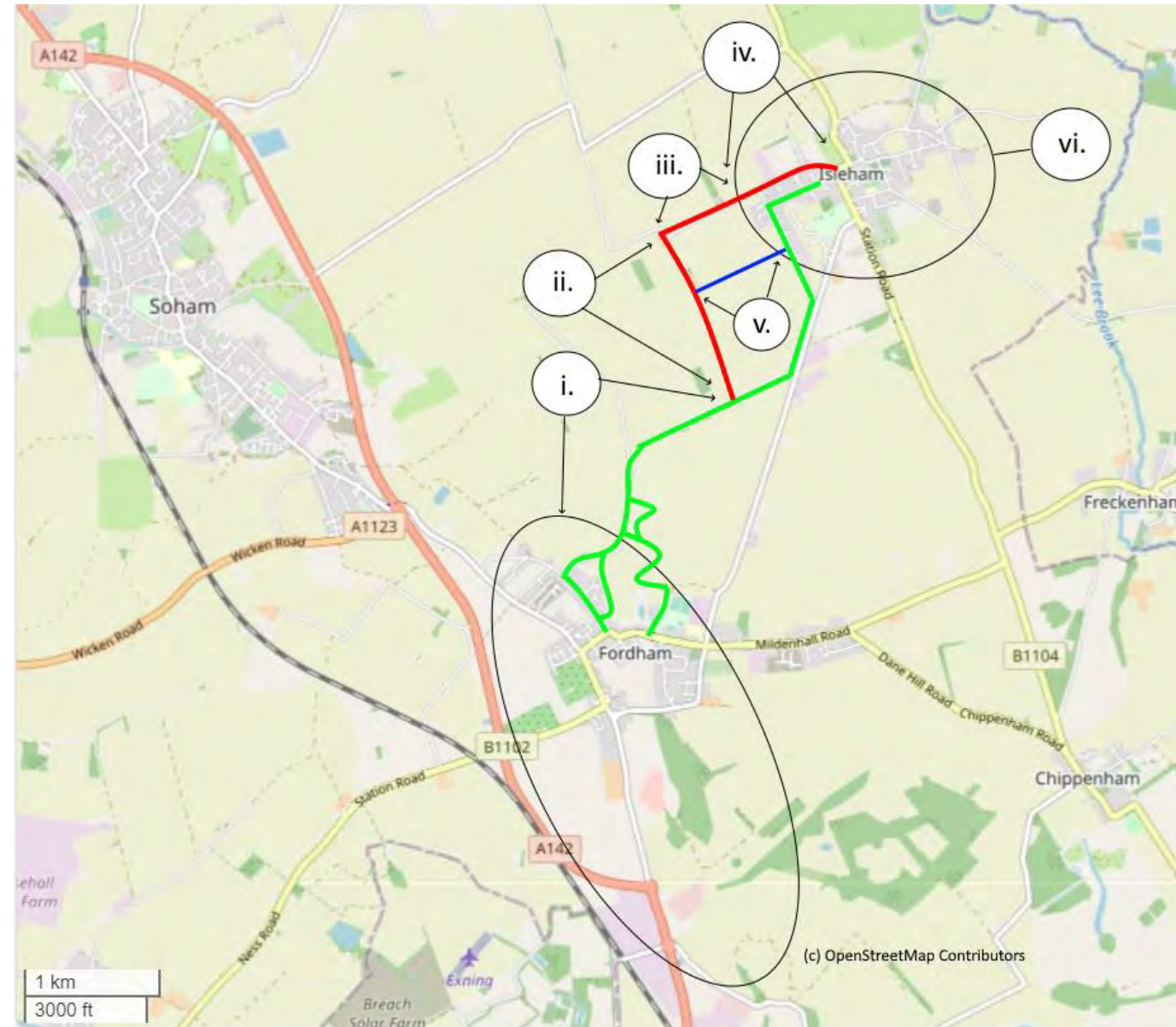


Figure 7D.1 – Route sub-sections

i.

This is a variation on Option B and uses a different route to link the Local Nature Reserve to Isleham. Information on how the route gets to this point can therefore be seen in Option B

ii.

This route has not been surveyed because it is farmland with no public right of way, but it can be seen from the ends and on Google Earth. The route would need to be agreed with landowners. Branching off the reserve, the route would join a currently unpaved field edge. Similar to other routes in this appraisal, this field edge is part of the County Council rural estate. Onwards, the route

could join the road associated with Chalk Farm, but the better option is likely to be to continue along the field edge to the south of that and behind Concord Farm farmhouse outbuildings and paddock to join Temple Road, making an opening in the hedge. (See Figure 7D.2.2). Visibility would need to be checked, even though Temple Road is mostly quiet.



Figure 7D.2.1 – Chalk Farm access road.



Figure 7D.2.2 – Possible access point through hedge.



Figure 7D.2.3 – Field edge seen through hedge.

iii.

Temple Road is lightly trafficked and would benefit from being designated as a Quiet Lane with a 20 mph limit.



Figure 7D.3.1 – Temple Road

iv.

Within Isleham there is an option of using a Public Right of Way rather than Temple Road and West Street. In places the public footpath uses a surfaced access road, then it is a grass path, then it joins Little London (a quiet road), then it uses more grass paths before arriving in the centre of Isleham in a beautiful location by the Priory. This is an attractive route to the very centre of Isleham that would need to be surfaced to at least 3m, but that would be extremely difficult and this is not a recommended route, especially given that using Temple Road and West Street is a much easier option, so this is not a priority.



Figure 7D.4.1 – Start of public footpath at Temple Road



Figure 7D.4.2 – Well surfaced farm road and public footpath



Figure 7D.4.3 – Public footpath connecting with Little London.



Figure 7D.4.4 – The route emerges to the left of Isleham Priory.

v.

As an alternative to the route continuing to Temple Road it could turn at right angles at the point where it crosses the route outlined in Option C. The route would then follow a straight line of track that divides two fields to Hall Barn Road. The wear of the track indicates that it is currently used by vehicles, so

agreement would need to be reached to come to an appropriate solution for fitting in space for active travel here. From Hall Barn Road the route could rejoin the routes outlined earlier for this option (section iv. or West Street).

vi.

The route would enter Isleham at Mill Street/ Church Street. See Option A section xii. for more details on Isleham.



Figure 7D.6.1 – Church Street .

Option D
Summary

Comparative Length	6.2 km(Isleham Centre to Fordham Centre). (4.4km by road - further if one-way introduced)
Comparative Length	8.5 km (Isleham Centre to Fordham employment south) (6.25km by road - further if one-way introduced)
Likely estimated cost	1.75 km new path on field edges, plus 0.6km new path on footpath in Isleham, plus Isleham and Fordham costs, plus Fordham to Fordham employment area costs. (Depends on route agreed)
Engineering difficulties	The biggest challenges may be in any construction that also needs to accommodate farm traffic.
Ecological issues	Nothing major raised. Loss of field edge. The route links with Option B which does have significant ecological issues, depending on which alignment is chosen.
Land ownership issues	Needs agreement of landowners. All land is part of County Council rural estate.
Other issues	Uses Fordham Moor which would benefit from designation as a Quiet Lane. No clear advantage in using public footpath so not included in final costings.
Overall	This is less direct than Option C, but may be favoured by the landowner. Like Option C it is entirely on County Council rural estate land and it has potential to link well with Soham (see Option E). There are a number of options subject to landowner's wishes.

Option E

It would be possible to go from Fordham to Soham and then to Isleham and vice-versa. This would be a very long detour but is considered because there is potential for a good route that links Isleham and Soham and a good route that links Fordham and Soham based on an extension of Option C. It is also considered relevant because Soham is the biggest local centre with more facilities than either Fordham or Isleham and links with Soham are likely to be useful. The route links with Option C at the end of Fordham Moor and then continues from the end of the road through agricultural land following rights of way and field edges to link up with East Fen Drove near the A142. At this stage it is not possible to go into detail about the onward link with Soham. There is a current route via East Fen Common (that does not comply with LTN 1/20) but more importantly there is land designated as potential employment and housing land on both sides of the A142 and it is essential that any development there should provide good quality infrastructure for a coherent, direct, safe, comfortable and attractive cycling and walking route between Soham and East Fen Drove, including a safe crossing of the A142. A more direct route between Soham and Fordham following Fordham Road and Soham Road is also considered.

The obvious currently available route between Isleham and Soham is via East Fen Drove as shown in Fig 7E1.1. The route along East Fen Drove, Common Gate Drove and Temple Road was cycled one morning at about 9am and this raised concerns about the crossing of the A142, the volume of traffic and the proportion of HGVs using the road. Traffic volumes were not very high and nor were speeds but the nature of the traffic means that this is not considered a good option for cyclists to mix with traffic, so alternatives have been considered.

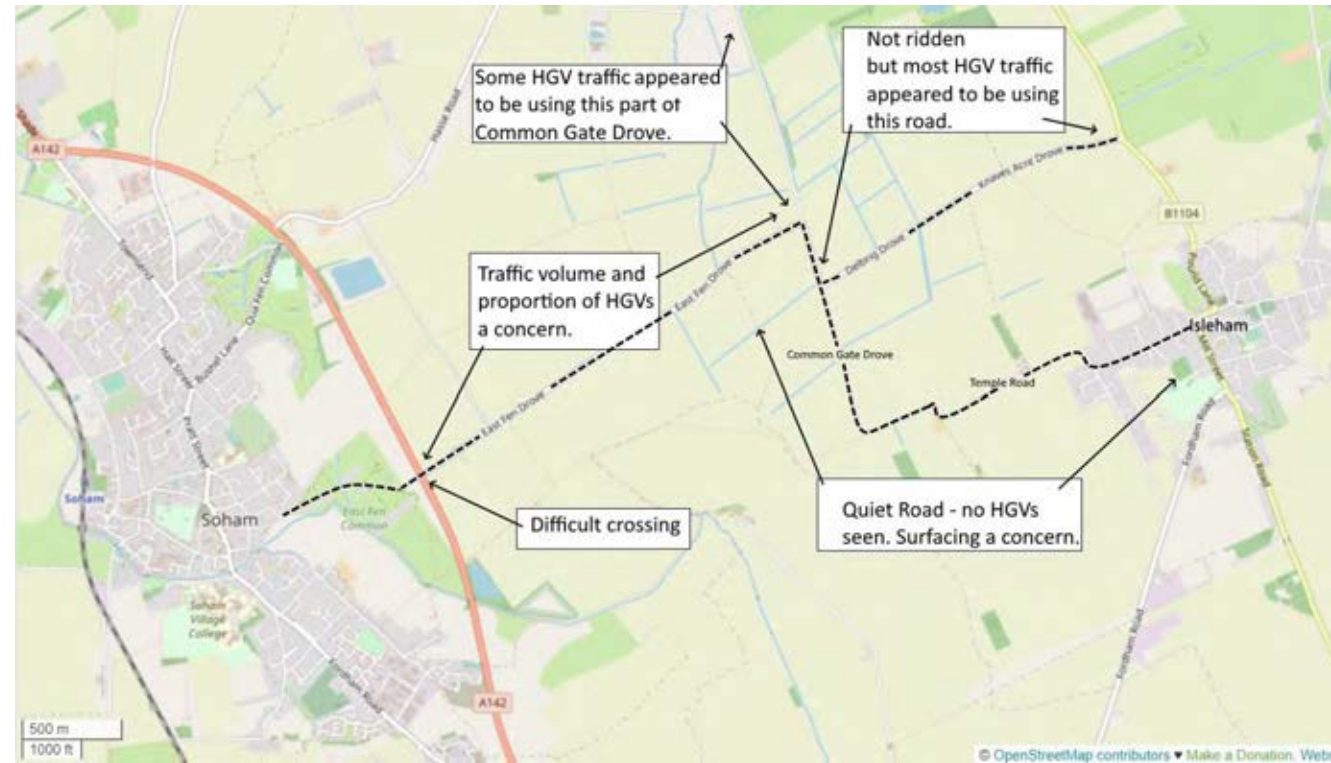


Figure 7E.1 Road options considered



Figure 7E.2 HGV traffic on East Fen Drove

The route options have been sub-divided into sections of route, as shown in figure 7E.1. This is in part to structure this route appraisal by the varying characteristics across all the routes, and in part to provide a continuity across the options in the hope of encouraging the adoption of multiple routes or sections of routes across options.

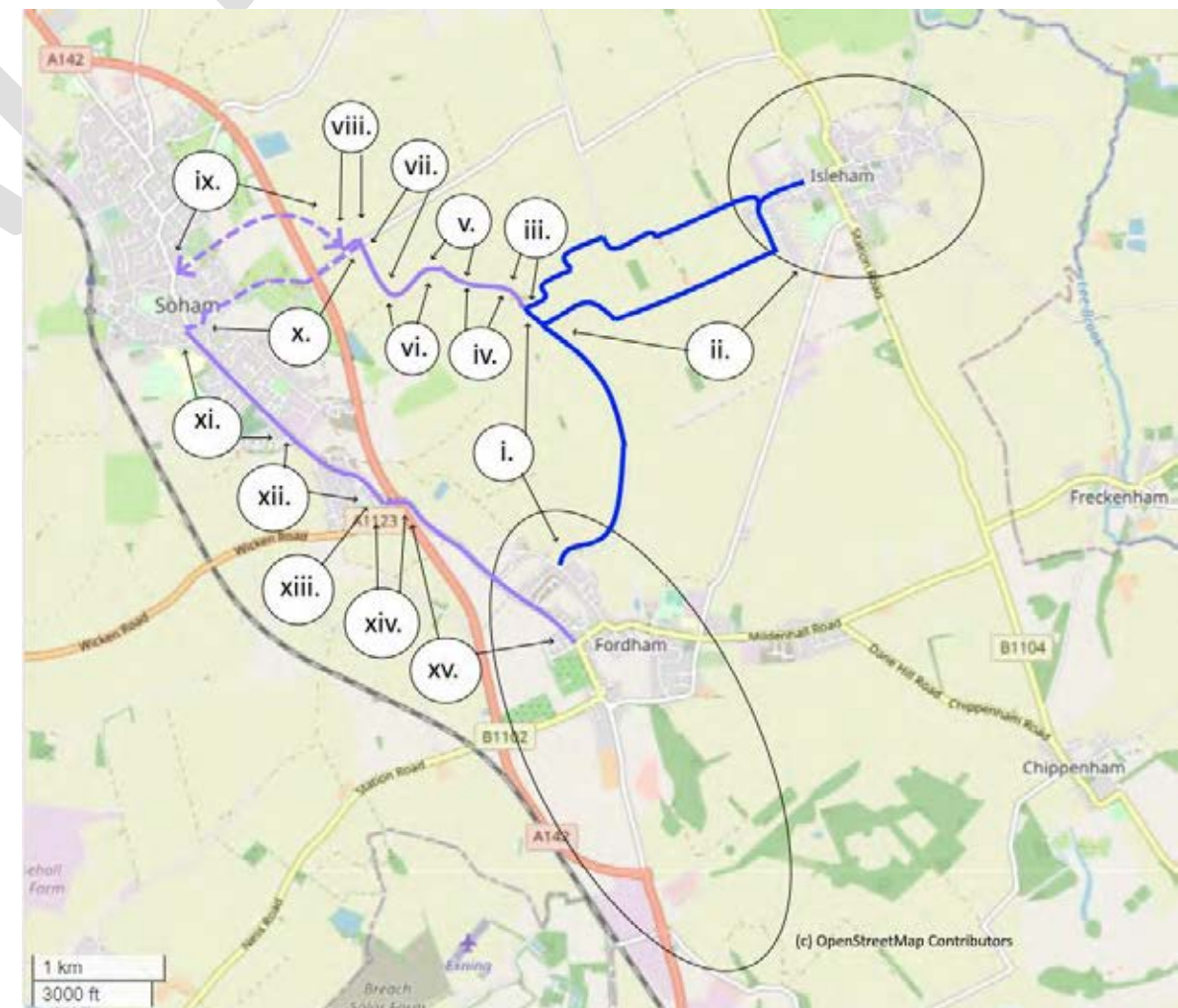


Figure 7E.3 – Route sub-sections

i.

The route links with Fordham in the same way that Option C does using Fordham Moor which is a quiet road suitable for cyclists to mix with local traffic.



Figure 7E1.1 Fordham Moor.

ii.

The route links with Isleham in the same way that Option C does using field edge paths on an alignment that has to be agreed with landowners. (Option C includes two possible alignments, but there may be others).

iii.

Fordham Moor finishes at a farm gate and a suitable route will need to be agreed that goes past the gate and through a farmyard and past farm buildings, most likely following the existing right of way. The existing farm tracks will need resurfacing to 3m and a suitable gap at least 1.5m wide will be needed besides the gate. Any surfacing works will need to be strong enough to carry farm traffic.



Figure 7E3.1 Moor Farm entrance gate



Figure 7E3.2 Moor Farm public footpath and farm track past farm buildings.

iv.

The existing farm track and public footpath continues past Soham Lode. It will need resurfacing to 3m and any surfacing works will need to be strong enough to carry farm traffic.



Figure 7E4.1 Moor Farm farm track/ public footpath.



Figure 7E4.2 Moor Farm farm track/ public footpath.

v.

The existing farm track and public footpath leads to fields which are believed to be grazed by sheep. The route will need to continue and the obvious position would be along the field edge, with fencing as required and/or cattle grids. The path will need resurfacing to 3m with at least 1m on each side clear of any hedging.



Figure 7E5.1 Moor Farm field edge/ public footpath.

vi.

The public footpath turns from the field edge and passes through a kissing gate, where it continues on a track between vegetation. This alignment is narrow and it would be difficult to construct a 3m path with suitable clearance and it is recommended that an alternative alignment is needed either on field edges to the north or to the south of the public footpath. This will need to be agreed with landowners and will need further surveying. The existing kissing gate is not suitable for all users and would have to be replaced preferably with bollards.



Figure 7E6.1 Kissing gate at path entrance.



Figure 7E6.2 View along path.



Figure 7E6.3 View along path.

vii.

The public footpath continues towards the A142 where a very difficult crossing takes users towards East Fen Common, but a better option is to follow another public footpath between fields to East Fen Drove. This will need to be agreed with the landowner and again would require a 3m path suitable to carry farm traffic.



Figure 7E7.1 View along path towards East Fen Drove.

viii.

As discussed earlier traffic volumes and speeds on East Fen Drove are not excessive but the proportion of HGVs is high and it is recommended that the route crosses straight over East Fen Drove to join with a new 3m path to the north of East Fen Drove set on field edges away from the carriageway. This will need landowner's consent and will have to include a small bridge to cross a drain. This path should continue to join infrastructure that is to be agreed in section ix and will have to pass behind farm buildings. In order to make the crossing suitable for all it is recommended that the speed limit is reduced to 30mph. This may mean that the crossing point position needs to be positioned to suit the speed limit.



Figure 7E8.1 View along East Fen Drove. The path (vii) would emerge behind the tree on the right and a new path would be needed in the field to the left.

ix.

The East Cambridgeshire Local Plan includes details of proposed employment and housing sites in Soham. An enlarged extract of this is shown in Figure 7E9.1 and this shows both employment and housing allocations adjoining the A142 and East Fen Drove. Sustrans has not seen a masterplan for the area, but assumes it will include new access to the A142 and new walking and cycling infrastructure. Within this sort of location it would be expected that cycling infrastructure is separated from walking infrastructure and will need to comply with LTN 1/20. It is essential that any development there should provide good quality infrastructure for a coherent, direct, safe, comfortable and attractive cycling and walking route between Soham and East Fen Drove, including a safe crossing of the A142. The crossing could be by signals or a new bridge. The exact link into Soham is unknown at this stage. At East Fen Drove any new provision will need to link with the proposed paths in vii and viii, as shown in Figure 7E.9.1.

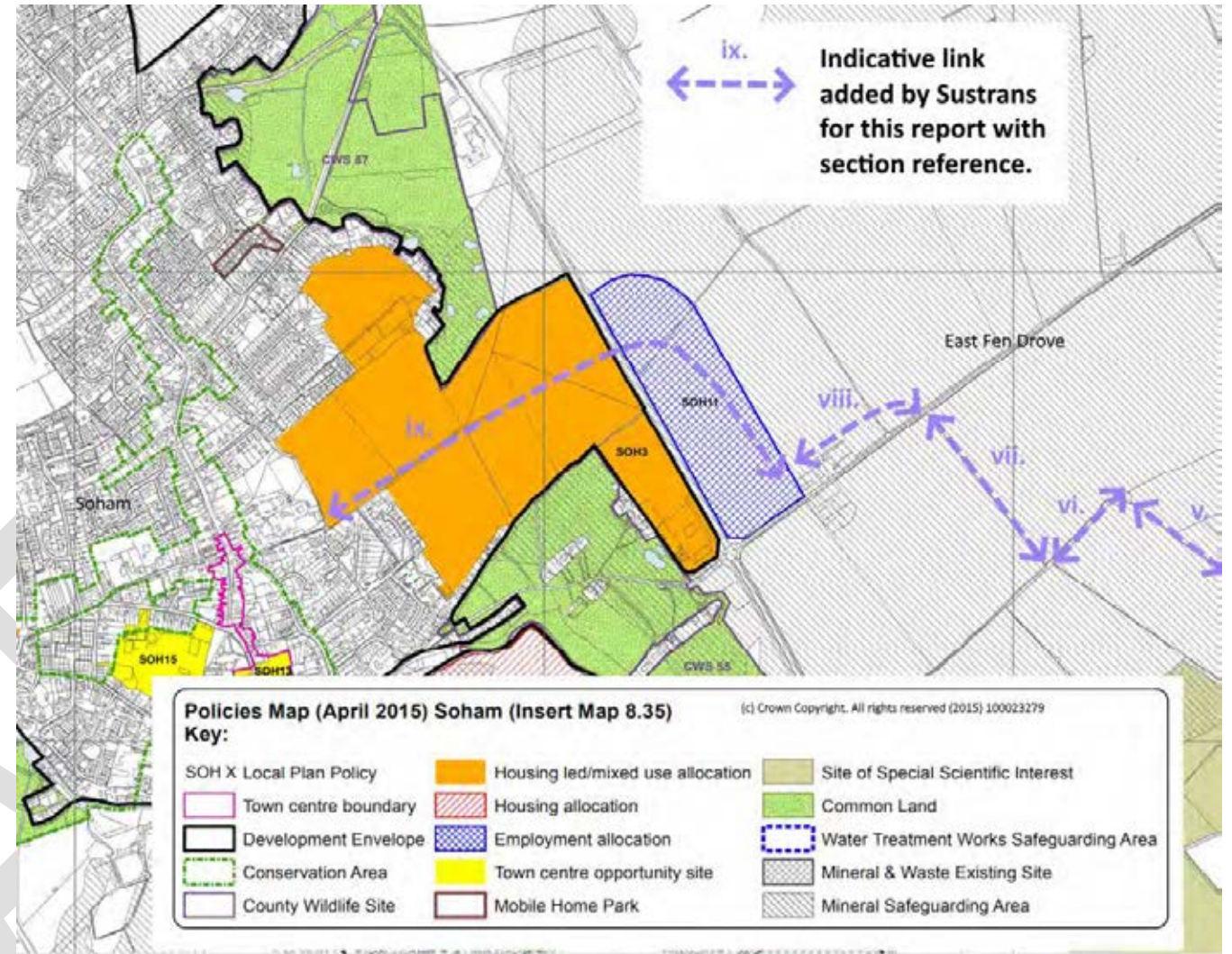


Figure 7E9.1 Extract from East Cambridgeshire Local Plan with key walking and cycling links overmarked.

x.

Realistically any major redevelopment highlighted in section ix will take some years, but this should not stop the development of the overall route. It is possible to use East Fen Drove and East Fen Common to link between the proposed path and the centre of Soham. The big difficulty with this is the crossing of the A142 which is busy and fast, so any crossing will only be suitable for a few. This is one of the better points to make this difficult crossing because visibility is good and the crossing is straight over, but patience would be needed.



Figure 7E10.1 View from East Fen Common looking across the A142 to East Fen Drove.



Figure 7E10.2 View from East Fen Common looking along the A142 at traffic approaching the crossing.

xi.

Highway space is limited in this part of Soham, yet this is an important area with shops and the Village College. A cycle network for Soham is beyond the scope of this study, but nevertheless one is needed. At present the cycling environment in Soham is poor and does not comply with LTN 1/20.

Some initial consideration has been given as to how space can be created along Fordham Road and Sand Street in Soham. Any route should be at least as direct as the road and this is certainly the most important corridor to and from the south. The highway width is variable – in places 11m or 12m going up to 15m or 18m. These larger widths could accommodate segregated cycle facilities and two-way traffic, but the lower widths could not. In addition there is no obvious way to establish a one-way system in the south of Soham. It may be possible to devise a system that allows single way alternate working within the constrained areas, but it is hard to see how this could operate, given the many accesses onto the road and the need to maintain bus flows. There appears to be little option but a mixed traffic solution where traffic volumes are reduced as much as possible.

The obvious way to restrict traffic volumes is with a point closure of the road, at or near the Soham Lode bridge forcing long distance traffic on to the bypass and giving clear local priority to walking, cycling and public transport. This would maintain vehicular access to all properties. In order to maintain bus traffic a bus gate is needed and Cambridgeshire County Council may need to obtain additional powers for this, so an early start on this process is recommended.

In order to create a suitable mixed traffic environment it is suggested that carriageway width is limited to 6m with regular raised table crossings to enforce the 20mph limit.



Figure 7E 11.1 A narrow section of Fordham Road at the Tanners Lane junction.

xii.

In this part of Soham there is generally more space and there is some shared use provision, but none is in compliance with LTN 1/20 and a mixed traffic solution is likely to be needed building on plans described earlier (see xi).

xiii.

There is an existing toucan crossing in this area, but access to it is inadequate and it needs reviewing. Potentially the crossing also needs moving.



Figure 7E 13.1 View showing narrow path and approach to toucan crossing.

xiv.

The existing bridge over the A142 is too narrow for LTN 1/20 standards but is difficult to change, so that may have to be a longer term aspiration. It would be possible to widen the approaches which should ideally be made segregated.



Figure 7E 14.1 View showing the existing bridge and approach ramp.

xv.

There is an existing narrow shared path along Soham Road which is inadequate. A similar solution for Soham Road is needed as for Newmarket Road. (see pages 30-31).



Figure 7E 15.1 View showing narrow path. Roadspace needs to be reallocated to take advantage of the bypass.

**Option E
Summary**

Comparative Length	5.6 km (Isleham Centre to Fordham Centre). (4.4km by road - further if one-way introduced)
Comparative Length	7.9 km (Isleham Centre to Fordham employment south) (6.25 km by road - further if one-way introduced)
Comparative Length	6.6 km (Isleham Centre to Soham centre) (6.6 km by road - further if one-way introduced)
Comparative Length	6.6 km (Fordham Centre to Soham centre) (4.1 km by road - further if one-way introduced)
Likely estimated cost	<ul style="list-style-type: none"> • Also part of Option C = 1.9 km new path on field edges, plus Isleham and Fordham costs, plus Fordham to Fordham employment area costs. (Depends on route agreed) • 2km new path on field edges. • 1km new path on development land, plus new A142 crossing
Engineering difficulties	The biggest challenges are likely to be in changes to the A142 and a new crossing, but that needs to be linked with development. Other challenges may be in any construction that also needs to accommodate farm traffic.
Ecological issues	Some issues raised regarding sensitive arable farmland.
Land ownership issues	Needs agreement of landowners. Most land is part of County Council rural estate, but not all land.
Other issues	Assumes that there will be a new crossing of the A142 as part of new development but no guarantee that that will happen at this stage. Uses Fordham Moor which would benefit from designation as a Quiet Lane. The route could be opened pending completion of development, but the need to cross the A142 at grade would be a significant deterrent.
Overall	This needs to be combined with Option C. This works well as a route between Soham and Isleham, but less well as a route between Soham and Fordham, although as a route to any new employment site it would be better. There are a number of options subject to landowner's wishes.

8. Land ownership

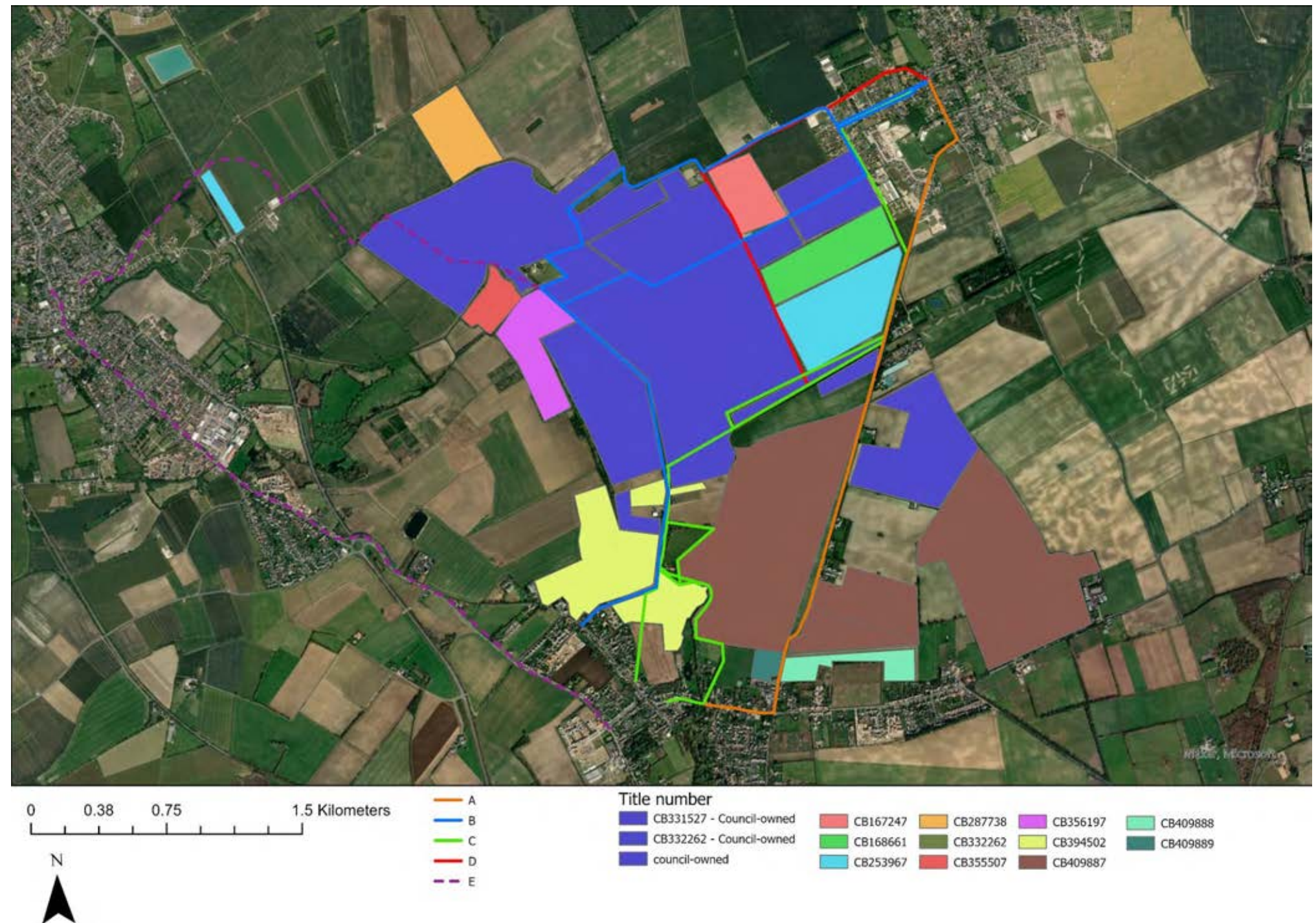
The most complicated part of the development of any new route is likely to be the need to get landowners' agreement. Time and funding need to be allocated for this and if necessary, the Local Authorities need to be willing and able to use Statutory Powers to deliver the proposed routes. This should however be a last resort. The aim should be to build good relationships with all landowners. In this case Cambridgeshire County Council owns important land parcels, but there are gaps that need to be filled. It will also be important to secure enough land to allow for required path width and adequate clearance alongside the path. If equestrian usage is part of the proposal there will need to be additional land to allow for a different surface and space for equestrians if they are not to share the surfaced path.

Fig 8.1 shows the Land Registry map. It highlights the plethora of landowners found along the route. Characterised by expansive farmland, it is unsurprising that many land parcels in the area are equally vast, including the county-owned farmland coloured in dark blue. The Polygons detail private land ownership agreements, Roads can be assumed to come under the Local Authority's jurisdiction, but highway boundaries do need to be checked in this case with Cambridgeshire County Council as part of 'Highways maintainable at Public Expense'. The prefix 'CB' in all the Title Numbers listed below also refers to Cambridgeshire.

Data has been obtained from the HM Land Registry website, a non-ministerial government department (<https://www.gov.uk/government/organisations/land-registry>), which was uploaded into ArcGIS Pro to produce the map. Sustrans has more detailed information on each polygon, and this will need to be the basis for further work which will involve contacting landowners and liaising with them to

understand their needs and implications of new works.

Figure 8.1 Showing land ownership colour coded by parcel.



9. Ecological Assessment

Scope and limitations of ecological assessment

Hannah Lewis MCIEEM (Sustrans Ecologist) has undertaken an ecological desk study to assess the likely ecological impacts and constraints for five main route options and multiple sub-options proposed between Fordham, Isleham and Soham. Data was obtained from Cambridgeshire and Peterborough Environmental Records Centre in November 2023 and freely available online datasets. No site visit has been conducted. The full assessment is provided in Sustrans report number EDS14630FINAL and a summary provided below.

Scheme viability and route comparison

No significant ecological constraints have been identified for Options A, E (south) or D although the latter is only a short link rather than a full route.

Options C and E (north) will likely have a higher biodiversity net gain burden due to proximity to rivers and loss of coastal floodplain grazing marsh, which are both priority habitats. If these paths cannot be situated 5m or more from adjacent watercourses the presence of water voles could pose a significant challenge for the project due to the impact on these populations and required mitigation.

Option B also has a section in close proximity to a watercourse, but also has three sub-options that go through Isleham nature reserve. One of these sub-options is within a section of the site with statutory protection as a Local Nature Reserve. There is a significant risk that these routes would not secure planning permission. The Biodiversity Net Gain

requirements could be very high for this short section of route due to the loss of calcareous grassland. Two alternative sub-options are proposed through adjacent arable land which would avoid these issues.

Designated Sites

Two sites with internationally important designations are located within 5km of the proposed route (Wicken Fen and Chippenham Fen Ramsar Sites, both part of the Fenland Special Area for Conservation). Two nationally designated sites are situated within 1km of the proposal (Soham Wet Horse Fen and Brackland Rough Sites of Special Scientific Interest). One statutory site of local importance (Isleham Local Nature Reserve) and seven locally designated County Wildlife Sites (CWS) were identified within 1km of the proposed works. Proposed route options were situated through the LNR, also designated a CWS, and East Fen Common and The Wash CWS.

East Fen Common and the Wash is a common that supports a range of grassland types. Route E east has a sub-option through this site. The proportion of the site impacted would be very low (less than 1%) but the exact habitats and therefore the impacts are unknown. This is not a preferred route option but if it were to proceed it would require additional survey and consultation.

Isleham LNR is a narrow linear site along a railway corridor with calcareous grassland at the base and bushy hedgerows along both margins. This LNR forms part of a larger 'nature reserve' with an adjoining, undesignated area of calcareous grassland. Route B has five sub-options around the nature reserve. Three of these would result in habitat loss within Isleham nature reserve. One sub-option is within the LNR and would result in an almost complete loss of calcareous grassland within the designated site boundary. This is the habitat of

greatest nature conservation interest and is the ecological reason for the designation of the site.

The routes through the larger adjacent calcareous grassland would result in a similar or larger loss of this habitat, but this area is subject to a lower level of statutory protection as it is outside the LNR boundary. It is unlikely that planning permission would be granted for the sub-option within the LNR boundary and there is a risk that it would not be granted for any route within the wider nature reserve unless the Local Authority had a specific need to improve accessibility.

Habitats

Significant habitats identified along route options were the calcareous grassland adjacent to the LNR, floodplain grazing marsh, rivers and field drains. Hedgerows and scattered trees were also present and important field verges may be present.

All route options except A, D and E (south) have potential to impact watercourses and field drains through the construction of new crossing points or by being situated alongside them. Option B and Option E (north) could impact main rivers. It is anticipated that impacts can be avoided or mitigated appropriately to avoid significant ecological impacts.

Three of the five sub-options of Option B will impact calcareous grassland, as described above. This is a habitat of county importance and this would be a significant negative impact of the proposal. Alternative sub-options avoiding this habitat are also proposed. Options E (north) and C will result in the loss of some floodplain grazing marsh, a priority habitat of district importance. This impact must be minimised and compensated, but is unlikely to be a barrier to construction.

Hedgerows and scattered trees, habitats of parish importance, could be impacted by the proposal. It is

anticipated that trees can be mostly avoided and the loss of hedgerow will be minimal.

The majority of routes are situated in the edge of arable fields. Without a field survey it is not known if the footprint will comprise cropland or more important field margins. Further survey is required to determine impacts on this habitat.

Other important habitats in the landscape included lowland meadows, deciduous woodland, traditional orchards and open mosaic habitat. No impacts are anticipated on these.

Biodiversity Net Gain will be an active requirement from January 2024. Every route option will impact some areas of semi-natural habitat. The type and condition of habitats can only be confirmed based on a site visit. A comparison of the likely scale of biodiversity net gain requirements has been made for each route option.

Routes situated within cropland will have a lower biodiversity unit loss. Option A is almost entirely within this habitat type and is the most direct route. As such it will have low BNG requirements. Option E (south) will require limited construction outside hard standing and will also have low BNG requirements. Option D will similarly have a low unit loss, but is not an entire route and links into Option B. Option B has a high unit loss for its length due to the calcareous grassland to be lost, a high distinctiveness habitat in a location of strategic significance. Sub-options are proposed that avoid this habitat type, the remainder of B is primarily in field edges, with a section situated alongside a river. Options E (north) and C are primarily within field edges, but also include areas of priority habitat and are situated alongside rivers for significant distances. All routes within 20m of watercourses will require an additional separate river metric calculation.

The biodiversity gain plan or enhancement scheme should, if possible, include measures to enhance retained habitats. Semi-natural buffers to watercourses should be created or enhanced. Tree and hedgerow planting should be undertaken and existing hedgerows diversified and gaps filled. Opportunities to create ponds and other priority habitats should also be considered. Habitat creation and enhancement should focus on strengthening the local ecological network, buffering and linking designated sites, watercourses and field drains.

Protected species

Potential impacts are anticipated on great crested newts, nesting birds (including Schedule 1 species), white clawed crayfish, bats, badgers, otter, water vole and reptiles. Further surveys are likely to be required to characterize impacts for these once a preferred option is progressed. The impact on water voles may be the most significant constraint. Where crossings are proposed, impacts can be readily mitigated under licence. Where longer stretches of path are situated within 5m of watercourses (Options B, C and E north), and cannot be re-aligned outside this zone, the impacts are potentially much greater, and the mitigation more significant, costly and impactful on the population.

Schedule 9 invasive non-native plant species may also be present in the landscape. If invasive non native species are present, these could be spread by construction work.

Notable species and assemblages

Habitats along the route may also support notable assemblages of farmland birds, fish, invertebrates and plants. Other notable species that could occur along the routes are common toad, polecat, harvest mouse, hedgehog and brown hare. Impacts on individuals of these species may occur but population level impacts are unlikely except potentially for notable invertebrate and plant species. As such further surveys are recommended for these but impacts on the other notable groups and individuals can likely be mitigated during construction.

Next steps

This data search will need to be upgraded to a Preliminary Ecological Appraisal for the preferred option to provide a more accurate assessment of impacts.

Further surveys or assessments are likely to be required for statutory compliance, this includes;

- Surveys for badgers for all routes
- Surveys for otter and water vole for all routes within 30m/5m of watercourses respectively.
- Surveys for bats if mature trees or existing structures are to be removed or otherwise impacted
- White clawed crayfish where watercourses and banks may be impacted
- Reptile surveys where significant habitat loss or fragmentation could occur.
- An invasive weed survey dependent on the time of year at which the PEA field survey was undertaken.

For planning purposes a biodiversity gain strategy and arboricultural assessment will be required and invertebrate and plant surveys may also be necessary. The need for these and other additional surveys will be determined by the PEA. Early consultation is recommended with the Local Authority regarding any impacts on locally designated sites and on the measures proposed for the biodiversity net gain strategy. The biodiversity gain strategy should, if possible, aim to strengthen the existing ecological network, enhance retained habitats and diversify the landscape by creating more ponds and other priority habitats.

The detailed design, including the location of temporary access points, storage and works compound should;

- Maintain a sufficient buffer to protect adjacent watercourses, hedgerows and trees;
- Avoid important habitats and wildlife populations where possible
- Allow continued wildlife movement along watercourses
- Avoid impacts on watercourse flow and scour
- Avoid lighting and fencing
- Include biodiversity enhancements.

A Construction Management Plan will be required that includes measures to protect designated sites, retained habitats and protected and notable species. If present and if impacts cannot be avoided, licences may be required for work relating to badgers, bats, water voles, white-clawed crayfish and otters. A district level great crested newt licence is available for this scheme.

10. Inclusive engagement

10 Inclusive Engagement:

Inclusive engagement and communication are a creative process that starts with listening to a diversity of lived experiences and uses this understanding to develop more equitable projects and places that are healthier and happier for everyone. This process is not just about the built environment but applies to all aspects of the Isleham to Fordham project, from behaviour change, to research, systems, and communication. It starts with engagement, and consciously amplifies seldom-heard voices to inform a project's development. Fundamentally, it recognises that not everyone has the same opportunities in our society



Figure 10.1 Sustrans visualisation which can be a tool for inclusive engagement.

and seeks to prioritise concerns raised by marginalised groups. Inclusive design opens new ways of thinking about places and projects, creating projects that are ultimately more interesting and engaging for everyone.

This project has the potential to have a significant impact on people's everyday lives. This comes with a responsibility to be inclusive and ensure it creates healthier and happier places for everyone. This means work must be done to identify and prioritise the needs of people who are regularly excluded to ensure their needs and requirements are met. The feasibility stage Equality Impact Assessment (EqIA) has started the process of identifying the potential impacts of the project on people with protected characteristics. The EqIA (refer to appendix A) will be a live document that evolves alongside future stages of the Isleham to Fordham project.

“All urban design, including cycling, is not neutral, it either perpetuates or reduces social inequity.”

Cycling for Everyone

The following principles will ensure that the Isleham, Fordham and wider impacted communities including Soham and Employment sites are informed and involved in the project at all stages. Information will need to be shared and distributed in formats which consider the needs and preferences of different people (refer to Figure 10.1). There will be a focus on those who might have significant disadvantages, such as living on a low income or socially excluded as well as people with a protected characteristic. In recognition of the importance of listening to the diversity of lived experiences, when the project progresses, these principles will be refined in discussion with key stakeholders.

Across Sustrans, all our projects are guided by these inclusive principles.

A process led by **engagement**, where solutions are shaped by those impacted by the project. (see Figure 10.2)

Be flexible in approach – tailoring engagement activity and content to match the needs of the people taking part.

Proactively engage and involve people with different lived experiences at the start of the project to help shape all key elements of the programme from design to delivery.

Reflecting the diversity of lived experiences by developing **diverse, evolving, and responsive solutions**, and ensuring project delivery teams are diverse and representative, bringing in external support where necessary.

Running workshops in **community settings**, at convenient times to help inform people about the project. Where possible using venues which have step free access, disabled parking spaces, accessible toilets and are comfortable for everyone.



Figure 10.2 It is important to provide appropriate settings and opportunities for people to engage.

Communication materials and content will include imagery which reflects local populations, including disabled cyclists, older people, people using a variety of different cycles (refer to figure 10.3 Leamington).

An ongoing process of **learning, listening and reflection**, monitoring people's experience of projects, collating detailed evidence, and proactively seeking feedback to inform future work or changes to previous works.

When running an event in-person or online, as standard, we ask attendees in advance if there are any **additional support**, they require to help them take part. Reviewing the demographics to highlight any community groups whose feedback has not been captured yet.

Monitoring to review whether communication and engagement activity has reached a diverse audience and identify any community groups whose feedback hasn't been captured or considered.

The creative activity of developing new ways of working to provide not just equitable access, but **dignity and joy for everyone**.

As the project progresses running events with specific **lived experience groups**: children, young girls, visually impaired users. Dedicated materials to ensure they can meaningfully participate (use Lego with young people, tactile models for visually impaired users).

Lived experienced site visits for people in the community with lesser heard voices including wheelchair users, people who use a pram and older people.

Develop an **independent stakeholder group**, to review impact.

10.1 Evidence of Support

Sustrans has not undertaken community engagement as part of this study, but this is vital to developing and ultimately delivering a successful project.

A community engagement plan guided by the inclusive engagement principles could include:

- On-line consultation and poster, leaflet campaign.
- Consultation meetings across the project area.
- Presenting at Council meetings etc.
- The completion of Healthy Streets Audits for the villages. This can help engagement in the wider issues.
- In-depth discussion with landowners.

A Collaborative design process should be used to structure the engagement plan. This will help unpack overall route considerations in parallel with specific impacts and opportunities at different points along its length. Sustrans Age Friendly Tyburn project was a collaborative design project working with local residents to assess the area and develop trials that changed the environment to make active travel age friendly. (see Figure 10.2)

Sustrans developed a six-week adapted bikes programme with residents in Belfast. (see Figure 10.1.1) The programme was co-designed and aimed to increase the confidence and ability of riders with disabilities.



Fig 10.1.1 Sustrans bikes programme with residents in Belfast

10.2 Audit of Engagement Risk

At present we envisage that the major risks are likely to be:

- People who may object to restrictions or limitations on motorised traffic, including people who may engage in social media.
- People who use the existing Nature Reserve and other greenspaces and do not want to see any changes.
- Residents who may object to changes within the villages or on the roads in Isleham and Fordham.
- Landowners who do not want paths on their land because of security, financial or other concerns.
- Developers who may not want to deliver the quality of facility that is required.
- Any who may object to the ecological aspects of any work.
- Members of the local community, local businesses and other stakeholders who may be opposed to anything that might be seen as facilitating developments (if they are opposed to the developments).

10.3 Audit of Engagement Opportunity

As part of this study initial discussions have been held with representatives from the East Cambridgeshire District Council and Cambridgeshire County Council regarding developments and further engagement is needed. In addition, it will be particularly important to engage with the residents of Fordham and Isleham, who are the ones most impacted by the proposed options. It will be vital to engage with all impacted guided by the inclusive engagement principles.

10.4 Community Engagement Plan

At this stage there has not been Community Engagement, although Sustrans regards this as vital for the success of the proposals.

The early stages of community engagement will need to start with the East Cambridgeshire District Council, Cambridgeshire County Council, and the Town Councils, so that the project can be directed by the wishes of the elected members, but this will need to be handled delicately, so that relations with landowners are not damaged. Landowners should know at a very early stage what is being proposed and need to understand that nothing is finalised yet and their wishes will of course be considered.

11. Equality Impact Assessment Summary

Sustrans is implementing an Equality Impact Assessment (EqIA) process which starts at a project's inception. It is focused on ensuring all projects and services are created and completed in line with The Equality Act 2010 and Equality Duty. As a charity, while our Equality Duty responsibilities are not the same as those for public sector organisations, we aspire to take a lead in delivering best-practice inclusive projects. This links directly to Sustrans 'For Everyone' vision and NCN Principles.

The Equality Duty explains that having due regard for advancing equality involves:

Removing or minimising disadvantages suffered by people due to their protected characteristics.

Taking steps to meet the needs of people from protected groups where these are different from the needs of other people.

Encouraging people from protected groups to participate in public life or in other activities where their participation is disproportionately low.

The EqIA has been guided by best practice guidance including LTN 1/20 and related research. This guidance and research have been linked to what is currently known about the location, Fordham and Isleham's community, and the findings of this feasibility study. The Feasibility stage EqIA (refer to appendix A) is an initial step which will need to be regularly updated and refined as the project develops. The EqIA will help shape and be shaped by Sustrans Inclusive projects principles.

The following points are emerging from the feasibility stage EqIA as key considerations:

Inclusive engagement including collaborative design will help all sections of the community to unpack and shape the routes development, especially people with protected characteristics and seldom heard voices.

Behaviour change activities that support people with the cost of cycling and ability will be needed. This will enable all sections of the local community, including those with protected characteristics to fully benefit from the proposed route and its link to local destinations.

Sections of the route will be shared with motor vehicles including farm machinery and could be intimidating for people with protected characteristics. The design of these sections should consider the viability of segregating motor vehicles from pedestrians and cyclists, and alternative routes through adjoining fields. If these options aren't viable, traffic speed and volume will need to be managed with 20mph speed limits, and changes to the carriageway (for example priority working, buildouts, psychological traffic calming).

Route design and linked public spaces will need to respond to engagement feedback, monitoring, and best practice guidance. This is to ensure the route including its controlled crossings, grade segregation and adjoining public spaces are coherent, safe, comfortable, and attractive for everyone.

The project's development will need to consider how its rural context between Isleham and Fordham impacts safety concerns. Fordham / Isleham Road, even with improved infrastructure and a 2m buffer will be an intimidating environment for some protected characteristics. As such, it is recommended that multiple route options are chosen in parallel.

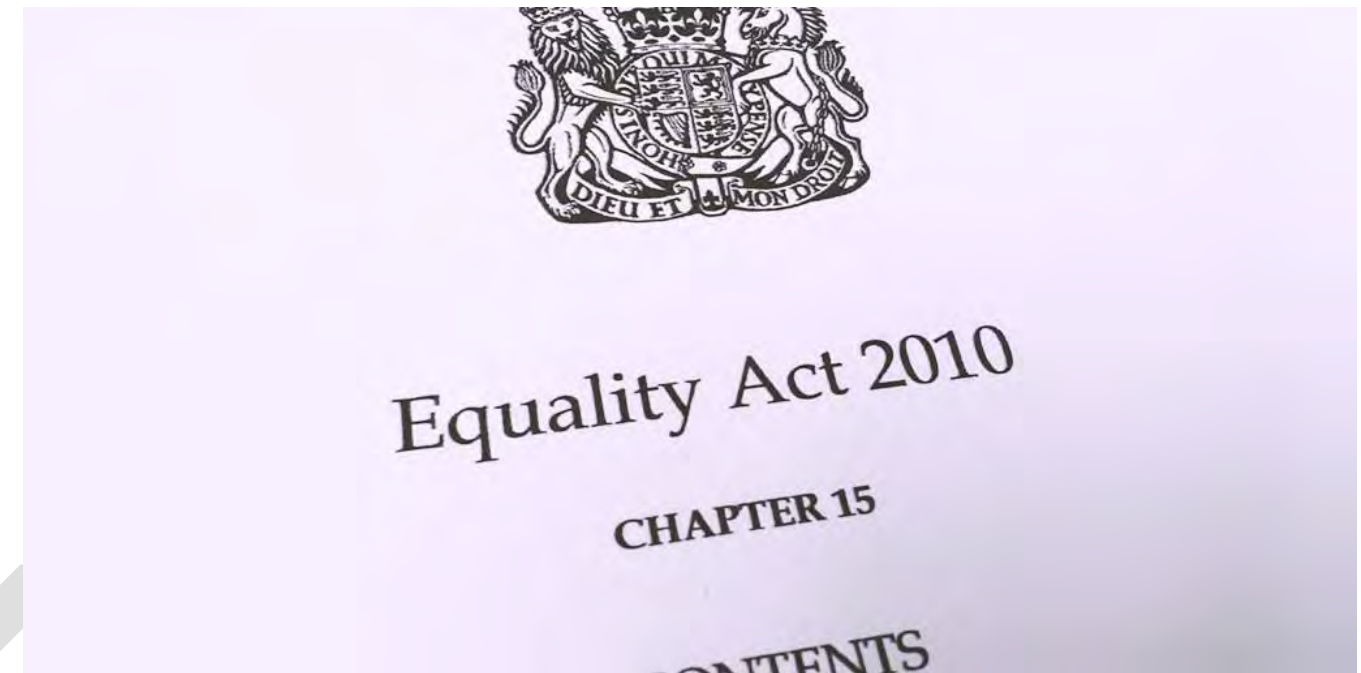


Figure 11.1 – The Equality Act 2010



Figure 11.2 – Equality for those with protected characteristics

12. Key Stakeholder Engagement

The following organisations have been identified as stakeholders to develop the route options at the next stage. The list is not exhaustive. Where landowners are individuals, these have not been named.

- Cambridgeshire County Council
- Cambridgeshire County Council Rural Estate
- East Cambridgeshire District Council
- Fordham Parish Council
- Isleham Parish Council
- Soham Town Council
- Historic England
- Natural England
- Combined Authority Peterborough and Cambridgeshire
- Local businesses
- Local Public Rights of Way Teams in Cambridgeshire
- Local cycle groups
- The Ramblers
- British Horse Society
- Cycling UK
- Disability Advice Service
- All landowners along the preferred route alignments

Informal discussions with all stakeholders can give an indication of likely acceptance of the scheme and likely issues that will need to be examined more carefully at Detailed Design.

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13. Planning application and other approvals

All the options will need planning approval for the off-highway construction works and will need highways approval and the appropriate orders for highway works.

Where new routes are not following appropriate rights of way or public highway legal agreements are likely to be needed with the landowners. These will need to grant rights for users and allow for construction and maintenance of new paths. The signatory for the legal agreements will need to be agreed at an early stage, but it is likely to have to be Cambridgeshire County Council or East Cambridgeshire District Council- budgets will need to be provided for this. There will also need to be consideration as to when and how statutory powers might be used if there is no progress in negotiations with landowners, but the aim should be to avoid this if possible. It is not possible to say at this stage exactly how much land will be needed or where exactly paths should be positioned. They will need to be positioned to suit landowners' requirements and community requirements. One option for routes could be the creation of bridleways, which would benefit equestrians. If this is the case adequate space needs to be allowed for all users.

Ecology requirements and the need to protect trees may also increase the width required and for Option B if the public footpath and River Snail option were to be favoured. For Option B any works on Isleham Nature Reserve could be challenging and will need careful planning. There would need to be a lot of discussion about mitigation measures and Biodiversity Net Gain, which is why there are a lot of sub-options for this area. In addition, it is important to consider how a path and other features will be

constructed and maintained. Space will need to be allowed for a site compound for construction and access routes and rights will need to be agreed for construction and maintenance vehicles and plant. All of these are matters that a skilled negotiator will need to consider, whilst developing a good understanding with landowners of the issues that are priorities for them.

For Option E and the possible link with Soham there are major issues to resolve which are dependent on whether land allocated for potential development is brought forward for development. It will be very important that the proposed route through the allocated sites is included in master planning for the area.

Until discussions with landowners have progressed it is too early to be discussing planning details with the planning authority, but at the appropriate time pre-app discussions should be undertaken with some key stakeholders such as East Cambridgeshire District Council, and Cambridgeshire County Council to understand the issues that might come with an application and to inform the work likely to be needed at the Detailed Design stage.

14. Cost Estimates

At this stage costs are very approximate, based on estimated costs/ m or estimated unit costs. The highway works have the highest range of costs, because little is known about the construction of the existing carriageway or the services within the highway. Traffic management can also be a highly variable cost. Option A also has a wide range of costs because closing the road to through traffic would be relatively cheap and constructing a new path on private land besides the road would be relatively expensive.

The costs of all works in both Fordham and Isleham have been estimated, but without detailed design, because these works are important for the success of other works. These works would be a valuable investment in the local communities and are needed even without the link between the two towns.

Costings are calculated for off-road sections for each route.

In places there are sub options and these are itemised separately, with an explanation as to which cost is used in the overall costings. The sub options are:

- Option A has 3 sub-options depending on what traffic changes are implemented, if any.
- Option B has sub-options depending on whether the nature reserve is used or not and the impact that this has on biodiversity net gain.

Item	Item description	Unit	Low cost per unit	High cost per unit	Quantity	Low total cost	High total cost	Notes
Fordham former A142	Segregated cycleway on existing road. Bolt downs.	Linear m	£120	£250	1250	£150,000	£312,500	Traffic management will be costly.
A 142 crossing.	1 x new signalled crossings .	Item	£200,000	£400,000	1	£200,000	£400,000	Needs speed limit reduction.
Route besides A142	Segregated cycleway away from A 142	Linear m	£150	£290	500	£75,000	£145,000	
Fordham one way	Segregated cycleway on existing road. Bolt downs high quality.	Linear m	£500	£1000	2700	£1,350,000	£2,700,000	High quality finishes likely to be needed and complex design including signals.
Fordham	Combined	Total				£1.8 million	£3.6million	Needs detailed design to get more accurate costing.

Table 14.1 Estimated costings for Fordham and link with Fordham Employment area

Item	Item description	Unit	Low cost per unit	High cost per unit	Quantity	Low total cost	High total cost	Notes
Junction treatments	Tightening junctions	Item	£10,000	£25,000	9	£90,000	£225,000	New radius 1m –3m.
Raised tables	Crossing improvements	Item	£15,000	£30,000	18	£270,000	£540,000	
Isleham	Combined	Total				£360,000	£765,000	Needs detailed design to get more accurate costing.

Table 14.2 Estimated costings for Isleham

Item	Item description	Unit	Low cost per unit	High cost per unit	Quantity	Low total cost	High total cost	Notes
Option A new off road path								
Route in field edges besides Fordham Road/ Isleham Road.								
1	Segregated cycleway	m	150	290	2750	412,500	797,500	Needs farmland and nature reserve access road.
2	Signalised junction	Item	100,000	140,000	1	100,000	140,000	New signalised junction by housing nearer Fordham.
3	Zebra crossing	Item	20,000	40,000	1	20,000	40,000	On edge of Fordham to link with footway
Total 1-3						532,500	977,500	
Option A one-way with roadspace reallocated								
Route on carriageway with possible widening into verge.								
5	Segregated cycleway	m	120	250	2750	330,000	687,500	Needs farmland and nature reserve access road.
6	Signalised junction	Item	100,000	140,000	1	100,000	140,000	New signalised junction by housing nearer Fordham.
7	Parallel crossing	Item	20,000	40,000	1	20,000	40,000	On edge of Fordham to link with footway
Total 5-7						450,000	867,500	
Option A mixed traffic								
Route on carriageway with possible widening into verge.								
8.	Bollards or other traffic management and signing.	Item	15,000	50,000	1	15,000	50,000	If bus gate needed higher price.
Option A						£15,000	£977,500	Big variation dependent on scheme type.
Fordham and Employment area link Works						£1,800,000	£3,600,000	See Table 14.1
Isleham Works						£360,000	£765,000	See Table 14.2
Option A + Fordham + Isleham works						£2,175,000	£5,342,500	

Table 14.3 Estimated costings for Option A.

Item	Item description	Unit	Low cost per unit	High cost per unit	Quantity	Low total cost	High total cost	Notes
Option B								Route either on or parallel with nature reserve
1	Segregated cycleway	m	150	290	1950	292,500	565,500	Needs farmland and nature reserve land.
2	Biodiversity Net Gain	Item	5,000	55,000	1	297,500	620,500	Depends on alignment and surveys. High cost assumes route passes through LNR and costs 20% of construction
Total 1-2						297,500	620,500	
Option B						£297,500	£620,500	
Fordham and Employment area link Works						£1,800,000	£3,600,000	See Table 14.1
Isleham Works						£360,000	£765,000	See Table 14.2
Option B + Fordham + Isleham works						£2,457,500	£4,985,500	

Table 14.4 Estimated costings for Option B.

Item	Item description	Unit	Low cost per unit	High cost per unit	Quantity	Low total cost	High total cost	Notes
Option C								Route on farmland and Quiet Lanes.
1	Segregated cycleway	m	150	290	1900	285,500	551,000	Needs farmland.
Option C						£285,500	£551,000	
Fordham and Employment area link Works						£1,800,000	£3,600,000	See Table 14.1
Isleham Works						£360,000	£765,000	See Table 14.2
Option C + Fordham + Isleham works						£2,445,500	£4,916,000	

Table 14.5 Estimated costings for Option C.

Item	Item description	Unit	Low cost per unit	High cost per unit	Quantity	Low total cost	High total cost	Notes
Option D								
Route on farmland and Quiet Lanes.								
1	Segregated cycleway	m	150	290	1750	262,500	507,500	Needs farmland.
2	Public footpath in Isleham surfacing	m	150	290	600	-	-	Not included in cost because not considered necessary.
Option D						£262,500	£507,500	
Fordham and Employment area link Works						£1,800,000	£3,600,000	See Table 14.1
Isleham Works						£360,000	£765,000	See Table 14.2
Option D + Fordham + Soham works						£2,422,500	£4,872,500	

Table 14.6 Estimated costings for Option D.

Item	Item description	Unit	Low cost per unit	High cost per unit	Quantity	Low total cost	High total cost	Notes
Option E								
Route on farmland and Quiet Lanes.								
1	Segregated cycleway	m	150	290	2000	300,000	580,000	Needs farmland.
2	Segregated cycleway	m	150	290	1000	150,000	290,000	On development land.
3	A142 crossing	Item	300,000	1,800,000	1	300,000	1,800,000	No design very approximate costs. Signalled crossing or bridge subject to further design.
Total 1-3						750,000	2,670,000	
Option E						£750,000	£2,670,000	
Option C						£285,500	£551,000	Option C needed for link with Isleham.
Fordham and Employment area link Works						£1,800,000	£3,600,000	See Table 14.1
Isleham Works						£360,000	£765,000	See Table 14.2
Option C + Option E + Fordham + Isleham works						£3,195,500	£7,586,000	Soham works not costed.

Table 14.7 Estimated costings for Option E.

Total Costs for all routes between Isleham and Fordham.

Item description	Low total cost	High total cost	Notes
Fordham works + link with employment area	£1,800,000	£3,600,000	See Table 14.1. Common for all schemes.
Isleham works	£360,000	£765,000	See Table 14.2. Common for all schemes
OPTION A	£15,000	£977,500	Table 14.3. Big variation dependent on scheme choice.
OPTION B	£297,500	£620,500	Table 14.4 BNG not calculated.
OPTION C	£285,500	£551,000	Table 14.5
OPTION D	£262,500	£507,500	Table 14.6
OPTION E	£750,000	£2,670,000	Table 14.7 Needs to also include Option C
OPTIONS C + E	£1,035,500	£3,221,000	Table 14.7

Table 14.8 – Estimated costs for all works

These figures have been used in the business case to consider the cost benefit ratio of the various options.

Option A low cost option is clearly the cheapest option, because this involves minimal works.

Option E cannot be compared easily with Options A-D because Option E includes a link with Soham and a crossing of the A42 that the other options do not include.

15. Potential Usage and Business Case

There is little data on actual cycle usage between these communities, but some indication can be got from various modelling tools. The [Propensity to Cycle Tool](#) has been used to get an idea of potential usage. The tool was designed to assist transport planners and policy makers to prioritise investments and interventions to promote cycling. It answers the question: “where is cycling currently common and where does cycling have the greatest potential to grow?”, but it has to be used with care.

The tool uses 2011 census data to get information on local populations and modal shares of journeys to work and school by bike and uses mapping data to get information about trip distances and geography. The tool only collects commuting data, and therefore doesn't represent journeys to local amenities or leisure activities. It has to be noted that there have been population changes since 2011 and work patterns have changed, so these are further shortcomings, but the tool is the best option available at present.

The tool predicts shifts in modal share, following various future scenarios such as “Go Dutch” whereby it is assumed that local infrastructure is to a Dutch standard. By balancing this against factors which would deter usage, such as hilliness, the tool can provide guidance on where improvement would be most effective.

For East Cambridgeshire's case, there is no reason to see why Dutch levels of cycling could not be achieved, especially if the standard of quality recommended in this report is followed.

Under the “Go Dutch” scenario the tool highlights a number of interesting issues:

- Due to low rates of cycling and low populations, the current cyclist count is very low. Both Fordham CofE Primary School and Isleham primary school had a current cycling count of 1 or 2. The former would see an uplift to 104, and the latter to 83. Similarly, Isleham Road data shows 0 of its 24 work commuters traveling by bike. This would raise to 10, or to 42% under the Go Dutch scenario. The numbers are low, but the proportional shift away from motor transport is high, in part relating to the proximity of the two villages. A business case can be made on the basis that the direct links between the villages are the most cost-effective options.

- As seen in the commuting map (next page), the biggest increase in numbers would derive from links to the Fordham employment area south of the village and, perhaps predictably, Soham.

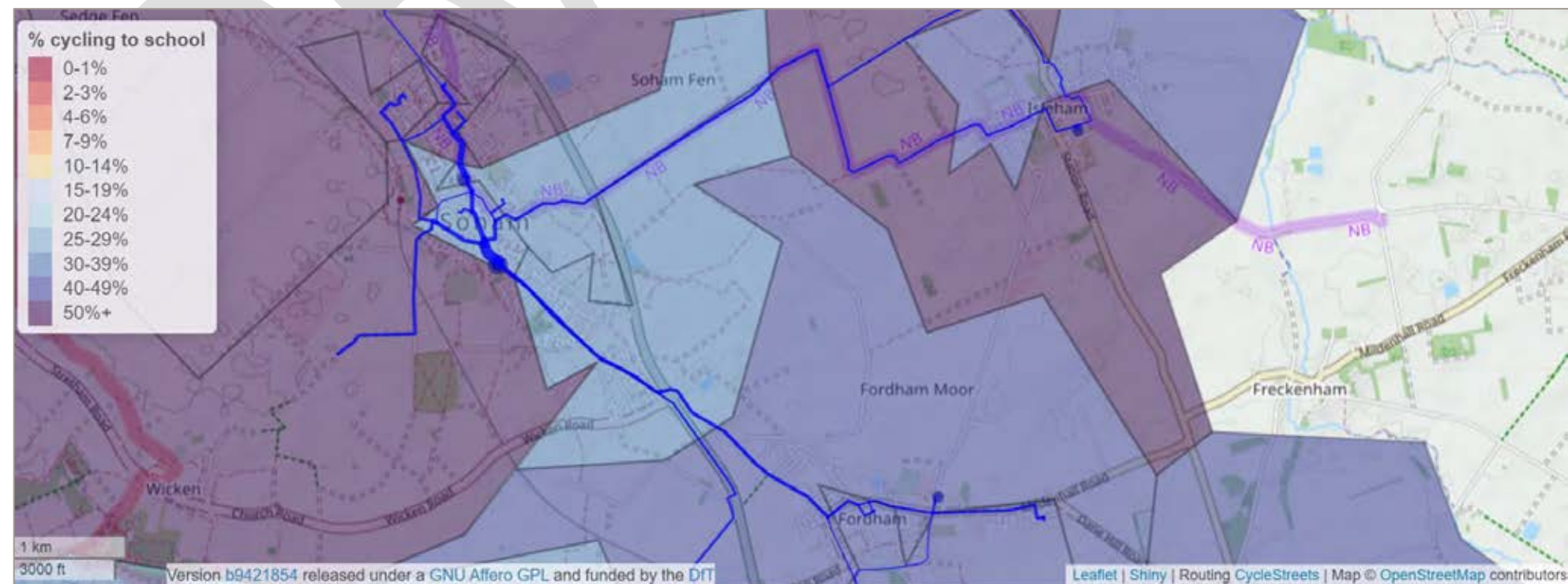
It can therefore be concluded that usage would vary significantly based on the route option chosen. A direct link between Isleham and Fordham would represent good value for money albeit with relatively low numbers, but with a potentially low cost scheme, while routes passing closer to Soham would be more expensive but represent greater opportunity for a shift towards walking and wheeling.

It should also be noted that commuting trips are a low proportion of all trips and commuting patterns have changed since the start of the Covid-19 pandemic. Leisure trips would presumably represent a large proportion of increased usage due

to the highly attractive Local Nature Reserve and disused railway between the two villages.

Whilst the tool does not allow for attractiveness it is likely that if a very attractive and direct “Dutch” style route is developed (perhaps linking with other routes) it will attract significant leisure users and walkers in addition to the figures predicted by the Propensity to Cycle Tool.

Figure 15.1 – PCT School GoDutch potential usage



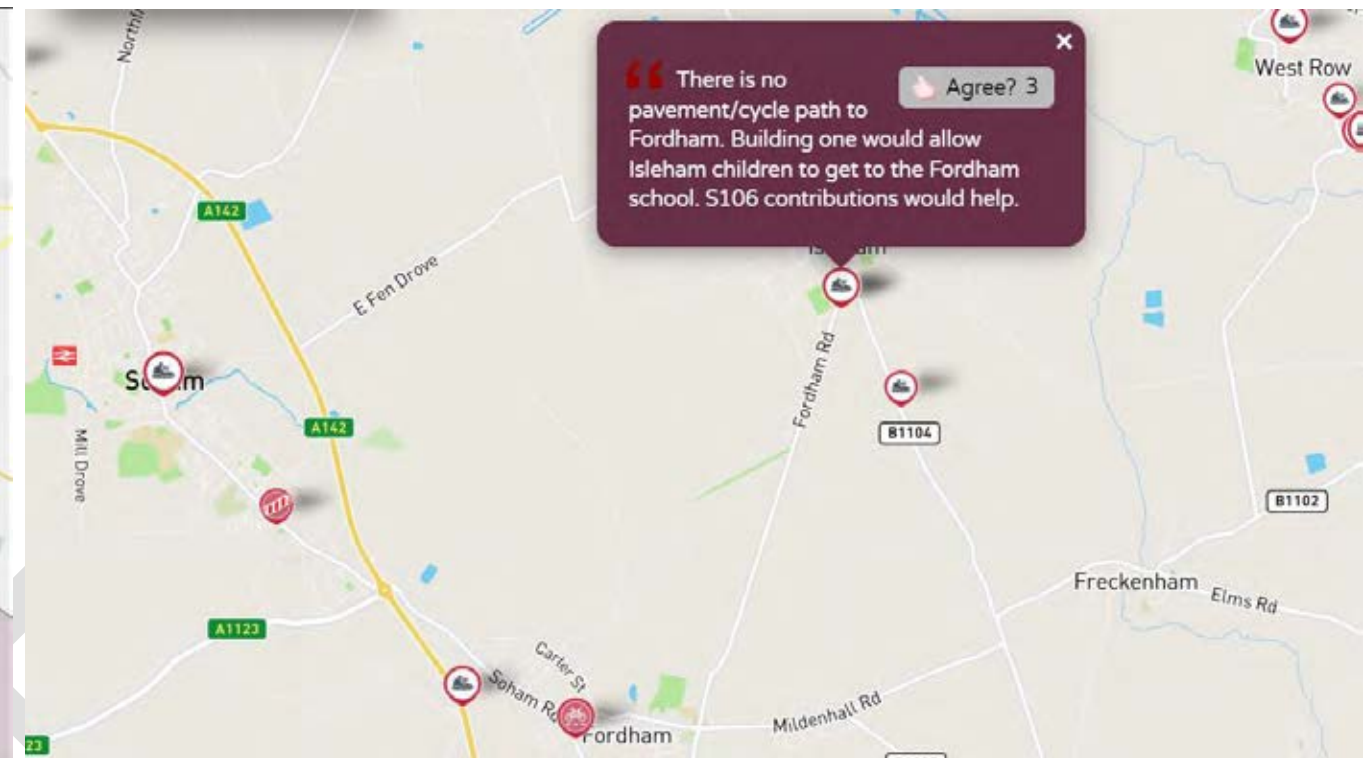
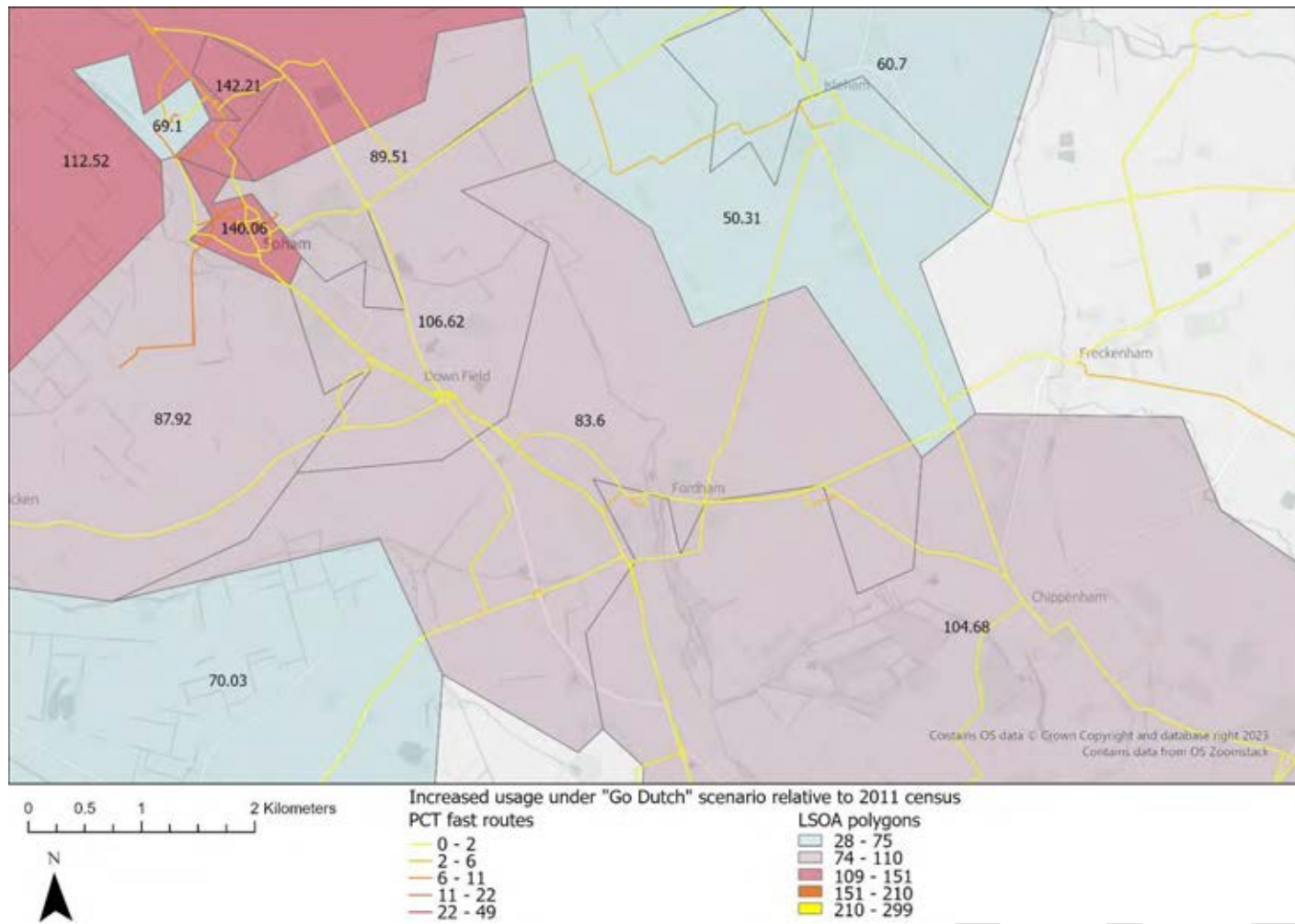


Figure 15.3 – Widen My Path extract

Other ways of assessing potential demand include on-line tools such as Widen My Path, an online tool where comments can be made suggesting improvements to local infrastructure. The most prominent comment in the area comments with the lack of access between Isleham and Fordham, specifically in relation to schoolchildren.

East Cambridgeshire District Council has conducted surveys as part of the Cycling and Walking Routes Strategy. This produced a significant response for a new Isleham to Fordham route. The full report is at <https://www.eastcambs.gov.uk/sites/default/files/agendas/Cycling%20and%20Walking%20Routes%20Strategy%20webAC.pdf>

Isleham to Fordham journey type / purpose	Number of responses
Walking	29
Cycling	25
To access other public transport	18
To doctors/healthcare services	15
For Shopping	8
To council offices or other public services	7

Figure 15.2 – PCT Commuting GoDutch potential usage

Table 15.1 – Excerpt from East Cambridgeshire Cycling and Walking Routes Strategy

In total, 309 cycle routes were proposed. There was a lot of demand/ interest in new routes in this vicinity. A summary of the responses for Fordham to Isleham is to the left, showing that demand is largely unlinked to commuting or school travel. It can therefore be assumed that most of the demand for improved walking and wheeling infrastructure isn't picked up by the Propensity to Cycle analysis of journeys. It has been assumed that journeys to work make up 20% of short local journeys, while journeys to school make up 30% of short local journeys.

Options A-D connect Isleham and Fordham, and therefore have the same potential usage, calculated by multiplying the PCT commuting data by 5 to capture all local journeys. It is assumed that PCT school data would primarily be achieved by improvements within the villages themselves rather than between them, so have been abstracted from these results.

Route option E, however, connects both Isleham and Fordham to Soham. PCT School data is taken into account here due to the closest secondary school to both villages being in Soham. The combined PCT data represents 50% of short local journeys under these assumptions, and is therefore multiplied by 2 to capture leisure journeys as well.

Business Case

In order to assess value for money of the various options it is necessary to compare option costs with changes in usage, with increases in active travel being given cost benefits in terms of health benefits, congestion etc. Option costs have been estimated in Chapter 14; these costs have a wide range at this early stage of scheme development. For usage there is no clear background data and best estimates of existing and predicted usage have been made. Assumptions are based on data from the Propensity to Cycle Tool and assumptions about trips that are not work or school related as well as developments in the area. These assumptions are open to challenge and the analysis will benefit from more data, but assumptions are set out in the following tables.

The Benefit Cost Ratio (BCR) has been determined using the AMAT tool from the Department for Transport. An AMAT (Active Mode Appraisal Toolkit May 2023 version) analysis has been done using various scenarios and data as referenced earlier. The results are in the following tables.

It should be noted that Table 15.3 does not include the costs of works at Isleham or Fordham. Further analysis and data is needed to assess Benefit Cost Ratio for these but two key points should be noted:

Without the works in Isleham or Fordham the BCR of the schemes shown in Table 15.1 will be much

reduced because usage will be much reduced by the inability of residents of Isleham and Fordham to access the new facilities.

The BCR of these works is likely to be very high, but most users will not be using the proposed Isleham-Fordham facilities, rather they will be likely to be taking trips within Fordham or within Isleham.

The Business Case has not been analysed for all options. In reality there is not sufficient data to be confident in the analysis. The expectation is that the BCR for options A,B,C and D would be stronger than for Option E because costs are lower, but on the downside usage would also be lower. In reality, the benefits of a link to Soham overcomes its cost, even with a bridge provided.

Option A with mixed traffic presents an exceptional BCR due to the low cost – simply requiring bollards. The hurdle here is political rather than economical however.

The strongest case for works is however within Isleham or Fordham themselves. This is where the population density is greatest and where most trips are made with the greatest potential for change.

Item	Item description	Capital	Annual maintenance	Usage change	Notes on usage	AMAT BCR
Option A New off road path	Low Cost with three new crossings of A142.	£532,500	£26,000	20 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys	1.5
Option A New off road path	High Cost with three new crossings of A142.	£977,500	£49,000	20 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys	0.81
Option A road space re-allocation	Low Cost	£450,000	£22,500	20 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys	1.55
Option A road space re-allocation	High Cost	£867,500	£43,375	10 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys	0.81
Option A mixed traffic	Low cost	£15,000	£750	10 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys	47.35
Option A mixed traffic	High cost	£50,000	£2,500	10 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys	14
Option B	Low cost	£297,500	£14,875	10 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys	2.65
Option B	High cost	£620,500	£31,025	10 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys	1.28
Option C	Low cost	£285,500	£14,275	10 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys	2.77
Option C	High cost	£551,000	£27,550	10 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys	1.44
Option D	Low cost	£262,500	£13,125	10 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys	3.02
Option D	High cost	£507,500	£25,375	10 before 65 after	2011 Census data compared to PCT GoDutch commuting, assuming commuting is 20% of journeys.	1.56
Option E	Low cost	£750,000	£37,500	20 before 480 after	2011 Census data compared to PCT GoDutch commuting and school "route network" layers. Assuming trips to school and commuting is 50% of local journeys	6.90
Option E	High cost	£2,670,000	£133,500	20 before 480 after	2011 Census data compared to PCT GoDutch commuting and school "Route Network" layers. assuming commuting is 20% of journeys	1.93

Table 15.2 – BCR calculations for each route option assuming major changes also in Isleham and Fordham.

Item	Item description	Capital	Notes on usage	AMAT BCR
Works in Fordham plus employment area	Highway works in Fordham and along Newmarket Road plus A142 crossing	£1,800,000	PCT School data suggests significant increase in usage	Needs more data but likely to be good given big potential increases in usage.
		£3,600,000		
Works in Isleham	Highway works across Isleham including 20 mph. Cost with no detailed design.	£360,000	PCT School data suggests significant increase in usage	Needs more data but likely to be good given big potential increases in usage.
		£765,000		

Table 15.3 – Costings of works within Fordham and Isleham

16. Construction and Maintenance

Any works on the highway will need traffic management and will need suitable facilities for construction or maintenance staff and a site compound for equipment and materials storage.

Construction and maintenance considerations:

1. Works in Fordham.

Works on the roads in Fordham will need a traffic management plan and suitable site compounds within the village. It should be possible to find suitable locations for a site compound on the public highway, which will need the appropriate orders. Works near the Primary School may need to be programmed for school holidays and any works in term time are likely to have time restrictions relating to the beginning and end of the school day.

2. Link with Fordham Employment area.

These works will need traffic management and would be much easier with the closure of Newmarket Road to car traffic (except for access). The more challenging aspect of the works is likely to be the two ends (at Fordham which will need to tie in with works in Fordham and near the A142 where there will be major issues with traffic and safety). A site compound along Newmarket Road and at one or two of the employment areas would be beneficial.

3. Works along the A142

The proposed works involve crossing the carriageway and new paths parallel with the busy road and details are not fixed at present, but significant traffic management is likely to be needed

and suitable access arrangements will be needed between site compounds and the works for construction vehicles and staff. For ease of access it may be desirable that there is a site compound on each side of the A142 to minimise the need to cross.

If a bridge is to be installed closure of the A142 will be required and with careful planning it should be possible to arrange for this to be overnight or at a time of relatively low traffic. If a signalled crossing is to be provided this will need careful traffic management while works on the highway are taking place.

4. Works in Isleham

Works on the roads and at junctions in Isleham will need a traffic management plan and suitable site compounds within the village. It should be possible to find suitable locations for a site compound on the public highway, which will need the appropriate orders.

5. Works in Soham

Works in Soham are dependent on future developments and are best dealt with when there is more clarity on this, unless there is agreement that infrastructure can be delivered before the developments take place. Since this would involve crossing the A142 issues are likely to be similar to item 3 (Works along the A142).

6. Works along field edges.

Most new path proposals are along the edge of fields and will need to be agreed with landowners and these agreements should allow for temporary site compounds for construction and access routes for construction vehicles. Access across fields may be challenging in bad weather and the use of

existing established farm access routes is desirable. Working in remote areas will also be a potential risk for staff, so this will need to be carefully planned.

7. Works in Isleham Nature Reserve.

Any works in the Nature Reserve would be similar to works along field edges, but with the added factor that any damage to habitats needs to be minimised and could significantly add to Biodiversity Net Gain costs. Access routes will need to be carefully marked out with allowance for passing spaces for construction vehicles and training for staff regarding where they can and cannot take vehicles.

8. Works along Isleham/ Fordham Road.

The details of the scheme are unclear at this moment since there are various options, but all works will need careful traffic management. Traffic volumes and speeds are much less than is the case with the A142, but nevertheless there are potential risks which will need to be planned for. Obvious possible locations for site compounds would be one or other of the businesses along the road, the Nature Reserve car park or the side road, also known as Isleham Road and nearer to Fordham.

Maintenance access can easily be forgotten but regular access will be needed along routes for sweeping and vegetation management and less frequently for surface maintenance and enhancements and this should be part of all discussions pertaining to route development.

17. CDM and Risk register

Ref	Area	Observation	Action required?
1	Who are the CDM duty holders?	Client- East Cambridgeshire District Council Designer- Sustrans	
2	Has this been recorded?	In Teams	
3	If Sustrans is the client has the principal designer been appointed?	N/A	
4	If Sustrans is the client has the principal contractor been appointed?	N/A	
5	If Sustrans is not the client, are we satisfied that the client is aware of their duties?	Not entirely certain	Advise client about their duties
6	Have you checked that the project team have the necessary skills, knowledge and experience?	Partially, Sustrans has the skills but we are unsure about the client's skills	Advise client about their duties
7	Has pre-construction information been produced?	Not yet	
8	Has the pre-construction information been issued to the appropriate parties?	N/A	
9	Has a design risk assessment been completed?	Yes but will need updating as the project progresses.	Update risk assessment
10	Is the design risk assessment appropriate?	At this stage, yes	Update risk assessment
11	How have residual risks been communicated?	They will be referred to in the study	
12	Has the construction phase plan been produced?	N/A	
13	Are adequate welfare facilities provided on site?	N/A	
14	Has the health and safety file been produced?	N/A	

Designer	Sustrans	
Client	East Cambridgeshire D.C.	
Author	NB (Sustrans)	
Date	13/11/23	
Risk ID number	Description	Response
1	All construction works carry risk. Is work necessary?	Need for new provision, because existing routes do not comply with standards such as LTN 1/20, but works could be avoided with reductions in traffic volumes and speeds on Fordham/ Isleham Road so this should be given serious consideration.
2..	Works near roads carry risks.	Road closures and traffic management will be needed and cannot be avoided so should be carefully considered throughout design process.
3	Works near the A142 carry risks.	Any link with Fordham employment area or a new link with Soham will involve work near high volumes of traffic so careful planning and management will be needed. Crossing the A142 is a major issue for local people so needs to be addressed.
4.	Works in rural areas carry risks, including farm activities.	Sufficient land needs to be agreed for safe working and maintenance and contractor to be alerted to all potential risks, by designer as project progresses. Time of year will be important for rural works and this needs to be considered early so that there is a suitable timetable.
5.	Gas mains and electricity supplies are in the area.	Utility search undertaken to check for any issues. This has revealed some issues, but further checks should be done as design progresses.
6.	Inadequate provision made for site compounds and facilities.	This needs to be a key task as part of land negotiations.
7.	CDM needs to be considered in choosing preferred options.	CDM has been a significant factor but will need to be considered further as options are reviewed.
8.	Community Engagement Risks	Risk Assessments will need to be completed and acted upon for events and activities.
9.	Design and surveying risks	Risk Assessments will need to be completed and acted upon for site visits, surveys and design work. This is a particular concern where there is no footway.

18. RAG Report

Project title	Isleham to Fordham Feasibility Study	Date RAG report initiated	13/11/23	Project Manager	MP	
Client	East Cambridgeshire D.C.	Date of current edition	13/11/23	RAG Author	NB	
Risk ID number	Description	Assigned to:	Date assigned:	Current situation (RAG)	Potential mitigation	Mitigation risk (RAG)
1	Route uses private land and agreement cannot be reached with all landowners in time to deliver project.	ECDC	13/11/23		Some options are entirely deliverable on highway land and County Council rural estate land so political input may be beneficial. Skillful negotiations with landowner should help and use of statutory powers is also possible.	
2	One-way changes not agreed in Fordham so route not LTN 1/20 compliant in Fordham and local people cannot access new route.	ECDC / CCC	13/11/23		High level of community engagement needed to come up with solutions.	
3	One-way changes not agreed between Fordham and Fordham Employment area and crossings of A142 cannot be agreed so route not LTN 1/20 compliant and Isleham residents cannot access employment site using new Isleham-Fordham route.	ECDC / CCC	13/11/23		High level of community engagement, including with businesses needed to come up with solutions.	
4.	Junction and speed limit changes not agreed in Isleham so some people will be deterred from using new provision.	ECDC	13/11/23		High level of community engagement needed to come up with solutions.	
5.	Route may use footpaths and County Council agreement not obtained for works.	ECDC / CCC	13/11/23		Early discussions with Rights of Way team, particularly for Soham link. Options use few rights of way apart from Soham link.	
6.	Use of nature reserve not agreed due to ecological or other concerns.	ECDC / CCC	13/11/23		Alternative routes avoiding nature reserve to be considered along with high level of community engagement needed to come up with solutions. Significant Biodiversity Net Gain contributions may be needed.	
7.	Link with Soham dependent on future development and development may not proceed.	ECDC/CCC	13/11/23		Developers, ECDC and CCC need to be persuaded of need to include route in development, but development proceeding cannot be guaranteed. This is not essential for Fordham-Isleham link.	
8.	Changes to traffic flows on Fordham/ Isleham road cannot be agreed, ruling out these options.	ECDC/CCC	13/11/23		CCC need to be persuaded of need for scheme and high level of community engagement needed.	
9.	Changes to road layout and parking near Fordham Primary School cannot be agreed, making route along Isleham Road incomplete.	ECDC/CCC	13/11/23		High level of community engagement needed.	
10..	Maintenance plan cannot be agreed.	ECDC/CCC	13/11/23		Needs to be agreed and required standards set at an early stage.	
11.	Funding not obtained.	ECDC	13/11/23		Ensure scheme is to LTN 1/20 standards, has good BCR and has all necessary consents, to improve chances of funding.	
12..	Planning consents not obtained.	ECDC	13/11/23		Follow recommendations in Ecology Study and use these to inform design and route selection. Undertake pre-app discussions and ensure all issues addressed. On highway options would not need planning permission so give these serious consideration.	

19. Conclusions

The routes considered are shown in Fig 19.1. None of the options is easy and there is a good case for more than one route. Traffic conditions between Isleham and Fordham are not overly daunting, but they are enough to put off all but the most confident cyclist and walker. The two communities are however close together and should be an easy cycling distance apart.

For all options it is clear that good links within both Isleham and Fordham are needed if the investment in links between the communities is to be justified. This is particularly challenging in Fordham, where traffic volumes are greater than in Isleham and a major change to traffic flows is proposed in Fordham to allow roadspace to be reallocated to create safe space for cycling. (This has already been suggested as part of the [Burwell to Fordham Feasibility Study](#) also produced by Sustrans). For Fordham it is important that there are good links with the Fordham Employment Area to the south of the village and the report includes recommendations for this, which were also suggested in the Burwell to Fordham study.

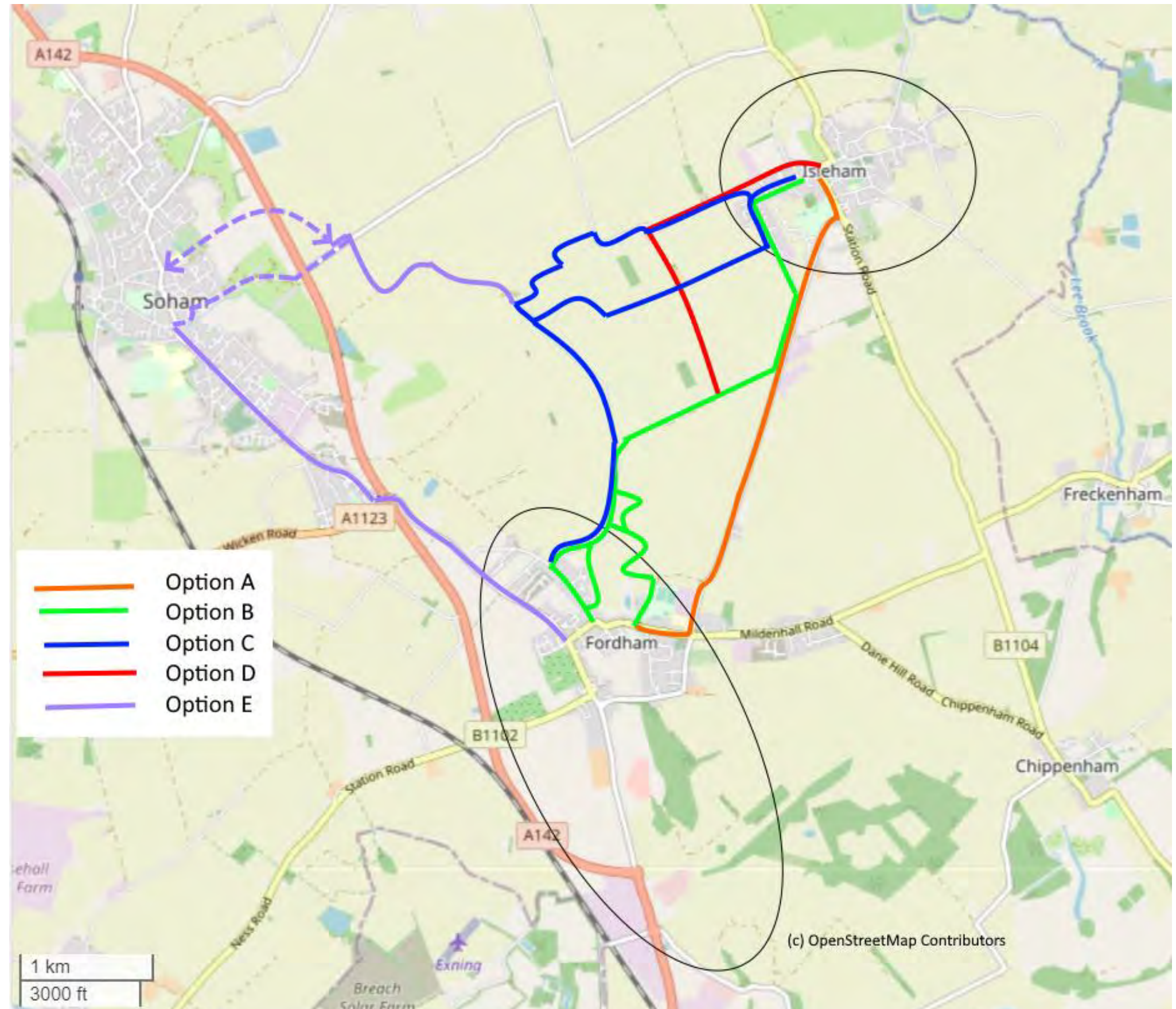


Fig 19.1. Map showing the options considered.

Points to note about the options:

- **Option A** is the obvious alignment, it is direct and links well with the two communities and is less isolated than other options. Three different ways of achieving this route are considered, with changes to traffic flows necessary for two of these. One of the biggest challenges is the link into Fordham near Fordham Primary School and without a good link the whole route will not work. There are ways that this option could be delivered relatively cheaply and it could undoubtedly be a good route, but changes to traffic flows may be challenging. If traffic flows are to remain largely unchanged land acquisition would be an issue.
- **Option B** is an attractive alignment, especially if it uses the Isleham Nature Reserve, but that would in itself bring ecological challenges. Whilst much of the land needed for the route is part of Cambridgeshire County Council's rural state, private land would still be needed for the link with Isleham.
- **Option C** has not been fully surveyed, but the proposed route would run along the edge of agricultural land and it can be delivered entirely within land that is part of Cambridgeshire County Council's rural estate. A lot of discussions would be needed as to how any facilities could fit in with farm operations, but this is certainly an option with good possibilities especially when considered with Option E.

- **Option D** is a variation on Option B and C again within Cambridgeshire County Council's rural estate (apart from within Isleham itself). It has potential and is to consider as part of discussions with landowners.
- **Option E** was beyond the scope of this study but has been included because it strengthens the case for Option C in particular because it shows that Options C and E combined could form links between Isleham and Fordham, Isleham and Soham and Fordham and Soham. Option E needs private land and more land that forms part of Cambridgeshire County Council's rural estate and importantly links with the edge of Soham in an area designated for potential growth.

Option E does not make sense on its own but the case for Option C and Option E is strong even if Option E takes longer to deliver.

All options apart from Option A have significant risks in terms of the need to acquire non highway land and Option A has risks if traffic changes are needed. Some options can be delivered using just Cambridgeshire County Council rural estate land, so there should be at least one landowner willing to enter into dialogue. The County Council rural estate will of course have to address commercial issues and the needs of their tenants. Ultimately it may be necessary to use Compulsory Purchase Powers to deliver some routes.

Ecology is a risk that has been considered in route selection and this is particularly important with regards to the Isleham Nature Reserve where a route on the reserve would be very attractive and improve access, but would have ecological and Biodiversity Net Gain implications.

The biggest engagement challenges are likely to be in the significant changes in Fordham and between Fordham and Fordham employment site, but in previous correspondence Fordham Parish Council has been supportive of measures to make Fordham a more walkable and cyclable place.

Whilst the potential to link Option C with Option E (and gain added benefits by linking with Soham) makes this potentially the most attractive choice Option A also has clear benefits and would be less isolated than Options C and E so there is a case to be made for delivering all three options. The potential to link with Soham (Option E) is therefore something that needs to be considered seriously, although it was not a priority within the Council Strategy, because the potential usage is believed to be greater than for the link solely between Isleham and Fordham.


The Benefit Cost Ratio for the closure of Fordham Road/ Isleham Road to through traffic (one of the sub-options within Option A) is very high. This would be a cheap and simple scheme to deliver and would create an attractive route. The challenges are with community engagement rather than cost, but although there may be challenges with the community engagement aspects the potential benefits make this an option that has to be considered seriously.

It must be noted that Benefit to Cost Ratios have been based on many assumptions including using a Go Dutch model that assumes that both Fordham and Isleham are transformed as well as the link between them. If all of this does not happen usage will be much reduced and it will be hard to justify expenditure.

Overall given the relatively small populations of both Isleham and Fordham the usage of any new cycling and walking infrastructure between the two communities will not be high, but the distances are small, they are an easy cycling distance and this study has not identified any major barriers to delivery, so there are strong reasons to progress at least one route.

20. Appendix

Appendix A. Equality Impact Assessment



Equality Impact Assessment Tool

Purpose

This tool is to help colleagues to deliver inclusive projects.

It does this by:

- **Focussing attention** by providing a series of prompt questions and areas for consideration. These are tailored to the type of project you are working on.
- Providing a library of **resources and data** relevant to different characteristics. This will guide project teams to develop responses that are informed by best practice and existing research.
- Listing practical examples of inclusive **community engagement** and what **responsive solutions** might look like.

This tool is designed to encourage new ways of working, rather than to assess projects that have already been developed. It encourages an approach that balances both desk-based research and targeted engagement.

When?

The tool should be **used at the initial stages of a project's development** to shape the scope of work.

It should guide the development of solutions from the outset, and be **re-visited** as the project develops.

Importantly, it must also be **reviewed at the end of the project** to learn lessons to inform future work.

Who?

The tool should be completed by the Project Manager and reviewed by the Project Sponsor.

The tool should also reflect community engagement undertaken by the project, amplifying voices of those with lived experience of the topics explored.

Why?

It will support teams to take inclusivity into account at the outset of a project. It will also provide evidence to stakeholders on how the project team has considered different characteristics in a project's development.

This Equality Impact Assessment process is focused on ensuring all projects and services are created and completed in line with the Equality Duty.

As a charity, while our Equality Duty responsibilities are not the same as those for public sector organisations, **we often receive public funding or work in public spaces, and we have committed to delivering inclusive projects.**

Important considerations

When completing the tool, it is critical that an **intersectional** approach is taken. That is understanding that people often experience amplified and particular disadvantages by experiencing **multiple characteristics simultaneously.**

It can be helpful to consider how:

- Particular groups with multiple characteristics are likely to be impacted by the project
- Some impacts may affect multiple characteristics, or affect different characteristics in different ways
- Some solutions may provide benefits for multiple characteristics

For **particularly small projects**, it may not be appropriate to complete all the sections, or develop in depth community engagement.

As a minimum, you should complete the **Focussing Attention** tab and consider how to **amplify under-represented voices** in your work.

All projects should **monitor their impact** on those with protected and other characteristics. Project monitoring should be developed using standard approaches to demographic data collection as developed by RMU.

Project Name	Fordham to Isleham (14630)
EqlA Version & Date	V1: Completed 25-11-23 (Feasibility)
Project Sponsor	Martin Philpott
Project Manager	Martin Philpott
Completed By	Mark Jenks, Thom Haslam, and Jolina Irish
Sustrans Approach	Transforming routes and spaces

The project type selected will populate the tool with information relevant to that area of work.

Sustrans Approach	Product	Examples
Transforming routes and spaces	<ul style="list-style-type: none"> - Neighbourhood traffic reduction - Low traffic and protected routes - Safe, appealing streets and public spaces - Timed traffic-free streets - Integration with public transport and micro-mobility - Traffic-free routes 	<ul style="list-style-type: none"> - Improving NCN routes - Expanding NCN routes - Improving access to the NCN - Active travel strategies - Area-wide through traffic exclusion interventions - Area-wide improvement interventions
Building active travel habits and practices	<ul style="list-style-type: none"> - Community model shift: children and adolescents - Community model shift: adults - Moving goods. 	<ul style="list-style-type: none"> - Schools walking, wheeling, and cycling skills interventions - Workplace walking, wheeling and cycling interventions - Integrating walking and cycling with rail - Big walk and wheel - Active travel challenges - Led walks and rides - Social prescribing - Bike maintenance skills - Cycle hubs - Hire and pool bike schemes
Supporting professionals and decision makers	<ul style="list-style-type: none"> - National, regional, and local strategies to achieve modal shift - Data and insight on attitudes, behaviours, and infrastructure - Resources and advice for delivery projects - Professional training 	<ul style="list-style-type: none"> - Professional training and upskilling - Standard setting and quality assurance

Brief Project Description:

This project has been commissioned by East Cambridgeshire District Council who are looking to improve local facilities and want to progress plans for cycling and walking routes, so that when opportunities becomes available, they can bid for funding. The National Cycle Network (NCN) does not pass through Fordham, Isleham, nor the neighbouring Soham.

Most people at present who want to cycle between Fordham and Isleham will have to use the Fordham Road, which has a moderate volume and speed of traffic and no pedestrian facilities. These conditions aren't appropriate for anyone apart from the most confident cyclists. Multiple route options and alignments have therefore been considered, some involving recommendations for point closures or a one-way system in Fordham and on Fordham / Isleham Road. Others present linkages to nearby settlements and destinations such as Soham. All options have their advantages and serve slightly different purposes. There is a strong case for significant changes within Fordham and Isleham themselves.

Project Objective:

The aim of the project is to identify and describe current problems and propensity to walk and cycle in the area, identify at least one high quality route that can be delivered between Fordham and Isleham and rank the route options in terms of benefits and costs. Links to Soham have been considered to establish the merits of incorporating them into any new route between Fordham and Isleham.

This tab provides prompt questions and areas for consideration that are intended to focus attention on inclusivity at the outset of a project. The information is informed by research on each characteristic based on the project type selected. It is not exhaustive, 100% universal, or context-specific. It is important to consider how people with multiple characteristics often face amplified disadvantages.

Characteristic or Protected Characteristic	Prompt Questions (Populated based on project type)	Areas for Consideration (Populated based on project type)	Potential Impact (Summarise potential project impacts in response to the prompt questions and areas for consideration)
People experiencing (and/or at risk of) high deprivation	Does the project area include areas of deprivation as mapped on the SIMD/IMD? How does the project ensure that people living in areas of deprivation are direct beneficiaries?	Location of interventions, trip generators, perceptions of safety, access to essential services, transport poverty	Please refer to the Resources and Data tab which details the impacts of this project.
Disability	How will the route be accessible and navigable by disabled people? Will it help them travel independently, and with greater dignity including features such as tactile paving, dropped kerbs, and accessible public toilets?	Access barriers, surfaces, level changes, perceptions of safety, navigation, resting opportunities, public toilet facilities, calm, legible environments, distances between likely trip generators, public transport accessibility, taxi/car access, pavement widths, dropped kerbs, tactile paving, signage/wayfinding	
Race	How can the project be culturally relevant to migrants and people of colour who live or work in the local area? How will the project respond to the needs of migrants and people of colour? How will the route feel by those who experience racism, especially after dark?	Perceptions of safety, histories of race-related crime, welcoming public spaces reflecting diverse communities, likely trip generators, demographics of area, venues and public spaces that reflect diverse communities	
Sex	Does the project support an area-wide approach for those who are making multi-stop journeys (more likely taken by women), rather than just A-B routes? Will the route feel safe for women or non-binary people, especially after dark? Is it well-overlooked and well-fit?	Perceptions of safety, infrastructure that supports trip chaining or multi-stop journeys	
Age	Will the public spaces support play and/or regular seating and resting opportunities? How will the project support the needs of people across age groups, especially those ages most overlooked in transport planning - children, teenagers and older people?	Distances between likely trip generators, resting and play opportunities, navigation, public toilet facilities, perceptions of safety, level changes	
Sexual orientation and gender reassignment	Have LGBTQIA+ related hate crimes been reported in the area? How do LGBTQIA+ people feel about their safety on the route? How have the area's public spaces been designed to feel safe and welcoming to LGBTQIA+ communities?	Locations of LGBTQIA+ venues, histories of LGBTQIA+-related hate crime, celebrating queer heritage and identity, welcoming public spaces reflecting diverse communities	
Pregnancy and maternity	Is the area welcoming to parents with babies or young families (e.g. does the area provide frequent opportunities for changing and feeding a baby)?	Resting opportunities, level changes, surfaces, access barriers, perceptions of safety, public toilet/changing facilities, dropped kerbs, surfaces, pavement widths	
Religion or belief	How can the project be culturally relevant to diverse religious groups or communities in the area? For instance, how will the project improve connectivity for places of worship or religious communities in the local area?	Perceptions of safety, location and access requirements of cultural and religious venues	
Other marginalised groups	How can this project benefit other marginalised communities (for example, homeless people, asylum seekers, current and ex-offenders)? Areas of consideration might include access to key services (e.g. GPs, Citizens Advice, libraries, food banks, warm banks)		
Marriage and civil partnership	There is little evidence about marital/civil partnership status or relationship status and associations with wider active travel patterns.		

This tab provides a library of resources and data relevant to the project type selected. This is to enable colleagues to identify what active travel barriers are experienced by people with different characteristics, or to identify particular demographics of an area such as a large young Sikh population. There are many relevant guidance documents already published across the industry. We all have a responsibility to be aware of resources and data to inform our project delivery.

Characteristic or Protected Characteristic	Guidance (Examples with hyperlinks common to all project types)	Data (Examples with hyperlinks common to all project types)	Sustrans Knowledge (Examples with hyperlinks common to all project types)	Area or Project-Specific Guidance (Enter links to area or project-specific guidance)	Area or Project-Specific Data (Enter links to area or project-specific data)	Evidenced Impact (Summarise potential project impacts informed by the resources and data)
People experiencing (and/or at risk of) high deprivation	Closing the Divide: How to really level Health Equity in England	Indices of Deprivation: combined Scottish Index of Multiple Deprivation 2020	Transport poverty research	Guidance: +Department for Transport, Travel by car access, household income, household type, NS-SEC and mobility status NTS0702, 2018	(1) The Lower Super Output Area (LSOA) containing Isleham is among the 10% least deprived in the country, and Fordham is in the 20% least deprived. The LSOA between the two, however, sits among the 50% most deprived in the country. Deprivation in this LSOA is particularly related to income poverty affecting both young and old people, barriers to housing, and lacking access to skills and education. (2) In England 25.8% of people did not own a car. This rate is at 10.5% in Fordham and 8% in Isleham. (3) 40% of people from the lowest income have no access to a car (1) Indices of Deprivation 2019 (2) Census 2011 (3) Government Foresight Report	Possible Positive Impact: People in and between Isleham and Fordham experiencing higher deprivation are less likely to own a car while living in a car dominant area. These people are more reliant on walking and cycling for their journeys. Improvements to walking and cycling infrastructure will make these journeys safer. If the cycling infrastructure and safety of cycling improves more people may consider owning and using a bike for journeys they currently do via taxi and private car. This could be less expensive, give more independence and health benefits. Possible Negative Impact: People with reduced incomes may not have access to a bike, and therefore may not be able to utilise the cycling elements of the proposed routes. Deprived residents of rural areas reliant on a car may also encounter longer journeys which are more expensive.
	Fairer Scotland Duty					
Disability	A Guide to Inclusive Cycling	Advice for local authorities considering hosting e-scooter trials	We must take practical steps to support people with mental health conditions to travel	Guidance: +Transport for All: Pave the Way +Wheels for Wellbeing: A Guide to Inclusive Cycling +Assessing the needs and experiences of disabled cyclists 2018 +Living Streets: Safer Crossings +Buildings Code of Practice BS 8300-2:2018 Design of an accessible and inclusive built environment +Sustrans: We must take practical steps to support people with mental health conditions	(1) Day-to-day activities are limited a lot for approx. 8% and 7.4% of people in Fordham and Isleham respectively, which is less than the national average of 8.3%. The percentage of people who's activities are affected a little are closer to the national average of 9.3% across both villages. The percentage of people aged between 16-64 with day-to-day activities limited a lot is higher in Fordham (2.5%) compared to Isleham (1.8%) and less than England average (3.6%). In both Fordham and Isleham, a slightly higher percentage of people (48.5% and 49.4%, respectively) have very good health compared to England as a whole (47.2%). The percentage of households with one person having a long-term health problem or disability is similar in Fordham (22.6%) and Isleham (23.4%) and lower than England (25.7%) as a whole. (2) Disabled people are 5 times more likely to be injured as a pedestrian than non-disabled people. (3) Both Fordham and Isleham are in the 10% least deprived neighbourhoods in terms of health and disability, although the LSOA adjoining the towns is in the 50% most deprived. (1) Census 2011 (2) Road Safety GB (3) Indices of Deprivation 2019	Possible Positive Impact: Accessible routes can result in easier local journeys and recreational opportunities for disabled people. This can lead to more independence including improved mental and physical health. Improvements to the routes which benefit everyone can further support disabled people. For example surfacing and widening the footpath of Moor Road would provide access to the Local Nature Reserve to people using walking aids and mobility scooters. Potential for reduced noise pollution resulting from being away from traffic by avoiding or changing the existing Fordham Road can benefit people with cognitive disabilities. This can aid disabled people to independently access local amenities. The safer crossing provisions proposed benefits people with reduced mobility as they take longer to cross. Assessing the needs and experiences of disabled cyclists 2018, found that 75% of disabled people find cycling easier than walking. But inaccessible infrastructure prevents disabled people cycling. Better conditions can empower disabled people to cycle, especially those with balance issues and adapted bikes. Possible Negative Impact: If introduced infrastructure isn't carefully designed, it could result in reduced space and potential barriers for adapted bikes and mobility aids. Accessible access onto the greenway sections could cause nuisance access concerns for local people, for instance at the River Snail bridge. Level changes will need careful consideration, to reduce any accessibility impacts. Some of the proposed on road routes may include grade segregation. The grade segregation options could be a barrier if they don't include accessible design elements such as dropped kerbs. Vulnerable users could be uncomfortable and intimidated by the shared use sections of the routes, especially if cycling volumes increase. Sections of the route will be shared with motor vehicles including farm machinery for example the quiet lane proposals, and this could be intimidating for older and younger people. The design of these sections should consider the viability of segregating motor vehicles from pedestrians and cyclists. The 40mph speed limit along Fordham Road as well as the heavy traffic could still be an intimidating environment, even with the proposed 2m buffer (Alternative routes away from Fordham Road have been considered). Some of the route options aren't a direct route from Fordham to Isleham so the time reaching either destination would be longer and could be an issue for vulnerable users.
	Pave the Way		Disability History Month events			
	BS 8300-2:2018 Design of an accessible and inclusive built environment. Buildings - code of practice		Disabled Citizens Enquiry (yet to be published)			
Race	Cycling & Mobility: We have failed to engage in the conversation about racism	Race Equality Think Tank	New report shows large unmet demand for cycling from ethnic minority and disadvantaged groups	Guidance: Sustrans: Unmet Demand for cycling from Ethnic Minority and Disadvantaged Groups	(1) In terms of the white ethnic group, Fordham and Isleham have significantly higher percentages of residents (97.5% and 96.8% respectively) than the England average (85.4%) The percentage of Indian residents in Fordham and Isleham (0.2% and 0.1% respectively) is significantly lower than the whole of England (2.6%). The percentage of Black/African/Caribbean/Black British residents in both Fordham and Isleham is similar (0.3% and 0.7%) which is lower than the whole of England (3.5%) Overall, Fordham and Isleham have a higher representation of White residents and a lower representation of Indian, African, and Caribbean residents than the whole of England, Isleham	Possible Positive Impact: An accessible and comfortable cycling environment should make cycling a more appealing mode of travel for ethnically diverse people. Ethnically diverse people are underrepresented in cycling for transport and exercise.
	How racism impacts air quality and endangers life	Pedestrian casualties higher among BAME people				

	Barriers of physical activity among Black and Minority Ethnic Groups in the UK	-	-		has a slightly lower representation of White residents compared to Isleham and a higher representation of Indian, African, and Caribbean residents compared to Isleham. (2) There is evidence that black, Asian and minority ethnic groups (BAME) are more likely to express concerns over safety and security (particularly after dark) than white groups. (1) Census 2011 (2) TFL, Understanding the Travel needs of London's diverse communities	Possible Negative Impact: There is evidence that black, Asian and minority ethnic groups (BAME) are more likely to express concerns over safety and security (particularly after dark) than white groups. These safety concerns will apply to the route options that have greenway sections with limited surveillance. As a result, these groups may choose to travel by private car and taxi due to safety concerns.
Sex	Inclusive cycling in cities and towns	-	Are we nearly there yet. Exploring gender and active travel		(1) Personal safety after dark is a concern for women (more so than for men) but during the day, these concerns are in line with those of men (2) Low level of crime deprivation (10% to 20% for both Fordham and Isleham) in these areas is an indication of a more safe neighbourhood for everyone. (1) TFL, Understanding the Travel needs of London's diverse communities (2) Indices of deprivation 2019	Possible Positive Impact: Segregation from motorised vehicles and an accessible improved walking and cycling environment could particularly benefit women, who are more likely to be walking with young children and prams. Women are less represented than men in cycling and this is partly because women are impacted by a more risk adverse attitude to mixing with traffic. Improved cycling infrastructure and motor vehicle free route sections could encourage more women to cycle. Possible Negative Impact: Women are more likely to be worried about personal safety and experience anti-social behaviour whilst travelling. A recent survey by Plan International UK found 66% of girls aged 14-21 in the UK have experienced unwanted sexual attention whilst in a public place. Sections of the proposed routes have limited surveillance and this could contribute to safety concerns. Women may therefore be disproportionately affected by longer, less convenient car journey due to their reliance on them. Sections of the routes will be shared with motor vehicles including farm machinery and could be intimidating for women who are more risk adverse.
	Traveling in a Woman's Shoes	Women's role in 'unpaid work'	Walking and Cycling through Menopause			
	Safety in Public Spaces. Women, Girls and Gender Diverse People	Sexual harassment in UK public spaces			Guidance: •Plan International UK: For Children & Equality for Girls •Sustrans Walking & Cycling Index	
Age	"Age Friendly Places Making our community a great	Loneliness in Later Life research by Age UK	Designing for Children & Young People		(1) The age distribution of residents in Isleham, Fordham, and England are similar. However, Isleham and Fordham has a lower percentage of adults age 20 to 24 compared to England's Average (4%, 4.6% and 6.8% respectively). At age 30 - 84, both Isleham and Fordham percentages are higher compared to England. Between ages 65 to 74, Fordham percentage (10.5%) is slightly higher than Isleham and England which both have similar percentages (8.8% and 8.6% respectively). Younger demographics up to 44 Years of age are slightly higher in Isleham than in Fordham. Contrastingly, Fordham has a higher percentage of residents aged 65 years and over compared to Isleham. The average age for both Fordham and Isleham is between 30 to 34 age group. The age distribution is an important demographic factor that can be used to analyse the needs and demands of the population in different locations. The age demographic for Fordham and Isleham is akin to England averages.	Possible Positive Impact: Children & Young People: An increase in activity, including walking and cycling benefits children in reducing childhood obesity. Reduced danger from motorised vehicles should support independent active travel for young people. Due to their height and developing lungs air pollution from vehicles has a significant impact on young people. Research has found that exposure to air pollution in early life can lead to later life health problems and a reduced quality of life. Sections of this route are along off-road field edges, and other sections when on-road have low traffic volumes, reducing exposure to air pollution. The proposed route along Isleham Road passes Fordham Primary School which can encourage more local children to walk and cycle. Older People: Older people are more likely to have dementia which can be made worse by vehicle noise pollution. Reducing traffic volumes especially in Fordham, through proposition of one-way systems and point closures of roads to through traffic, reduction of speeds and associated road danger proposed by this feasibility study will also benefit older people with disabling conditions, including mobility issues and sensory impairments. Older people become less active which can impact their physical and mental health. Social isolation is a growing problem faced by older people. The off road sections have the potential to encourage older people to travel actively and result in more regular social interactions. Older & Younger People: Accessible routes can improve conditions for walking and cycling, especially for those that need to use an adapted bike. Also, the safer crossing provision proposed on the A142 benefits older and young people as they take longer to cross. If the cycling infrastructure and safety of cycling improves more people may consider owning and using a bike for journeys they currently do via taxi and private car thus reducing traffic volumes and making it safer for all ages to walk and cycle. Possible Negative Impact: If introduced infrastructure isn't carefully designed, it could result in reduced space and potential barriers for pushchairs, mobility aids and larger adapted bikes including family cargo bikes. Accessible access onto the off-road routes for everyone including adapted bikes, pushchairs, and people with mobility issues, could cause nuisance access concerns for local people. Level changes will need careful consideration, to reduce any accessibility impacts. Vulnerable users could be uncomfortable and intimidated by the shared use sections, or mixed use traffic especially if cycling volumes increase. Sections of the route will be shared with motor vehicles including farm machinery and this could be intimidating for older and younger people. The design of these sections should consider the viability of segregating motor vehicles from pedestrians and cyclists. Isleham Road could still be an intimidating environment, even with a segregated cycle route (an alternative route option in the adjoining fields is being considered). Older and younger people reliant on a private car or taxi for transport may face less convenient and more expensive journeys
	The future of transport in an Ageing Society	The Role of Transport in Supporting a Healthy Future for Young People	Ageing better through active travel		Ambient Air Pollution, Noise, & Late-Life Cognitive Decline & Dementia Risk •Sustrans: Enabling Independent Travel for Young People •Asthma+Lung UK: Why you should #DropOffSwitchOff at the school gates	(2) In the UK the most common cause of non-natural death for 5-14-year-olds is being hit by a vehicle. On minor roads serious injury is twice as likely, and three times more likely to kill a child cyclist. (3) In terms of income deprivation for older people, a small proportion of Isleham, concentrated in the southeast, lies in the 10% least deprived neighbourhoods whilst the other parts lie within the 40% most deprived neighbourhoods in the country. Fordham lies amongst the 20% least deprived neighbourhoods with other parts lying within the 40% least deprived margin in the country. (1) Census 2011 (2) Sustainable Development Commission: Fairness in a Car-dependant Society & ICE Virtual Library (3) Indices of Deprivation 2019
Sexual orientation and gender reassignment	Thinking Cities: LGBTQ+ Urbanism: Reclaiming Space	Stonewall data on LGBTQIA+ hate crime across the UK	-		(1) Only 51% of people who identified their gender 'in another way' feel welcome and comfortable walking or spending time on the streets of their neighbourhood, compared to 65% of women and 67% of men.	Possible Positive Impact: Arup's 'Queering Public Space' report has identity principles to design public spaces, so they are more comfortable and inclusive for the LGBTQ+ community. There is scope to implement the findings of this report when designing this route and its adjoining spaces including the villages it passes through. The positive impact of implementing the findings of Arup's report will also result in inclusive places that benefit other protected characteristics.
	Queering Public Spaces	-	-			
	Engaging transgender people	-	-		Guidance: •Arup's 'Queering Public Space' •Sustrans: Communities Carving out a Space in Cycling that is Radical, Inclusive and Fun	(2) Data from the Office for National Statistics (ONS) shows more than one in four trans people (26%) experienced crime in the year ending March 2020, compared with (14%) of people whose gender identity is the same as the sex they were registered at birth. (1) Sustrans Walking and Cycling Index (2) Office for National Statistics

Pregnancy and maternity	Bumps and bicycles: Women's experience of cycle-commuting during pregnancy	Behavioural analysis of postnatal physical activity in the UK	Tips for cycling during pregnancy	Guidance: •RDOG: Position Statement- Outdoor air pollution and pregnancy in the UK •Sustrans: Tips for Cycling During Pregnancy •Sustrans: Bumps and Bicycles- Women's Experience of Cycle-Communing During Pregnancy	(1) At least one in three babies are growing up in areas of the UK with unsafe levels of particulate matter, the most dangerous pollutant for our health. (2) The NHS says that keeping active can make you less likely to experience problems later in your pregnancy and when you're in labour. (1) UNICEF, A breath of toxic air: UK children in danger (2018) (2) NHS Exercise in Pregnancy	<p>Possible Positive Impact: Less stressful route sections due to being traffic free and linked with the natural environment i.e route going through nature reserve (option B) can help support a healthy pregnancy. Pregnant people and unborn children can be adversely affected by air pollution.</p> <p>Parents and carers with prams and young children will benefit from an accessible walking and cycling environment.</p> <p>Parents and carers using cycles and cargo bikes for family journeys will benefit from an accessible route. A safer walking and cycling environment could encourage more families to walk and cycle for local journeys.</p> <p>Possible Negative Impact: If introduced infrastructure isn't carefully designed, it could result in reduced space and potential barriers for pushchairs and larger bikes including family cargo bikes.</p> <p>Accessible and inclusive access onto the greenway sections for everyone including adapted bikes, pushchairs, and people with mobility issues, could cause nuisance access concerns for local people. Level changes will need careful consideration, to reduce any accessibility impacts. The route proposals also include segregated cycleways, and if widths and gradients aren't designed to Equality Act guidance they will be a barrier.</p> <p>Vulnerable users could be uncomfortable and intimidated by the shared use sections, especially if cycling volumes increase.</p> <p>Sections of the route will be shared with motor vehicles including farm machinery and this could be intimidating for pregnant women. The design of these sections should consider the viability of segregating motor vehicles from pedestrians and cyclists. Pregnant people and carers of young children who need a car may face increased traffic and less convenient journeys with the implementation of point closures or one-way systems.</p>
	Cycling Cities for Infants, Toddlers, and Caregivers	-	-			
Religion or belief	Inspiring and enabling Muslim women to cycle	-	-	DFT are currently developing the Future of Transport: rural strategy, when released this strategy could help shape the future development of this project.	(1) Christianity is the most widely practised religion areas, with England having 59.4%, Isleham having 64.5%, and Fordham having a higher percentage of 87.6% of its population following Christianity. Other types of religion such as Muslim is significantly lower in Isleham and Fordham when compared to England averages, with Isleham having 0% Hindu, Jewish or Sikh population. The percentage of people who do not follow any religion in Isleham is the highest (27.3%) compared to Fordham which is similar to England percentages (24.2% and 24.7% respectively). (1) Census 2011	No specific impacts have been identified at this stage of the project.
	-	-	-			
Other marginalised groups	Car parking for care experienced people	-	Sustrans in Rural Scotland - Overview	DFT are currently developing the Future of Transport: rural strategy, when released this strategy could help shape the future development of this project.	(1) Overall, 85 of the 141 cyclists killed in 2020 died on rural roads (63%). This compares to 60% in 2019, and 54% on average between 2015 and 2019. (1) Road Safety GB	The projects development will need to consider the active travel infrastructure requirements of rural communities.
	Cycling for homeless people case study	-	-			
Marriage and civil partnership	There is little evidence about marital/civil partnership status or relationship status and associations with wider active travel patterns.					
Cross-cutting inclusivity resources			Walking for Everyone Cycling for Everyone Walking and Cycling			



This tab allows community engagement to be planned so that people with seldom-heard voices can be involved in a project's development. Not all characteristics need to be engaged for every project, and this should be proportionate to the scale of the project and the impact being explored. People with protected characteristics or experiencing deprivation should be reimbursed for their time and expertise. Targeted community engagement should be used to find local insights and fill gaps where you have not found answers in the evidence and resources. Ideally, the engagement team itself should also be diverse and reflect the groups you are seeking to engage with. It is important to take an intersectional perspective, by considering in particular, those experiencing multiple characteristics simultaneously.

Characteristic or Protected Characteristic	Inclusive Community Engagement Examples (Common to all project types)	Community Engagement Plan (What targeted engagement activities will you run? Activities may target multiple characteristics simultaneously)	Budget and Resources (What budget and resources are needed for those activities?)	Confirmed Impact (What has been learnt from the engagement activities about the positive and negative impacts of the project?)
People experiencing (and/or at risk of) high deprivation	<i>For example, seek to host a wide range of engagement types to suit those with more limited time and resources to attend</i>	The examples provided in this section will be used as a starting point when developing a detailed engagement plan in future phases of project development.		
Disability	<i>For example, organise a walk, wheel, or cycle with a local pan-disability group exploring the project, its potential and any existing barriers</i>			
Race	<i>For example, meet with Black Cyclists Network to discuss route and any specific barriers they may face in the area</i>			
Sex	<i>For example, hosting a walk specifically for women and non-binary people, to discuss the project in more detail</i>			
Age	<i>For example, organise a targeted engagement event at a local youth club, exploring design ideas with children and young people</i>			
Sexual orientation and gender reassignment	<i>For example, developing engagement materials and visuals to be inclusive and ensuring venue is welcoming to all</i>			
Pregnancy and maternity	<i>For example, ensure that engagement drop in events include facilities for babies to allow carers to meaningfully contribute</i>			
Religion or belief	<i>For example, ensure that engagement events take place in venues and during times that are welcoming to all religions</i>			
Other marginalised groups				
Marriage and civil partnership	There is little evidence about marital/civil partnership status or relationship status and associations with wider active travel patterns.			

Planned involvement:

When the project progresses local people with protected characteristics will be engaged in the development and delivery of the project. This will require the implementation of the inclusive design principles and collaborative design process detailed in the feasibility report.

Stakeholder management group:

Representatives from a range of local groups will be invited to form a stakeholder management group. Stakeholder mapping will need to be done with community representatives that will be invited to participate, along with organisations who advocate for people with protected characteristics. The group will be engaged to co-define engagement principles and throughout the project as designs are refined and delivered. The table above includes examples of how local people could be engaged, and these ideas will be investigated further as the project progresses.

Engagement activity will be reviewed to identify the extent to which it engaged with a diverse audience and the approach will be discussed and agreed with the stakeholder group.

After examining the resources and data, and if possible speaking to those with lived experience, you will be in a good position to develop responsive solutions. While the impact on all characteristics should be considered, it is also sometimes appropriate to primarily focus the project response on particular characteristics only. Consider how solutions may apply to different characteristics simultaneously, or particularly support those with multiple characteristics.

Negative Impact	<p>Cost of Cycling and Ability: Although purchasing and maintaining a bike is less expensive than a motor vehicle, and can be cheaper than public transport, people with less income may struggle to own and maintain a bike.</p> <p>Residents with protected characteristics living near the route may experience a lack of cycling confidence and ability. The routes proposals include sections where cyclists will mix with vehicles including farm machinery, this could increase levels of anxiety preventing some vulnerable people using it.</p> <p>These impacts will restrict people with impacted characteristics use of the routes cycling infrastructure and the benefits of cycling.</p>	
Characteristics Disproportionately Impacted:	Age (Young/Old), Disabled, Social Economic Status, Pregnancy and Maternity, Race and Ethnicity	
Actions to be Explored	Expected Outcome	
Develop a programme to help low income rural residents with the affordability of purchasing, maintaining, and storing cycles.	Increased numbers of low income residents enjoying the benefits of cycling and utilising the routes Infrastructure.	
Develop and promote programmes which help disabled residents to purchase, maintain and store adapted or electric bikes.	Increased numbers of disabled residents enjoying the benefits of cycling and utilising the routes Infrastructure.	
Develop and promote programmes which provide a safe and comfortable environment for residents and with protected characteristics to learn cycling skills and raise awareness of the route.	Increased numbers of residents with protected characteristics enjoying the benefits of cycling and utilising the routes Infrastructure.	

Negative Impact	<p>Safety and Barriers to Using Walking and Cycling infrastructure: Several protected characteristics flagged that walking and cycling accessibility and personal safety concerns are a potential barrier to using infrastructure, resulting in:</p> <ul style="list-style-type: none"> - Being disadvantaged if they still prefer to make these journeys by motor vehicles due to safety concerns when the route is implemented - Using walking and cycling infrastructure they feel uncomfortable and unsafe using <p>Poorly designed layout and function of walking and cycling infrastructure can be a disproportionate barrier for several protected characteristics.</p>	
Characteristics Disproportionately Impacted:	Age (Young/Old), Disabled, Race and Ethnicity, Pregnancy and Maternity, Gender, Sexual Orientation, Gender Reassignment	
Actions to be Explored	Expected Outcome	
Ensure that walking and cycling infrastructure follows current best practice guidance including LTN 1/20, and where applicable responds to Healthy Street audit indicators.	A safe and inclusive walking and cycling environment which benefits all potential users. Especially those that can be disproportionately impacted by barriers including mixing with motor vehicles, limited path widths, clutter, restricted access, and inadequate crossing provision.	
Where the route will be shared with motor vehicles including farm machinery, this could be intimidating for people with protected characteristics. The design of these sections should consider the viability of segregating motor vehicles from pedestrians and cyclists, and where possible consider routes through adjoining fields.	The LTN 1/20 guidance which incorporates Equality Act requirements will need to be applied to the proposed grade segregation, and controlled crossing on the A142 making them inclusive points along the route.	
If these options aren't viable, traffic speed and volume will need to be managed with 20mph speed limits, and changes to the carriageway (for example priority working, build-outs, psychological traffic calming).		

Ensure walking and cycling infrastructure incorporates required elements for safety including maximising informal surveillance, appropriate lighting, and inclusive wayfinding signage. Signage should also include warnings of unavoidable restrictions which affect people with protected characteristics. Including sections of the route which have steep gradients. Also details of local amenities should be included on wayfinding signage.	Residents with protected characteristics with highlighted personal safety concerns being comfortable to walk and cycle. A reduction in taxi and private car journeys which are a result of safety concerns.
Inclusive engagement with residents to explore existing barriers, safety concerns and to shape design proposals.	An improved route with more people able to access local destinations by walking and cycling.
In response to monitoring and engagement ensure that the walking and cycling infrastructure has capacity for any active travel volume spikes (For example Fordham Primary School), and manages cycling speeds and plans for future demand.	A walking and cycling infrastructure which has capacity for spikes in active travel volumes and manages cycle speeds. This will help maintain a public realm environment which is safe and inclusive, in alignment with LTN 1/20. This includes minimising the amount of shared use paths.

Negative Impact	<p>Public Spaces Not Designed for Everyone: The development of the route will link Fordham and Isleham, providing access to the natural environment. However, if the resulting route and adjoining environment isn't improved following inclusive design principles, people with protected characteristics are less likely to use it. The negative impacts of this could include:</p> <ul style="list-style-type: none"> •Social isolation •Less likely to use walking and cycling infrastructure •Feeling uncomfortable and unsafe in public spaces •Less likely to benefit from the mental and physical health benefits of green spaces and active travel 	
Characteristics Disproportionately Impacted:	Gender, Gender Reassignment, Sexual Orientation, Race and Ethnicity, Disability, Age (Young/Old)	
Actions to be Explored	Expected Outcome	
<p>Ensure that the route, its adjoining spaces, and access points are designed inclusively following best practice guidance. Examples of guidance to incorporate:</p> <ul style="list-style-type: none"> - Arup: Queering Public Space - World Health Organisation: Global Age-Friendly Cities - Age UK: Age-Friendly Places - Transport for All: Pave the Way - The Equality Act 2010 - LTN 1/20 - Buildings Code of Practice BS 8300-2:2018 Design of an accessible and inclusive built environment - Sustrans: We must take practical steps to support people with mental health conditions - Healthy Street Assessments 	A safe and inclusive environment, that is welcoming for all people, so they can benefit from and enjoy the physical and mental health benefits of outdoor spaces and active travel.	
Inclusive engagement with local people to explore existing barriers, safety concerns and to shape design proposals.		

<p>Negative Impact</p>	<p>Longer, less convenient, and more expensive journeys by private car: The development of the scheme may involve a point closure or one-way system in Fordham and on Fordham / Isleham Road. The implementation of these solutions would see an increase in journey time by private car. The implication of this is more expensive and less direct trips for doctors, careers and others supporting people with protected characteristics, as well as those unsafe walking or wheeling.</p>	
<p>Characteristics Disproportionately Impacted:</p>	<p>Gender, Health and Disability, Age, Pregnancy and Maternity, People experiencing high deprivation</p>	
<p>Actions to be Explored</p>	<p>Expected Outcome</p>	
<p>Ensure that the route is accessible to as many people as possible through changes across Isleham and Fordham, maximising modal shift and therefore minimising the amount of people affected less convenient journeys. Consider route lighting where appropriate to make routes feel safe for all users.</p>	<p>Equitable access to cycling and walking routes and destinations across Isleham, Fordham and neighbouring communities. Mitigated impact on traffic volume and journey times by motor vehicles through broader modal shift away from them. Subsidised travel for those that need it decreases disproportionate impact on protected characteristics, while reducing reliance on private cars</p>	
<p>Subsidised travel for licensed taxi and private hire vehicles, available to residents with serious mobility impairments and severe sight loss.</p> <p>The same subsidised travel made available to careers and others supporting people with protected characteristics.</p> <p>Subsidised travel will need to be promoted to beneficiaries and made user friendly to access and use.</p>		



Monitoring, Updates & Sign Off

In this section summarise how you will monitor project impacts, including the performance of responsive solutions, and provide details of any changes and additions to your projects inclusivity.

Project Sponsors: Review and sign off this EqIA including changes which impact protected characteristics.

Monitoring	
Summarise how you will monitor the inclusive impact of the project	<p>A monitoring plan for the project will need to be developed and implemented in response to the following requirements:</p> <ul style="list-style-type: none"> - To establish that the projects development is inclusive. This will need to include monitoring of attendance and how design decisions are responding to feedback. If data reveals that activities and design development is not being shaped by a specific protected characteristic, the engagement approach will need to be changed. - Baseline monitoring to understand current journeys which can be used to guide design development and understand the impacts of any trials. - Perception surveys to understand existing concerns and aspirations. Also used to gain feedback on design proposals and behaviour change activities. - Monitoring at all stages of the collaborative design process including the projects legacy and long term impacts on everyone including those with protected characteristics.
If impact is unclear what action is required?	This EqIA will need to be revisited as the project develops, as new impacts may emerge, and the projects inclusivity will need to respond to future engagement and monitoring results.

Provide details of any changes and additions to your projects inclusivity	Date of update:

EqIA Outcome: Project Sponsor Decision	
No major change <input type="checkbox"/>	<i>If this is selected, you are confirming that the EqIA demonstrates the proposal is robust and there is no possible adverse impact on this characteristic. You must demonstrate in the justification that all opportunities to promote equality have already been taken.</i>
Continue the project <input type="checkbox"/>	<i>If this is selected, you are confirming that the EqIA identifies possible adverse protected characteristic impact or missed opportunities, but the scheme can be justified. If this is selected, you must set out the justifications for continuing with the scheme in terms of proportionality and relevance.</i>
Adjust the Project <input type="checkbox"/>	<i>If this is selected, you are confirming that the EqIA identifies possible adverse protected characteristic impact or missed opportunities which suggest the scheme needs to be adjusted. If this is selected, you must set out the reasons why an adjusted scheme is required. For example, to remove unjustifiable barriers or address opportunities that cannot be missed on the balance of proportionality and relevance.</i>
Stop the Project <input type="checkbox"/>	<i>The scheme shows actual or possible unlawful protected characteristic discrimination. It must be halted or significantly changed. If this is selected, you must set out the reasons for halting the scheme or significantly changing it to avoid unlawful discrimination.</i>
Project Sponsor Justification/Comments (Including Updates)	

This tab documents the lessons learned from this project and reflections more widely. For example, did the project fill gaps in knowledge through its community engagement that were not available from existing resources and data? Were there any unforeseen negative impacts? How could collective knowledge be improved by further research? How have groups with multiple characteristics been considered?

Characteristic or Protected Characteristic	Learning (Summarise the lessons learned from this project)	Reflection (Summarise any areas that require further research not specific to this project)
People experiencing (and/or at risk of) high deprivation		
Disability		
Race		
Sex		
Age		
Sexual orientation and gender reassignment		
Pregnancy and maternity		
Religion or belief		
Other marginalised groups		
Marriage and civil partnership	There is little evidence about marital/civil partnership status or relationship status and associations with wider active travel patterns.	