

Feasibility study

Haddenham to A142

11 April 2022



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

To find out more, please contact (Andrew.allison@sustrans.org.uk)

Photos: Nigel Brigham/ Sustrans

Contents

About Sustrans	0		
Executive summary	2		
1. Introduction	3		
1.1 Background to the project		3	
1.2 Purpose of the project		3	
2. NCN principles	4		
3. Guidelines and Standards	7		
General guidance for England		7	
Low Traffic Neighbourhoods		7	
Local Authority Guidance and Policies		7	
LTN 1/20 Cycle Infrastructure Design and its implications for design options.		10	
Healthy Streets		11	
4. Issues with the existing Routes.	12		
		16	
5. Design constraints	17		
5.1 Environment Agency		17	
5.2 Ground and Ecology		17	
5.3 Utilities		17	
5.4 Heritage and Historic Environment		18	
5.5. Common Land		18	
5.6 Roads, road and rail crossings		19	
6. Route Option Appraisal		20	
6.1 Option 1		26	
6.2 Option 2		30	
6.3 Option 3		33	
6.4 Option 4		36	
6.5 Option 5		45	
7. Potential Usage		52	
8. Land Ownership		54	
9. Ecological assessment		55	
10. Community engagement		58	
10.1 Evidence of Support		58	
10.2 Audit of Engagement Risk		58	
10.3 Audit of Engagement Opportunity		58	
10.4 Community Engagement Plan		58	
11. Key stakeholder engagement		58	
12. Legal Agreements, Planning Application and other Approvals		59	
Problems likely to arise		59	
13. Construction and Maintenance		60	
14. Cost estimates		61	
15. Business case and policy match		63	
16. CDM and Design Risk		64	
17. RAG Report		65	

Executive summary

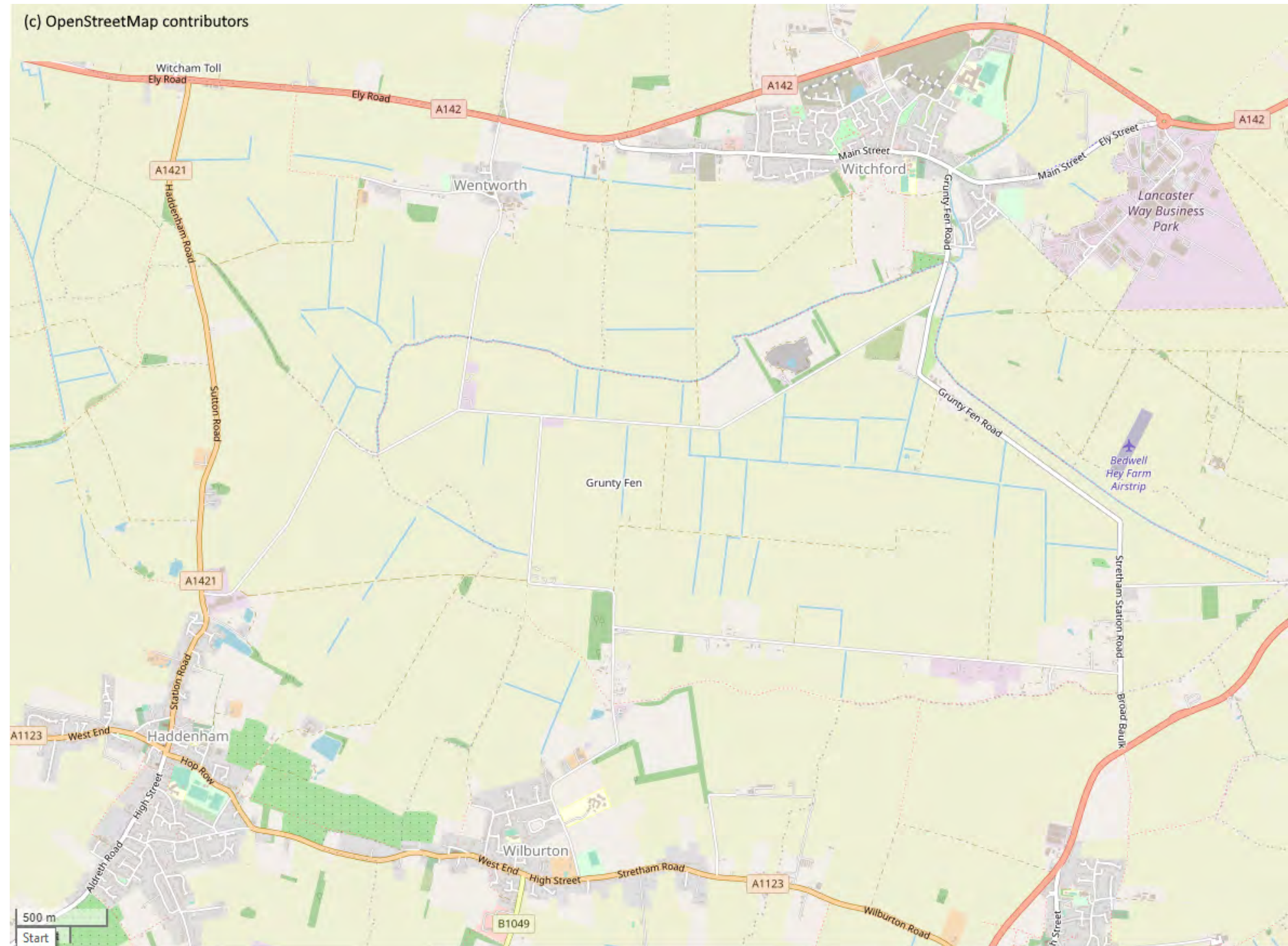
This report looks at potential new walking and cycling routes between Haddenham and the A142. Haddenham sits on the A1123 and the A1421 and traffic on many of the local roads is likely to be uncomfortable for many people considering walking or cycling.

East Cambridgeshire District Council are keen to provide better facilities for local residents and the expectation is that any new facility will link up with Sutton and Ely along the A 142 corridor.

The report considers a number of alignments looking at using existing roads, rights of ways and new paths following natural boundaries such as field edges. All of the options involve the use of private land and detailed discussions are needed with numerous landowners before any alignment can be finalised.

The report looks in some detail at travel within Witchford, which is considered to be the most likely destination from Haddenham either as a destination in its own right or as part of a route to/from Ely.

None of the options is easy. There is also a strong case for significant changes within Haddenham and Witchford.



Map showing the study area

1. Introduction

Sustrans has been asked to look at options for new walking and cycling routes between Haddenham and the A142, in East Cambridgeshire. 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.

1.1 Background to the project

There is a well-established cycling culture in Cambridge and for a number of years there has been an aspiration to extend that to the Ely area. For many years there has been a shared use path that follows the A142 between Ely and Sutton, but there are few facilities in the area, which may explain why there has been a strong recent demand to improve facilities in the area. At present Haddenham is largely left isolated from cycling provision and as it has grown and traffic in the area has grown this has become a bigger issue.

In addition to this, national policies have been giving high priority to walking and cycling, as well as offering the potential for major funding in future.

Although the National Cycle Network does not go through Haddenham or Witchford it would be beneficial if they could link up with it. 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 varies 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.

Whilst Ely is on the National Cycle Network Haddenham and Witchford are not. A link to the Network would raise the profile of the link and cycling locally.

1.2 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 Haddenham and the A142.
- To consider ways to improve links within all communities.
- To rank the route options in terms of benefits and costs and to consider ways to deliver improvements, including timetables and costings.

2. NCN principles

2.1 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 1: Safe crossing for all, helping continuity on traffic free routes

Photo: Sustrans

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 2: At grade crossing of side road with separation for traffic, cyclists and pedestrians

Photo: Sustrans

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: Easily maintained

Photo: Sustrans

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 4: Clear signing

Photo: Sustrans

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

Photo: Sustrans



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 6a: Accessible for all (Photo: Sustrans)



Figure 6b: Corridors that provide continuity, that create short-cuts and are away from traffic, in attractive environments

Photo: Sustrans

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 7: Safe for all

Photo: Sustrans

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 8: Safe crossing for all
(Photo: Fig 10.4 from LTN 1/20)

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 9: Attractive and interesting areas

Photo: Sustrans

3. Guidelines and Standards

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.

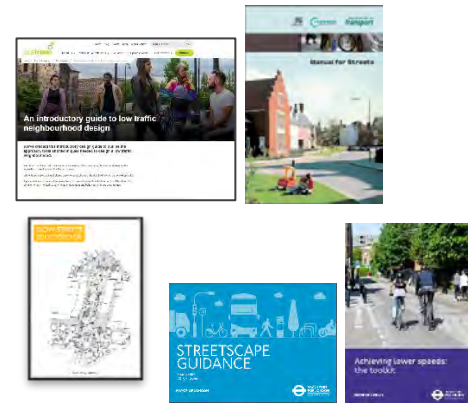
General guidance for England

- Department for Transport LTN 1/20 Cycle Infrastructure Design
- Highways England CD 195 Designing for cycle traffic
- Department for Transport Local Transport Notes
- LCWIP Technical Guidance for Local Authorities (DfT).



Low Traffic Neighbourhoods

- Sustrans introductory guide to low-traffic neighbourhood design
- Manual for Streets
- Slow Streets Sourcebook (Urban Design London)
- Streetscape Guidance (Transport for London)
- Achieving lower speeds: the toolkit (TfL).



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 current plan in reference to East Cambridgeshire includes the following:

3.136 New, high-quality infrastructure for pedestrians, cyclists and horse riders – such as high-quality cycleways in Ely and a segregated route to Soham – will also help to make active travel a safer and more attractive option for local journeys within and between our towns and villages. More journeys on foot and by bike will also help to alleviate traffic congestion and improve air quality, whilst allowing those without access to a car – such



as teenage children – more independence and opportunity to travel. ...

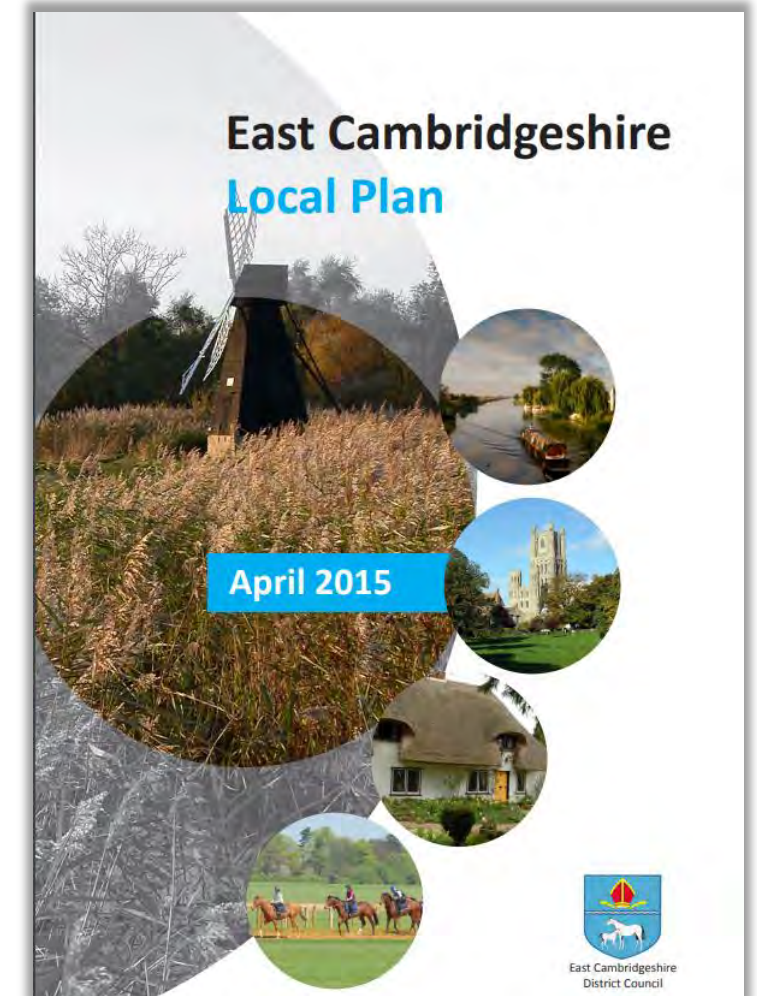
The East Cambridgeshire Local Plan sets out future plans for the District and includes the following within section 2.4.1 Spatial Vision:

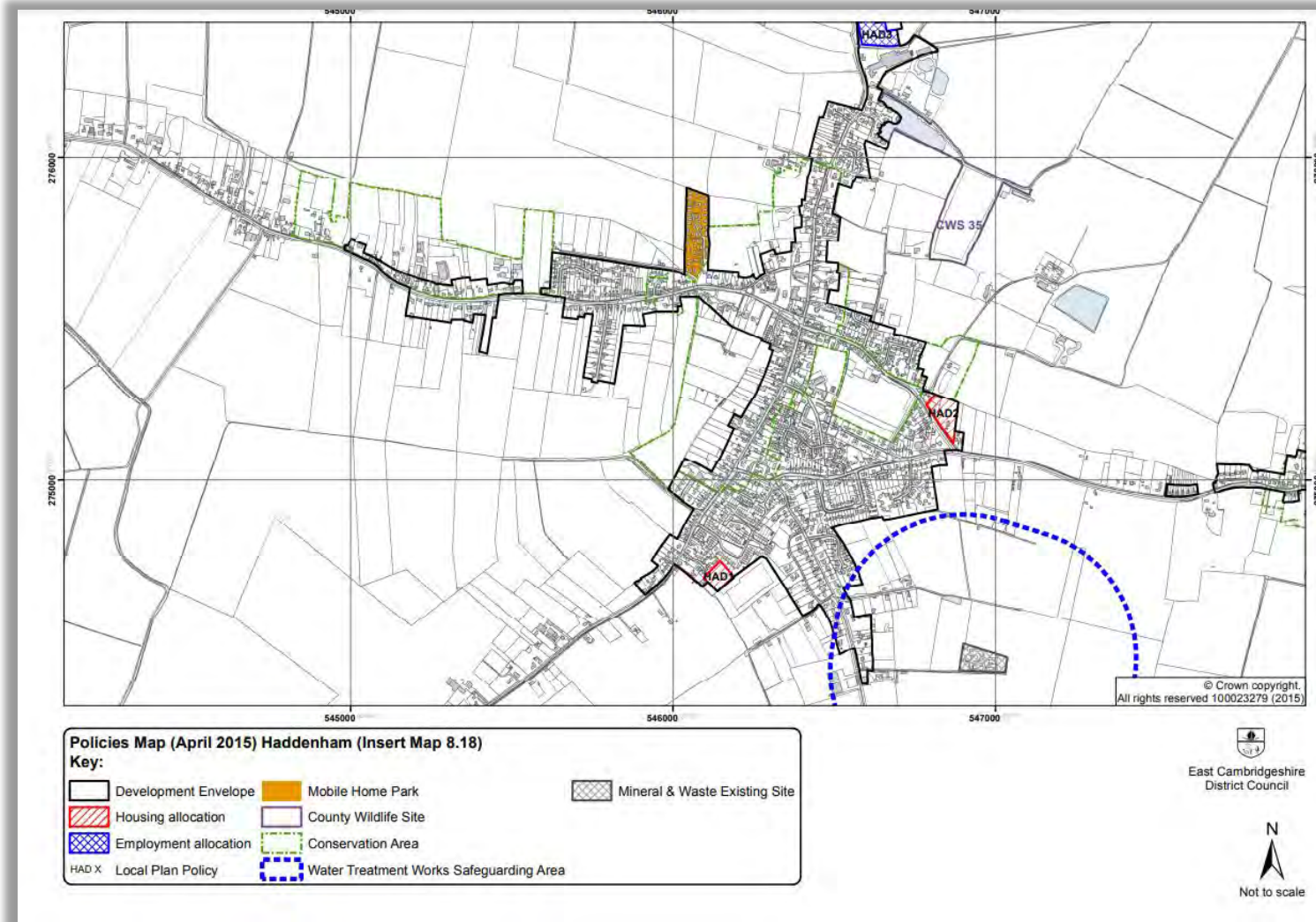
” Better cycling and pedestrian facilities and links will be provided, including segregated cycle routes along key routes linking towns and villages.....

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

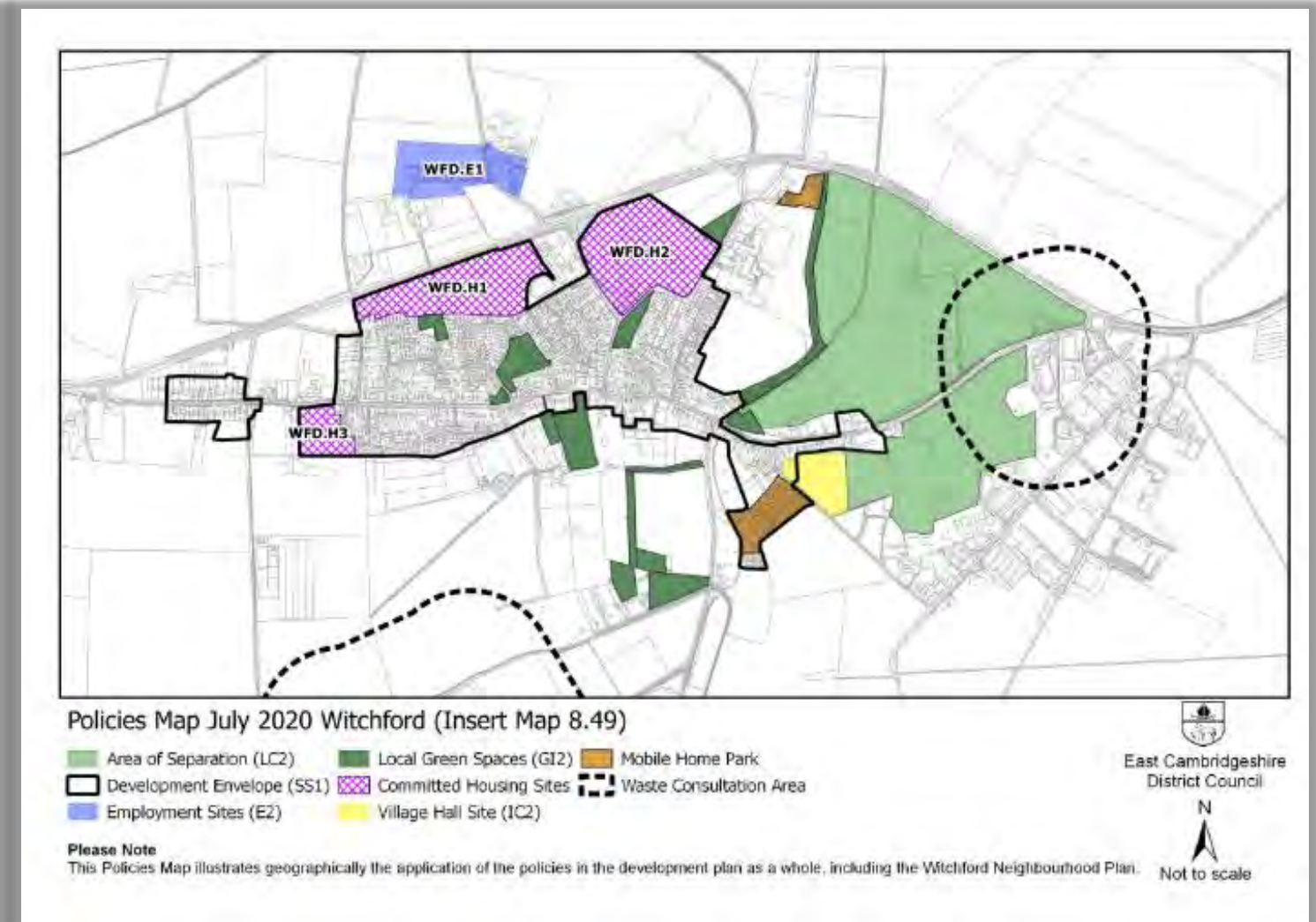
The Local Plan identifies two small areas for potential housing in Haddenham, and a small area for employment growth. It identifies no land for development in Wilburton, two very small sites in Wentworth and significant areas of Committed

Housing Sites in Witchford. Extracts from the Local Plan follow:





Extract from East Cambridgeshire District Council
Policies Map 2015



Extract from East Cambridgeshire District Council
Policies Map 2015

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 below.



Cycle Route options from East Cambridgeshire Cycling and Walking Routes Strategy,

The report also shows clear interest and demand for a new route between Haddenham and Wilburton and between Haddenham and Ely, of which Haddenham to A142 could form part and is discussed in more detail in Chapter 7.

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.

Introduction to East Cambridgeshire Cycling and Walking Routes Strategy

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

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). The document sets out key design principles, which are the basis for the updated national guidance for highway authorities and designers, given in LTN1/20.

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)

LTN 1/20 has therefore 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.

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). In order to justify expenditure on this scheme the whole scheme has to 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 of LTN 1/20 (below) shows 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.

Speed	Flow (pcu/24 hour) ²	Provision				(mandatory/ advisory)
		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	Pink
30 mph	0	Green	Green	Green	Yellow	Yellow
	2000	Green	Green	Green	Yellow	Yellow
	4000	Green	Green	Green	Yellow	Pink
	6000+	Green	Green	Green	Yellow	Pink
40 mph	Any	Green	Yellow	Yellow	Pink	Pink
50+ mph	Any	Green	Pink	Pink	Pink	Pink

The space needed for cycling needs to allow for pedestrians and needs to be separated from motorised traffic by the desired or absolute minimum separation as outlined above, with absolute minimum 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 for routes carrying less than 300 pedestrians per hour and less than 300 cyclists per hour the recommended minimum width is 3m. This is the width that has been used throughout for this study. In the villages cyclists need to be segregated from pedestrians and a width of 3m has also been used for a bi-directional cycleway reduced to 2.5m at pinchpoints.

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

There is limited published data on traffic flows in this area but [DfT data](#) shows an Annual Average Daily Flow of 9095 motor vehicles/ day, in 2016 on the A1123 east of Wilburton and only 4 pedal cycles and 6120 motor vehicles/day, in 2018 on Station Road, Haddenham and only 22 pedal cycles.

On this scheme there are roads with 60mph and 30mph limits and this is very significant in terms of the spacing needed between cycleways and the carriageway as is shown in Table 6-1:

There are also significant issues with establishing safe crossings of rural roads. Table 10-2 states that for a 60mph road the only suitable crossing suitable for most people is a grade separated crossing.

For a 40mph or 50mph road an arrangement whereby one lane is crossed at a time, with a central refuge, is not completely ruled out, but it is considered to not be suitable for all people and “ will exclude some potential users and/or have safety concerns.”

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

For rural roads the speed limit is generally 60mph or 50mph, which means that any path has to be at least 1.5m from the edge of the carriageway. Paths also have to 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 highway verge space would be needed to construct a new path.

The photo to the right shows the verge besides the existing A142 path in one of its wider locations. This is one of the best sections of path, but some will be deterred from using it by the proximity, speed and noise of traffic. For the link with Haddenham there are no consistent lengths of verge which would be suitable, so use of highway verges is generally not an option without also changing the road.



View of existing A142 path , which makes maximum use of the limited verge space, but does not comply with the spacing required in LTN 1/20.

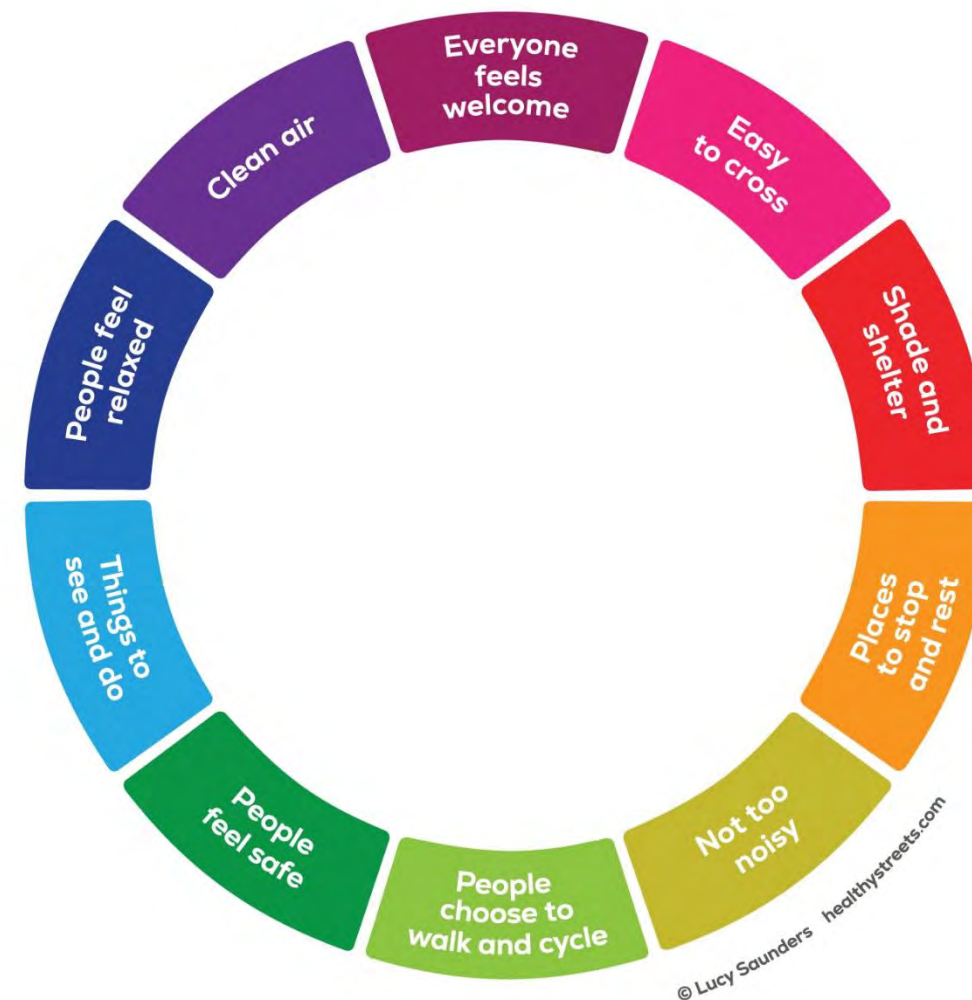
Healthy Streets

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 as shown below 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 as options are developed Healthy Streets audits of the village streets should be completed, with a clear aim to improve the healthy streets score on the streets concerned.

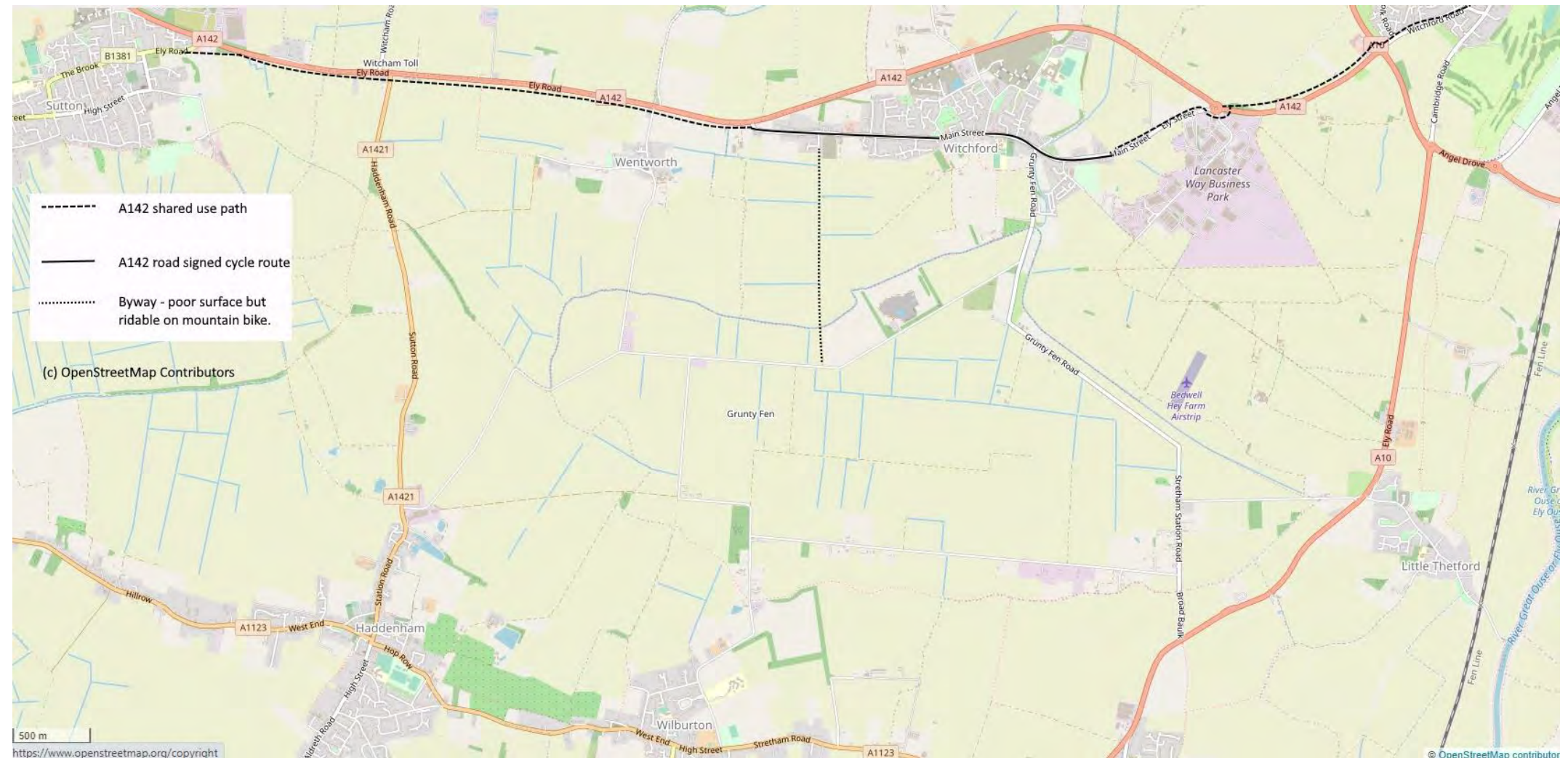


4. Issues with the existing Routes.

There is an existing signed cycle route following the A142 which is the product of many years of work and helps to overcome the very unpleasant problem of cycling on the fast road itself. However the route has many shortfalls and is not LTN 1/20 compliant, so it cannot be included as part of any funded scheme unless the route is upgraded itself.

The major issues that the route faces are:

1. Within Ely an existing narrow footway is signed as a shared use path. This is inappropriate, because within the urban area the route should be segregated with priority over side roads.
2. There is no provision to cross the A10 apart from a central island. This is very difficult.
3. Near the A10 crossing there is a very difficult crossing of a garage forecourt with no provision.
4. From the A142 into Witchford the path does not have the necessary width or separation from the carriageway as laid down in LTN 1/20.
5. Within Witchford there is no provision for cycling and the traffic speeds are too high.
6. From Witchford to Sutton the path does not have the necessary width or separation from the carriageway as laid down in LTN 1/20.
7. There is not suitable provision for crossing the two major side roads at Church Road, Wentworth and Haddenham Road, Witchford Toll.



It is not believed that there are any other roads in the area signed as cycle routes. There are a number of quiet roads that could be suitable, with relatively low volumes of traffic, but where traffic speeds are high.

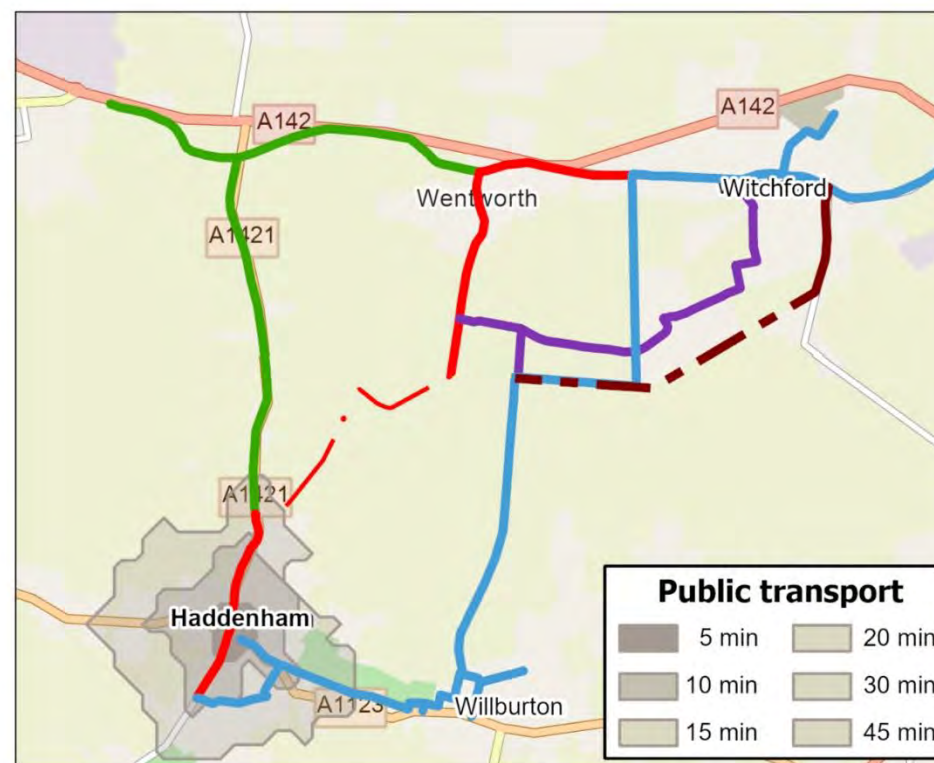
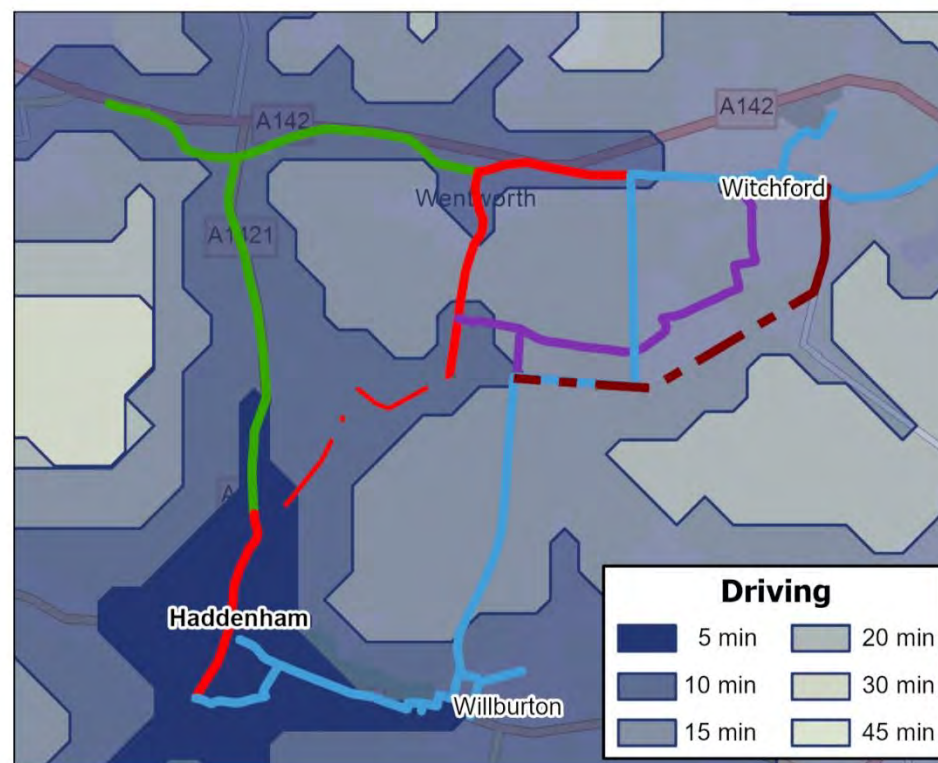
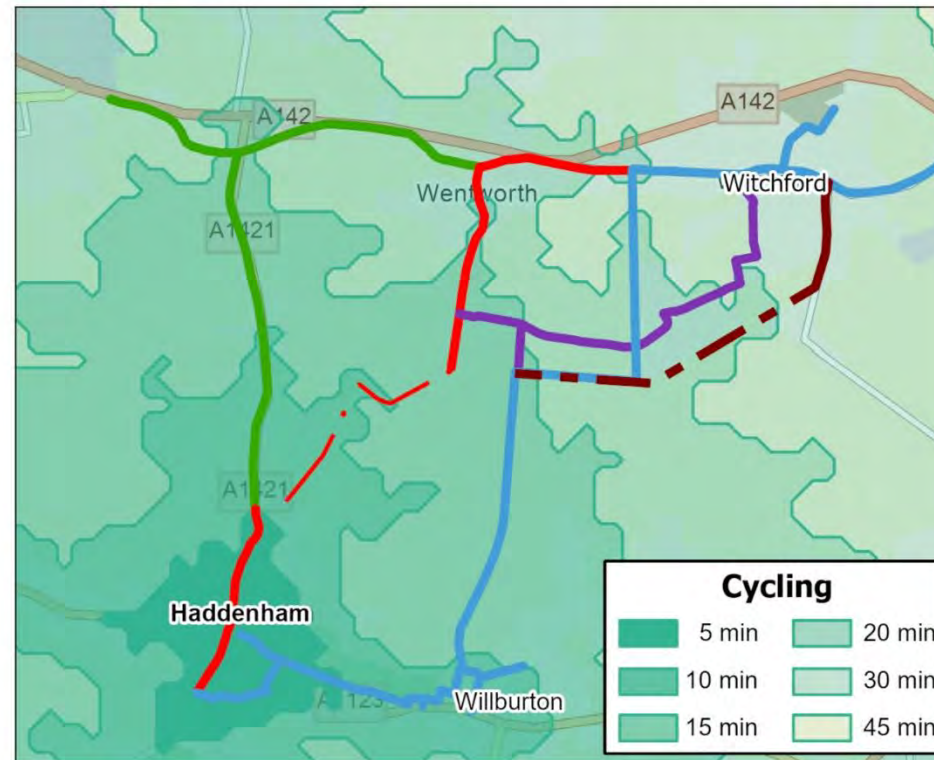
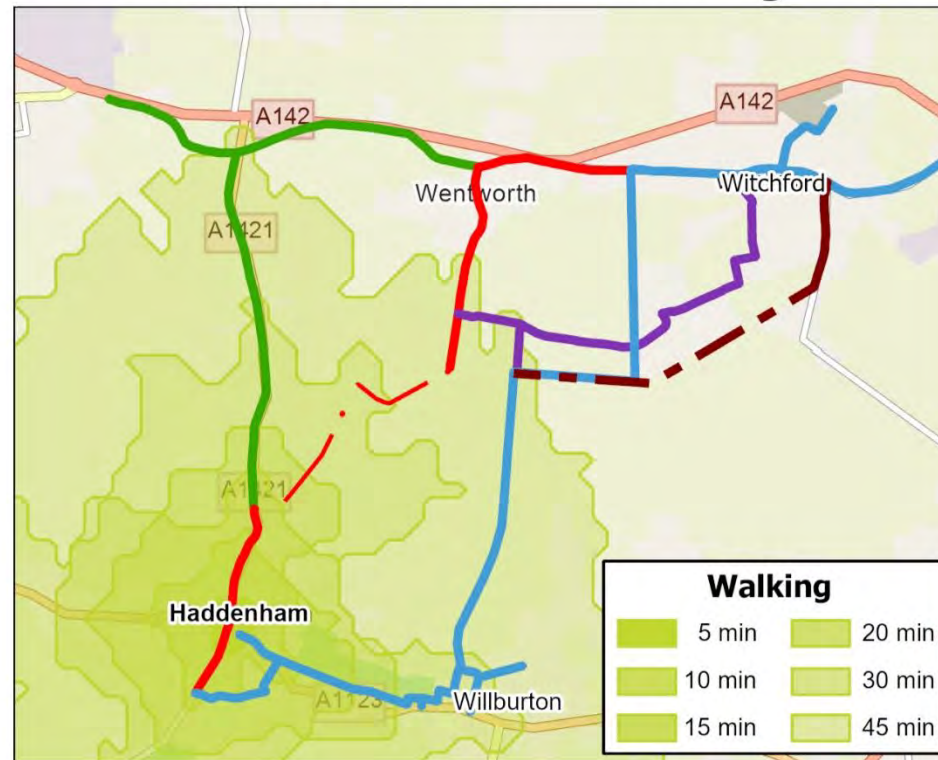
There are a number of byways and bridleways which could be considered as cycle routes. One is shown on the map, although it is not signed. It has a loose surface and would not be suitable for commuters or inexperienced cyclists, but could be ridden by a skilled mountain biker.

Other factors to consider are shown on the following pages and relate to travel time, points of interest, topography and traffic safety. In reality driving is certainly the quickest mode between say Haddenham and Witchford, but journey time by bike is reasonable and this is a journey that many could

do easily by bike. There are significant hills around Haddenham and these are important for cycling. A greater concern is likely to be accidents and whilst most of these are on the major roads some of the minor roads are also involved, so addressing safety concerns on all roads will be important.

Map showing existing routes

Travel time analysis - Haddenham centered

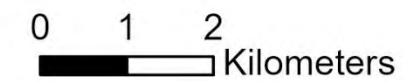


Legend

Route options

- Option 1
- Option 2
- Option 3
- Option 4
- Option 5

* — Cycleway, shared path/cycle route on 20mph road;
 - - - Cycle route on quiet lane closed to through traffic



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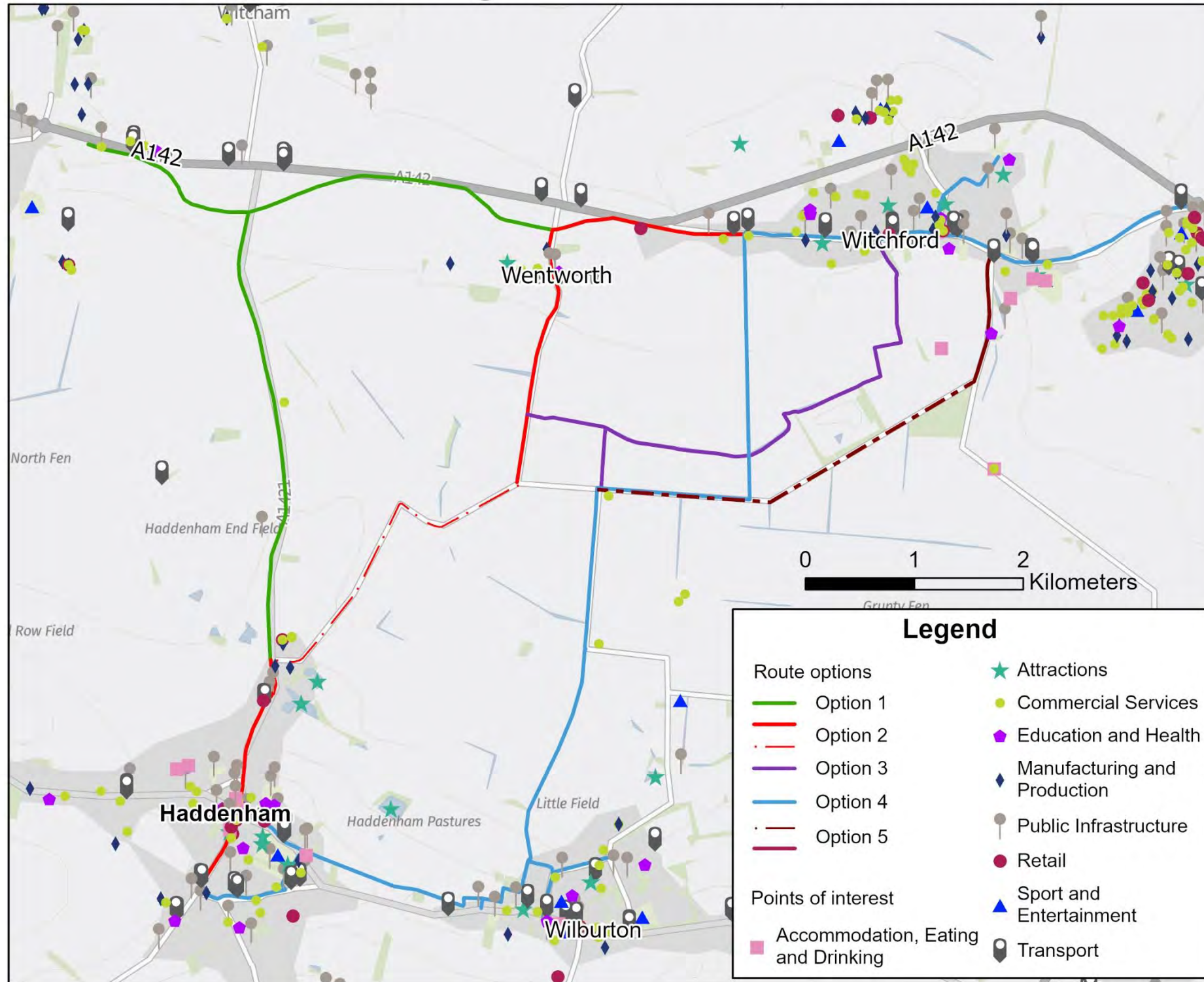
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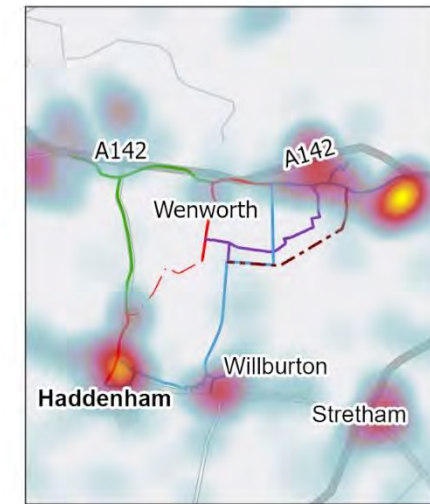


Smart linkage - Points of Interest



Legend

Route options	★ Attractions
— Option 1	● Commercial Services
— Option 2	◆ Education and Health
— Option 3	◆ Manufacturing and Production
— Option 4	● Public Infrastructure
— Option 5	● Retail
Points of interest	▲ Sport and Entertainment
■ Accommodation, Eating and Drinking	■ Transport



Legend POI Density

Density

0 1 2

■ Sparse
■ Dense

0 1 2 Kilometers

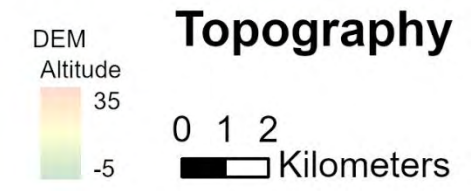
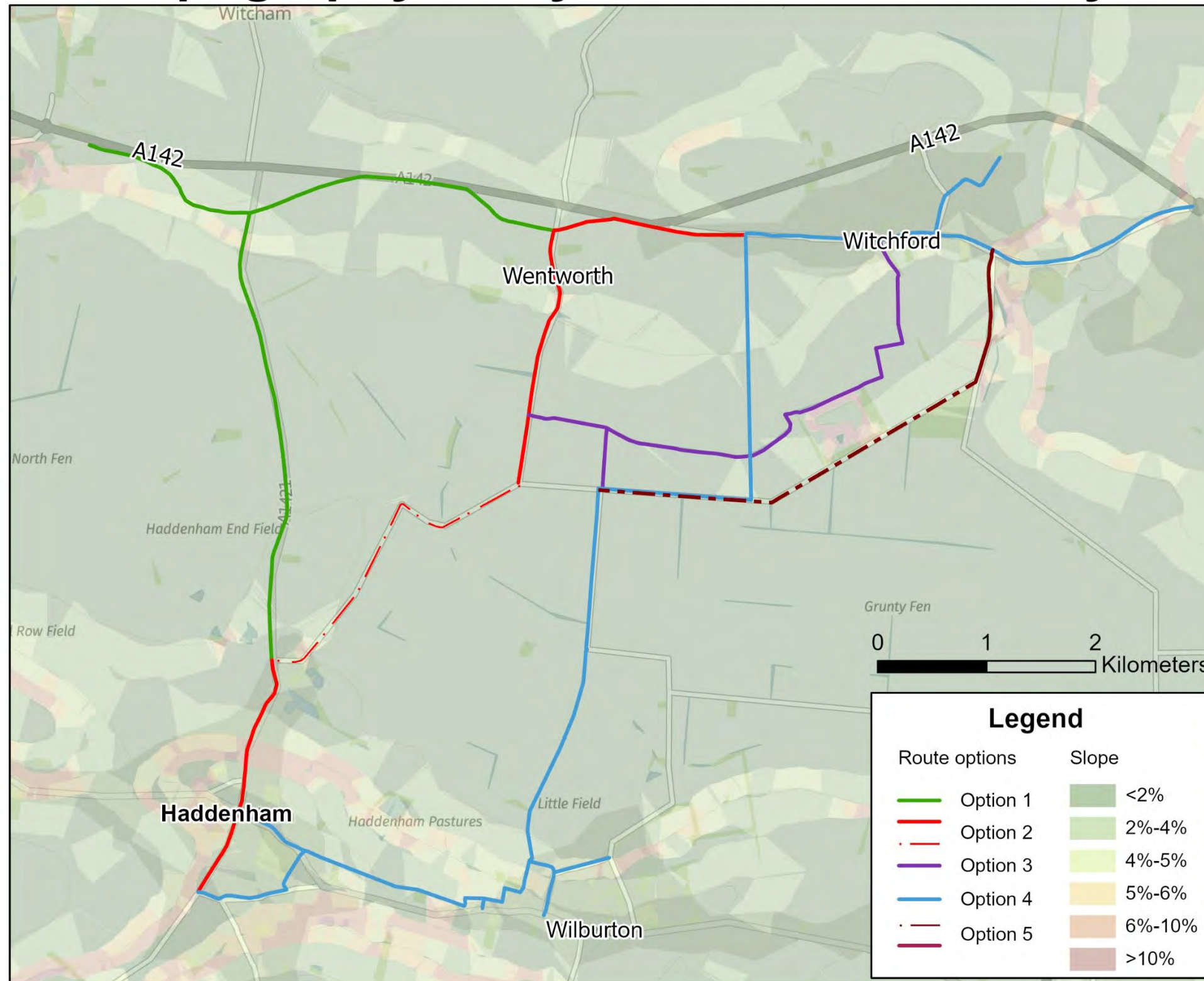
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Topography study - Gradient suitability



Legend	
Route options	Slope
Option 1	<2%
Option 2	2%-4%
Option 3	4%-5%
Option 4	5%-6%
Option 5	6%-10%
	>10%

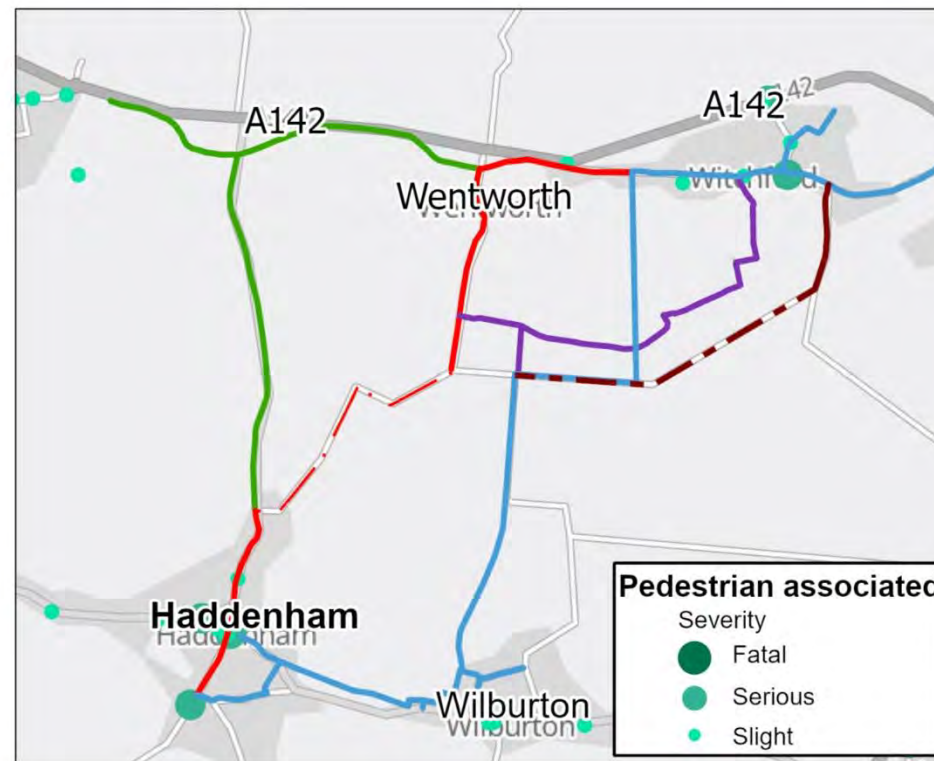
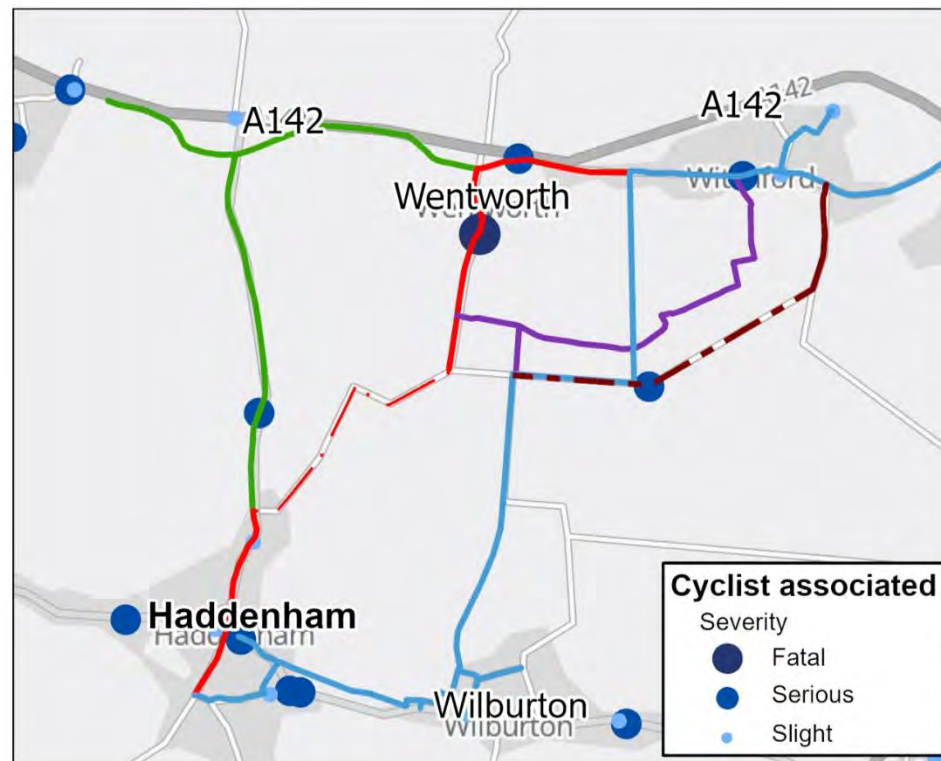
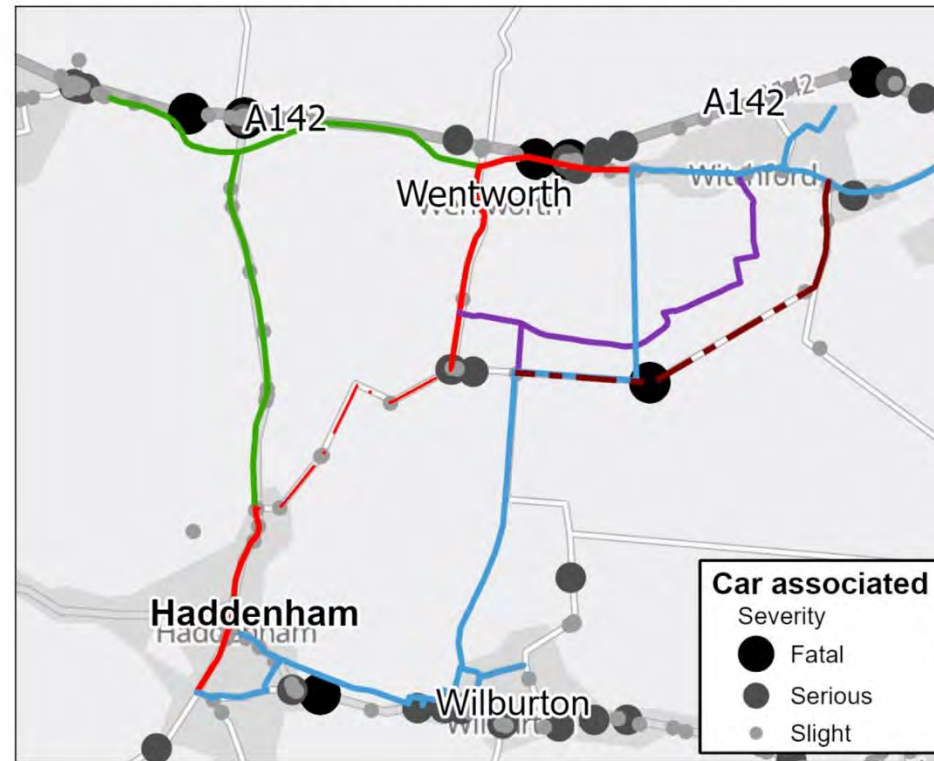
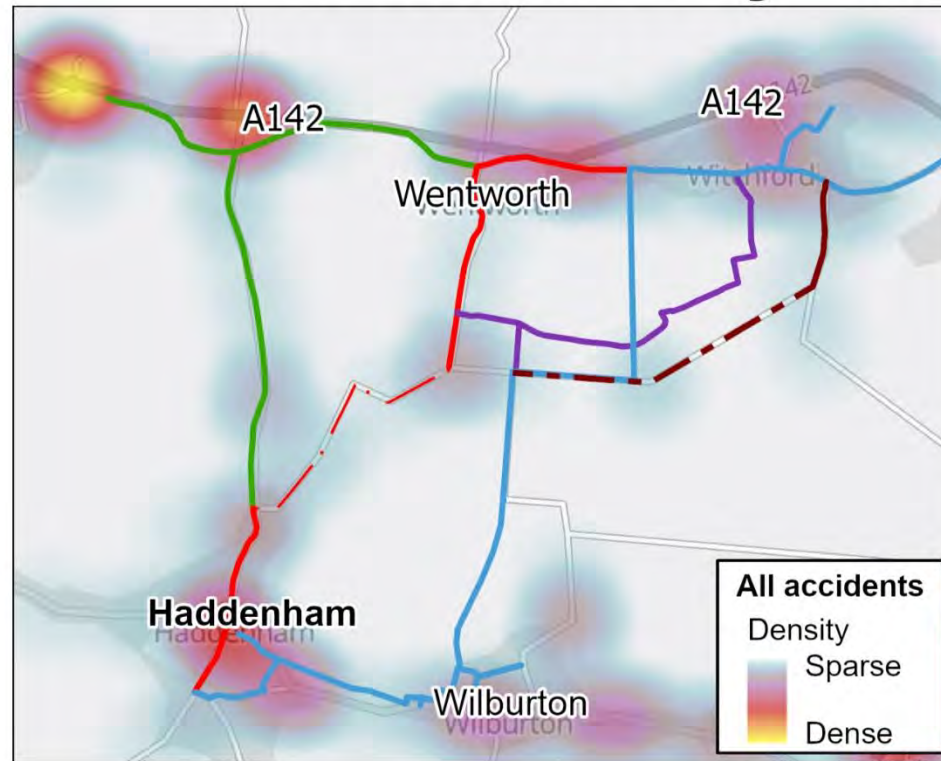
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Traffic safety - Accident distribution



N



Legend

Route options

- Option 1
- Option 2
- Option 3
- Option 4
- Option 5

- * — Cycleway, shared path/cycle route on 20mph road;
- - - Cycle route on quiet lane closed to through traffic

0 1 2
Kilometers

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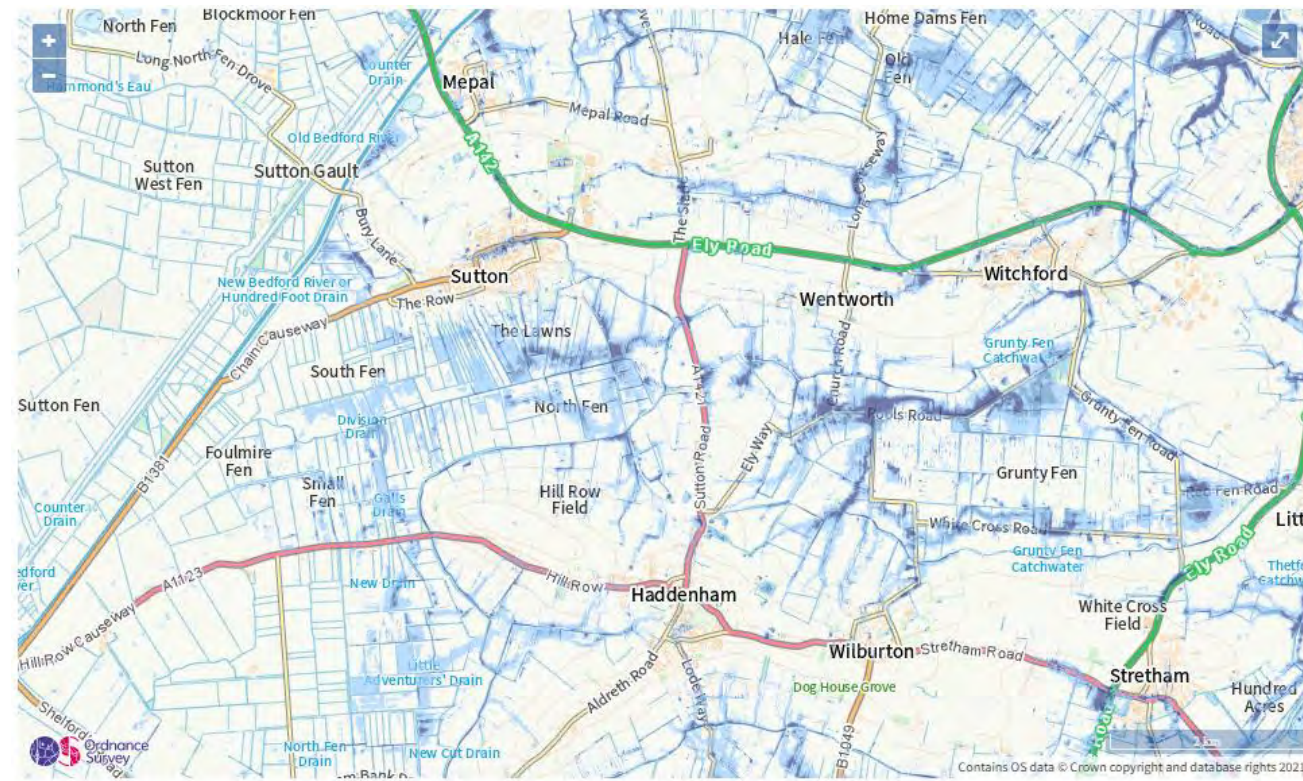
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5. Design constraints

5.1 Environment Agency



Extent of flooding from surface water

● High ● Medium ● Low ○ Very low ⊕ Location you selected

Extract from Environment Agency Map

The villages and most route options are away from significant flood risk, but there is some high risk land between Haddenham and Wilburton and around Grunty Fen. It looks very difficult to avoid potential flooding and this will have to be allowed for in route selection and design.

5.2 Ground and Ecology

The Communities and main roads are on higher ground with the land between generally low lying fenland, with its clay and peat. In clay areas drainage will be a challenge and the soft ground of the Fens is notorious for contracting and expanding depending on the moisture content, making path construction challenging. Again this will have to be allowed for in route selection and design.

Ecology is significant and is discussed in more detail in Chapter 9.

5.3 Utilities

As would be expected there are plenty of services within the villages and in Witchford gas mains follow the main roads. All of these will need to be allowed for as part of the design and construction works. An Intermediate Pressure Gas Main follows the southern verge of the A142 around Witchford and any changes to the existing path will need to allow for this, as will changes around the Lancaster Way junction off the A142.

5.4 Heritage and Historic Environment

Important heritage and ecological sites can be a significant constraint on route choices, with the need to avoid any negative impact on these. A search of the Historic England website does not however reveal any scheduled monuments in the area, apart from those in Ely. There are numerous listed buildings, but it would be highly unusual for any new path proposal to impact on an existing building.

5.5. Common Land

Any works on Common Land would require additional consents. The only Common Land within the project area is in Witchford as on the following plan. This may be significant for access to the Village College. (Source <https://magic.defra.gov.uk/MagicMap.aspx>)



Extract from Defra Magic Map with Common Land shown dark green.

5.6 Roads, road and rail crossings

The requirements of LTN 1/20 have been considered in Chapter 3. The expectation is that where cyclists are using roads mixed with other traffic, traffic volumes and speeds must be low.

In order to cross the major roads a parallel crossing, a signalled crossing or a bridge is needed. The crossings of major roads outside villages is beyond the scope of this study, but consideration of the A142 cycle route will have to address the serious problems associated with the A10 crossing.

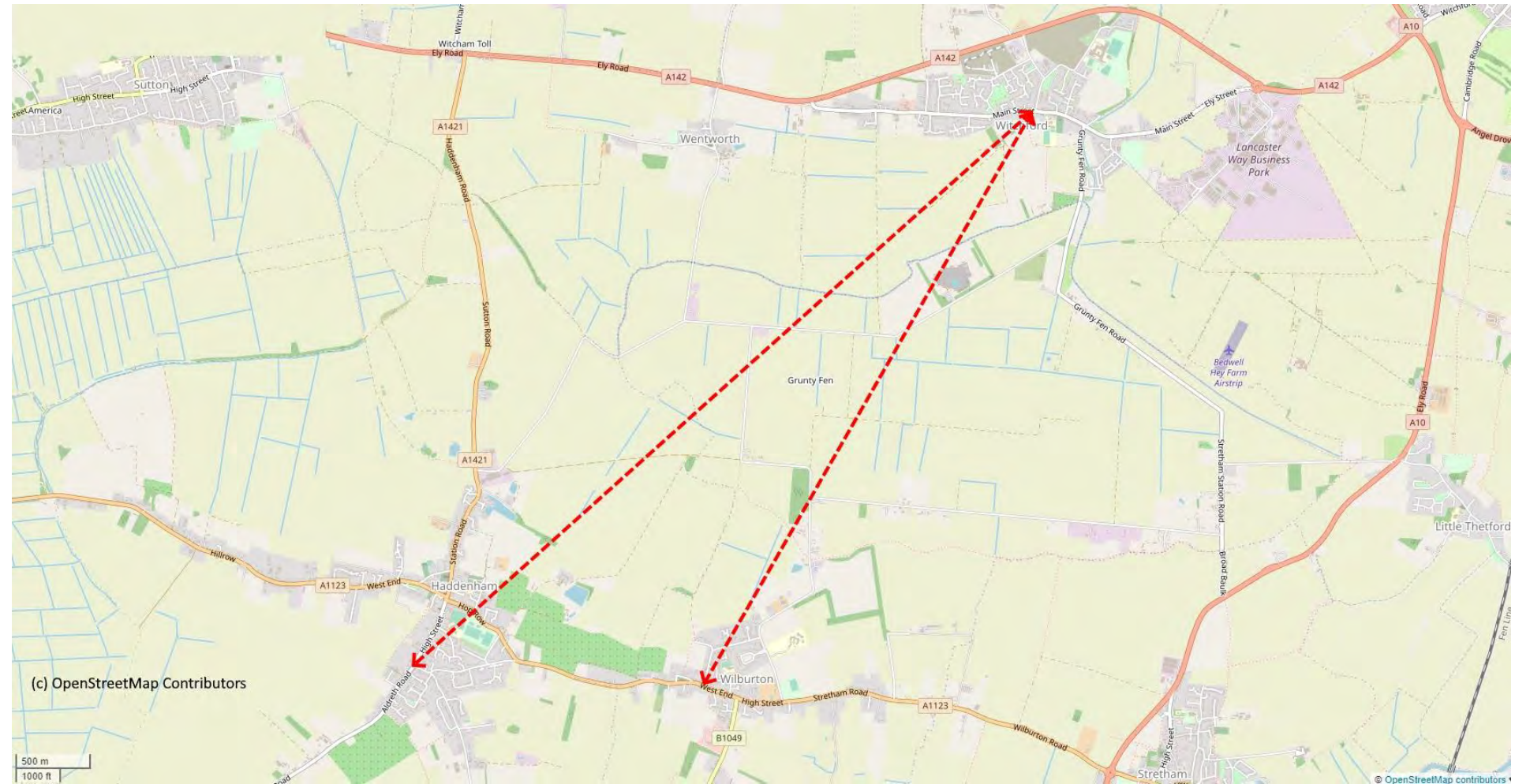
6. Route Option Appraisal

Any route between Haddenham and the A142 needs to be useful for all of the residents of Haddenham and needs to link with a facility that can be accessed by all. This is a major challenge, given that the existing cycle route along the A142 is not LTN 1/20 compliant and cannot be considered a suitable facility. In order to address that this study has focused on links between Haddenham and Witchford on the assumption that Witchford Village College will be a significant destination for Haddenham residents and the A142 cycle route can be accessed from Witchford. The intention must be to upgrade the A142 provision to make it LTN 1/20 compliant, which will clearly need the acquisition of private land, major changes in Ely and major changes at or near the A10 junction, as well as at the crossings of side roads..

The East Cambridgeshire cycling and walk routes strategy does refer to a desire for cycling links between Haddenham and Wilburton and given the proximity of these communities Wilburton has been considered as part of this study.

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.

- For Haddenham the location chosen is the junction of the High Street, Aldreth Road and Linden End.
- For Wilburton the location chosen is the junction of Clarke's Lane and the High Street.
- For Witchford the location chosen is the junction of Main Street and Common Road.



Map showing locations used for Route Appraisal

This study considers various ways to link the communities, using existing facilities, rights of way, natural boundaries etc.

Within Haddenham and Wilburton the study recommends measures to reduce speeds but it will be extremely challenging to establish an LTN 1/20 compliant network within both Haddenham and Wilburton due to the nature of the A1123 and the A1421, with what seems to be a high proportion of HGVs. Witchford is bypassed and there are much better opportunities to create an LTN 1/20 compliant network within that community and take advantage of the fact that there is no need for through traffic.

Three options are proposed for Witchford. All three assume a 20mph limit across the whole community in order to comply with LTN1/20 and to create a suitable environment for all to cycle mixed with traffic.

In addition all options propose a new segregated cycleway from Common Road to the Village College. This will have to be on Common land so will need special consent and consultation.

Other options relate to potential road closures. Whether a road closure is essential depends on traffic data for Main Street and that will need to be checked against LTN 1/20 criteria, but in any case one or more closures would bring considerable benefits in terms of maintaining access whilst

limiting through traffic and giving clear benefits to walking, cycling and buses.

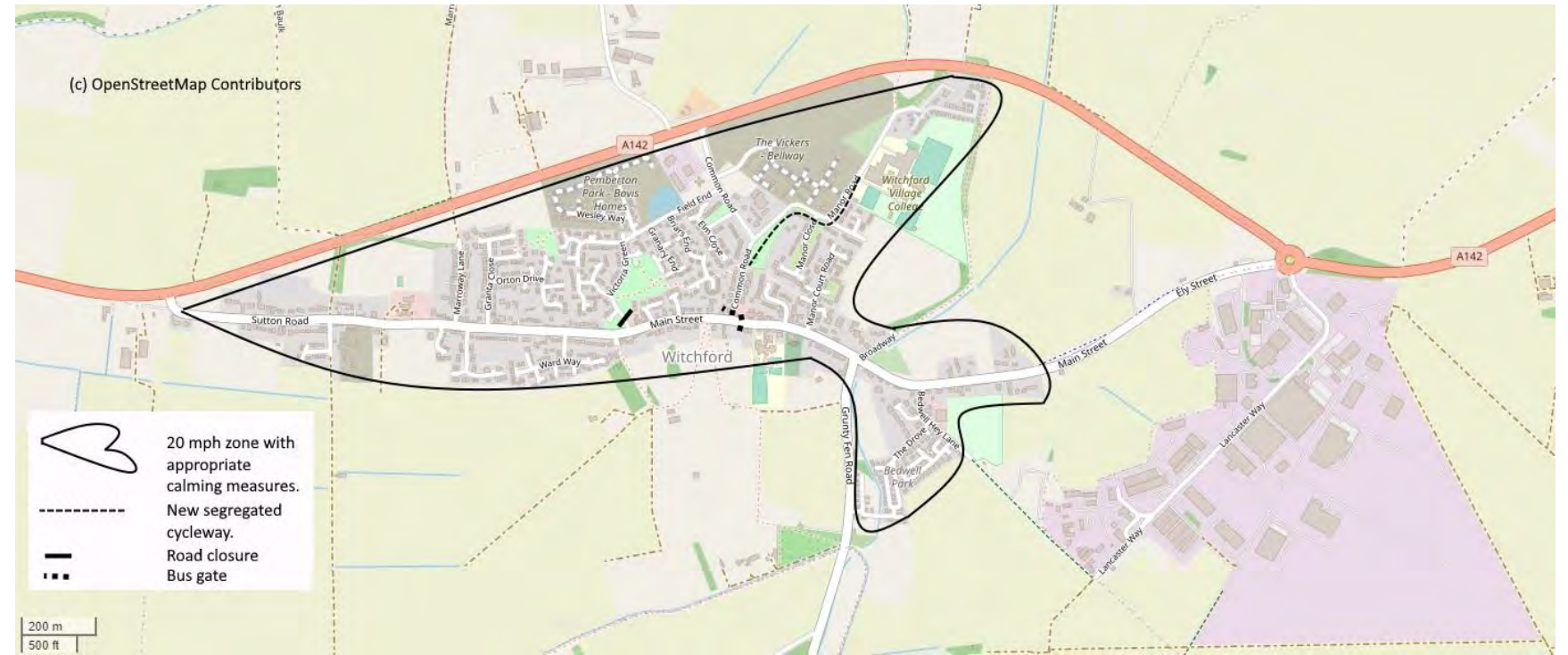
For the installation of bus gates Cambridgeshire County Council will need to take out the same powers that they have in Cambridge so that the advantages of bus gates are not just limited to the City. This should be possible through the Civil Parking Enforcement Powers that Local Authorities are now able to apply for.

The options are shown on the following page.

Option A for Witchford showing:

- A point closure on Victoria Green which would allow the Green to be extended across the road with a cycleway and footway retained.
- A bus gate on Main Street near the Village Inn.
- A bus gate on Common Road at the junction with Main Street if a bus gate is needed for school bus access. Otherwise a point closure.

Option A

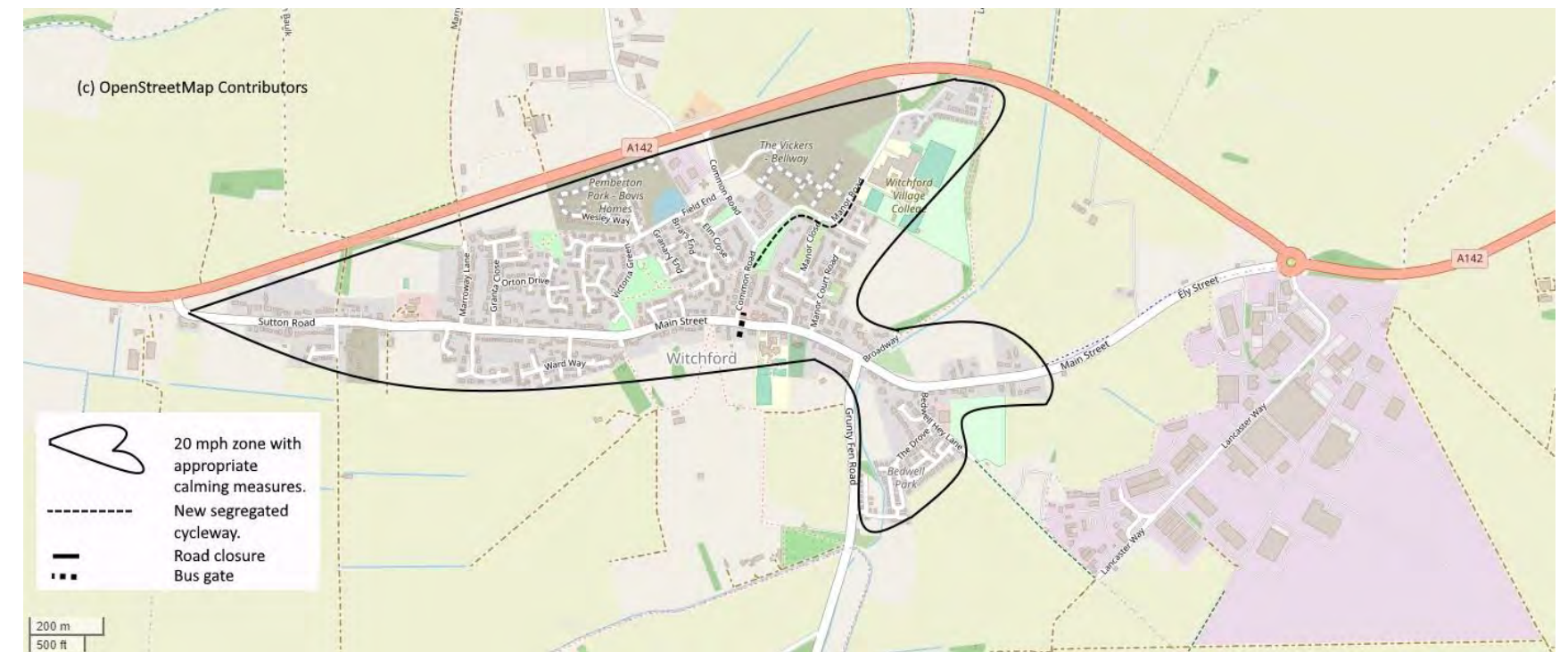


Option B for Witchford showing:

- A bus gate on Main Street near the Village Inn.

This option only works if traffic flows on Common Road are not excessive, because this is the main route to school. If traffic flows are too high for LTN 1/20 a closure as in Option A will be needed.

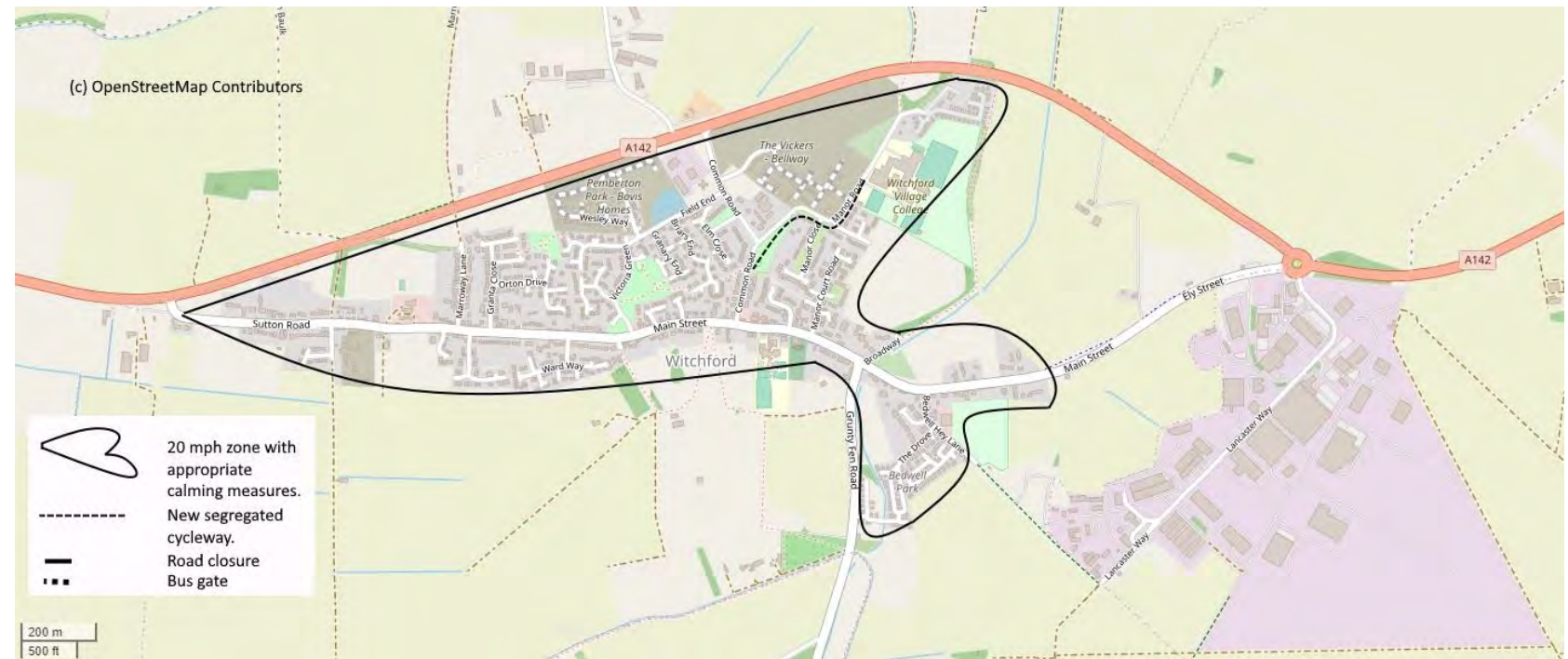
Option B



Option C for Witchford showing no changes to existing traffic options apart from the 20 mph zone.

The success of this option will depend on traffic calming and confidence that traffic flows will remain low, because there is nothing to lock in the benefits of having a bypass.

Option C



Witchford Village College appears to have no dedicated cycle provision, but it should be accessible by bike using a coherent, direct, safe, comfortable and attractive route for all pupils who live in Witchford and other communities within cycling distance. Changes at the school and in Witchford would be the best place to start.

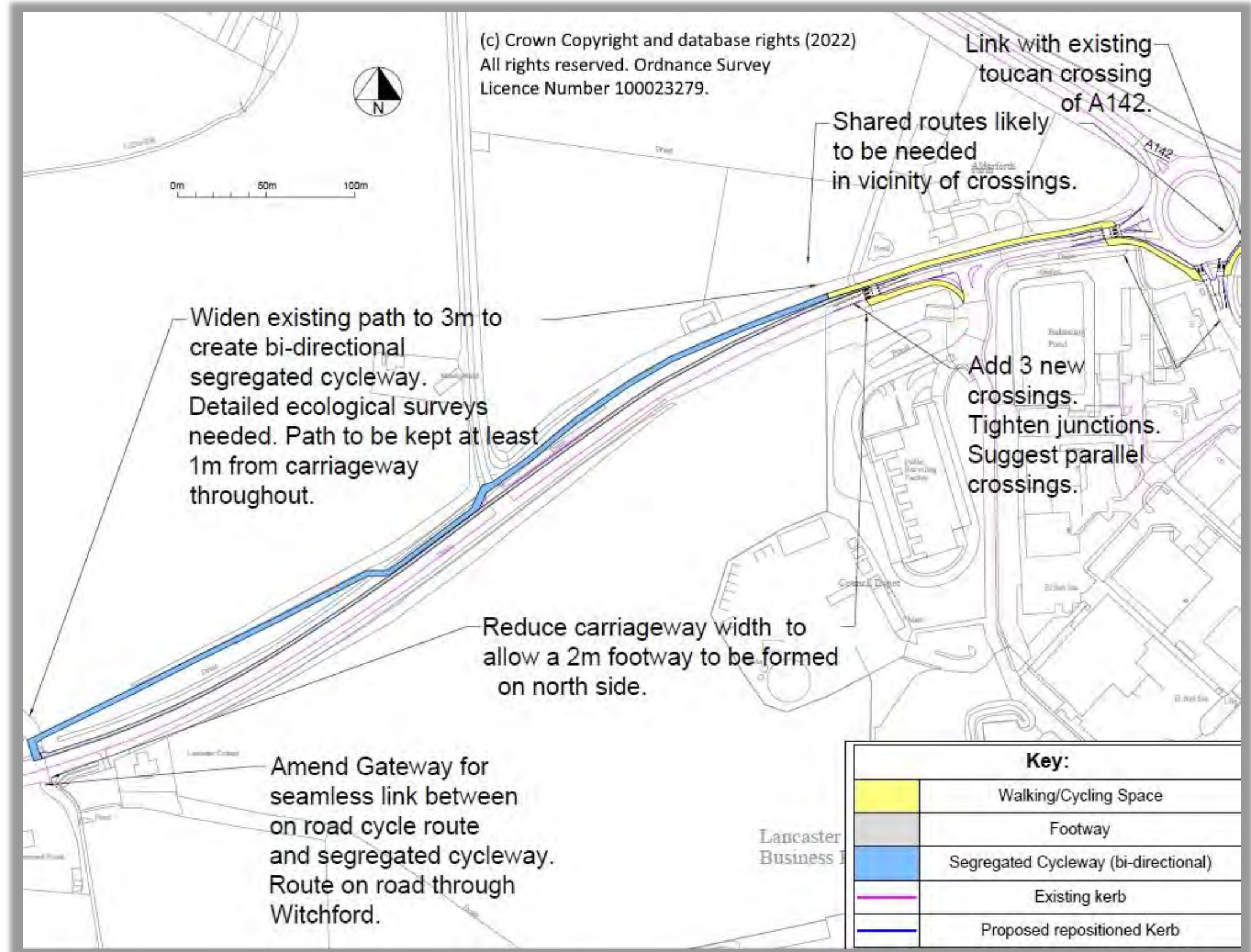


Images of Main Street in Witchford, which still looks rather like the major A road it was. Big changes are needed to change the nature of the road and establish it as a 20mph limit with limited through traffic. Details will need to be agreed through community engagement.

To the west of Witchford the existing A142 cycle route comes almost to the edge of the settlement. This route is not LTN1/20 compliant, particularly in terms of width, segregation from the carriageway and in the manner that it crosses side-roads. The route to the west is considered as part of the options for links with Haddenham. To the east of Witchford upgrading the link with Ely to LTN 1/20 standard is a major challenge, with the most obvious major deterrent to usage being the extremely difficult and potentially dangerous crossing of the A10. The whole route needs upgrading and this is feasible, but will involve re-allocation of roadspace and changes to traffic flow. The type of work that will be needed is indicated by the preliminary design work that has been done for the link between the edge of Witchford and the A142.

It could be argued that in this rural location a segregated cycleway and segregated footway are not both needed, but there could be relatively high numbers of pedestrians walking between Witchford and local employment sites. There are also significant advantages to be gained by reducing carriageway width (which should help to slow speeds) and adding a footway that is not secluded and is adjacent to the road, all of which should help to encourage walking. In addition repositioning the kerb is essential over some of the length in order to accommodate a cycleway that is set back at least 1m from the carriageway edge as is required in a 40 mph limit.

Near the Business Park roundabout one major road crossing has been addressed by the addition of a toucan crossing of the A142, but there is a need to upgrade other crossings, which will need junction changes and it is suggested that Parallel Crossings are added. All of this will need detailed design and may need a small amount of land from the Business Park. It needs to be noted that an Intermediate Pressure Gas Main runs along the A 142 and into



Lancaster Way, so work in that area will need careful detailing, supervision and consent from Cadent Gas.

The preliminary design shows that an LTN1/20 compliant route is feasible and completion of the route to the centre of Ely to a similar standard would do much to encourage cycling locally. Photos on the next page show the existing route in this area.

Preliminary design showing potential route between Witchford and the A142 at Lancaster Business Park.



These crossings near the A10 need major changes.

A142 to Witchford Images (See Preliminary design ideas on previous page).



This path is not appropriate as a shared path and should be a footway only, with a cycleway on the other side of the road and new crossings.



This path needs widening to 3m and to be designated as cycling only. Careful design to protect ecology is needed.



This path is not wide enough and does not have adequate separation from the carriageway and highway space needs reallocating.



This path is not wide enough and does not have adequate separation from the carriageway. It could be widened, highway space could be reallocated.



This path is not wide enough and does not have adequate separation from the carriageway and highway space needs reallocating.



This path needs widening to 3m and to be designated as cycling only. Careful design to protect ecology is needed.



The existing crossing does not comply with current recommendations, but changing it at this moment is low priority.



The existing crossing does not comply with current recommendations. It needs to be reduced to a single lane with a parallel crossing suggested. Kerbs need realigning. Detailed design is needed.



This path is not wide enough and does not have adequate separation from the carriageway and highway space needs reallocating. Measures may be needed to prevent parking like this.



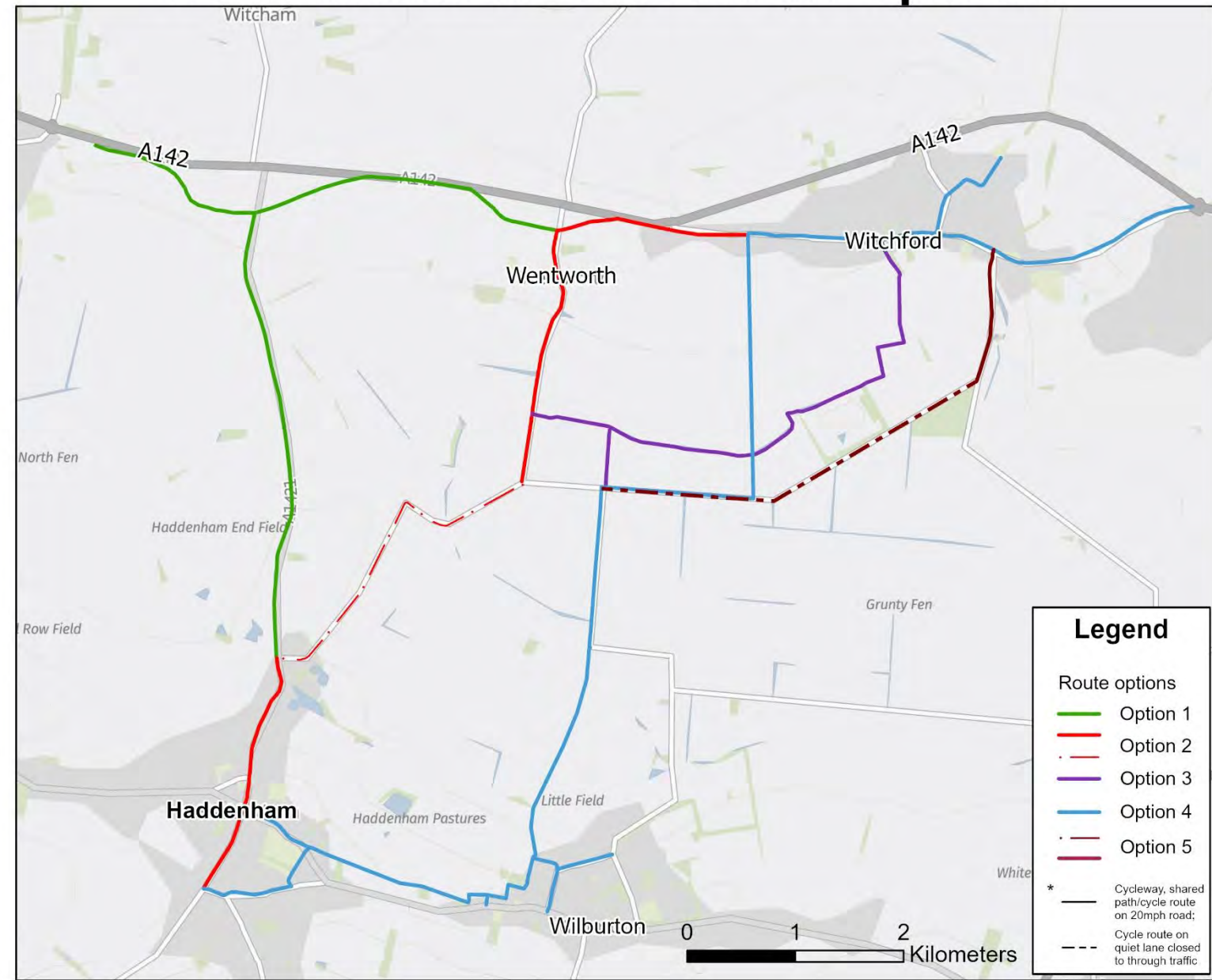
At this location the central island needs removing and a smooth transition is needed between the on-road and off-road routes. Careful design is needed to amend the existing gateway.

The main route alignments considered for linking the communities are outlined in the plan adjacent, with most of the alignments having a number of different possible sub-options. Within Witchford new high quality provision is needed but there is limited scope in Haddenham and Wilburton due to the A roads there. All options require the use of private land and so will need to be agreed with landowners as well as needing planning consent and other approvals.

A summary of the options is:

1. The most challenging part of this route is the A1421 through Haddenham which would have to be changed to 20mph, but where the nature of traffic is still an issue. Outside the settlement a new path along field edges would need to follow the A1421. Near the A142 a new alignment would be needed for the A142 path to bring it up to LTN 1/20 standards and so that there could be signaled crossings of the side roads. The route would continue on road through Witchford.
2. This route would need the same solution as Option 1 in Haddenham and would then turn on to Ely Way, which could be made into a quiet lane by closing it to through traffic. A new path along field edges and following Church Road through Wentworth would link with the upgraded A142 path as in Option 1. The route would continue on road through Witchford.
3. This route would be similar to Option 2 or Option 4, whilst following a different alignment into Witchford, but would only extend partially along Church Road before following rights of way and field edges into Witchford.

Haddenham to A142 Route Options



0 100 200
Kilometers

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4. This route would extend as far into Haddenham as possible and would then follow the public footpath between Haddenham and Wilburton, where a new link would be needed with Hinton Way, which it would follow. From the end of Hinton Way new field edge paths would need to follow Station Road and Pools Road to link with another byway which continues into Witchford, where the route

would continue on road. The route provides the Haddenham-Wilburton link which is needed for local reasons.

5. This option is a variation on Options 2 and 4, but instead proposes making Pools Road into a quiet lane by closing it to through traffic. The route would then extend into Witchford besides Grunty Fen Road.

Map showing the study area with options (Links with Wilburton are slightly different and are shown in more detail in following sections.)

6.1 Option 1

The most challenging part of this route is the A1421 through Haddenham which would have to be changed to 20mph, but where the nature of traffic is still an issue. Outside the settlement a new path along field edges would need to follow the A1421. Near the A142 a new alignment would be needed for the A142 path to bring it up to LTN 1/20 standards and so that there could be signalled crossings of the side roads. The route would continue on road through Witchford. The route is considered here in 4 parts:

i. Link with Wilburton.

A potential route linking the Recreation Ground in Wilburton with Hinton Way in Wilburton is shown in the adjacent plan and is considered in more detail for Option 4.

ii. Within Haddenham

There are serious difficulties with this route due to the nature of traffic on the High Street and on Station Road and due to the limited amount of space available. It is entirely appropriate to establish a 20mph limit throughout the whole settlement and that will help cyclists on the road and will help pedestrians, but the volume of traffic and the number of HGVs make it difficult to see how the route can be LTN 1/20 compliant and how this can be a viable option. As the route heads north from the High Street along Station Road there is a significant hill down, which presents an additional challenge particularly for those going up hill in busy traffic conditions.



Plan showing Option 1 Haddenham and Wilburton



View of High Street/ Hop Row junction where there is plenty of space to improve crossings for cyclists and pedestrians.



View of A1421 showing limited space available.



View of A1421 showing limited space available.



View of A1421 showing limited space available.



View of A1421 showing limited space available.

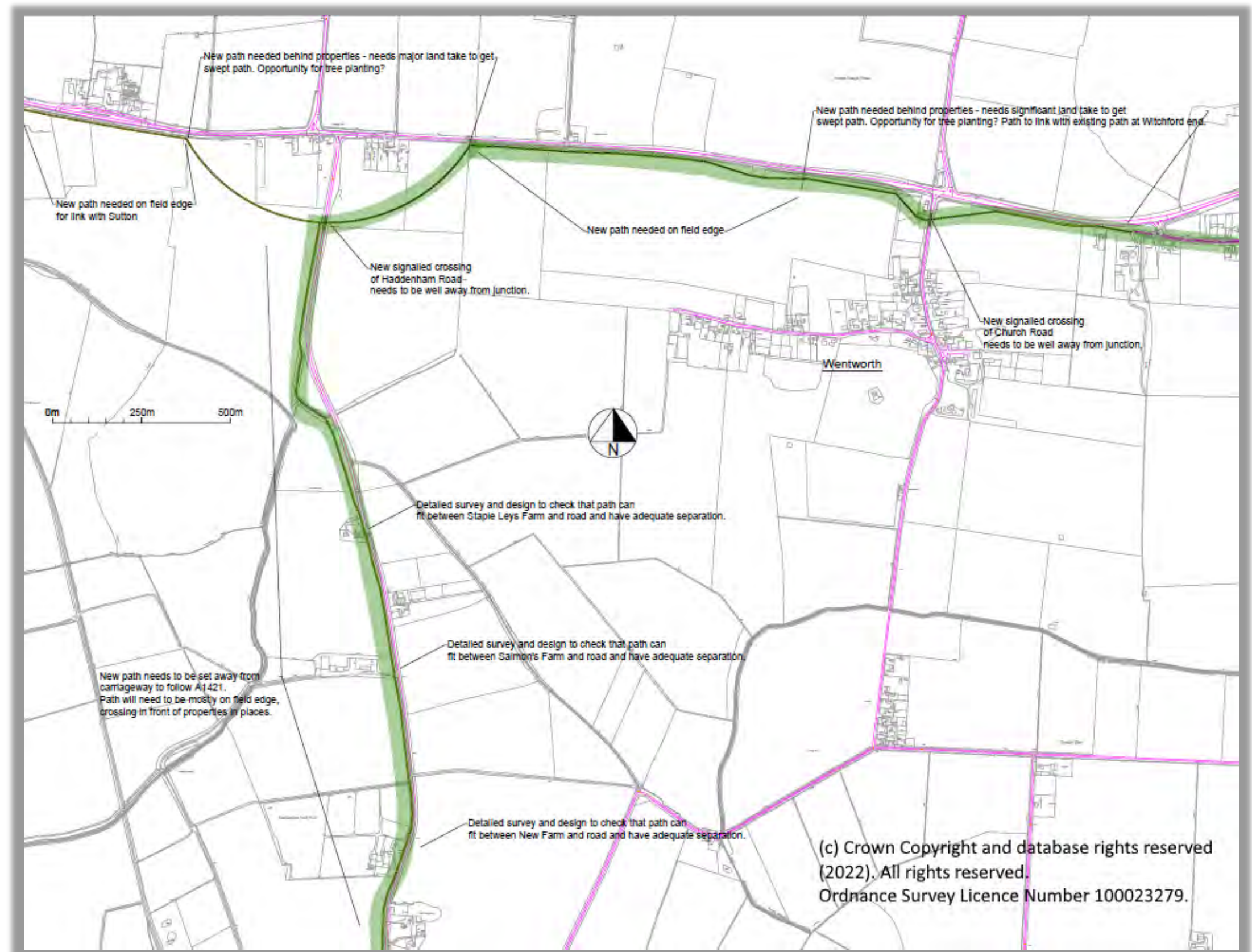
iii. A 1421 and A142

Beyond Haddenham it would be possible to follow the A1421 on either side of the road. The west side appears to be the best option, but if this option were to progress both sides would need to be investigated in detail. There is not sufficient verge space for a path within the verge and to give the necessary separation from a 60mph road, so private land will be needed for a field edge path. This will obviously need landowner's agreement. In a number of places the road passes near to farm buildings and it does appear that there may be sufficient space for a 3m wide path to be set back at least 2m from the carriageway edge. This will need careful checking as part of the next stage of design and if space is not available it may be necessary to move the carriageway or take additional space from the farms.

The existing A142 path is a useful facility, but is too close to the road and has difficult crossings of the side roads which will deter the less confident from using it. This means that a new path and new crossings are needed. The path must be direct and coherent and will need to pass behind buildings whilst maintaining a smooth route, so a lot of land will be needed. It may be that this is an opportunity for tree planting or another change of the way that the land is managed. New signalled crossings of the A1421 and of Church Road, Wentworth are needed, so speed limit changes will be needed. 40mph limits near the A 142 junction are appropriate, but will need to be agreed with the County Council.

iv. Witchford

A 20mph limit and new path linking with the Village College will be needed for this option as outlined earlier in the Chapter. The junction at the western end of Witchford where the existing path links with the road will also need changing.



Plan showing Option 1 A1421 and A 142

Option 1 Summary	
Comparative Length	8.2km (Haddenham to Witchford). (8.4 km by road)
Comparative Length	9.6km (Wilburton to Witchford) (6.6 km by road)
Likely estimated cost	5.0 km approx. new build path + 2 x signalled crossings + Sutton link + Haddenham and Witchford costs + 2.0km approx. new build path and two new parallel crossings for Wilburton link.
Engineering difficulties	Signalled crossings in rural areas are often an issue and will need to be linked with speed limit changes. Roadworks within Haddenham will need careful traffic management given the nature of traffic there.
Ecological issues	Loss of hedgerows and verges.
Land ownership issues	Needs agreement of landowners for field edge works.
Other issues	Route links well with existing non LTN 1/20 compliant A142 path and as such offers the best option for links with Sutton, but it feels like a significant detour for the link with Witchford. Significant hill at northern end of Haddenham. Some of the most challenging parts of the off road routes are likely to be where space is constrained in front of farm properties.
Overall	This is an achievable route in the rural area, with landowner's agreement, but it is hard to see how an LTN 1/20 compliant route can be achieved with Haddenham on this alignment and for this reason the route is not recommended.

6.2 Option 2

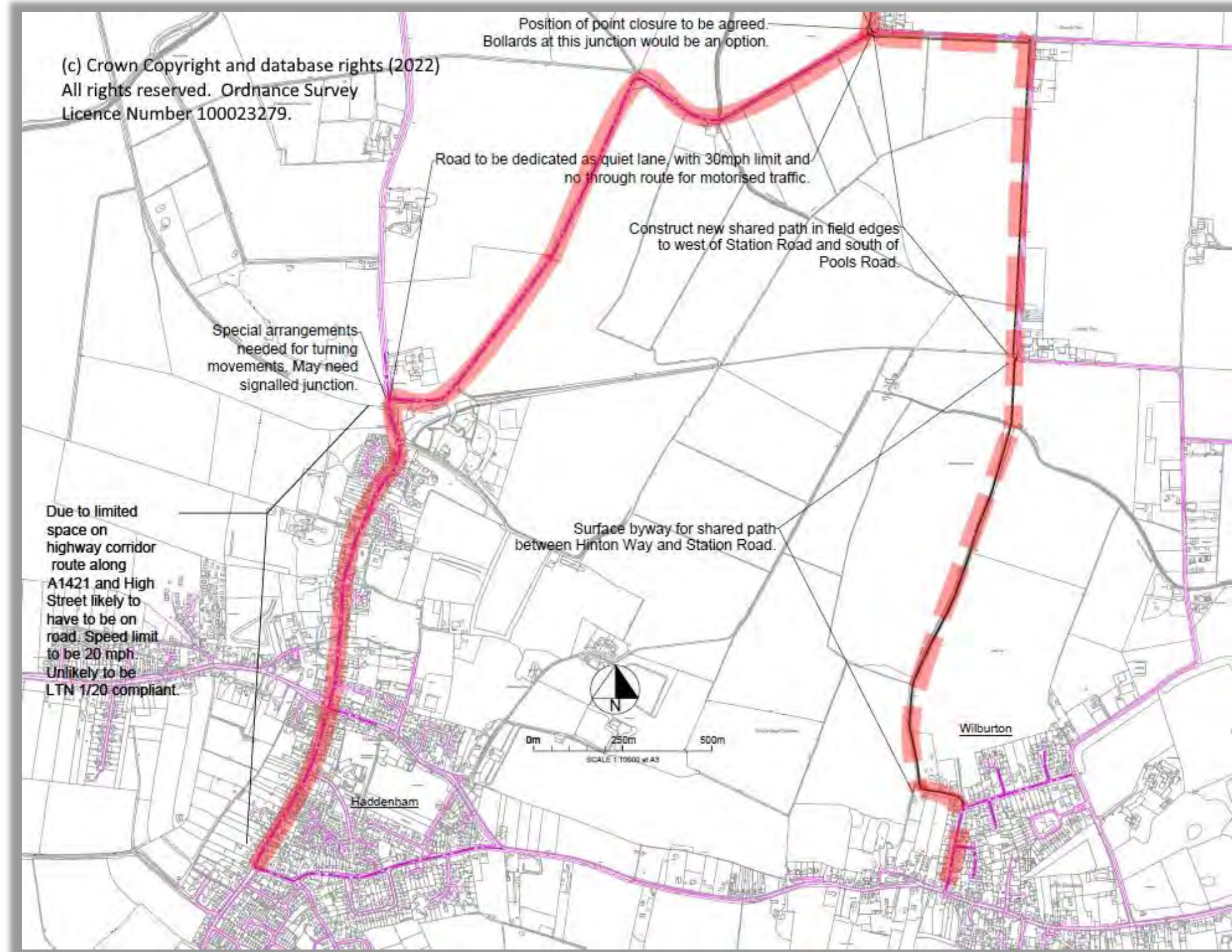
This route would need the same solution as Option 1 in Haddenham and would then turn on to Ely Way, which could be made into a quiet lane by closing it to through traffic. A new path along field edges and following Church Road through Wentworth would link with the upgraded A142 path as in Option 1. The route would continue on road through Witchford. The route is considered here in 5 parts:

i. Link with Wilburton.

For this option travelling from Wilburton to Haddenham to join the route would be a huge detour with no benefit, so an alternative route following a byway and then field edge paths has been considered as indicated right. Some of the alignment is considered in more detail for Option 4.

ii. Within Haddenham

There are serious difficulties with this route due to the nature of traffic on the High Street and on Station Road and due to the limited amount of space available. It is entirely appropriate to establish a 20mph limit throughout the whole settlement and that will help cyclists on the road and will help pedestrians, but the volume of traffic and the number of HGVs make it difficult to see how the route can be LTN 1/20 compliant and how this can be a viable option. As the route heads north from the High Street along Station Road there is a significant hill down, which presents an additional challenge particularly for those going uphill in busy traffic conditions.



Plan showing Option 2 Haddenham to Church Road (right)

iii. Ely Way

Ely Way starts at the Station Road end with an area of potential employment allocation and land that may develop, so with potential to include new

cycling facilities and links. As Ely Way continues towards Pools Road and Church Road it becomes an attractive rural road, but the cycling experience is spoilt by the speed of motorised traffic, so changes are needed to make it a more attractive and safer route for inexperienced cyclists. If the road were to be closed to through traffic there are alternative routes for motorised traffic and this would greatly reduce traffic flows. It would be appropriate and

necessary to reduce the speed limit to 30mph and dedicate the road as a quiet lane. The position and details of any closure would need to be agreed, but a location at the Church Road junction could work well. The position will need to be discussed with local landowners to understand the implications for farm operations.



Ely Way from the Station Road junction (above) and a more rural view (below).



iv. Church Road, Wentworth and A142

As the route continues along Church Road there are similar issues with traffic speeds as on Ely Way, but this can be avoided by constructing a new shared path to the west of Church Road on field edges (subject to landowners' agreement) all the way into Wentworth, where a mixed traffic route and a 20mph limit would be appropriate.

At the northern edge of Wentworth village a gateway arrangement could allow for people to turn off the road and join a new shared path on field edges all the way to the edge of Witchford where the path could join the existing path. This would need landowners' agreement. Use of the existing path besides the A142 from Church Road into

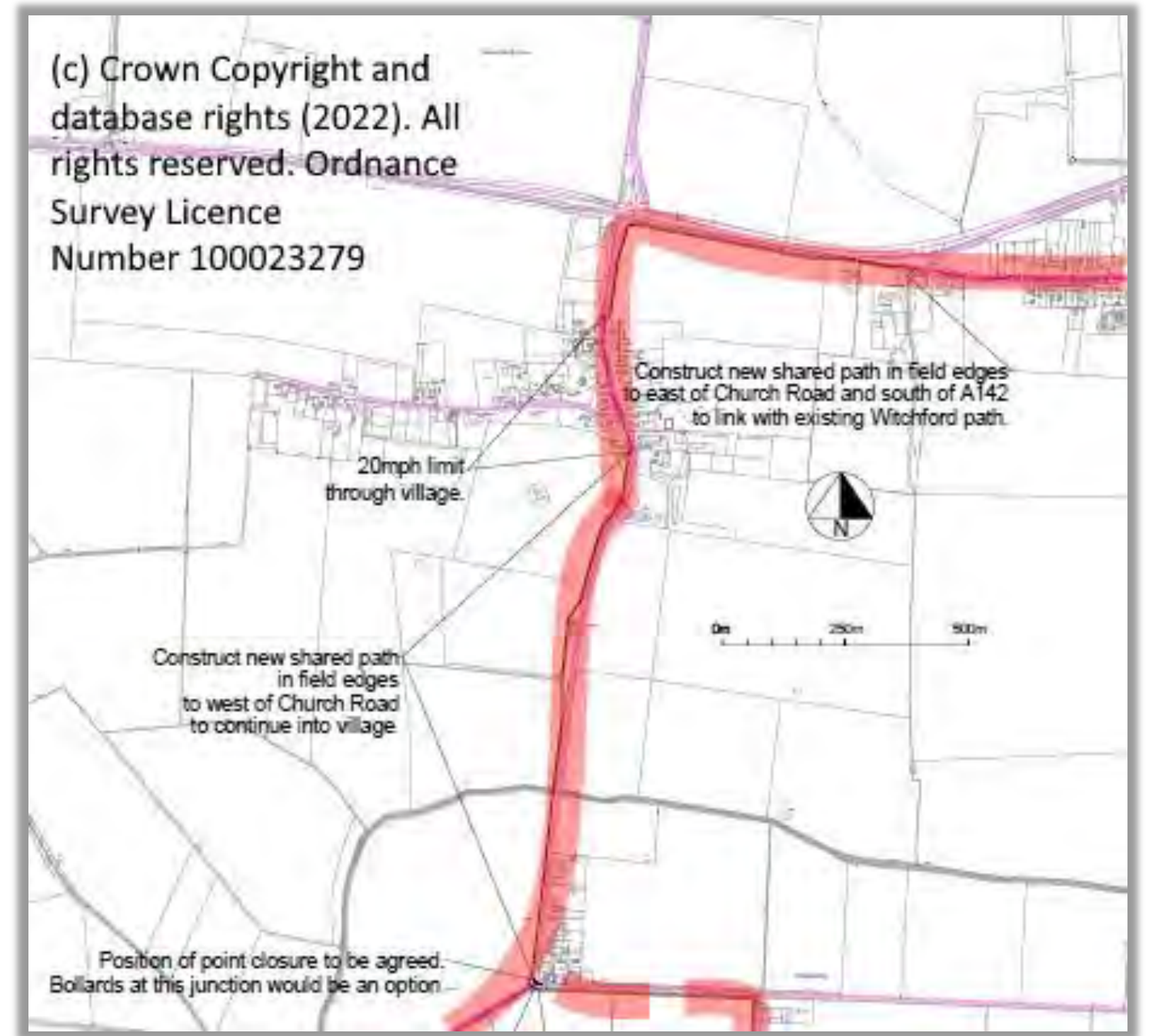
Witchford would not be appropriate since the path does not have adequate separation from the carriageway and would not be LTN 1/20 compliant.



View towards Wentworth from Ely Way. The route would need a new bridge or culvert over the drain and a new field edge path heading into the distance.



View towards Wentworth from Ely Way/ Church Road/ Pools Road junction (close to above photo position). Although Church Road would not be considered a busy road speeds on the road are a serious concern, so a new path to the west of the drainage ditch is proposed.



Plan showing proposed route through Wentworth and into Witchford.

v. Witchford

A 20mph limit and new path linking with the Village College will be needed for this option as outlined earlier in the Chapter. The junction at the western end of Witchford where the existing path links with the road will also need changing.

Option 2
Summary

Comparative Length	7.0km (Haddenham to Witchford). (8.4 km by road)
Comparative Length	6.2km(Wilburton to Witchford) (6.6 km by road)
Likely estimated cost	2.0 km approx. new build path + 1 x signalled junction + 250m traffic calming Wentworth + Haddenham and Witchford costs + 2.7km new path for Wilburton link.
Engineering difficulties	Signalled junction at Station Road/ Ely Way. Establishing quiet lane and road closure a cheap but challenging option. 30mph on rural lane may be challenging.
Ecological issues	New crossing/ crossings of drains.
Land ownership issues	Needs agreement of landowners for field edge work and need to work with them for road closure.
Other issues	Route links well with Wentworth and this feels like a reasonably direct route for Haddenham residents. The best alignment for Wilburton residents avoids Haddenham and therefore would not provide a Haddenham-Wilburton link.
Overall	This is an achievable route in the rural area, with landowner's agreement and makes good use of existing road infrastructure, but it is hard to see how an LTN 1/20 compliant route can be achieved with Haddenham on this alignment and for this reason the route is not recommended.

6.3 Option 3

This route would be similar to Option 4, whilst following a different alignment into Witchford or alternatively similar to Option 2, but would only extend partially along Church Road before following rights of way and field edges into Witchford. The route would continue on road through Witchford. The route is considered here in 5 parts:

i. Within Haddenham

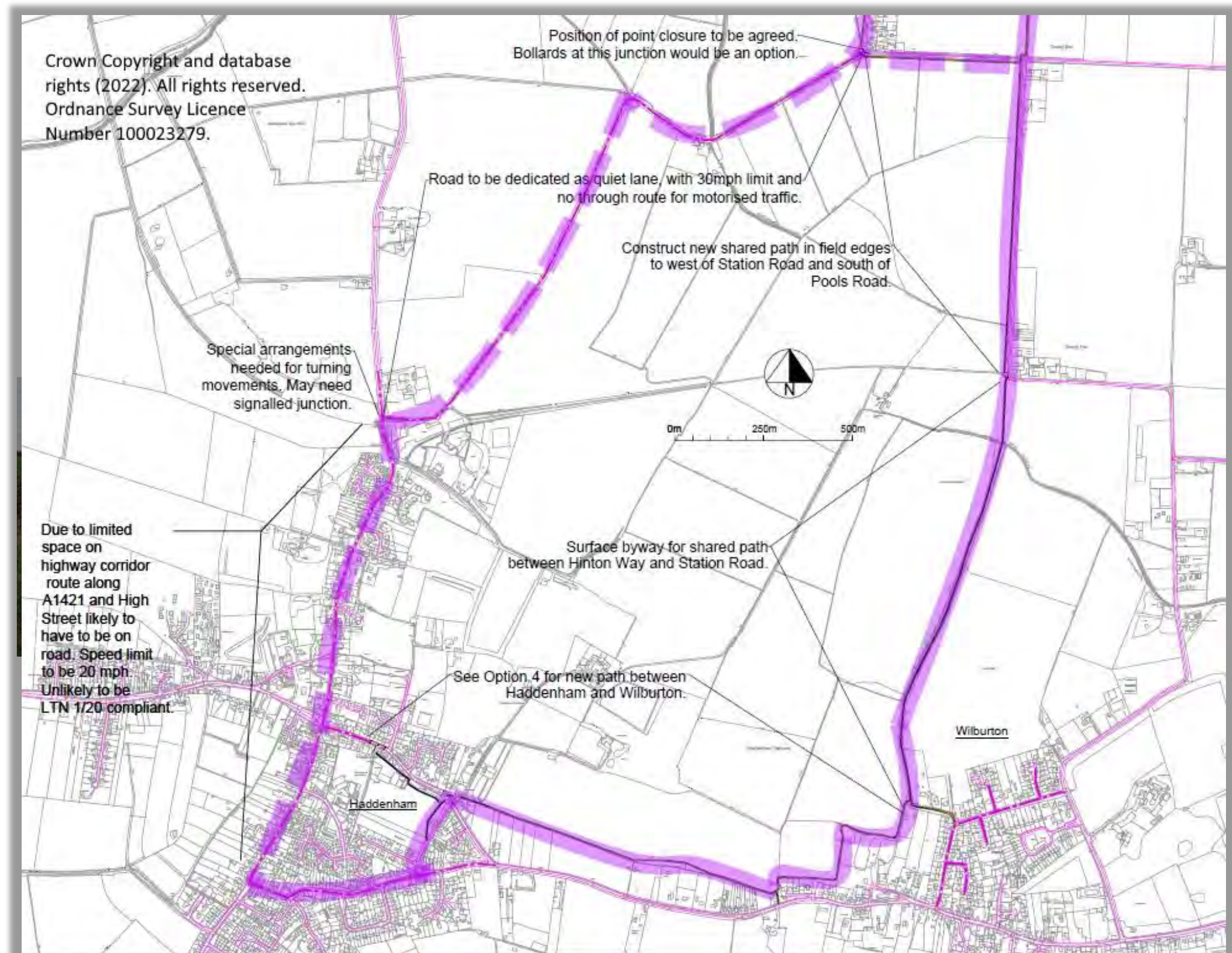
There are serious difficulties with Option 2 due to the nature of traffic on the High Street and on Station Road and due to the limited amount of space available. For Option 4 there are more options, although a complete network for Haddenham would be very difficult to achieve.

ii. Link with Wilburton.

If the route follows the Option 4 alignment between Wilburton and Haddenham the two communities would be linked and would be an integral part of the overall route. If the route follows the Option 2 alignment an additional link would be needed with Wilburton for that community to be included. The alignments are considered in more detail for Options 4 and 2.

iii. Link with Pools Road

See Options 2 or 4 for details.



Plan showing Option 3 Haddenham to Pools Road and Church Road

iv. Grunty Fen Catchwater Drain and link with Witchford

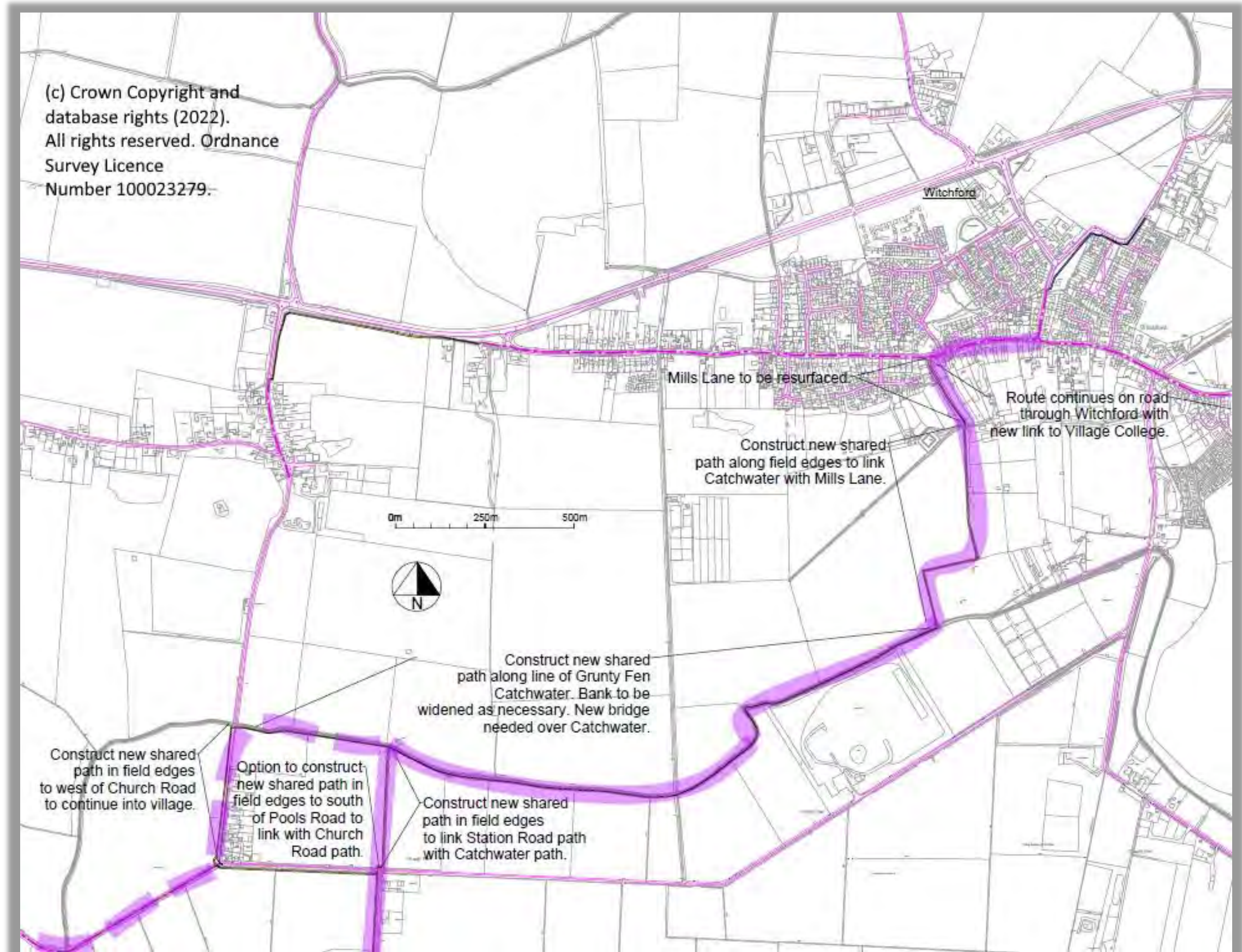
In order to avoid Pools Road, where traffic speeds are a concern and to get a new link with Witchford a route following the drain would be an obvious and attractive option. If this is to link with Station Road a new field edge link will be needed and the whole route will be subject to landowners' agreement. There will also need to be agreement with the local drainage board about how they can access and maintain the drain.

There is a public footpath to the south of the Catchwater and an attractive banktop route. However the width of the banktop appears to be an issue and without having surveyed it fully it is obvious that there will be a need to widen the banktop to accommodate a 3m wide path. The exact amount of widening required will vary from location to location and will need to allow space for farm and drainage maintenance access that does not damage the path.



In this location there does not appear to be space for a 3m wide path, so the bank will need widening and additional material will need to be brought in or dug locally.

Plan showing Option 3 link with Witchford (right)





In this location there may be space for a 3m wide path, but this will need to accommodate farm traffic and vehicles to maintain the drain.

Grunty Fen Catchwater and the public footpath continue to Grunty Fen Road and beyond, but a more direct route to link with Witchford would be to turn north to link with Mills Lane, which has good access to the village centre and Village College. The exact alignment will need to be agreed with landowners, but the route would be expected to follow field edges. Mills Lane itself is a very quiet lane which would need resurfacing.



View from Mills Lane towards Grunty Fen.



View of Mills Lane.

v. Witchford.

A 20mph limit and new path linking with the Village College will be needed for this option as outlined earlier in the Chapter. A raised table or other feature at the Mills Lane junction would be appropriate.

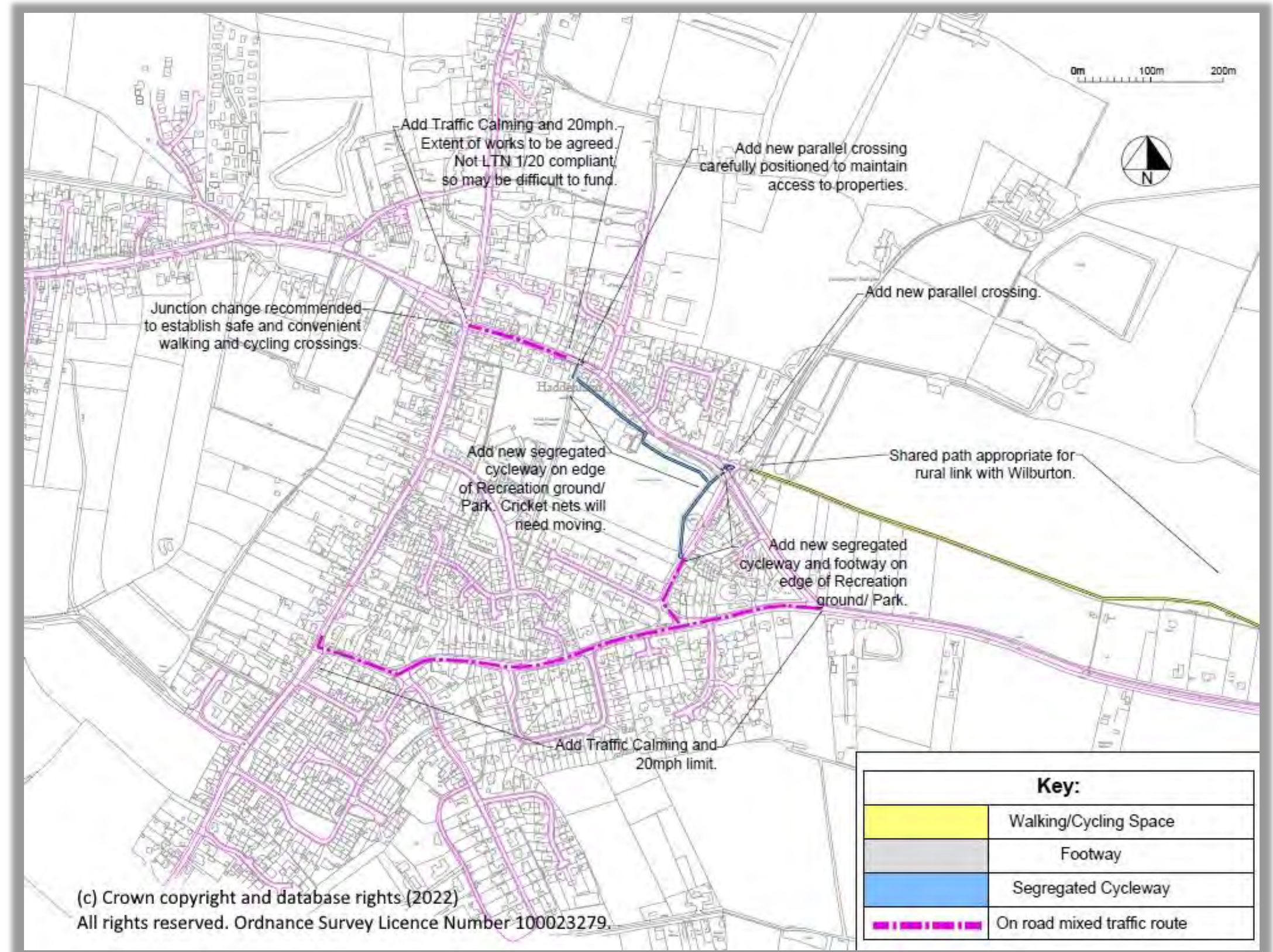
Option 3 Summary (Assuming route via Wilburton and Station Road)	
Comparative Length	7.8km (Haddenham to Witchford). <i>(8.4 km by road)</i>
Comparative Length	5.6km (Wilburton to Witchford) <i>(6.6 km by road)</i>
Likely estimated cost	6.7km approx. new build path + signalled junction Pools Road/ Station Road, Haddenham and Witchford costs.
Engineering difficulties	Difficulties of constructing alongside drain and of widening banktop. Accommodating farm traffic along route. Crossing of Pools Road.
Ecological issues	New crossing/ crossings of drains.
Land ownership issues	Needs agreement of landowners for field edge work and route along drain. Needs agreement with local drainage board.
Other issues	Route links well with Witchford, as long as your destination is not to the west of the village.
Overall	This is an achievable route in the rural area, with landowner's agreement, but technically challenging particularly alongside the drain. Whilst the route could link into Haddenham via the A1421 it is hard to see how an LTN 1/20 compliant route can be achieved on this alignment. The route is an option, but it appears to have no significant advantages compared to Option 4 and for this reason the route is not recommended, at this stage.

6.4 Option 4

This route would extend as far into Haddenham as possible and would then follow the public footpath between Haddenham and Wilburton, where a new link would be needed with Hinton Way, which it would follow. From the end of Hinton Way new field edge paths would need to follow Station Road and Pools Road to link with another byway which continues into Witchford, where the route would continue on road. The route provides the Haddenham-Wilburton link which is needed for local reasons. The route would continue on road through Witchford. The route is considered here in 5 parts:

i. Within Haddenham

An on road route mixed with traffic is needed along Linden End and Duck Lane, which should be 20mph. Traffic levels will need monitoring to determine if an LTN 1/20 compliant route is possible. From The Rampart a route on the edge of the Recreation Ground can link with another new path along the edge of the Recreation Ground and with a new safe crossing of New Road. A new parallel crossing is proposed. Agreement will be needed to construct new paths in the Recreation Ground and to move some sports equipment. (See plan adjacent and photos on next page).



Plan showing Option 4 within Haddenham



Linden Road has some natural traffic calming due to bends but would benefit from additional measures and a 20mph limit.



A pedestrian route along Hop Row with a segregated cycleway on the Recreation Ground behind the hedge is proposed.



A pedestrian route along Hop Row with a segregated cycleway passing behind the car parking is proposed.



Duck Lane has some physical calming measures, but a review is recommended to compliment a 20mph limit.

Haddenham Images



The segregated cycleway can continue along the edge of the Recreation Ground here.



A new crossing here will need careful design to maintain residential access and link with an on-road cycle route along Hop Row.



A new safe, convenient crossing is needed of New Road here together with new paths within the Recreation Ground. (See photo right).



A new parallel crossing here would link the grass island on the right and the grass verge and Recreation Ground on the left.



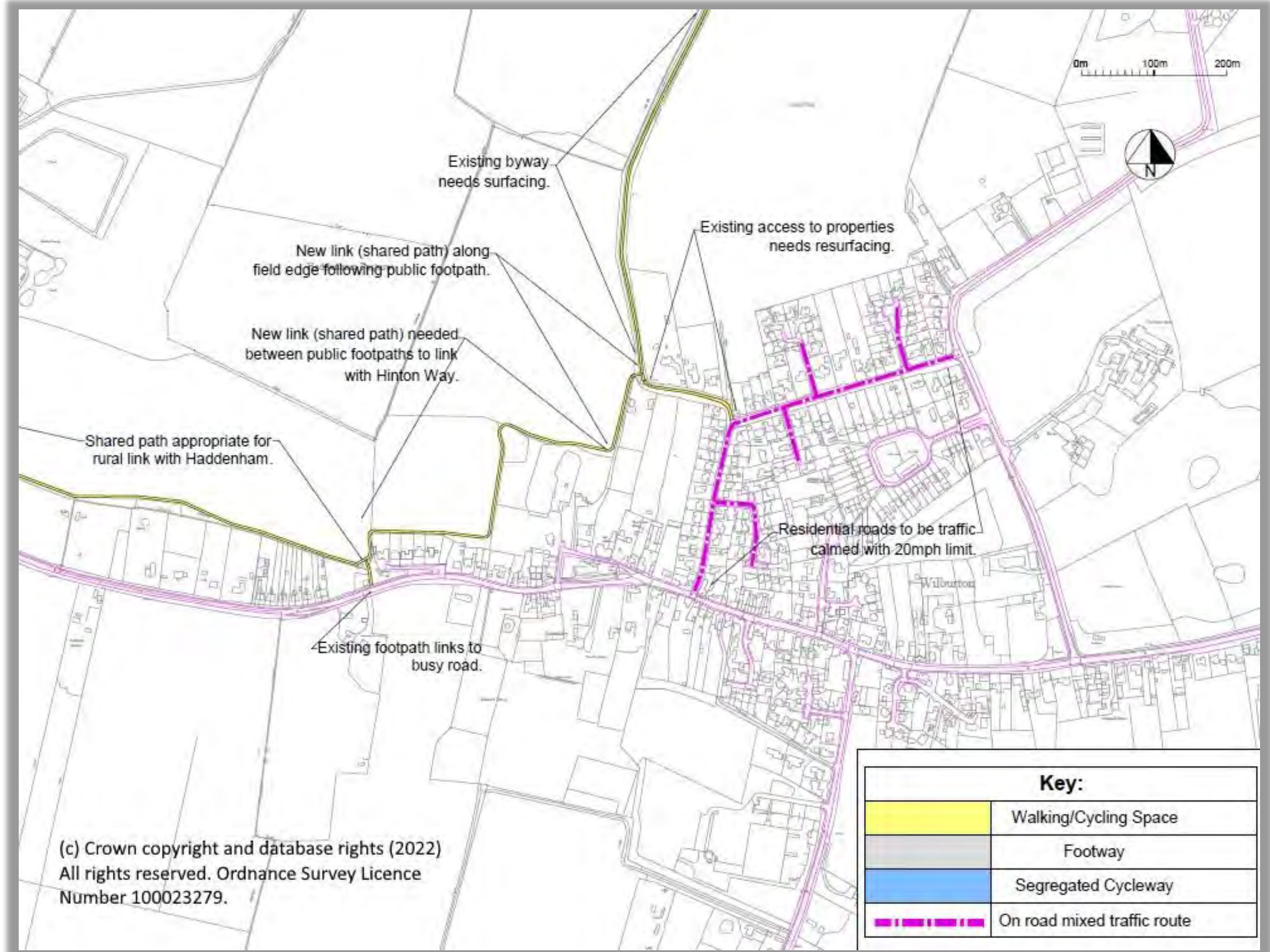
View along edge of Recreation Ground to camera position (above).



There is space at the Hop Row/ High Street junction for improved pedestrian and cyclist crossings.

ii. Haddenham to Wilburton

The A1123 is unsuitable for use by all but the most confident cyclist due to the volume, speed and nature of traffic. At the time of visit there were a lot of HGVs on the road. There is a public footpath between the two settlements and at the Haddenham end a good link should be possible. This must be accommodated within any new development in the area. For most of the way between the settlements there is scope for a new field edge path, which will need to be agreed with landowners, but at the Wilburton end the path ends on the A1123 and a new field edge link is needed as indicated, which needs to join up with Hinton Way. This will need landowners' agreement and is vital for the success of this route. Hinton Way can be resurfaced and traffic calming added to Clarke's Lane for a 20mph limit and a suitable link with Wilburton.



Plan showing Option 4 in and around Wilburton.



View from Hinton Hall Lane along the line of the public footpath. Any future development must incorporate the route.



View from West End of end of public footpath in Haddenham.



West End in Wilburton by start of footpath. Not suitable to promote as a cycle route for inexperienced riders.



West End / High Street in Wilburton by start of Church Lane. Not suitable to promote as a cycle route for inexperienced riders.



View towards Wilburton along existing field edge path, which would need widening.



In order to avoid the busy major road in Haddenham the route needs to continue to Hinton Way. A route along field edges is possible with landowners' agreement.

Haddenham – Wilburton Link Images



High Street from Clarke's Lane junction in Wilburton. The route can continue along Clarke's Lane to this point.



View towards Haddenham of existing field edge path which would need widening.



View from Hinton Way to Church Lane public footpath of field edge route that is needed to link with the path to Haddenham.



View of Hinton Way to Church Lane public footpath where a new wider field edge path is needed.



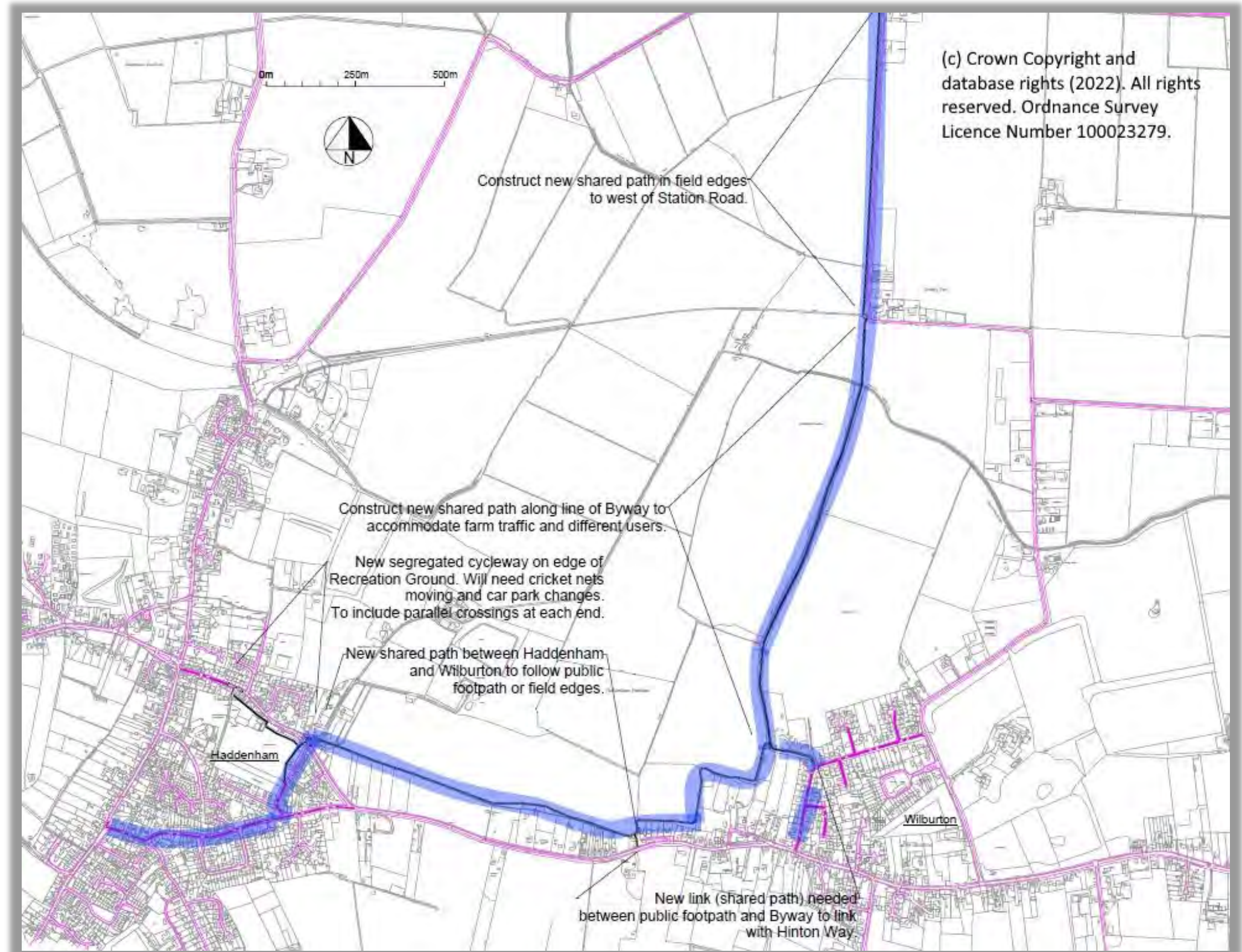
Hinton Way needs resurfacing to the junction with Clarke's Lane.

iii. Wilburton to Pools Road

From Wilburton to Station Road the proposed route follows a Byway. This has rights for use by people on foot, bike, horseback and in vehicles, so finding a suitable surface that needs minimal maintenance is a challenge. Farm traffic or other vehicles have caused serious damage and a high quality path/road will be needed.

The Byway ends at its junction with Station Road, which is a relatively quiet road, but due to traffic speeds it is quite intimidating for people on cycles or foot and a new path is proposed parallel with the road on field edges. Clearly this will need landowners' agreement.

Plan showing Option 4 Haddenham to Wilburton and Station Road (right).





The Byway is an attractive route in variable condition. Hedges will need to be kept well cut back.



The Byway is an attractive route in variable condition. Here seen from the Station Road end.



Station Road from Pools Road junction showing field edge towards Byway to right of drain, which will need to be bridged.



The Byway is an attractive route in variable condition. Here very rutted.



View of field edge along Station Road by field gate near start of Byway,



The Byway is an attractive route in variable condition. Hedges will need to be kept well cut back.

iv. Pools Road to Witchford

Pools Road like Station Road is a relatively quiet road, but traffic speeds are high and can make it intimidating for people on bikes and an alternative is a route to the north of Pools Road on field edges. The other option would be to close the road to through traffic to the east of the Station Road junction. This would simplify that junction and reduce the need to cross drainage ditches and break through a hedge. It would also slow speeds significantly and should avoid the need for a signaled crossing. If the road was closed between Station Road and the entrance to the landfill site this would have considerable benefits, but it would need to allow for farm access so consultation would be needed.

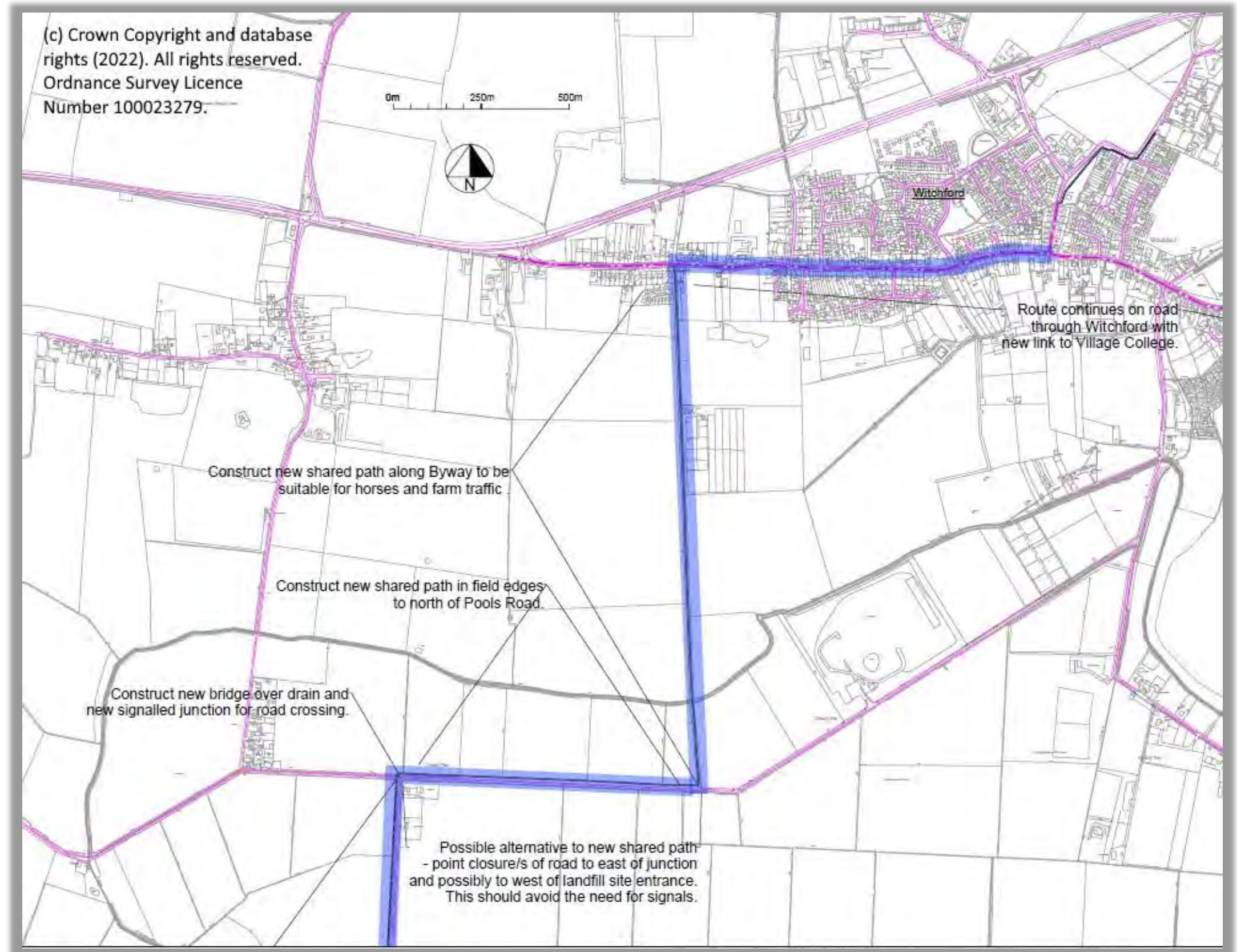
If the route on field edges to the north of Pools Road is preferred the route will need to cross a number of field drains and go through a hedge as well as crossing the road itself. To improve the safety of the road crossing the speed limit should be 30 mph, but this may be difficult and it might be necessary to signalize the Station Road/ Pools Road junction to get a signalled crossing. The speed limit could be reduced to 50 mph in the vicinity of the crossing. A signalized crossing here might seem unnecessary, but it should be borne in mind that this is the only road crossing between Haddenham and Witchford and it is hoped that it will be used by school children and less confident people on bikes.

An alternative to the route along field edges close to Pools Road would be for the route to follow the Catchwater as in Option 3. This would be more complicated and is not overlooked like a route near to Pools Road would be and for this reason the latter is recommended.

The route along Pools Road needs to link with the byway that runs almost due north from Pools Road.

This byway is used by farm traffic and has a reasonable surface that can be ridden by a confident cyclist. However the surface is too loose for regular usage and for less confident cyclists, so it needs surfacing with a smooth surface suitable for all, including horse and farm traffic usage. Whilst the byway has rights for cyclists it also has vehicular rights and there is a chance that cars may be tempted to use it with a better surface, so a key issue to discuss with the County Council will be options to restrict usage. If Pools Road itself is used as the route and closed to through traffic this would change the legal status in the area and could provide more options for limiting usage.

At the time of visit there was flytipping along the byway, at the Pools Road end, so this is another issue to address. Nevertheless it is potentially an excellent route that links well with Sutton Road and Witchford.



Plan showing Option 4 Pools Road to Witchford.

This is one of the drainage ditches that needs to be crossed near the Pools Road/ Station Road junction and the hedge that the route needs to go through.



Flytipping at the Pools Road junction. Encouraging certain usage and deterring others is a major challenge that needs addressing.



View of byway. The hedge will need to be well managed and a smoother surface is needed.

View of byway. The hedge will need to be well managed and a smoother surface is needed.



View of byway towards Witchford. A smoother surface is needed.

Images of Pools Road and the Byway between Pools Road and Sutton Road.

View along Pools Road – a field edge path would need to be set at least 2.5m from the carriageway edge on the left. A low hedge or occasional trees could be planted. Use of the road with traffic restrictions would be a good use of existing facilities.



View of byway. The hedge will need to be well managed and a smoother surface is needed.



View of byway from Witchford. The first section of route from Sutton Road south serves as access to residential properties and has a good surface.



v. Witchford

A 20mph limit and new path linking with the Village College will be needed for this option as outlined earlier in the Chapter. A raised table at the Byway junction with Main Street would be beneficial.

Option 4 Summary	
Comparative Length	7.8km (Haddenham to Witchford). (8.4 km by road)
Comparative Length	5.6 km (Wilburton to Witchford) (6.6 km by road)
Likely estimated cost	6.7km approx. new build path + signalled junction at Pools Road/ Station Road + Haddenham and Witchford costs. Saving of 0.9km new build path and signalled junction if Pools Road closed to through traffic.
Engineering difficulties	Difficulties of constructing alongside drain. Accommodating farm traffic along route. Crossing of Pools Road, which may need a signalled junction to be installed. Solutions will vary depending on whether Pools Road is maintained as a through route or whether it is closed to through traffic.
Ecological issues	New crossing/ crossings of drains. Crossing through hedges.
Land ownership issues	Needs agreement of landowners for field edge work. If Pools Road were to be closed to through traffic arrangements would need to be agreed so that farm access is maintained.
Other issues	Route links well with Witchford, Wilburton and Haddenham. There are concerns about controlling usage on byways, which needs to be addressed. Using Pools Road itself rather than having to construct a new path is clearly the better option in terms of cost and environmental impact, but will need to be considered as part of consultation on the route.
Overall	This is an achievable route in the rural area, with landowner's agreement, links well into all the communities and seems to be the best route in almost every aspect. Using Pools Road itself is the better option in terms of cost and the environment but in terms of budgeting it makes sense to allow for the construction of a new path at this stage.

6.5 Option 5

This option is a variation on Options 2 and 4, but instead proposes making Pools Road into a quiet lane by closing it to through traffic. The route would then extend into Witchford besides Grunty Fen Road. In reality Option 2 is extremely difficult to deliver and Option 4 is considered here. This provides the Haddenham-Wilburton link which is needed for local reasons. The route would continue on road through Witchford. The route is considered here in 5 parts:

i. Within Haddenham

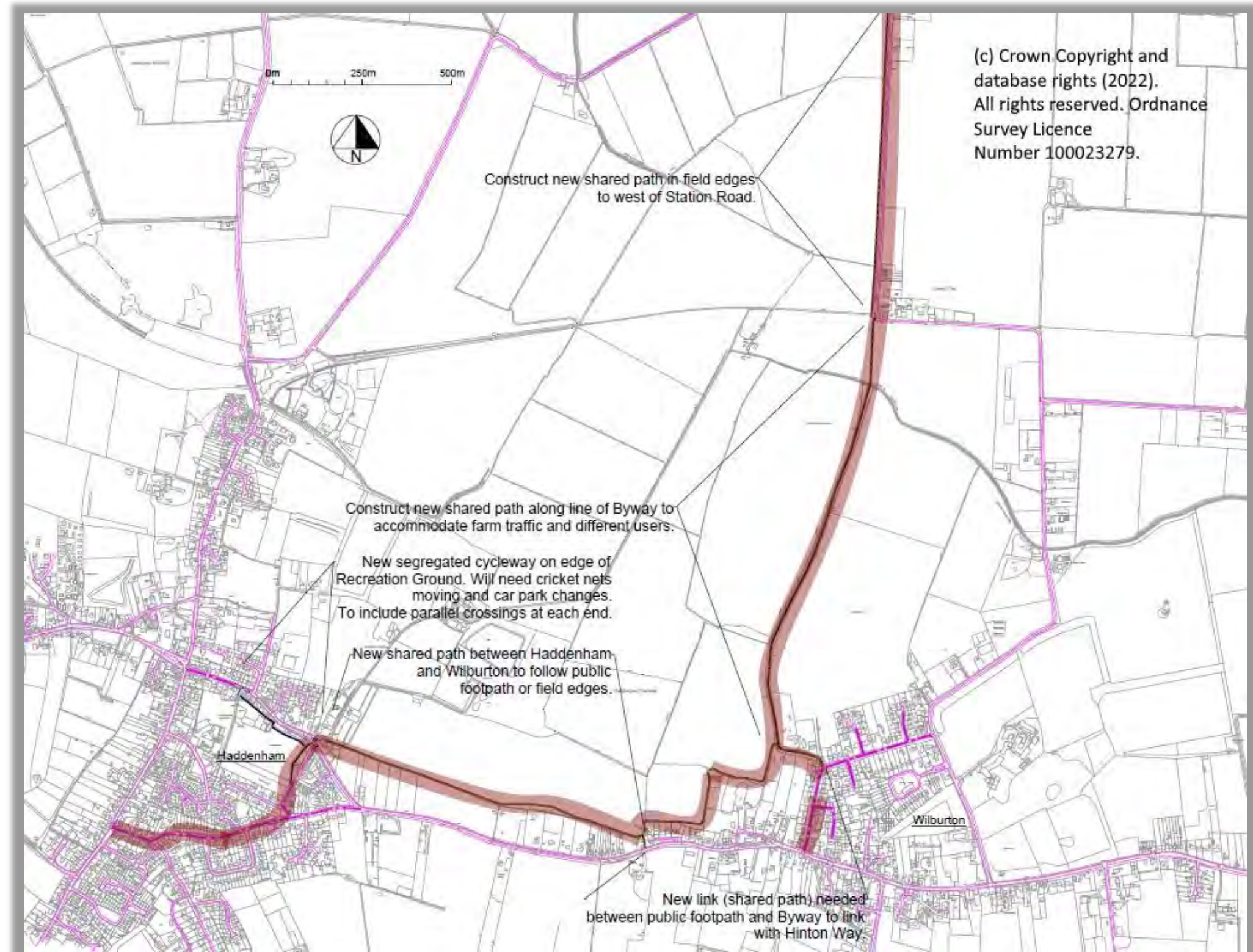
As Option 4.

ii. Haddenham to Wilburton

As Option 4.

iii. Wilburton to Pools Road

As Option 4, but less choice at the Station Road./ Pools Road junction. For Option 5 there should be no need for the Pools Road/ Station Road junction to be signalized and no need to cross to the north of Pools Road because the onward route would be on Pools Road itself.



iv. Pools Road and Grunty Fen Road.

If Pools Road is closed to through traffic and designated as a 30mph road it should become a quiet lane, as long as traffic volumes serving the Landfill Site are very low. This would then deliver a significant length of route at minimal cost. Grunty Fen Road will however need to be avoided and a new field edge path would be needed to the west of Grunty Fen Road. This appears relatively simple in places, but more challenging elsewhere due to field accesses, mature trees, hedgerows etc, so this will need careful design and some flexibility in terms of exact alignment. The new field edge path would need to be agreed with landowners.

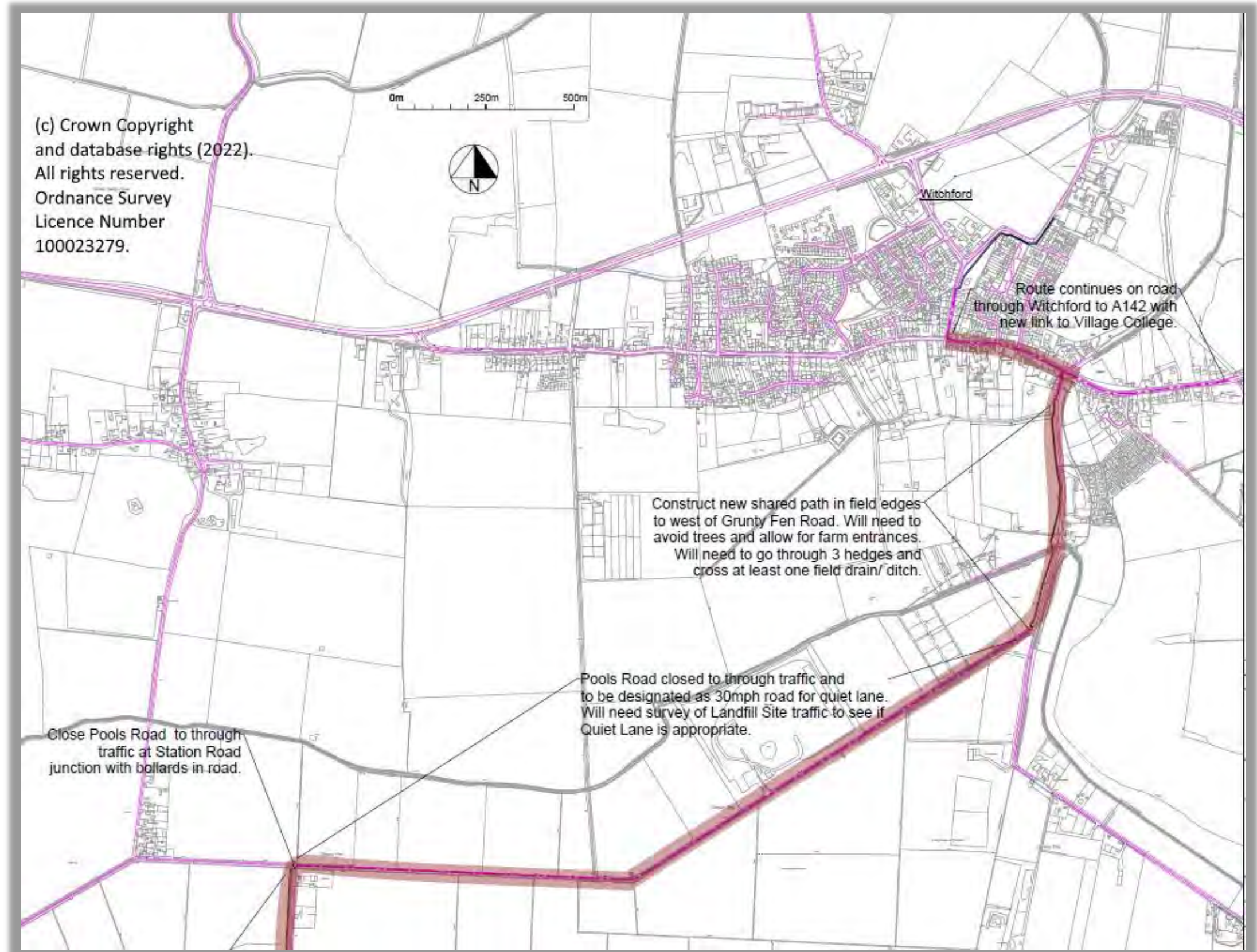
As Grunty Fen Road approaches Main Street in Wilburton space is limited and the route will need to continue on road within the Witchford 20mph zone.

(See photos on following page).

v. Witchford

Within Witchford it could be argued that with this option it would not be necessary to extend the provision west of Common Road, but this would be detrimental to provision within Witchford and for people wanting to access sites to the west of Common Road. This option necessitates a right turn into Common Road whereas all other options have the simpler manoeuvre of a left turn. An alternative access to the Village College might be possible but this would need landowners agreement and would not benefit people travelling from much of Witchford and anywhere west, so has not been looked at.

(See photos on following page).





Pools Road and Grunty Fen Road images.



View along Grunty Fen Road. The proposed route would need to be behind the hedge to the right.

Pools Road is an attractive road to cycle along, but traffic speeds make it intimidating. Lower speeds and lower traffic volumes are recommended for this to be a suitable route.



View along Grunty Fen Road. The proposed route would need to be on verge and field edges to the right.



Pools Road junction with landfill site. A survey is needed to understand traffic volumes and nature. Too many HGVs would make the route unsuitable.



View from Pools Road junction of Grunty Fen Road. The proposed route would need to be behind the hedge to the left.



View along Grunty Fen Road. The proposed route could be in the verge to the left and would then have to join the carriageway within a 20mph zone.



Pools Road is an attractive road to cycle along, but traffic speeds make it intimidating. Lower speeds and lower traffic volumes are recommended for this to be a suitable route.



View along Grunty Fen Road. The proposed route would need to be behind the hedge to the left.

Option 5 Summary	
Comparative Length	7.8km (Haddenham to Witchford). (8.4 km by road)
Comparative Length	5.6 km (Wilburton to Witchford) (6.6 km by road)
Likely estimated cost	5.9km approx. new build path + road closure + Haddenham and Witchford costs.
Engineering difficulties	Difficulties of constructing alongside drain. Accommodating farm traffic along route.
Ecological issues	Sensitive issues along Grunty Fen Road particularly routes through hedges.
Land ownership issues	Needs agreement of landowners for field edge work.
Other issues	Route links well with Wilburton and Haddenham and Village College and east of Witchford, but not good for access to the western part of Witchford. Using Pools Road is a significant benefit in terms of cost, but will need a lot of consultation and possibly a trial. If Landfill Site traffic turns out to be a problem this would rule out the option of using Pools Road.
Overall	This is an achievable route in the rural area, with landowner's agreement. It links well into all the communities apart from the western part of Witchford and is an option that could work for access to Ely and the Village College, but it seems to have no significant advantages over Option 4, particularly if Option 4 involved point closure of Pools Road to the east of the Station Road junction.

6.6 Overview and Recommendations for Progress.

The proposed works for Witchford need to be completed, plus one or more of the 5 options outlined in detail earlier and in summary here:

Option 1 – Route following A1421 north from Haddenham to the A142 and then following the A142.

Option 2 – Route following A1421 north from Haddenham then Ely Way and then following Church Road and the A142.

Option 3 – Route as Option 2 or Option 4 from Haddenham and then following Grunty Fen Catchwater Drain and field edges to Witchford.

Option 4 – New route between Haddenham and Wilburton and then following byways, Station Road and Pools Road to Witchford.

Option 5 – As Option 4 but using Pools Road and then following Grunty Fen Road to Witchford.

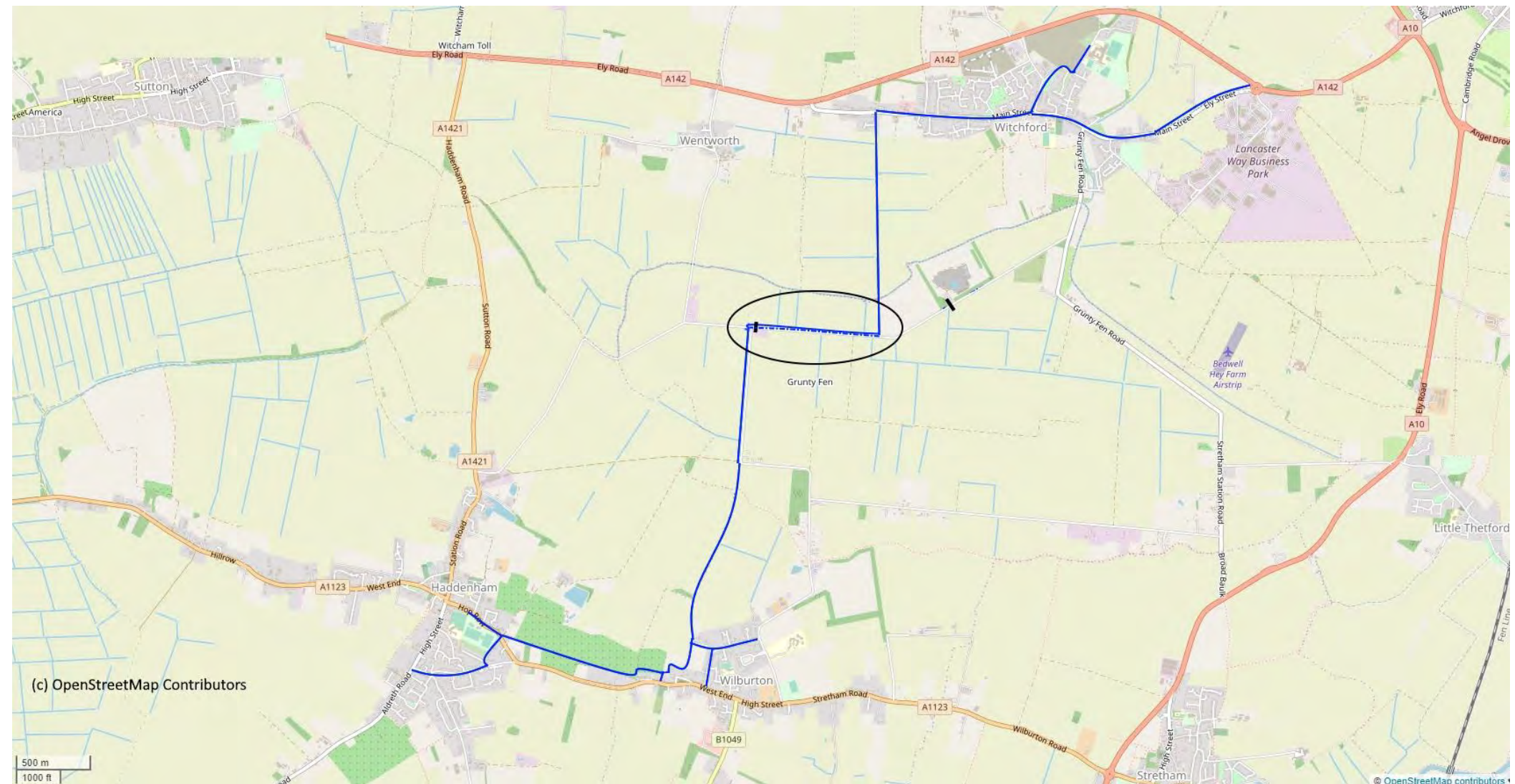
Distances have been measured between the centre of Haddenham and the centre of Witchford and between the centre of Wilburton and the centre of Witchford, using the proposed routes and these are compared with the distance by road using main roads. All distances apart from Option 1 are less than 5 miles and are reasonable cycling distances. Wilburton to Witchford apart from for Option 1 is a short easy cycle distance.

	Option 1	Option 2	Option 3	Option 4	Option 5	Notes
Comparative Length (Haddenham-Witchford)	8.2 km	7.0 km	7.8 km	7.8 km	7.8 km	Haddenham Centre to Witchford Centre 8.4km by road.
Comparative Length (Wilburton-Witchford)	9.6 km	6.2 km	5.6 km	5.6 km	5.6 km	Wilburton Centre to Witchford Centre 6.6km by road.
Likely estimated cost in villages	High, but no obvious solution, in Haddenham.	High, but no obvious solution, in Haddenham.	High	High	High	Costs are the same for all options in Witchford, unless parts removed for Option 5. Some variation in Haddenham depending on the route.
Likely estimated cost between villages	High – off-road construction following major roads.	Medium to high off road construction, but some of route delivered using road closure.	High with difficult construction following Catchwater.	High, but reduced if Pools Road is used and road is closed to through traffic.	Medium to high with some of route delivered using road closure.	Cost assumed to be similar for all off road sections and much cheaper, where rural roads are made into Quiet Lanes.
Engineering difficulties	Difficult to find LTN 1/20 compliant solution for A1421.	As Option 1.	Difficult construction along waterway.	Signalled junction in remote location.	Needs traffic surveys to determine if route is viable.	Further work is needed to assess fully the engineering difficulties.
Ecological issues	Significant land take needed gives opportunities for benefits to ecology.	Field edge routes give opportunities for benefits.	Possible disturbance along Catchwater.	Hedgerows, crossing of drains, disturbance of new routes.	Route along Grunty Fen Road may be sensitive.	Ecological surveys focused on Options 3,4,5 as these are the most likely to progress.
Land ownership issues	Agreement essential with limited choice following main roads and significant land needed along A142 corridor.	Agreement essential with limited choice following main roads and significant land needed along A142 corridor.	Agreement essential.	Agreement essential.	Agreement essential.	It is assumed that landowners would be compensated for their loss of land and all works would be designed to ensure that they fitted with the operational needs of the landowners. The Local Authority does have powers to acquire land if needed or to create rights of way, but it is hoped that this will not need to be used.
Comments	Route is the most direct route between Haddenham and the A142, but is a significant diversion for a Witchford route and little use for Wilburton residents. There is no obvious solution for Haddenham. The route should be discounted due to diversion and lack of Haddenham provision.	Route is an obvious alignment, but there is no obvious solution for Haddenham and extra works are needed for a Wilburton link. The route should be discounted due to lack of Haddenham provision.	Route along the Catchwater would be attractive, but seems to offer no advantage over Option 4. Can be considered for use in parts.	Clearly the best alignment in terms of links with Haddenham, Wilburton and Witchford. There is a choice as regards Pools Road. The best and cheapest option would involve closing that road to through traffic, but an off road alternative is possible too. Usage of byways is key to this route and this needs County Council support.	Route has some merits if wishing to avoid Witchford and reduce scale of works in Witchford, but would not link well with parts of Witchford. Subject to traffic survey the route may not be viable and there seems little benefit in progressing this, given that Option 4 gives better links with Witchford.	Efforts to be focused on Option 4, but could use parts of other options as variations on the theme.

Based on the analysis of options the recommended alignment for a new route between Haddenham Centre and Witchford Centre would be Option 4. It is considered that this addresses the link with the A142, but will need considerable changes in Witchford to achieve this. There are limitations on what can be achieved in both Haddenham and Wilburton due to the volume and nature of traffic passing through both communities, but useful new links can and need to be delivered in both communities.

A plan showing Option 4 is adjacent. A summary of the route is:

- i. **Haddenham.** New road crossings of New Road and Hop Row linking with a new route along the edge of the Park/ Recreation Ground together with traffic calming and a 20 mph limit within the settlement.
- ii. **Haddenham to Wilburton.** New path following the existing public footpath but continued along field edges to Hinton Way and linking with Clarke's Lane. Traffic calming and a 20mph limit within the settlement.
- iii. **Wilburton to Pools Road.** Route following a byway, with new surfacing and then a new field edge path following Station Road to Pools Road, where a new signalled junction may be needed. A road closure of Pools Road should avoid the need for this.
- iv. **Pools Road to Witchford.** Closure of Pools Road at two locations to establish this as a quiet lane with farm access retained or alternatively a new off-road path following Pools Road. Both alternatives are to link with the existing



(c) OpenStreetMap Contributors

north-south byway that connects Pools Road and Sutton Road, Witchford. This byway needs surfacing.

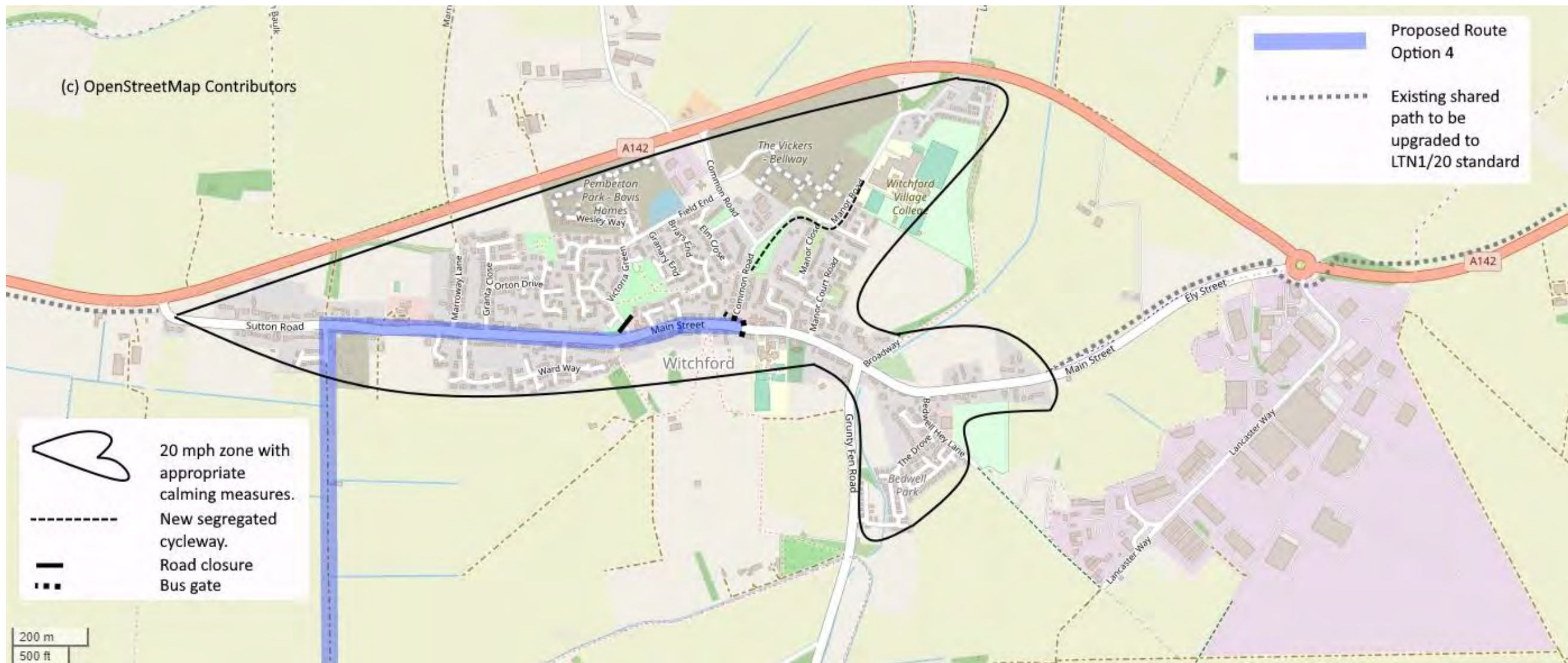
- v. **Witchford.** As the community with the largest population, amongst those considered, investment in Witchford is needed, so that walking and cycling are attractive options for people in Witchford. High quality links with the A142 to the west and east of Witchford are recommended, as well as new improved access to Witchford Village College. In order to change the nature of the former main road through Witchford traffic calming, the establishment of a 20mph zone and the closure of some roads to through traffic is recommended. This would allow access to all properties to be

maintained, whilst pushing traffic on to the bypass away from the residential areas.

An option for Witchford is shown on the following sheet. (3 options are considered in the report and all will need further consideration and community engagement, but doing nothing is not considered a suitable solution, because this would undermine the benefits of other work.) A preliminary design for upgrading the link between Witchford and the A142 east is included in Chapter 6 and this is recommended as part of an upgrade of the whole route to Ely (which needs a further study and detailed design work).

Plan showing recommended route (Option4)

(Note that there is a choice within the circled part of the route between a new off-road path or a route on Pools Road with Pools Road closed to through traffic at the two points marked with solid lines. Farm traffic would need to be permitted for access to fields.)



Plan showing one of the options for Witchford.

The aim is to establish the whole of Witchford as a place where people can cycle with confidence and will choose to walk or cycle, whilst maintaining access and protecting the attractions of the locality.

It should be noted that the proposed new segregated cycleway by the Village College involves the use of Common land and special consent will be needed, which will need consultation and may take some time.

A road closure bus gate is something that is common in Cambridge, but not outside the City and the County Council may need to seek special powers for this.

The facilities in Witchford obviously need to link with the proposed Haddenham route. (Option 4 is shown). The facilities also need to link with an upgraded A 142 route. Upgrading the link with Sutton is considered for Option 1 and needs considerable land take and funding. The link with Ely is a major challenge and would need detailed design as part of another study. The link as far as the A 142 and Lancaster Way is considered earlier in Chapter 6, with suggested works.

7. Potential Usage

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 census data to get information on local populations and local modal shares of journeys to work and school by bike and uses mapping data to get information about trip distances and geography. The tool is focused on journeys to work and school, because this is the data that is collected, so it does not allow for leisure and other activities.

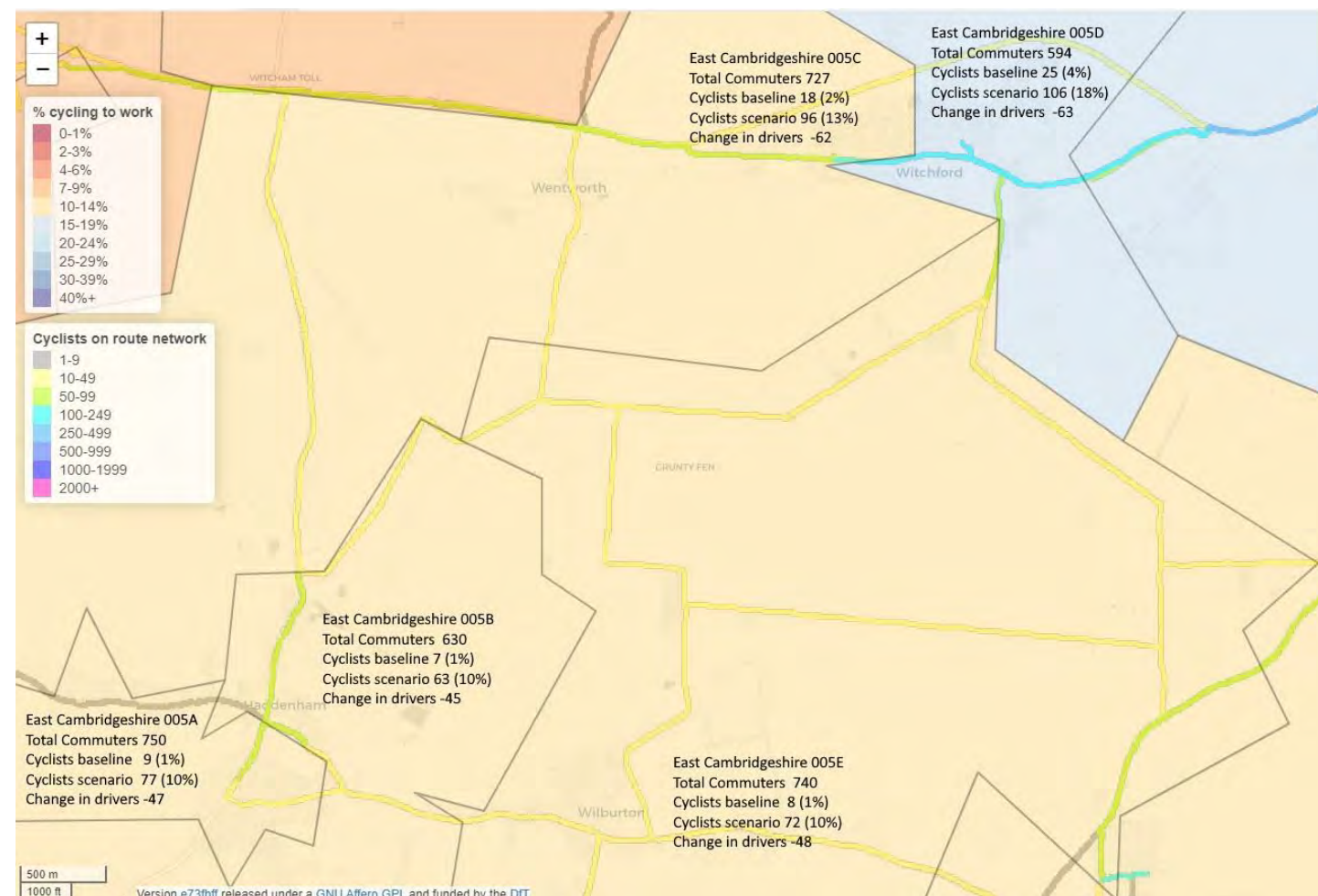
The tool uses various scenarios such as “Go Dutch” whereby it assumes that the infrastructure and modal share are similar to a Dutch case, adding in factors for hilliness, which will deter usage. For East Cambridgeshire’s case there is no reason to see why Dutch levels of cycling could not be achieved. The tool also uses an “Ebike” scenario, which assumes that the use of Ebikes and Dutch style infrastructure will significantly increase the range and number of cycle trips.

In this case it is certainly not possible to assume Go Dutch for the whole population given the acknowledged difficulties of making changes in Haddenham and Wilburton that would bring the infrastructure to anything like Dutch standards.

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

1. The tool assumes that from Haddenham to Witchford the most popular route would be Option 1 or 2, but we know that bringing that route up to “Dutch “ standards is extremely difficult.
2. The tool shows the importance of the main road through Witchford and the study has suggested ways to make this much more attractive for cycling than at present, which would significantly increase usage.
3. The tool shows that the greatest demand is likely to be for the Witchford to Ely route and within Ely where of course the population and usage potential is highest.

Image from Propensity to Cycle Tool “Go Dutch” scenario.



The numbers shown in this map are numbers of people rather than trips and are for commuting trips only. The tool provides separate figures for school and for the Ebikes scenario. The figures obtained from www.pct.bike and using certain assumptions are collated below:

Scenario	Usage on routes between Haddenham/ Wilburton and Witchford.
Go Dutch Commuters	14-70
Go Dutch School trips	70-170
Ebikes Commuters	40-100

Figures have been obtained by adding predicted cyclists on the route and then multiplying that figure by 0.7. This assumes that 70% of the population will have access to Dutch style provision at their doorsteps and all the way to their destination in Witchford.

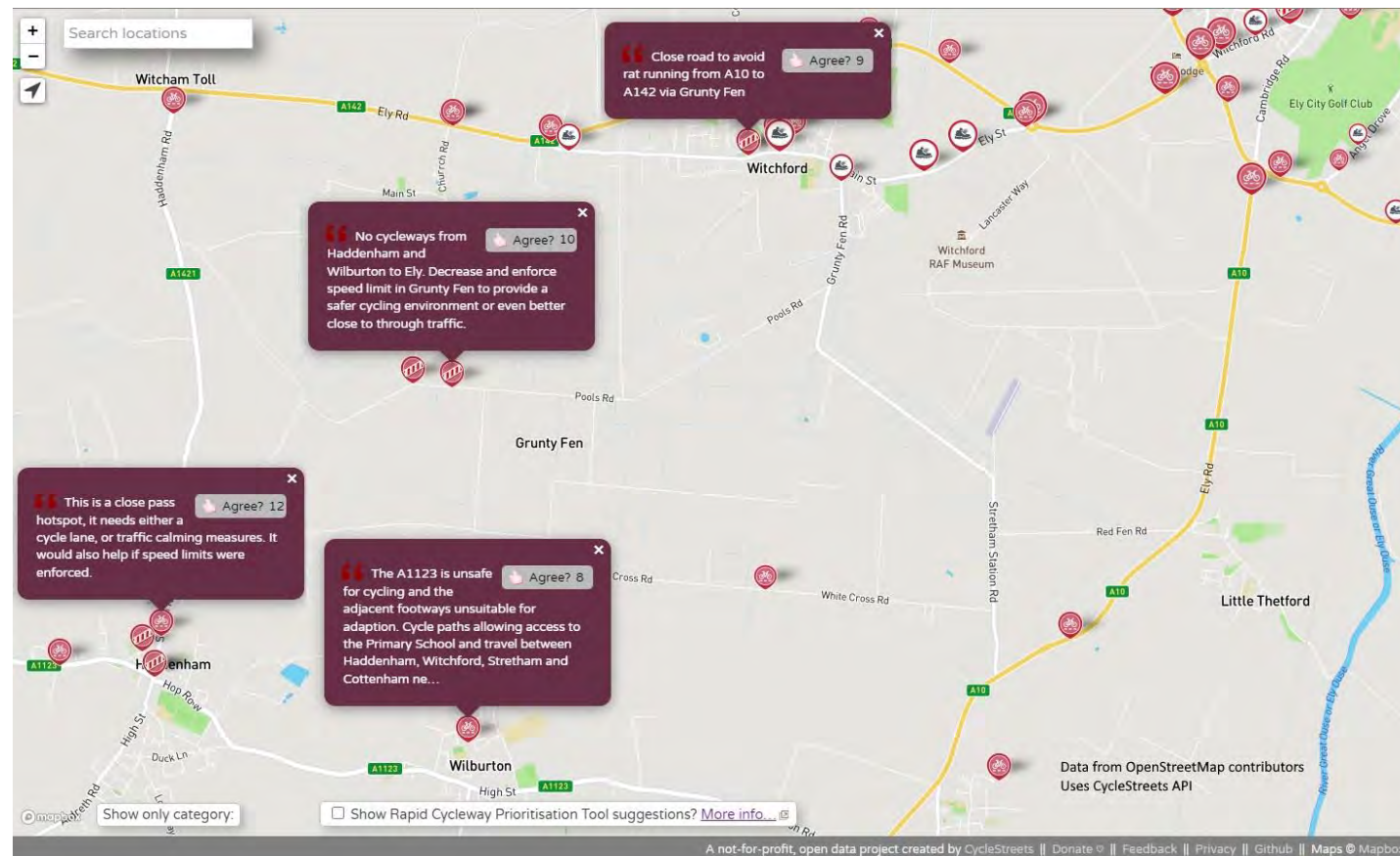
It should be noted that commuting trips are a low proportion of all trips and commuting patterns have changed since the start of the Covid-19 pandemic. Nevertheless the tool shows the potential for increased usage including a big potential increase in school trips, presumably based on cycling to and from Witchford Village College. This would mean a major shift from being driven to school in cars or buses.

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 above.

Other ways of assessing potential demand include on-line tools such as Widen My Path and there are a relatively large number of entries, which are a useful check to ensure that issues raised have been considered in this study.

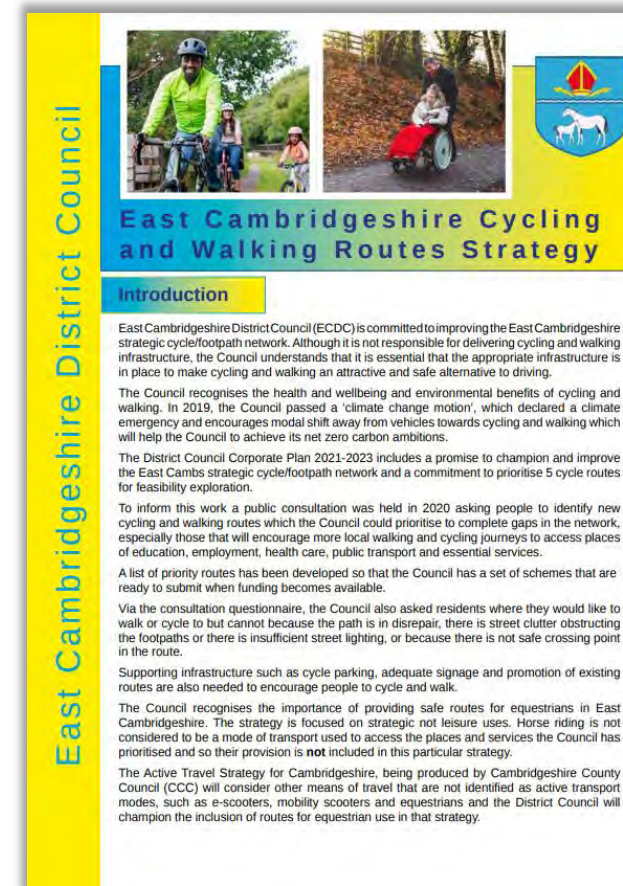
An extract from Widen My Path is shown below with comments added in for ease of viewing:

Extract from Widen My Path



As mentioned earlier East Cambridgeshire District Council has conducted surveys as part of the Cycling and Walking Routes Strategy. This produced a strong response for Haddenham to Ely, Haddenham to Wilburton, Witcham – Witchford/Sutton and Elean Business Park.

The full report is at <https://www.eastcambs.gov.uk/sites/default/files/agendas/Cycling%20and%20Walking%20Routes%20Strategy%20webAC.pdf>



In total 309 cycle routes were proposed. Given the size of the local population there was significant interest in new routes in this vicinity. A summary of the responses for Ely to Haddenham is adjacent. This shows the heaviest demand being for better connections with shopping, sport/ entertainment facilities and with friends/ family. None of these are picked up by the Propensity to Cycle analysis of journeys to work or school.

Route	Number of responses
Ely to Haddenham	29
Ely to Wilburton	10
Haddenham to Sutton	11
Ely to Witchford	26

Ely to Haddenham By Journey Purpose	Number of responses
Work	16
College/ Higher Education	5
Doctors/healthcare	-
Shopping	22
Access other public transport	17
Council offices/ public services	13
Sports/ entertainment	24
Visit family/ friends	25

Tables with data taken from East Cambridgeshire Cycling and Walking Strategy

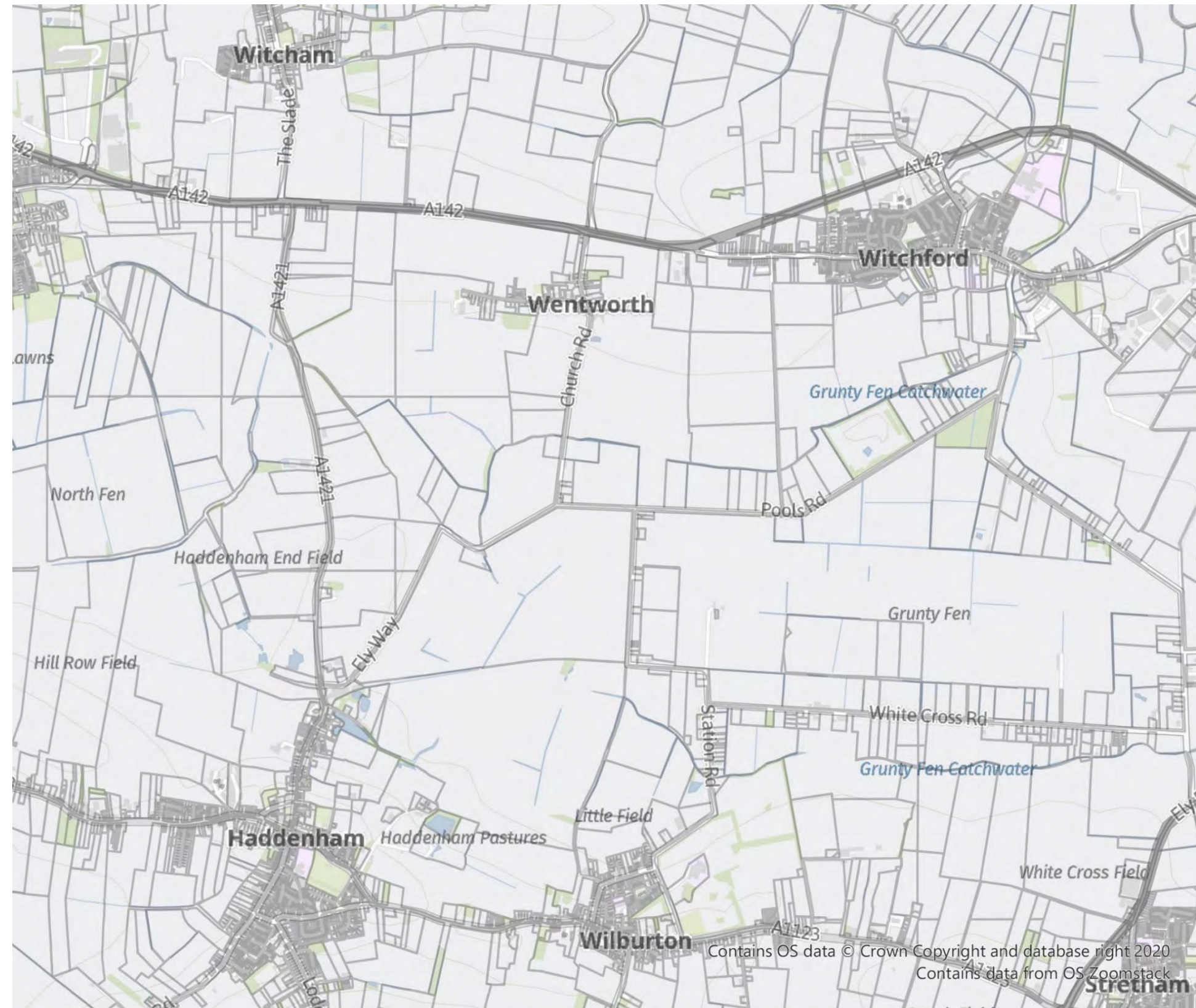
8. Land Ownership

The most complicated part of the development of any new route is likely to be the need to get landowners' agreement. Time and funding needs to be allocated for this and if necessary the Local Authority needs to be willing and able to use Statutory Powers to deliver the proposed routes. This should however be a last resort and the aim should be to build good relationships with all landowners.

Sustrans has done some research on land ownership in the area. The individual parcels of land can be seen in the adjacent plan. It is likely that some landowners will own more than one parcel of land and it is very likely that the people living on or farming some of the land are not the owners.

Although landownership data is widely available from The Land Registry at <https://www.gov.uk/search-property-information-land-registry> Sustrans considers that ownership details should be kept confidential until discussions have been had with the landowners concerned. Sustrans is providing information on land ownership to East Cambridgeshire District Council separately to this report, but this is unlikely to be complete or to tell the whole picture, as to who the key people are who need to be contacted. Indeed it is likely that Parish and District Council Officers and Councillors may already know many of the key landowners and this may be the best place to start.

It does not appear that Cambridgeshire County Council own land in this area with their County Farms Estate as can be seen at <https://maps.cambridgeshire.gov.uk/?tab=maps> under Public Sector Assets/ Rural Assets. Cambridgeshire County Council also hold records of the extent of highway land including the recorded



widths and positions of rights of way. This will be important for the byways that are part of this study.

Where developments have or are taking place the developers have to declare their land ownership

and this can provide some useful information and the planning process can be a good way of obtaining agreement for new provision on private land.

Plan showing individual land parcels

9. Ecological assessment

A Preliminary Ecological Assessment Report on route options has been prepared by Samsara Ecology and that report is available on request from Sustrans. The report is summarized below:

Ecological Summary	
Introduction	
Scope and limitations of ecological assessment	The likely ecological constraints for route options R1- R4 have been assessed by Samsara Ecology in February 2022 ¹ and are summarized below. As R5 is entirely on road with no engineering required, no ecological assessment has been undertaken of this route. A Preliminary Ecological Appraisal in line with CIEEM (2017) guidelines ² was undertaken. This was predominantly a desk-based study due to the number of route options and early stages of the proposal, but a walkover survey was undertaken of the preferred route (Route 4). As this project is in feasibility stages and the design has not been finalized this should not be considered to be a comprehensive assessment, but allows comparison of the ecological impacts of the different routes and identifies any major constraints for the proposal.
Viability and risks summary	<p>No barriers to route creation have been identified for any route options. Protected species may be present along all route options and will have associated costs for survey and mitigation, but these are not considered likely to be prohibitively high.</p> <p>R3 comprises an alternative alignment for a short section only and has been identified as having the greatest associated risks to ecology due to its proximity to the Grunty Fen catchwater, Wentworth Pollard Willows County Wildlife Site, mature trees and potential water vole habitat. It is anticipated all can be protected through good scheme design and construction methods, but protection measures will have associated costs and risks. The use of R3 would also add significant additional costs for biodiversity net gain requirements to the overall route.</p> <p>Route 4 is considered likely to have the lowest habitat impact and would be the easiest to offset. With no habitat re-instated on site and with a 10% net gain requirement, this equates to a worst case scenario of between £100,000 and £270,000 for a biodiversity offsetting scheme. R1 and R2 would be anticipated to have greater associated biodiversity net gain costs. Changing the alignment of R1 so that it was situated entirely in the field margin would have a significant saving of biodiversity units and may bring the biodiversity net gain requirements of that scheme in line with R4.</p>
Ecological baseline	
Designated nature conservation sites	One site of international importance, Ouse Washes Special Area for Conservation (SAC) was situated within 5km of Routes 1 (3.5km at its closest point). No statutory sites were situated within 2km of the proposal. Four non-statutory local sites were situated within 2km of the proposal. Routes 2, 3 and 4 crossed or were situated along Wentworth Pollard Willows County Wildlife Site (CWS). Routes 1, 2 and 4 were situated within 1km of Guppy's Pond and Hinton Hedges CWS. Other CWS are situated 1km or more from all route options.
Habitats	The landscape is predominantly flat fenland with few hedgerows, tree lines or woodland blocks. Deep agricultural drains bisect large arable fields. All route options include sections that are on carriageways and along field edges. Fields include arable land and pastures and the field boundaries include ditches and hedgerows. The exact location of route 1 along the A1421 has not been determined at this stage but the road verge habitat is dominated by neutral grassland with hedgerow and ditches present. Route 3 is dominated by other neutral grassland along a public footpath and is situated adjacent to a watercourse: Grunty Fen Catchwater and associated scrub and trees. Route 4 is situated in close proximity to woodland and trees in some sections.
Species with statutory controls	Suitable habitat has been identified for great crested newt, reptiles, nesting birds, bats, water vole and badger at locations along all route options.
Notable species/assemblages	Suitable habitat has been identified for hedgehog.

¹ Farnell, H (2022) Samsara Ecology Report Number: 185 Version: V1: Preliminary Ecological Appraisal Haddenham to A142 Feasibility Study.

² CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

Anticipated impacts	
Designated nature conservation sites	Without suitable tree protection measures Routes 2, 3, and 4 may impact the habitat of Wentworth Pollard Willows CWS. The greatest potential impact to this site would be from R3 as it is situated adjacent to this site for 1.4km, whereas R2 and 4 cross it in discreet locations only. It is anticipated that impacts can be avoided or mitigated through route design and good practice during construction. No impacts are anticipated on other designated sites.
Habitats	<p>All route options will include some loss of habitats as all include sections that are off road. The majority of this habitat would be arable or pasture land, with low ecological importance. Some verge habitats, which could be more diverse, could be affected and trees are situated in close proximity to some routes. The exact alignment of R1 has not been confirmed. If situated between the farmland and the carriageway, this could include the loss of hedgerows and ditches. No habitats have been identified as likely to be present that would form a barrier to route creation, although this was predominantly a desk based assessment and a field survey will be required to validate this conclusion.</p> <p>A provisional biodiversity unit calculation has been undertaken for all four routes. This is based on low resolution data and must be updated at a detailed design phase but can be used for comparative purposes. The net unit calculation for each route uses a 5m corridor of habitat lost. These figures should reduce as the detailed design allows for some habitat to be re-instated. It should be noted that the costs of biodiversity offsetting is highly variable at the time of writing as this is an emerging market. Offsetting units can cost between £15,000 and £40,000 per unit. A 10% net gain will be mandatory for schemes beyond November 2023.</p> <ul style="list-style-type: none"> - Using the worst case scenario for R1 where the grass verge, hedgerow and ditch adjacent to the A1421 are lost this would constitute a loss of 6.40 habitat units and up to 18.16 linear units. If the route was situated within the field edge only the linear units could be preserved. - R2 had the highest anticipated loss of habitat units (9.64) primarily due to the loss of neutral grassland. - R4 had the lowest loss of habitat units (6.16). - R3 would contribute an additional 6.84 habitat units lost to whichever route it is combined with. <p>Route 4 is considered likely to have the lowest habitat impact and would be the easiest to offset. With no habitat re-instated on site and with a 10% net gain requirement, this equates to a worst case scenario of between £100,000 and £270,000.</p>
Species with statutory controls	Without appropriate protection measures, impacts that would contravene current legislation could be anticipated from all route options for great crested newt, reptiles, nesting birds, bats, water vole and badger if these species are present. The greatest risk to water vole, if present, would be from R3, which is situated in close proximity to a watercourse for over 2km. All routes may include ditch crossings, but would impact a short length of these only. The greatest risk of bat roosts being impacted would be from R4 as a small number of trees may need to be removed, although these were identified as having low bat roost potential. No lighting is currently proposed and potential impacts of any lighting on foraging and commuting bats can be avoided through good design in accordance with industry guidelines.
Notable species/assemblages	Hedgehogs may be disturbed, injured, or killed during the construction works of the proposed routes.

Recommendations	
Further survey and assessments to ensure compliance with statutory legislation	The PEA must be updated for the preferred alignment and any additional works areas, access or storage to assess potential risks to species with statutory controls. This will confirm which additional surveys are necessary to ensure compliance with statutory legislation. These are likely to include surveys for water voles and badgers. Surveys for reptiles and bat roosts have not been recommended by Samsara based on current information but may be deemed necessary dependent on detailed design. If lighting were proposed, more detailed bat surveys may be necessary. Great crested newt eDNA surveys are not required for district level licensing requirements but would help locate newt populations, inform the need for a licence application and guide the decision on the most proportional level of mitigation.
Further surveys and assessments to ensure compliance with planning policies	The PEA must be updated based on the detailed design for a full assessment of risks to species and habitats protected through the planning process (such as habitats and species of principal importance ³). This will inform the need of any additional species/habitat surveys. An Arboricultural Impact Assessment and tree protection plan ⁴ will be required where the route is located in close proximity to important trees such as those in the Wentworth Pollard Willows CWS. A Biodiversity Net Gain scheme will be required based on an updated assessment of the detailed design.
Additional considerations for detailed design	The detailed design, including the location of temporary access points, storage and works compound should; <ul style="list-style-type: none"> – Minimise habitat loss, particularly in the most ecologically notable habitats. – Maintain a 5m buffer between works and river banks to protect water vole habitat. – Avoid fencing and lighting where possible, or design for minimal impacts on wildlife if essential. – Include biodiversity enhancements such as bat and bird boxes as recommended by Samsara, appropriate planting/seeding of re-instated habitat and any biodiversity net gain requirements.
Licences which may be required.	Mitigation licences may be required for badger, bats and water vole if found to be present, and avoidance through design can't be applied. Potential impacts to great crested newts can be mitigated via the application of a district licence or precautionary methods of works.
Construction and Environmental Management Plan (CEMP)	A CEMP must be prepared that includes protection of; <ul style="list-style-type: none"> – Habitats and species within the Wentworth Pollard Willows CWS, – Retained trees, hedgerows and watercourses/ditches – Nesting birds, reptiles, hedgehogs – Any other measures recommended in further habitat and species assessments
Landscape and Ecological Management Plan (LEMP)	A LEMP must be produced to protect and enhance habitats and species populations along the route for a minimum of 30 years and must include detailed information on the funding and responsibilities for implementation to ensure compliance.

³ As listed for the Natural Environment and Rural Communities Act 2006

⁴ Compliant with BS5837: Trees in relation to design, demolition and construction.

10. Community engagement

Community engagement will be essential for delivery of the project. East Cambridgeshire District Council have already seen that there is a demand for the route as part of their Cycling and Walking Route Strategy, but engagement will need to be taken to another level now that the details of any work are becoming clearer.

Sustrans has not undertaken as part of this study, but this is clearly a high priority to progress the proposals.

10.1 Evidence of Support

Not yet

10.2 Audit of Engagement Risk

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

- Landowners who do not want the route because of security or other concerns.
- Members of the community in Haddenham and Witchford, who may not want changes to the street environment.

- Businesses in Witchford who may have concerns about access to their properties.
- Users of the byway and footpath near Wilburton who sensitive about changes of use and habitat loss or who may object to surfacing works and/ or changes in the number and types of users.
- Drivers who may object to the impact of road closures.

10.3 Audit of Engagement Opportunity

The works in Haddenham, Wilburton and Witchford stand to bring benefits for the whole community and there needs to be extensive engagement across the communities including with schools, clubs and residents groups as well as the Parish Councillors, District and County Councillors.

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 Parish Councils and the

District and County Councils and 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 taken into account.

A community engagement plan might include:

- In-depth discussion with landowners.
- On-line consultation and poster, leaflet campaign.
- Consultation meetings in Haddenham, Wilburton, Witchford and Ely, including liaising with Witchford Village College and liaising with pupils and parents,
- Events in Witchford, Haddenham and Wilburton.
- Walk through of proposals.
- Meetings with businesses.
- Presenting at Council meetings etc.
- The completion of Healthy Streets Audits for the villages. This can help engagement in the wider issues.
- Consultation meetings or events outside the immediate area, such as linking up with activities and events in Ely or Sutton.

11. Key stakeholder engagement

All key stakeholders should be engaged at this stage. This can be informal discussions that can give an indication of likely acceptance of the scheme and likely issues that will need to be examined more carefully at Detailed Design.

Key Stakeholders might include:

- Haddenham Parish Council
- Wilburton Parish Council
- Witchford Parish Council
- Wentworth Parish Council
- Lancaster Way Business Park
- Local Public Rights of Way Team
- Greater Cambridge Partnership
- Cambridgeshire County Council
- Combined Authority
- British Horse Society
- Ely Cycling Campaign
- Natural England
- Disability Groups

12. Legal Agreements, Planning Application and other Approvals

All of 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 landowner. 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 in discussions between East Cambridgeshire District Council and Cambridgeshire County Council and budgets will need to be provided. 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 such as farm operations. For instance where a path follows a ditch or drain, space may need to be left to allow access for clearing the drain, without damaging the path. It is to be expected that many landowners will require new fences or hedges to demarcate boundaries and maintenance of these will need to be agreed. Where there are hedges or fences there should be a space of at least 1m between the edge of the hedge or fence and the path edge, so the minimum width required for any new route is likely to be 5-6m. Where there are new ramps they will

require significantly more space and may also need land, where material can be dug to form earthwork ramps. Ecology requirements and the need to protect trees may also increase the width required and, if horses are to be allowed for, an even greater width will be needed. 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.

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 the relevant local Authority to understand the issues that might come with an application and to inform the work likely to be needed at the Detailed Design stage.

Cambridgeshire County Council will need to be closely involved in discussions about highways matters including rights of way, road crossings, re-allocation of roadspace and changes to traffic flows.

An important part of the planning process is the consideration of options that this study forms part of and it will be important that there is further community engagement to help the planning process.

Problems likely to arise

The planning process can be slow, but the lengthiest process may be in obtaining the necessary ecology consents that will be a requirement of any planning application, so these processes should start as soon as possible in the design stage and should not be left until the end.

For the planning process there may be objections to new paths, but with good design and community engagement this should not be a barrier to planning approval.

13. 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.

Within Witchford

- Traffic calming throughout the village will need to be done in stages with traffic management and site facilities moving as works progress. Any bus gate and road closures can help with the traffic management.
- The proposed cycleway near Witchford Village College should ideally be built in school holidays.

For Option 4 at least three site compounds are likely to be needed:

- For construction of the route between Haddenham and Wilburton the best location is likely to be a compound that can be accessed off the A1123 at the Haddenham end of the route.
- For the byway north of Haddenham and for the path following Station Road the best location for a compound is likely to be near the point where the byway meets Station Road. This location can serve as a works base for the Station Road/ Pools Road junction works, but a closer location may be preferred.

- For the route along Pools Road and along the byway between Pools Road and Sutton Road a compound at the Pools Road end is likely to be the best option.

Major maintenance works will need similar compounds but the most regular maintenance need is likely to be hedge cutting and vegetation management, which can be done from the path. Access for maintenance will need to be allowed for in the design.

14. Cost estimates

Options 1 to 5

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.

For the field edge path construction the major issues are the users of the path, with the need for much more substantial construction for farm vehicles than for people on foot or cycles and also the engineering complexities, which are unclear at present. For the byways it will have to be assumed that farm traffic will need access.

Item	Item description	Unit	Low cost per unit	High cost per unit	Quantity	Low total cost	High total cost	Notes
Option 1	7km new path	Linear m	£170	£230	7000	£1.2 million	£1.6 million	Includes significant parts of Sutton-Witchford route.
Option 1	Signalled crossings	Item	£100,000	£150,000	2	£200,000	£300,000	Needed in any case for Sutton-Witchford route.
Option 1	Extra Haddenham works	Item	£300,000	£600,000	1	£300,000	£600,000	Additional traffic calming, junction changes on A1421 not detailed but allow for this. Not LTN 1/20 compliant though.
Option 1	Total					£1.7million	£2.2million	Not LTN1/20 compliant in Haddenham, but would benefit Sutton-Witchford route.
Option 2	4.7km new path	Linear m	£170	£230	4700	£800,000	£1.1 million	Includes parts of Sutton-Witchford route.
Option 2	Signalled crossings	Item	£100,000	£150,000	1	£200,000	£300,000	Needed in any case for Sutton-Witchford route.
Option 2	Extra Haddenham & Wentworth works	Item	£400,000	£750,000	1	£400,000	£750,000	Additional traffic calming, junction changes on A1421 not detailed but allow for this. Road closure on Ely Road. Not LTN 1/20 compliant in Haddenham though.
Option 2	Total					£1.4 million	£2.2 million	Not LTN1/20 compliant, in Haddenham, but would benefit Sutton-Witchford route.
Options 3 & 4*	6.7km new path	Linear m	£170	£230	6700	£1,140,000	£1,540,000	Option 4* with field edge path besides Pools Road same length as Option 3.
Options 3 & 4*	Signalled junction Pools Road/ Station Road.	Item	£100,000	£200,000	1	£100,000	£200,000	Existing services uncertain – remote location. Option 4* without Pools Road closure needs same crossing as Option 3.
Options 3 & 4*	Total					£1.2 million	£1.7 million	Option 4 with path besides Pools Road, same cost-wise as Option 3.
Option 4	5.8km new path	Linear m	£170	£230	5800	£990,000	£1,330,000	Includes road closure of Pools Road.
Option 4	Road closure	Item	£10,000	£20,000	1	£10,000	£20,000	Gates and legal orders. No signalled junction.
Option 4	Total					£1 million	£1.4million	With road closure of Pools Road.
Option 5	5.9km new path	Linear m	£170	£230	5900	£1,000,000	£1,360,000	Includes road closure of Pools Road.
Option 5	Road closure	Item	£10,000	£20,000	1	£10,000	£20,000	Gates and legal orders. No signalled junction.
Option 5	Total					£1 million	£1.4million	With road closure of Pools Road.

Village Costs

(Applies to all options)

The costs of works in the villages are high and will be disruptive, but will be hugely beneficial in terms of the walking and cycling environment. These works would be a valuable investment in the local communities and are needed for all options and even if none of the options are completed.

The cost of upgrading the link from the edge of Witchford to the Business Park at the A142 has been included since this is referred to in the report. This would be valuable for access to employment, but may be better considered as part of an upgrade of the whole route to/from Ely.

Item	Item description	Unit	Low cost per unit	High cost per unit	Quantity	Low total cost	High total cost	Notes
Witchford 20 mph	Raised tables or similar	Item	£15,000	£30,000	30	£450,000	£900,000	Assumed one per 100m over 3km. Needs detailed design.
Witchford Bus Gate and road closures	Segregated cycleway.	Item	£50,000	£100,000	150	£50,000	£100,000	Services unknown. County Council requirements unknown. Needs detailed survey.
Village College Cycleway	Segregated cycleway	Linear m	£170	£250	400	£68,000	£100,000	Verge and Common path. Assumes no major roadworks.
Witchford	Combined	Total				£568,000	£1.1million	Needs detailed design to get more accurate costing.
Cycleway Witchford to A142 toucan	New cycleway	Linear m	£170	£230	800	£136,000	£184,000	Considerable increase for bus gate if required.
Footway Witchford to A142 toucan	Reallocation of roadspace new footway.	Linear m	£170	£230	550	£93,500	£126,500	Assumes carriageway edge to be converted to footway.
Parallel crossings	Crossings and junction changes	Item	£75,000	£150,000	3	£225,000	£450,000	Design to be done, but assuming parallel crossings can be achieved, along with kerb realignments.
Upgrade paths Witchford to A142 toucan.	Combined	Total				£455,000	£761,000	Needs detailed design to get more accurate costing.
Haddenham Wilburton 20 mph	Raised tables or similar	Item	£15,000	£30,000	20	£300,000	£600,000	Assumed one per 100m over 2km. Needs detailed design.
Recreation Ground Cycleway	Segregated cycleway	Linear m	£170	£230	400	£68,000	£92,000	Verge and Common path. Assumes no major roadworks.
Parallel crossings	Crossings	Item	£75,000	£150,000	2	£150,000	£300,000	Design to be done, but assuming parallel crossings can be achieved, along with kerb realignments.
Haddenham & Wiburton	Combined	Total				£518,000	£992,000	Needs detailed design to get more accurate costing.
All above	Combined	Total				£1.5 million	£2.9 million	Needs detailed design to get more accurate costing.

15. Business case and policy match

An AMAT (Active Mode Appraisal Toolkit May 2019 version) analysis has been done using various scenarios and data from the Propensity to Cycle Tool as referenced in Chapter 7. The Go Dutch scenario assumed high quality infrastructure everywhere and given the difficulties of achieving this on the main roads in Haddenham and Wilburton the figures from the Propensity to Cycle Tool were reduced.

Realistically the only Option that it makes sense to progress at the moment is Option 4 and this has a possible slight variation within it depending on what happens to Pools Road. The option of closing Pools Road is unlikely to have a significant impact on usage but would reduce costs and hence would have a higher BCR.

The section of route between Witchford and the A142 toucan crossing that has been considered in this study has not been included in this analysis because it fits better within an upgrade of the whole route between Witchford and Ely City centre, which will have high costs and large potential usage if done to a high standard.

The appraisal shows that the greatest benefits will come from changes within the villages, where the population density is greatest and where there is greatest potential for usage. Nevertheless the rural routes have clear benefits and the BCR increases as costs reduce. This reduction in costs must however not be linked to a reduction in standards or usage will drop and the BCR will decrease.

Item	Item description	Capital	Annual maintenance	Usage change	Notes on usage	AMAT BCR
Option 4 Edge of Haddenham to edge Sutton Road, Witchford.	New paths following public footpath, field edges and byways. High Cost with Pools Road path.	£1,700,000	£85,000	12 before	Based on Propensity to cycle 2011 census figures with assumption of journeys to work approx. 50% of trips. Cross checking with potential school trips from tool.	1.1
				200 after		
	New paths following public footpath, field edges and byways. Low Cost with Pools Road path.	£1,200,000	£60,000	12 before	Based on Propensity to cycle 2011 census figures with assumption of journeys to work approx. 50% of trips. Cross checking with potential school trips from tool.	1.56
				200 after		
	New paths following public footpath, field edges and byways. High Cost with Pools Road closure.	£1,400,000	£70,000	12 before	Based on Propensity to cycle 2011 census figures with assumption of journeys to work approx. 50% of trips. Cross checking with potential school trips from tool.	1.34
				200 after		
	New paths following public footpath, field edges and byways. Low Cost with Pools Road closure.	£1,000,000	£50,000	12 before	Based on Propensity to cycle 2011 census figures with assumption of journeys to work approx. 50% of trips. Cross checking with potential school trips from tool.	1.87
				200 after		
Witchford	Whole village scheme as outlined high cost	£1,100,000	£55,000	215 before	Based on Propensity to cycle 2011 census figures with assumption of journeys to work approx. 20% of trips. Cross checking with potential school trips from tool.	3.43
				600 after		
	Whole village scheme as outlined low cost	£568,000	£28,000	215 before	Based on Propensity to cycle 2011 census figures with assumption of journeys to work approx. 20% of trips. Cross checking with potential school trips from tool.	5.37
				600 after		
Haddenham and Wilburton	Traffic calming, crossings in Haddenham and Park cycleway in Haddenham.	£992,000	£49,000	12 before	Based on Propensity to cycle 2011 census figures with assumption of journeys to work approx. 50% of trips. Cross checking with potential school trips from tool.	1.91
				200 after		
	Traffic calming, crossings in Haddenham and Park cycleway in Haddenham.	£568,000	£28,000	12 before	Based on Propensity to cycle 2011 census figures with assumption of journeys to work approx. 50% of trips. Cross checking with potential school trips from tool.	3.68
				200 after		

16. CDM and Design Risk

At this early stage of the project construction is likely to be some way off but the Client and Designer have responsibilities to minimise risk even at this early stage.

The Construction Design and Management Regulations (2015) assign duties to the Client and to the Designer and at this stage East Cambridgeshire District Council is the Client and Sustrans is the designer.

As the project progresses the Client will need to appoint a team to deliver the project in accordance with the Regulations and that will mean allowing sufficient time for the project and giving top priority to health and safety.

In considering the options Sustrans has sought to minimise risk, at this stage, but this will need to be an ongoing process taken on by the future project team and led by the Client.

Designer	Sustrans	
Client	East Cambridgeshire D.C.	
Author	NB (Sustrans)	
Date	20/01/22	
Risk ID number	Description	Response
1	All construction works carry risk. Is work necessary?	Clear need for new facilities, because existing do not comply with standards such as LTN 1/20 and surfaces of byways are poor.
2.	Works on slopes near Grunty Fen Catchwater (Drain).	This would be an attractive route but that needs to be balanced against the additional health and safety risks of working near a watercourse.
3.	Works near roads carry risks.	Road closures and traffic management will be needed in the villages, but between villages the recommendation is to avoid the major roads. If the link between Witchford and the A142 is to be upgraded the route can use the existing A142 crossing, so minimising work right next to the A142.
4.	Works in rural areas carry risks, including waterways and 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.	As expected these are mostly significant in the villages, but an Intermediate Pressure Gas Main that follows the A 142 and enters Lancaster Way will need to be allowed for. All excavations carry risks and utilities will need to be checked at all stages of design and construction.
6.	Inadequate provision made for site compounds and facilities.	Early consideration has been given to this and it needs to be a key task as part of land negotiations.
7.	CDM needs to be considered in choosing preferred options.	At the moment there do not appear to be any particularly unusual risks associated with Option 4.
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.

17. RAG Report

Project title	Haddenham to A142 Study	Date RAG report initiated	12/01/22	Project Manager	AA	
Client	East Cambridgeshire D.C.	Date of current edition	11/04/22	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	12/01/22		Skilful negotiations with landowner or use of statutory powers. Need to allow plenty of time for this.	
2	Traffic calming measures with speed limit changes not agreed so route not LTN 1/20 compliant in Witchford.	ECDC / CCC	12/01/22		High level of community engagement needed to come up with solutions.	
3	Route uses byways and public footpaths and County Council agreement not obtained for works.	ECDC / CCC	12/01/22		High level of community engagement and engagement with all users needed to come up with solutions.	
4.	Road closures or bus gates cannot be agreed.	ECDC/CCC	12/01/22		Off road alternative is available, for Pools Road and various options for Witchford. Pools Road alternative needs landowners' agreement. Need to make clear case and understand issues for Witchford.	
5	Commons Consent not agreed for route to Witchford Village College.	ECDC	12/01/22		Undergo early consultation to understand and address issues and if necessary come up with alternatives.	
6.	Failure to get agreement for Parallel crossings and traffic calming in Haddenham so route not LTN 1/20 compliant.	ECDC/CCC	12/01/22		High level of community engagement needed to come up with solutions.	
7.	Use of Park/ Recreation Ground in Haddenham not agreed.	ECDC / CCC	12/01/22		Seek to overcome objections. Consider alternatives further including reallocation of road space.	
8	Route not supported in Haddenham because of difficulty accessing it for some residents (due to traffic levels).	ECDC/CCC	12/01/22		Need to clearly explain the limitations of what can be achieved in Haddenham and Wilburton.	
9	Existing A142 route upgrade not agreed.	ECDC/CCC	12/01/22		Need to clearly explain the need for change and that this can be a longer term aim, which will be essential if usage is to be increased.	
9.	Maintenance plan cannot be agreed.	ECDC/CCC	12/01/22		Needs to be agreed and required standards set at an early stage.	
10.	Funding not obtained.	ECDC	12/01/22		Ensure scheme is to LTN 1/20 standards, has good BCR and has all necessary consents, to improve chances of funding.	
11.	Planning consents not obtained.	ECDC	11/04/22		Undertake pre-app discussions and ensure all issues addressed, including following and implementing recommendations of ecology study.	