## **Feasibility Study**

An all-weather walking and cycle route between Wicken and Soham

November 2013

And

Update Report October 2021





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#### 1 Background

#### 1.1 Sustrans and the study brief

For the last 30 years Sustrans has been demonstrating the benefits of active travel to people's health and to the environment. Within the range of practical projects that have made a real difference to the travel choices available for everyday journeys is the National Cycle Network which now extends to more than 13,000 miles of cycle / pedestrian route comprising traffic-free sections, minor roads and roads with cycle lanes or traffic calming measures.

This feasibility study has been commissioned by Wicken Parish Council and Soham Town Council. It is their ambition that a high quality cycle and pedestrian route between their communities, in combination with other future developments will greatly increase the quality of life of their residents and benefit the local economy. They have also asked for a study of the work required to upgrade for cycle use the footpath which runs between Cross Green and the National Cycle Network at Monk's Lode, to make a more direct route between Wicken and Burwell.

A direct and easily usable all-weather cycle route would give Soham residents and visitors a healthy and non-polluting way to reach the leisure and educational opportunities of Wicken Fen and beyond. Importantly it would also enable the people of Wicken to travel pleasurably and sustainably to the growing professional, medical, commercial and educational services of their market town.

## 1.2 Policy background - the lack of active travel opportunities in rural areas

Over the last 50 years the proportion of people's journeys made on foot or bicycle has diminished as motor vehicle ownership has risen, and motor use has been made easier by the construction of wider, faster roads. This has led to it becoming less easy to walk or cycle for everyday or leisure journeys as roads become less safe. With the intention of attracting people back to walking and cycling (to combat increasing carbon emissions and environmental damage, and to promote personal health and equality, transport and health policies, nationally and locally have for a long time expressed the need to raise levels of walking and cycling. This has been seen to be successful, but only in those few areas where funding has yet been made available to achieve it.

#### Policy – County level:

The County Council is the highway authority, responsible for the network of roads and rights of way. Cambridgeshire's Third Local Transport Plan (LTP3) Policies and Strategies is a discursive document – while containing many references to the benefits of walking and cycling to health, air quality, carbon reduction and quality of life it makes few specific commitments.

In brief one might refer to page 4-2 of LTP3, where **Figure 4.1. Summary of the LTP strategy** is a table of the challenges the County Council has set itself, and the actions it will take to overcome them. Under "Challenge 3: Making sustainable modes of transport a viable and attractive alternative to the private car" the County's first action is: "Make sustainable modes of transport more attractive by developing walking and cycling networks".

In a more elaborate part of LTP3 the Council identifies barriers to be overcome. Among these (page 4-25) is the "Lack of direct walking/cycling routes between homes and services/leisure facilities" and the "Lack of... segregated inter-urban cycle routes".

The Council is consistent in expressing the need for rural walking and cycle routes, and most rural parish councils will be able to confirm that this deficiency is seriously suppressing demand for active travel in Cambridgeshire.

#### Policy - district level:

The District Council of East Cambridgeshire is the local planning authority, responsible for buildings and economic development. Its proposed Local Plan was submitted to national government in August 2013. It contains relevant references to cycling and walking as follows:

P14, A spatial vision for East Cambridgeshire: "Better cycling and pedestrian facilities and links will be provided, including segregated cycle routes along key routes linking towns and villages."

P14, Strategic Objective 8. Provide greater opportunities to reduce car use,... by supporting improvements in public transport and walking/cycling networks.

P14, Strategic Objective 10 is also relevant, given the proposed route's link between a future Soham station and Wicken: "Support the expansion of the tourist economy..."

P15: The Council...intends to maintain on-going dialogue with Parish Councils about local needs and priorities.

P25: Policy GROWTH 3: Infrastructure requirements: Transport - Improvements to pedestrian and cycle networks within settlements and between settlements.

Pp56,57: Policy EMP 7: Tourist facilities and visitor attractions: ...proposals will be supported... where... The proposal maximises opportunities for sustainable travel including walking, cycling and public transport. [This suggests a possible source of funding if development proposals occur near Mill Lane, Soham or in Wicken.]

P93: under 7.6 Strategic Infrastructure – paras 7.6.1 and 2 identify the opportunity for walking and cycling to and within strategic area projects, highlighting the Wicken Fen Vision as one such project. P96: under Policy COM7 Transport Impact [of new development]: "Development proposals shall...b. Provide a comprehensive network of routes giving priority for walking and cycling."

#### Policy – local level:

Within East Cambridgeshire's pre-submission Local Plan is a vision for each community. For Wicken (p343), the National Trust's Wicken Vision project is recognised, and the need for a cycle path to Soham is one of seven prioritised community ambitions. The vision for Soham identifies nine strategic priorities, including improvements to the town centre, development concentrated in the central area, the re-opening of a railway station and the protection and enhancement of green networks. of (p2, is Policy SOHAM 11: Green lanes and Commons, elaborated in policy SOH11, Green lanes and Commons, including the retention and improvement of rights of way.

#### 1.3 Soham, Wicken and the study area

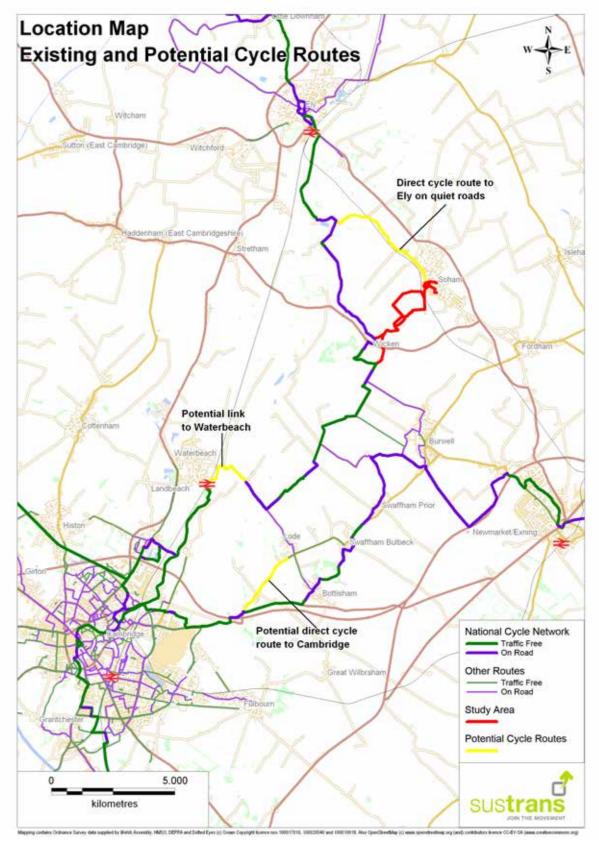


Figure 1: Soham and Wicken in relation to Cambridge and Ely, showing road, rail and cycle route

Soham (population 10,860) is an attractive small market town which has grown in recent years and whose aspiration to grow further, with a full range of services and a rail station, is expressed in the ambitious Soham Master Plan.

Wicken (population 839) is a picturesque village traditionally dependent on Soham as its market and service centre and for secondary education. Wicken, however, has an international claim to fame and the potential to become a very important ecological visitor attraction through Wicken Fen National Nature Reserve, owned and managed by the National Trust. The Trust have a long term plan for Wicken Fen's expansion, and have recently, in partnership with Sustrans, local communities and the county council, opened a cycle route through the intended area of expansion, another National Trust property, and onward to Cambridge.

#### 2 The current problem



The road route, looking west. Wide views, but very challenging to walk or cycle. Wicken is two miles distant, beyond the trees, far right.

**By road:** Soham and Wicken grew as a small farming community and a market town, situated on raised ground surrounded by seasonally flooded fens. Soham Mere, a fen not fully drained until the late 19<sup>th</sup> century, lies between them. Though the character of the fens has changed with drainage, the roads of the area still follow the old routes along ridges of high land, where these exist. Thus while Soham and Wicken are only 3.5 km apart the distance by road is 7 km (with a possible saving of 0.8 km via Orchard Row), and the road remains the only reliably smooth and dry route between them. With upgrades to its surface and alignment over recent years it has become increasingly busy and fast however, and is no longer advisable on foot or bicycle.

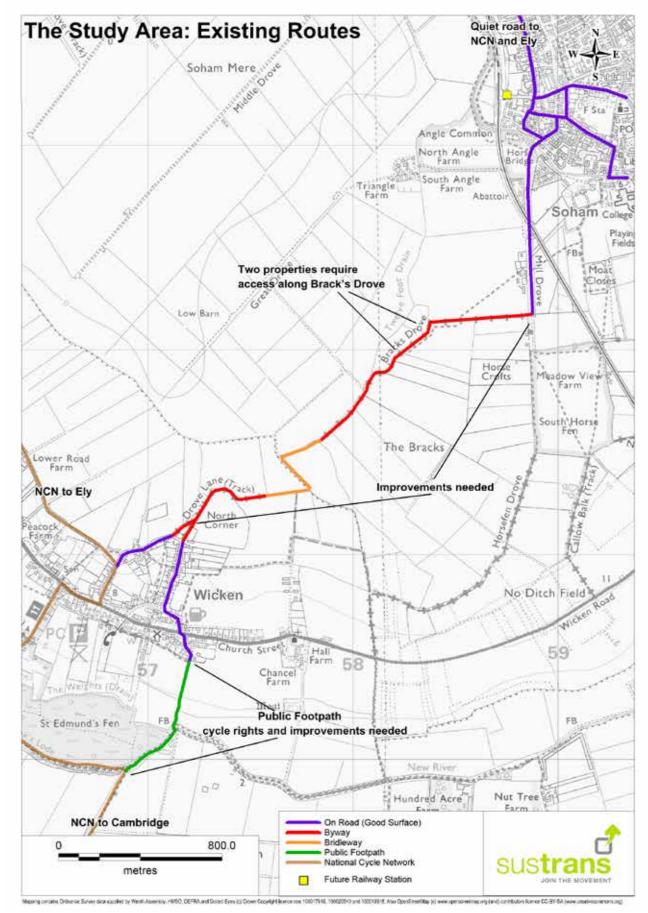


Figure 2: Byway, bridleway or footpath rights, but inadequate surfaces

By public rights of way: It is likely that people have always walked between Wicken and Soham by more direct routes. The only such route used today leaves each community following old field access droves, Drove Lane in Wicken and Brack's Drove in Soham. These were linked across the parish boundary by a public footpath, recently diverted and upgraded to public bridleway. The droves are public byway, which allows public access using motor vehicles, though each is a dead end with no turning space provided, and the field they serve (farmers normally use their own routes now) are private land. The whole route is relatively direct (4.3 km between community centres) and its status allows people to make the journey between Soham and Wicken on foot, horseback or bicycle.

Some parts of this existing byway/ bridleway route have a reasonably good surface: in particular a short length of Drove Lane which has a hardened surface to and a little beyond the pumping station, and the bridleway link, from which motor vehicles, other than occasional farm, ditch and hedge maintenance use are prohibited and excluded by low metal barriers. However, the bridleway and the remainder of the byways are unhardened grass tracks. When wet the bridleway is soft and difficult to cycle and Brack's Drove is mostly muddy, puddled, deeply rutted in many places and as a through route effectively impassable on foot or bicycle. When dry all parts of the route are too bumpy to cycle in comfort, the rutted parts are hard and dangerous, and their grassy sides conceal an unpredictable surface.



Photograph. Bridleway, 12/1/2013. Showing vehicle access from the right to clean ditch out of view, left. Recently planted hedge on left, self-set thicket in ditch, right.



Photograph. Bridleway 12/1/2013, showing gate into Mill Drove byway, where surface becomes deeply rutted and puddled approaching Mill Road. Self-set thicket has spread from the ditches, narrowing the byway.



Photograph. Close up, same place on 6/5/2013. The low gates restricting access to the bridleway section have no bypass, forcing a cycle dismount. An old footbridge is hidden within the thicket beyond the signpost.



Photograph. Mill Drove byway, 6/5/2013, looking towards Mill Drove. January's ruts have dried hard.

The road can be eliminated as a route for improvement for cyclists, its length being against it both because of the difficulty and expense of finding land alongside it to provide an off-road path, and because a direct route will always be the preference of the walker or cyclist.

The byway/ bridleway route and possible alternatives to it on a relatively direct line between Soham and Wicken are therefore the subject of this study, which focuses on the causes of the poor surface, ways of improving it and their short and long term cost.

#### 2.1 Description of the byway/ bridleway route

The byway/ bridleway route is on a clay surface which generally shows little or no sign of having been hardened to improve its resistance to the pressure of vehicle wheels or its drainage. The byway sections are open to the public using any means of access, including motor vehicles. The bridleway section is open to the public only on foot (or vehicles such as mobility scooters, child buggies), bicycle, or horseback. Here it is described as from Wicken to Soham. Widths are approximate.

Within Wicken parish some 500 metres of byway, beyond a pumping station, would need improvement. None of the byway has a registered owner, though all but a very small parcel of the adjacent land is registered. Its width is variable, about 8 metres between ditches which have not been cleaned for many years from the byway's side. Thicket of various species including blackthorn and hawthorn have therefore invaded the ditches and spread into the byway itself, narrowing the available width in some places to as little as 2.5metres. There is occasional landrover access for land inspections, and probably a little recreational 4x4 access, though there is no turning point at its end. The surface is rough and tolerable only for adventurous leisure or all-terrain cycling when dry.

The bridleway is some 600 metres in length. At each end a low-level locked gate (some 300mm above the surface) prevents access from the byways by motor vehicle access, but allows horses and pedestrians to step over. Cycles (and any pedestrian vehicles, buggies etc) must be lifted over the gates, as there is no bypass. For most of its length the bridleway is a recent creation along field boundaries, replacing a somewhat more direct cross-field footpath. It partly runs along the Soham side of the parish boundary ditch, where it makes sharp changes of direction. The bridleway is about 6 metres wide, and soft after wet weather. It is registered to the owner of the adjacent fields, who has right of access, eg for maintenance of the recently planted hedges (one side only). We understand that ditch cleaning should be done from the field side, and slubbings deposited on that side, to keep the bridleway surface clean. From the bridleway's second sharp turn, to eastward, it has the Twelve Foot Drain on its left (northern) side and a hedge on the right. Girders across the drain indicate a former bridge onto County Farms land. The Twelve Foot Drain, maintained by the Middle Mere Internal Drainage Board, forms the northern edge of the bridleway, and then the byway, for some 600 metres.

The character of the 1.3 km of Brack's Drove (byway) is variable. At its southern end its surface condition is similar to the bridleway, mostly level, rather bumpy or soft to walk or cycle, depending on previous weather. It is however thicketed on both sides. This narrows its available width from the 8 to 10 metres between the hidden ditches to little more than 2.5 metres. The byway is crossed by a County Farms concrete field road (gated) shortly before it turns right, away from the Twelve Foot Drain, after which farm ditches (hidden except at a few field entrances) define its width. Two privately owned small fields (at present uncultivated) lie along the northwestern side of the drove over a distance of some 400 metres, before the drove turns sharply to the east, and runs in a straight line to join Mill Drove, a tarmac public road which runs northwards to Soham. Whereas other fields alongside the drove are now aggregated into larger landholdings and normally accessed by private field tracks the only access to these two fields, individually owned, is along the drove. The drove's surface condition is poor alongside these two fields, with ruts and occasional deep pits which fill

with water after rain, and along much of its straight run to Mill Drove it is very bad indeed, showing multiple deep ruts, baked hard when dry, soft and puddled after rain.

#### 2.2 Flood risk

Below is an extract from the Environment Agency's on-line Flood Map, which shows that there is a 1% risk of flooding of the route in any year, over an area which coincides with its middle, bridleway section. One might therefore expect this section to be in the worst condition of the route, but this is not the case, because it is only overrun by occasional maintenance vehicles.



Map of Flood Risk - Land between Soham and Wicken (source EA website, 27 Feb 2013)

#### 2.3 What causes the route's poor surface quality?

The soil seems to be mainly heavy clay, whose character changes dramatically according to its wetness. After rain or melted snow it becomes soft and waterlogged, then hard in times of drought. If during the wet periods the clay has become indented or rutted by equestrian or motor vehicle use it will dry not merely hard, but uneven.

This effect is seen to some degree throughout the byway/ bridleway route, and is very conspicuously at its worst in the all of the 500 metres straight section of Brack's Drove which leads off Mill Drove, Soham. We visited this section at its wet worst, in January 2013, when with bicycles we were forced to walk, picking our way most uncomfortably on the ridges between ruts whose depth beneath muddy water could not be seen, and running our cycle wheels wherever we could. A photo of its wettest, western end, four months later and dried hard, should illustrate the difficulty of walking or cycling this part of the route at all times. It was taken on very fine bank holiday Monday, when several walkers and cyclists were using it, many cyclists preferring to walk on the worst sections.

We have visited the byway/ bridleway route on perhaps a dozen occasions during the past few years, and have yet to see it being used by horse or motor vehicle. Indeed it was only on the bank holiday that we have met more than literally one or two users, and these always pedestrians.

By report there are not many horse riders who use it, and we have seen little clear evidence of hoofprints. However, the small manege at its Wicken end indicates that it is likely to be of value to

local equestrians, perhaps as part of a 4.5 km circular bridleway route which includes South Horse Fen and Horse Fen Drove.

The most obvious cause of damage to the route's surface, evident in ruts and cleated tyre prints, is 4x4 motor vehicle use, at present all or mostly leisure use, since it is evident that the two fields whose only access is along Brack's Drove are at present not in regular use. There are no proper turning points along Brack's Drove, though turning space exists at the western end of its first, straight length from Mill Drove. The greatest damage is on this length, though lesser damage and some deep pits exist beyond it, where vehicle must be turning by use of the field entrances.

Arguably, a contributory factor to the route's wetness is the thicket spreading across it from the uncleaned ditches, reducing the movement of air and the sunlight which might dry it more quickly.

Thus although the route is clearly acceptable when reasonably dry for adventurous, leisure walking and cycling its condition means it cannot at present serve as an everyday route for walkers and cyclists between Soham and Wicken. We now consider the actions which might be taken to open it for such everyday use.

#### 3 Possible Solutions

## 3.1 The responsibility for maintaining the surface of public bridleways and byways

For public roads, and for rights of way which are not on farmland, the highway authority is responsible for the maintenance of the surface, the landowner for the removal of overhanging vegetation. The county's Rights of Way staff state that significant surface damage caused by a particular user should be put right by or at the expense of that user. The bridleway and adjacent fields are owned by Roger Turner, the byways are unregistered. De facto, it appears that since people causing damage to the byway's surface cannot be identified, and because the byway has no registered owner, all the cost of maintenance falls to the county council. The ditches which define the edges of both byways have not been fully inspected, but appear generally to have been partially cleaned on their field sides and to have mostly bushy vegetation on the byway side, which has spread a considerable distance across the byway's surface, leaving in places only some 2.5 metres clear width along the byway.

## 3.2 Actions which might improve conditions for cycling along Brack's Drove and Drove Lane

Construction imperatives: A cycle and pedestrian path needs to be smooth and if it is likely to have to resist the pressure or impact of motor vehicle wheels or horses' hoofs it must be of strong construction. To be usable in all weather conditions and to resist encroachment by vegetation it should be sealed, preferably tarmac, and its base must be laid over geotextile to resist penetration from beneath by roots. A tarmac construction should preferably be machine laid, to avoid undulations. Tarmac construction is likely to be more expensive than unsealed stone, but it will prove considerably cheaper to maintain. The unsealed Breedon Gravel used by Wicken Fen, chosen for aesthetic reasons, is as costly as tarmac and is gradually encroached by grass etc.

Conflict between all-weather path and motor vehicle use: The wheels of motor vehicles on the clay surface of the byways dig in, causing ruts and pits when the surface is wet. They will also cause damage to a smooth all-weather surface if it is not constructed robustly enough, ie with a deep, well

consolidated stone base course. If there is a soft surface adjacent to an all-weather surface the smooth surface will become muddy and less attractive to walkers and cyclist. It is important to avoid the risk of damage to an all-weather surface which is bound to be expensive to instal, and very desirable to avoid its becoming muddy. Thus it would be desirable to reduce or exclude motor vehicles from the surface if possible, which might be by restricting use of the byway, or perhaps by designing a segregated route, with path users on one side, motors and equestrians on the other.

**Segregation of user types:** It might be worth considering the feasibility of segregating the all-weather route from the byway traffic, requesting or requiring users other than pedestrians and cyclists not to use the sealed path, which might be separated from the rest by low bollards. Below is an example of a rural cycle path in a quiet area east of Groningen in the Netherlands. The left hand photo shows the entrance to the path from a rural road, the sign identifying it as cycle path, the other is its continuation, showing bollards some 15 metres apart. The grass track is a farm access to adjacent fields, perhaps hardened. The width of the concrete cycle path is about 1 metre and the combined route is some 8 metres between ditches, very similar to the Wicken and Soham byways, were their spreading thicket to be removed.





It is uncertain whether legally a byway could be segregated by user type, since the whole width is byway, including the parts obstructed by thicket. Segregation would thus require the advice of the county RoW team. The request for motor vehicle users to avoid damaging a high-quality path created on one side would seem extremely reasonable. It would be wise, however, to ensure that the path was robustly constructed, in case some motor users chose to stray onto the path.

Restriction of motor use: Some byways in Cambridgeshire and elsewhere have been closed to 4x4 and motorcycle users by traffic regulation order, on the evidence that they have caused damage which is an inconvenience to local people. They are normally gated and locked, keys held by adjacent landowners who require access. In Cambridgeshire before 2000 byways were restricted on a year-round basis, and since then normally from October until the end of April or May. The full list of restricted byways in Cambridgeshire, most of which are enforced by a locked gate with provision for non-motor access, can be downloaded here, where there is the observation: "By comparison with some other areas, there are currently very few Restricted Byways in Cambridgeshire". The list shows no other restricted rights of way in Wicken or Soham. The case for such a restriction on Drove Lane and Brack's Drove seems compelling, in the light of their current condition and the parish and town councils' ambition for an all-weather cycle route. The county's countryside team have suggested that they might prefer some sort of stepwise approach to reducing leisure motor vehicle use, before legal restriction.

Another, perhaps more effective method of closing a byway to motor traffic, might be to reduce its status to public bridleway. In Wicken parish in 1989 Shaw's Drove and Fodder Fen Drove between

Dimmock's Cote Road and Padney Road (a Road Used as a Public Path, RUPP, a now-defunct category) were downgraded to public bridleway after representations from the farmer. However they were not gated and remain in poor condition. Reducing category to bridleway is not an option the Rights of Way team are considering at present, we understand.

Necessary motorised use of the byways: Even if the byways could be closed (seasonally or all year) to motor vehicles or downgraded to bridleway there are two small fields lying between Brack's Drove and the Twelve Foot Drain for which the drove would remain the only access. Their owners live in Burwell and Little Downham, and at present are not using the land. It has been suggested that since County Farms own all the land to the north and west of Twelve Foot Drain it might prove feasible for them to agree a land exchange with the current owners. Thus the owners might receive a parcel of land in an acceptable location and transfer their fields to County Farms, who could make access directly from their existing holdings. This has been done elsewhere, we understand, but of course would depend on many imponderables. One of the two owners has expressed lively interest in this possibility.

It may be worth noting at this point that although The Twelve Foot Drain, like all IDB drains, ought to be slubbed alternately from either side, at present, because the two fields have access only along Brack's Drove, the slubbing of this section of the drain (including where is runs alongside the thicketed length of Brack's Drove) is being carried out entirely from County Farms land. (See photo, 3.3.2 below)

The remainder of the farmland adjacent to the study route is in use, with access directly from the various farm bases using field tracks, and not on the byway, which is unsuitable for most of the wide and heavy vehicles used these days. It would probably be difficult however for them to give up their right to use the byways if an unusual need should arise. One farmer adjacent to the Wicken byway has stated that he needs land-rover access along it to inspect this land, and that if his current arrangement to use another owner's land for heavier access should unexpectedly end he would need to use the byway for heavier traffic. Twice-yearly access by tractor to mow and to cut back the side growth would also continue to be necessary.

#### Reduction of motorised use – conclusions:

It seems evident that most of the damage to the surfaces of the Drove Lane and Brack's Drove dead-end byways is caused by recreational 4x4 and motorcycle users, and that excluding them year-round would be the most effective way of protecting a necessarily expensive all-weather surface along the route. It seems evident however that motor use for farm purposes could not be excluded – it is slight at present, but that situation might change. Access for surface and side vegetation maintenance would have to continue, hopefully using the lightest possible vehicles. We shall therefore consider possible one-surface and segregated use (in combination with restrictions on motor use), as well as the possible use of adjacent land for parts of the route.

#### 3.3 Proposed construction methods on the byway/bridleway route

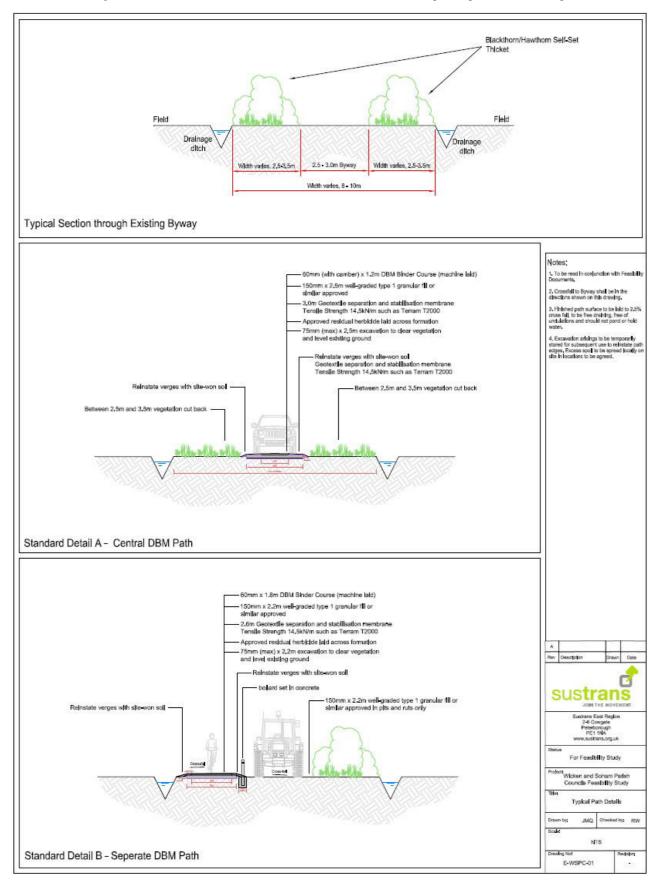


Figure 4. Typical section of Brack's Drove, existing and with proposed path, options A and B

Any construction on the existing public route will require the consent of the County Council's Countryside Team, as highway authority and of the landowner where known. Though both designs shown above assume a limited use of the route by light agricultural traffic, it would be most desirable to restrict or eliminate public 4x4 use of the cul-de-sac byways with the cooperation of the Countryside Team.

We have mentioned the possibility of a land exchange of the two small fields, with the help of County Farms, who could then access them from their existing Soham Mere holdings. We recommend that this should be explored, although its success seems rather uncertain. Thus it may well be that the field owners will continue to need light (and potentially heavy) vehicle access along some 500 metres of Brack's Drove. Because of this, and of the current uncertainty of being able to reduce or eliminate public 4x4 access along the drove, we recommend exploring the possible diversion of public foopath 114 and its surfacing and use as an all-weather cycle route to avoid potential damage caused by access to the fields. This will require the consent of the Countryside Team and of the landowner, and we suggest (as a means of public consultation) a planning application.

It is likely that the byways historically were relatively free of bushes, trees and hedges, like the photo of a similar present-day route in the Netherlands, see photos in 3.2 above. The Google Earth historic 1940's view covers Wicken village, but not the study route – it would be interesting to estimate the former vegetation shown on other old images of the route. We believe there is much to be said for the removal, from one side, of the encroaching thicket which has reduced a typical drove width of 8 metres to 2.5 metres or less (see the sketches and photos above). This would, we believe, enable the surface of the drove to dry more rapidly after rain, and would provide users with a view and (for example on moonlit nights) some natural illumination and a greater feeling of personal security. The Countryside Team have offered to trim back the thicket to a smaller degree. However, eliminating the thicket in some places might reduce the wildlife value of the drove to some extent, and if extensive work were to be done it would be advisable, perhaps necessary, to commission a wildlife survey, which would probably need to be done at a particular time of year.

As a means of adding to wildlife value or compensating the loss of thicket, a small local reserve accessed from the route might be created by the realignment of the bridleway to a more direct alignment, away from its current dog-leg. It would be beneficial to remove the route from the bank of Hall Farm Drain, an IDB drain with a regular need for slubbing. It would probably involve land purchase and a reduction in cultivable area. We recommend exploring this possibility with the landowner.

Estimated costs of the two proposed constructions are shown in section 7. The merits of each must be the subject of onward discussion, in the light of the possibility of reducing motor use along any part of the route, and of local knowledge of existing and possible future use needs. The cost of installing bollards is more than 50% of the total cost of option B, and it has been suggested that wooden posts driven into the ground would be far cheaper and sufficiently effective. The spacing of the bollards or posts to fulfil their purpose of excluding motor vehicles is also open to discussion, as is the legal propriety of splitting a byway into two different uses; on which subject it might be observed that at present little more than one third of the byways' widths is open to passage of any sort – a partial obstruction which excludes vehicles wider than a land-rover.

#### 3.4 Possible alternative routes to parts of Brack's Drove

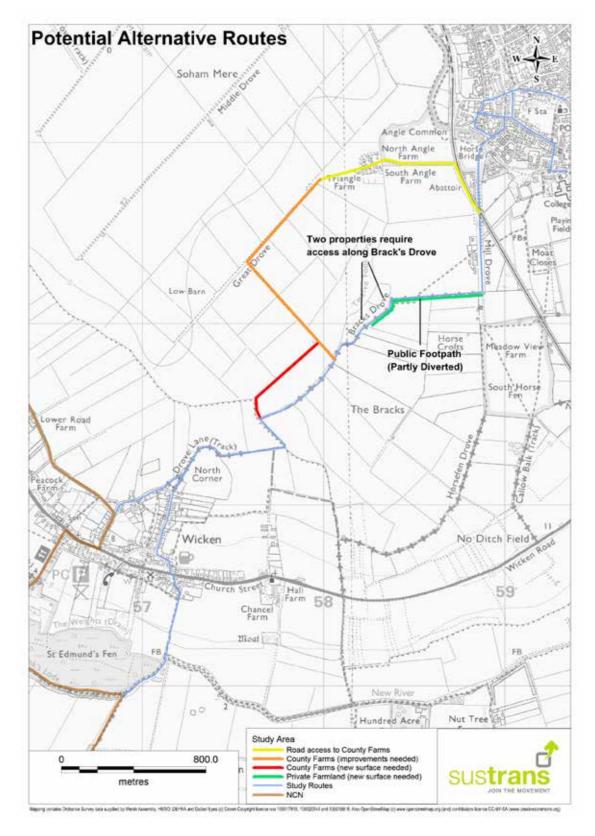


Figure 5. Possible alternative routes to Brack's Drove, discussed below.

#### 3.4.1 Possible use of County Farms land

**Bridleway options:** County Farms owns and leases the entire area of Soham Mere, north of the study route, plus two fields south of the route, linked to the main holding across the Twelve Foot Drain and the study route by a concrete roadway. We have been told that within the lease agreements is a clause allowing the county to use certain field perimeters as bridleway, an option not so far exercised. The potential bridleways in the vicinity of the study route include the concrete roadway (shown orange on map) between the "Angle" farms and its crossing of the study route; the western/ northern bank of the Twelve Foot Drain, which runs south and southwest from the farms; and other field edges including one shown red on the map, which avoids the use of Brack's Drove entirely, but would require a cycleway bridge at its crossing of the drain, the site of an earlier bridge.

#### Issues with providing an all-weather path alongside an IDB drain:

To keep this low-lying land drained for modern agriculture the principal drains are maintained by the Internal Drainage Board (IDB), the field drains (ditches) by the adjacent landowners. They normally require cleaning of clogging vegetation etc every few years using either a purpose-built wide-tracked machine (IDB) with perforated wide bucket, or a tractor/ JCB with six-foot bucket (farmer). The IDB machine has a long reach, so, we have been told, it is feasible to lay a relatively narrow path alongside the drain and for the operator to work without overrunning the path. This does however reduce his view of the ditch and make the work more difficult, and there will always be some risk of damage to the path, particularly from turning movements. A solution to this might be to set aside a strip of land alongside the drain for slubbing operations. This would need to be 8 metres minimum width, since the tracks of the machine are 6 metres edge to edge. The path (2 metres width sealed construction, plus verge), would then occupy a further 3 metres, a total of 11 metres minimum which could not be farmed.



Photograph. Peterborough Green Wheel: 2 metres tarmac path behind 8 metres margin for slubbing access - work has begun. This is a good layout, but occupies a lot of land.



Photograph. Twelve Foot Drain, between County Farms land and unused fields. Brack's Drove out of view to right. Background: Soham (left), industrial estate (right)

#### Issues with these options, including additional length:

The "Angle" farms have access (yellow on the map) from Mill Drove level crossing, on a road which turns sharply north from the crossing, then west. To use the County Farms bridleway option to avoid the mud and ruts of Brack's Drove would clearly carry a distance penalty. The shortest option, considered first, but rejected (see below) would be to use the Twelve Foot Drain, which runs very directly between the farms and the southern, less damaged, part of the drove. It would increase the length of the current route by at least 600 metres, though only if private land could be used to avoid passing between the farm buildings and back through fields to the drain, an option which would add a further 300 metres, and involve taking significant land from the Triangle Farm smallholding, which has plans to become an "open farm". In our discussions so far with County Farms and their tenants no security issues were raised with the need to pass between the farm buildings. Indeed, until recently a sizeable "pick your own" operated here. The next option examined on County Farms land

was to use the concrete farm track along Great Drove and thence southward to its crossing of Brack's Drove. This incurs a penalty of some 1.2 km over the study route, giving a total distance of 5.5 km between Wicken and Soham. This option uses existing robust surfaces, with the need of improvements to the concrete track to reduce bumps at the joins and repairs (to carry heavy farm vehicles) where the concrete has fractured. The need to double back at the level crossing is a significant deterrent to its use beyond the objective extra distance, and arguably it may feel more remote along the concrete track then the known and more direct existing public route. The need to share a track with farm vehicles and to pass between the farm buildings raises some questions of personal safety and property security.



Photograph. Great Drove, roadway between the "Angles" farm buildings, looking towards Soham.



Photograph. Great Drove, land of South Angle Farm, looking towards Wicken.

The Soham Master Plan indicates a possible future leisure and educational use of land lying between Soham Lode, Middle Drove and Great Drove, on County Farms land. If a bridge over the railway and the Lode, close to the future station, were provided to make this area directly accessible from Soham then the Great Drove route, provisionally rejected above could become much more attractive. Depending on the location of a new bridge and on there being funding to provide an all- weather path off the concrete farm track this could become a very valuable direct route between Wicken and Wicken Fen, the new station and the future leisure and educational park.

#### 3.4.2 Possible use of a public footpath, on private land

An interesting alternative to using the most damaged parts of Brack's Drove, including the length forming the only access to the two small fields referred to above, might be provided by a public footpath, Soham FP114. The path is visible on the background of Figure 2 as a finely-pecked grey line, running diagonally across the field north of Brack's Drove, then crossing the Drove to run for some 380 metres along the field edge adjacent to the drove's southern side whence it rejoins the drove by an existing but unused field entrance. See photos below Fig 6.

This public path is shown on the definitive map, and also on the county's website, but its northern part is little used, being at the time of study unsigned, and effectively obstructed by an industrial site. Its crossing of Brack's Drove is marked by hedge gaps where the ditches are culverted, though not exactly in the mapped location. South of the drove the field was ploughed to the ditch edge in early 2013, and therefore very difficult to use. These two fields belong to one owner. The diagonal part of the footpath, were it to be returned to unobstructed use, would reduce the walked distance to or from Soham by some 170 metres, across a cultivated field whose surface would probably be no harder to walk than the drove.

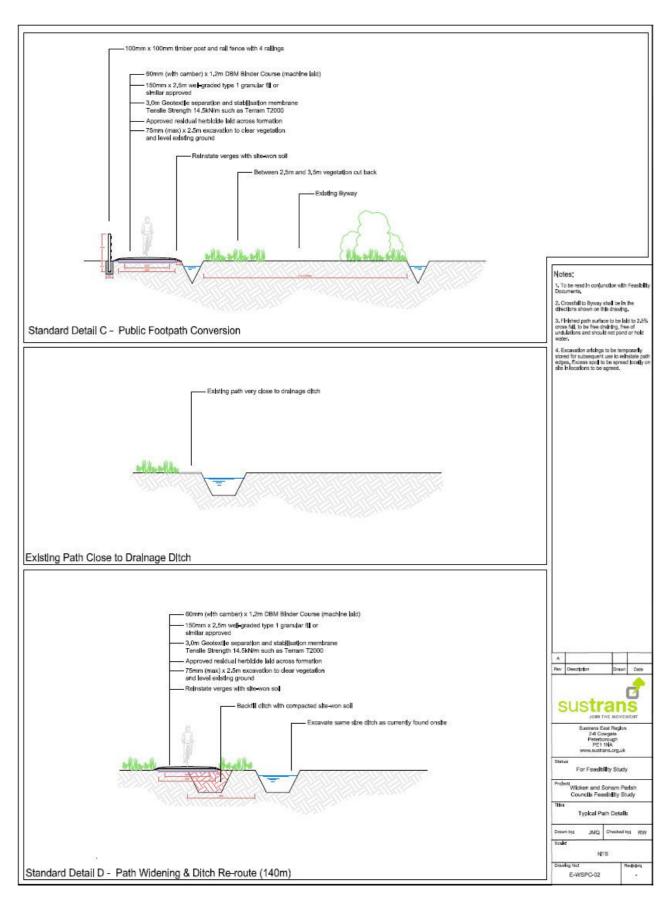


Figure 6. Detail C: possible use of public footpath; Detail D: relocate ditch, widen and surface path for cycle use, south of Wicken, see 5.2 below.



Photograph. Soham Footpath 114 – view to southwest from industrial site along approximate line of path towards the shrubs and trees bordering Brack's Drove.



Photograph. Soham Footpath 114 runs along field edge, further south. View is to northeast, with Brack's Drove on left and background, hidden behind a thicketed ditch.

There are no cycling rights on the footpath. These might be obtained by negotiating for permissive use from the owner, or the path's upgrade to public bridleway, which would also require the owner's and county council's consent. It would however be impractical for the field to be effectively cultivated were an all-weather surface to be laid across it. An alternative possibility, also requiring negotiation with the landowner and the consent of the county, as highway authority, might be to propose the diversion of the public footpath to the northern edge of the field south of Brack's Drove from Mill Drove to join its existing alignment within the field, and so to its junction with the drove. See Figure 5. The benefit of the shorter, cross-field walk would be lost, but if the arrangements could provide and protect an all-weather surface some 2 metres in width, plus verges, a much better quality walk or cycle ride would be provided than those using the drove or the footpath. From the owner's point of view the route would be some 60 metres shorter on agricultural land, and although it would occupy a greater width than the statutory minimum 3 feet width of a public footpath (we are unaware of an awarded width, which might be greater), its high quality and clear definition would keep people from straying into a growing crop, or a fence might need to be provided. Maintenance responsibilities for the path and adjacent ditch would need to defined, including the deposition of slubbings. To ensure that maintenance work would not overrun and damage the ditch it might be necessary to take a further 3 metres as wildlife strip to be used by maintenance vehicles and for deposition. An alternative might be to remove the intermittent shrubby growth along the south side of the drove to allow the ditch to be slubbed from the drove, in which case a narrower strip might serve for deposition, or consent sought from the county to use the side of the byway, which is some 9 metres wide over this length. The removal of shrubs, which become invasive thicket further along the drove, would enable the ditch to be more effectively scoured than at present, and be likely to improve the drove's surface.

We recommend that the above arrangement, suggested briefly to the landowner without detail or discussion, should be further explored.

#### 4 Barriers to restrict inappropriate access

At present the only barriers along the byway/ bridleway route are the two locked low-level gates at the route's changes of category, adjacent landowners and legitimate users holding a key. They are inconvenient for cyclists, forcing users to dismount and lift the bike (and trailer if attached) over the

gate, and so the county's Countryside Team have informally offered to rearrange or change the gates to allow cycles to pass, as part of the project.

If the Countryside Team were able to help the project further by issuing a Traffic Regulation Order imposing a Restricted Byway, locked gates would be provided at the outer ends of the two byways, again with a gap or bypass (appropriately surfaced) to allow pedestrians, equestrians and cyclists to pass. These bypasses should dissuade, but would be unlikely to prevent motorcycle access, and if this became a problem there would be two courses of action: to attempt to identify and prosecute the owner, and/or to instal bollards ahead or behind the gap which would force a change of direction and if they carried a "no motorcycles" sign would further emphasise the prohibition.

#### 5 Onward routes within Wicken and Soham

#### 5.1 Within Wicken

Arriving in Wicken, the byway divides into Chapel Lane and Drury Lane. Chapel Lane leads to the westward side of the village, National Cycle Network route 11 and along High Street to Lode Lane and Wicken Fen, and becomes the signed route to Lode, Bottisham and Cambridge. Drury Lane itself splits, leading west to Pond Green and east to Butts Lane, the Maid's Head, and the windmill. Thus the whole village is conveniently served by the proposed all-weather cycle route.

#### 5.2 From Wicken to Burwell – proposed route improvements

Figure 2 shows existing public footpath Wicken 30 in green, south of the village. For Wicken residents and others it makes an attractive, if unofficial cycle route southwards to Priory Farm then eastwards to Burwell, a much larger village with a choice of shops, pubs and food outlets. The path can be very convenient as it avoids a significant detour past the Wicken Fen Visitor Centre where the path, which has cycle rights, has an indifferent surface in places and can be very busy with visitors. FP30 runs southwards from Cross Green for some 200 metres between open cultivated fields, then for 140m between a small field drain to its east, and stones which mark its western edge. At present this section is too narrow for dedication as a cycle route. The stones mark the property boundary between a private owner to the west, and County Farms to the east. Thus the path itself is here believed to lie on County Farms land, but tightly constrained between the ditch and the stones. Requests to the private landowner over several years for widening of the path onto their land have been declined. Its continued bicycle use by local people shows it to be of value to the community, though not up to proper width and safety standards.

See Figure 6 and photos below.

It would seem that the most effective way to bring the path up to standard is to relocate the ditch a little to the east, widening the path eastwards with an all-weather surface. We recommend that the ditch should be moved by 3 metres, and the new surface should be 2 metres width, of tarmac, with grass verges. This new surface would lie immediately adjacent to the public footpath alignment, and would need to be given permissive cycle rights by the owner, County Farms. An alternative, given that the 3-metres strip would be permanently lost to agriculture, could be for the parish council to offer to purchase the land or occupy it on a long lease. We have the impression that, providing this arrangement were acceptable to the Countryside Team, County Farms would be willing to sell or lease the land. Their tenant has been aware of the issue for some time, and appears willing to accept a suitable settlement with the landlord.

The estimated costs of the necessary works and legal agreements are indicated in section 7.



Photograph. Path leaves NCN, northward along Monk's Lode, with some space to widen and improve.



Photograph. Northward from bridge, unprotected ditch on right, seemingly space to widen path on left.



Photograph. Onwards, bridge across Monk's Lode.



Photograph. Path pinched between stones (left) which reportedly mark property boundary, and unprotected ditch.



Photograph. At bend a pipe passes beneath path, ditch ends. Photograph. Path continues northwards to road at Cross Green.



#### 5.3 Within Soham

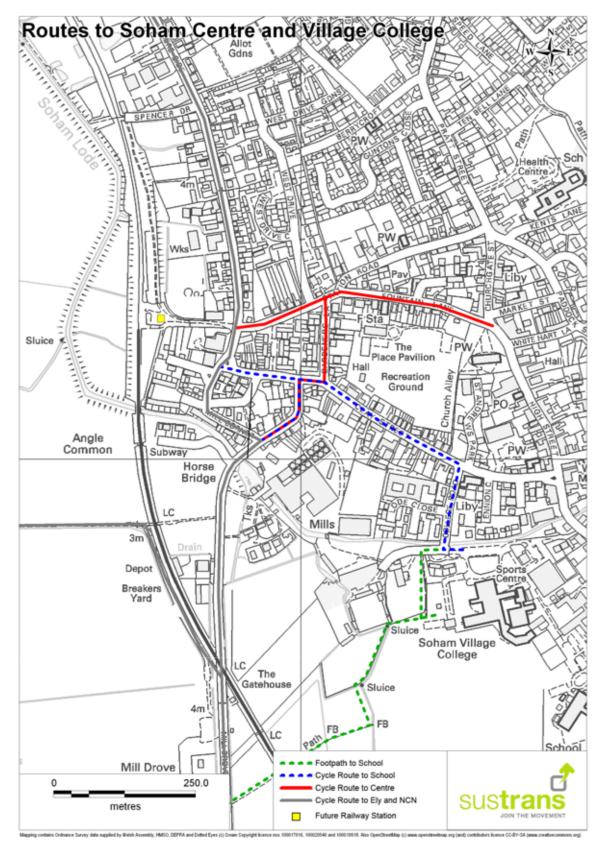


Figure 7: Onward routes within Soham

From the northern end of the Mill Road industrial estate public footpath 101 (shown green in Figure 4) leads northeastwards, crossing the railway towards the southern part of the town centre, via Soham Village College, where an informal entrance to the playing fields is at present open, offering a short cut to the school. This path is the traditional route to secondary school for Wicken students. It continues the line of the cross-field footpath 114, mentioned above, which is almost unused because effectively obstructed by the industrial estate.

The cycle route to the village college (shown blue in Figure 4) is a little longer, crossing Horse Bridge and using Mill Corner, Clay Street and College Road to reach the school. The eastern part of Mill Corner is one-way southwards, offering a short cut for the return journey to Wicken from the school and the town centre (shown red in Figure 4). It would be worth considering a cycle contraflow here, where red and blue routes combine, though visibility and car parking might make this difficult.

Mill Corner's western arm continues northwards as Station Road (past the former and future railway station site) and then as Mere Side. This is a quiet road which continues to the Barway railway crossing and Barway, where it joins the National Cycle Network (NCN) route 11, continuing to Ely. As part of the completion of the all-weather route from Wicken we recommend that this route be signed as part of the NCN.

#### 6 Conclusions and Recommendations

The onward work of necessity involves discussions and negotiation with both the Countryside Team and with all adjacent landowners. The former have responsibilities for ensuring maintenance of the rights of way, and have the authority to restrict their use in justifiable circumstances where damage is being done. They have expressed willingness to change the arrangements at the two gates to allow cyclists (with trailers) to pass while discouraging inappropriate access. Similarly they would be responsible for the process of diversion of the public footpath were this to be acceptable to the landowner. The landowners each have access rights to their land along parts of the drove, which raises the question of how robust a cycle path would have to be constructed, to resist damage by legitimate vehicle access. Although at present these rights are rarely being exercised, and then using only light motor vehicles, but it is unlikely (and impossible in the case of the two small fields) that they would give up their present motor vehicle access rights.

We suggest that the route be considered in three sections, and that Brack's Drove be tackled first, having the most damaged surface, and being complex in terms of current use and possible solutions. As cycling and walking rights already exist along Brack's Drove the project should first be discussed with the Countryside Team and a feasible action plan formed, including the possible necessity of raising the standard of parts of the drove to that of a road, to be well-drained and to resist light and heavy motor vehicles. This of course would be the most expensive option to construct, but providing funding can be found might be the most straightforward. The possible diversion of the public footpath would become the way forward should usage restrictions or the high cost of road-standard surfacing be considered unacceptable.

We recommend that landowners should be kept aware of the project as options are considered. All parties are already aware of the project and its purpose, and subsequent contact by representatives of the parish and town councils should elicit fairly rapidly in what ways they are able to help. This will in turn feed back to the Countryside Team and clarify options and timescales.

We recommend that the second phase of the project might be Drove Lane. Though here, in theory there are similar challenges to those of Brack's Drove, and must be dealt with similarly, problems caused by motor access is in practice fairly slight, and we suggest that surfacing the byway with no official restrictions on use and merely informal agreements with landowners might be considered acceptable. The work should be carried out as part of the Brack's Drove contract if possible.

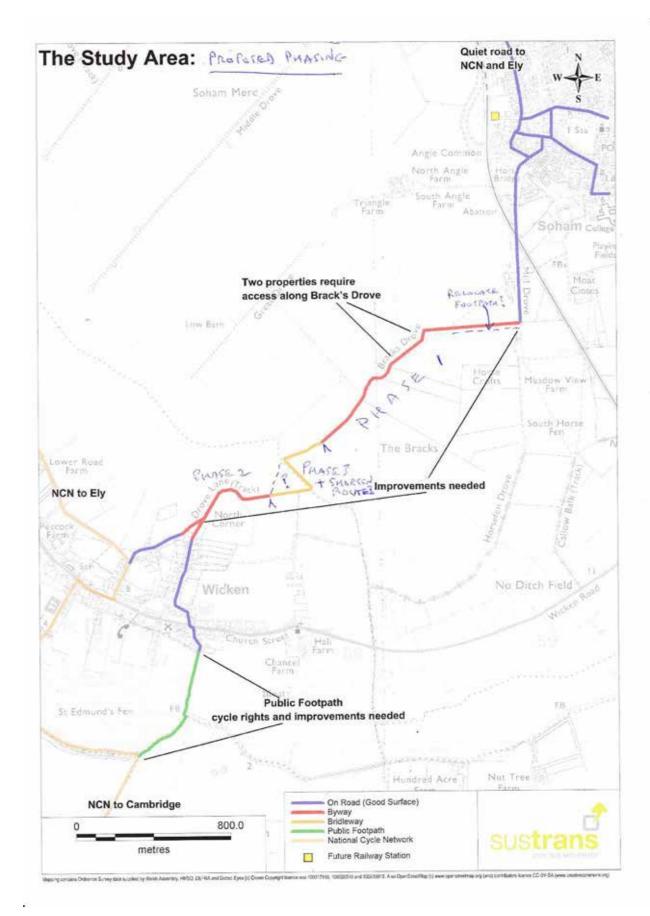


Figure 8: Proposed phasing of works and possible diversion of bridleway/ creation of nature reserve area (interim version)

The condition of the bridleway section is currently the best of the route. Once the byways are improved to an all-weather specification, it will become the worst. We may expect that the route will be promoted by the parish and town councils and by stakeholder groups, including the National Trust's Wicken Fen cycle hire station. This will build usage and raise demand for the bridleway's improvement. At that stage it might seem most appropriate to explore possibilities for its realignment and the possible creation of a pocket nature reserve, if wildlife issues or earlier contact with the bridleway's landowner have not already prompted this. Alternatively, if landowner consent and the funding stream are favourable, if might be preferred to combine all works in one contract.

#### 7 Cost Estimates – legal and works

#### 7.1 Estimates for work required on the existing byway/ bridleway route

Wicken and Soham Parish Councils Feasibility Study A. Cost Estimate per 100m.

Work	unit	cost	quantity	sub-total (£)
vegetation clearance	m²	2.00	1000	2,000
excavation (75mm)	m³	19.40	19	364
compact formation	m²	0.75	250	188
weed killer to formation	m²	0.12	250	30
disposal of excavated material on site	m³	3.75	19	70
geotextile	m²	0.95	430	409
150mm sub-base type 1 (machine laid)	m²	8.50	250	2,125
install 60mm AC 20 Surf 100/150	m²	14.00	120	1,680
dress edges	m³	11.00	19	206
Preliminaries	%	5.00		354
Sub-total				7,425
contingency	%	20.00		1,485
Total				8,910

Wicken and Soham Parish Councils Feasibility Study B. Cost Estimate per 100m.

Work	unit	cost	quantity	sub-total (£)
vegetation clearance	m²	2.00	500	1,000
excavation (75mm)	m³	19.40	17	320
compact formation	m²	0.75	220	165
weedkiller to formation	m²	0.12	220	26
disposal of excavated material on site	m³	3.75	17	62
geotextile	m²	0.95	260	247
150mm sub-base type 1 (machine laid)	m²	8.50	220	1,870
install 60mm AC 20 Surf 100/150	m²	14.00	180	2,520
dress edges	m³	11.00	17	182
bollards spaced at 2m	unit	150.00	50	7,500
Preliminaries	%	5.00		695
Sub-total				14,586
contingency	%	20.00		2,917
Total				17,504

Estimated construction cost of Phase 1(Brack's Drove being 1.3km in length) is therefore:

Option A: £8,910 x 13 = £115,830 or Option B: £17,504 x 13 = £227,552.

Estimated construction cost of Phase 2(Drove Lane needing improvement over 500m) is:

Option A: £8,910 x 5 = £44,550 or Option B: £17,504 x 5 = £87,520.

Estimated construction cost of Phase 3 (the bridleway being 600m in length) is, assuming Option A:

£8,910 x 6 = £53,460.

## 7.2 Estimates for work required on the alternative route, to use the partly diverted public footpath

Cost might be expected to be little different from option B above, with the possible addition of posts or fencing to mark the path from the field. There would be legal costs in obtaining land rights.

### 7.3 Estimates for work required for cycle rights and works southwards from Cross Green

Cost might be expected to be similar to option B above. The cost of relocating the ditch for 140 metres of the path's total 700 metres length would be offset by the saving on vegetation clearance..

Estimated total construction cost: £8,910 x 7 = £62,370, plus legal costs in obtaining land rights

#### 7.4 Legal and administrative costs

Legal and professional costs may be incurred in various parts of the project, most clearly in the drawing up of any agreements between landowners and the project's lead organisation. The lead might be taken up by the parish councils, the county council or Sustrans, and individuals' time, whether paid or voluntary would be costed in as match funding.

As a rule of thumb one might assume that for a path requiring agreements with two or three landowners, and assuming that negotiations were not unduly protracted the legal fees on the landowner's side might total approximately £3,000. Rather than negotiating an agreement for which "reasonable legal and agents' fees to achieve completion" are promised it could be preferable to set a cap on expenses, of say £1,000. Agreeing to cap expenses may help encourage a practical approach and result in the application of fewer terms and conditions.

This study has identified various route and construction options. Until the best way forward has been decided the number of landowners involved, and hence the estimate of fees, remains uncertain. If the path southwards from Cross Green is to be included in the project then clearly further legal and administrative costs will be required.

#### 8 Possible sources of funding

Sustrans East of England is currently awaiting confirmation of an Amey Cespa landfill tax grant for work elsewhere, being administered by Cambridgeshire Community Foundation. This is to provide an all-weather surface along a short stretch of public bridleway on clay soil south of Grafham Water which is prone to flooding. Occasional use by farm vehicles has to be accommodated, for hedge trimming, emptying of a septic tank and a field access crossing for heavy vehicles. This route and its usage set challenges similar to those of the Wicken – Soham route, and its project stages of design, consents, grant application and provision of evidence could be valuable in helping to ensure the smoothest possible implementation of route improvements elsewhere.

As with many sources of funding, landfill tax grants require match or partial funding from other sources. In the case of the Grafham Water grant, it happened, exceptionally, that the county council was holding on Sustrans' behalf money left from previous cycle path projects. In the case of a project initiated by a parish council or other public body it would be normal but not essential, that the public body contributes funding in money or other resources, including time, land or materials which can be valued as shared funding.

There are many possible sources of external funding, and each is likely to specify limitations as to its use. Local councils may be aware of benefactions in their home area. Some of these may be too specific in their use to support the creation of access, being framed on activity types and at identifiable sites; it may be however that the community benefits of improved access can be expressed in a way which meets the terms of the benefaction, and might meet with approval if at the time there are few better targeted applications.

It can take a considerable amount of time researching possible sources and preparing a well-focussed application. The internet makes it possible for funding sources to be identified more rapidly than ever. Howeverthere is probably no substitute for networking among supportive organisations and individuals. A bid needs to be well planned and targeted. This means carefully planning the project's outcomes, which must be carefully matched to funder priorities. Thinking this through and talking with the funder before putting any application in will save time and greatly enhance the chances of success.

As a starting point the following might be useful:

Cambridgehire ACRE, the Fens Adventurers Rural Development Programme whose area includes Wicken and Soham, is supporting rural business, tourism and community enterprises: http://www.cambsacre.org.uk/fensadventurers/index.php

Cambridgeshire Community Foundation: providing grants to local charities and community groups: http://www.cambscf.org.uk/

Natural England administer pathway and access to nature programmes, for example the recent Paths for Communities (P4C) funding, and will know what funding is currently available locally. http://www.naturalengland.org.uk/

East Cambridgeshire website has press releases reporting successfully funded community projects. Entering "funding" in the search box gives various word search combinations, which order these reports differently. http://www.eastcambs.gov.uk/search/site/funding

South Cambridgeshire have a "Funding Toolkit" web page listing county and national funding sources, websites and publications offering guidance in the search for funding: http://www.scambs.gov.uk/content/funding-toolkit

The Planning Advisory Service website has information on the way in which Community Infrastructure Levy (CIL) on developments can benefit communities with a formal Neighbourhood Plan (25% of CIL) and without one (15% of CIL). Planning staff at ECDC will be able to confirm its implementation locally. http://www.pas.gov.uk/

Finally, could it be that an extra element in the project might win it greater support by exciting people's imagination? Could a small piece of unused land on the route, and close to Wicken village, become a childrens's playground, using surplus topsoil to build a mini-mountain, with a view? Nesta, "an innovation charity with a mission to help ordinary people bring great ideas to life" might suggest unusual ways of bringing added value to a mere path. http://www.nesta.org.uk/

## 9 Work done and contacts made in preparing this study report

All landowners and tenants have been identified and contacted with an outline of project as it might affect them, resulting in exchange of ideas with the majority of them.

Meetings on site with two landowners (Peter Fuller of Wicken, member of Wicken Parish Council and Jeffrey Leonard of Soham, Chairman of Internal Drainage Board).

Meetings with manager of Internal Drainage Board to discuss responsibilities and technicall/ space needs for maintenance of Twelve Foot and minor drains.

Site visits for measurement and photo survey, including

visit with County Cycling Officer

Meetings with County Council's Countryside Team Officers to discuss maintenance responsibilities and methods for restriction of byways.

Discussion and site meeting with Sustrans Regional Senior Engineer for technical advice and estimates included in this study.

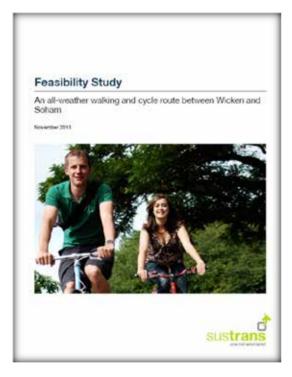
Search for information on funding opportunities, online and in discussion with contacts.

Forward a working draft of the study for discussion with client, to lead to completion.

# 2013 Sustrans Wicken to Soham Update Report

#### The report

In 2013 Sustrans produced a feasibility study looking at options for routes for cyclists and walkers between Soham and Wicken.



The report considered options for route alignment and for improving the surface for cyclists and walkers, so that an all weather route could be built. It made recommendations for land negotiations and management and gave options for construction.

#### **Changes since the report**

A brief site visit in 2021 suggests that the preferred alignment is in much better condition than when the 2013 report was done, although some of that may have been down to the time of



year and the lack of recent heavy rain. The rutting noted in the 2013 report has largely gone, significant amounts of hard surfacing have been added and vegetation has been cleared back. There are however some potholes on the surfaced part of Mill Drove, which may not have been there in 2013. A solar farm is being constructed near the alignment, so land uses are changing and Soham Station is well advanced, so travel demands are likely to be changing.

National Guidance has moved on considerably since 2013 with the publication of LTN 1/20, which the Government expects Local Authorities to follow. The new guidance "reflects current best practice, standards and legal requirements. Inclusive cycling is an underlying theme throughout so that people of all ages and abilities are considered...."

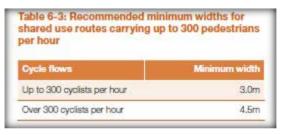
The guidance generally recommends segregation of cyclists and pedestrians, but allows some flexibility in some circumstances, suggesting that "shared use may be appropriate in some situations, if well designed and

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implemented." One example given is "Alongside interurban and arterial roads where there are

few pedestrians;"(Para 6.5.6). Sustrans considers that a rural route such as proposed between Soham and Wicken would be appropriate for shared use, whereas urban routes are unlikely to be suitable. Table 6-3 sets out minimum widths. The minimum width recommended is greater than the widths



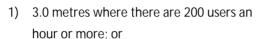
proposed in the 2013 report, so this will have an impact on the delivery of any route and on costs. The level of usage is expected to be below 300 cyclist/ hour so a 3m wide path is considered adequate.

LTN 1/20 also includes recommendations with regards to engagement in 6.5.5. For the Wicken – Soham path horse-riders, local farmers and byway users should be added to the list of groups to engage with.

6.5.5 Where a shared use facility is being considered, early engagement with relevant interested parties should be undertaken, particularly those representing disabled people, and pedestrians and cyclists generally. Engaging with such groups is an important step towards the scheme meeting the authority's Public Sector Equality Duty.



CD 143 was first issued in 2019 by Highways England and equivalent bodies in the other nations of the UK and although it is specifically for Trunk Roads it includes useful information on surfacing and ranks various surface options. In contradiction to LTN 1/20 CD 143 allows for a minimum width of 2m for a shared use facility stating in E3/5 that "Widths of unsegregated shared use routes shall be a minimum of:





2) 2.0 metres where there are less than 200 users per hour.



Table 5.29 refers to surfaces for horse riding and the surfacing adequacy scale is:

Surfacing

1 - excellent;

2 - good;

3 - reasonable.

.29	Surfacing for horse-riding routes shall be in accordance with Table 5.29.						
	Table 5.29 Surface options for h	orse-riding r	rse-riding routes				
	Surface material	Adequacy scale	Construction details				
	Hot rolled asphalt surface course	3	25mm hot rolled asphalt wearing course (6mm aggregate size) on 60mm bituminous macadam base course on 150mm thick type 1 sub-base				
	Bituminous macadam surface course	2	25mm dense bitumen macadam wearing course on 60mm bituminous macadam base course on 150mm thick type 1 sub-base				
	Surface dressing on stone base or bitumen	2	Single coat gravel 3-6mm size 50mm dense bituminous macadam of 20mm aggregate size on 100-150mm type 1 granular material				
	Clay pavers	3	65mm thick on sand on 150mm type 1 sub-base				
	Concrete block flags	3	65mm thick blocks on 30mm sharp sand bed and 150mm type 1 sub-base				
	In situ concrete	2	40mm granolithic concrete on 75mm concrete on 150mm type 1 sub-base, surface to be textured to provide satisfactory skid resistance				
	Naturally binding stones and gravels	2	20mm depth limestone/hoggin (3mm dust) or other such as 50mm depth Breedon gravel (6mm dust) or 75mm depth Coxwell Gravel (30mm fines)				
	Sand	1	75mm sand on 150mm free draining layer				
	Wood chips	1	Chips laid to a compacted thickness of 225mm on free draining surface layer				
	Grassed gravel	1	150mm surface course of aggregate mixed with 25% topsoil on 150mm aggregate on geotextile sub-base				
	Reinforced turf	1	Rubber bonded fibre/grit sand laid on turf				
	Scalping/ballast with quarry waste	2/3	Maximum 40mm size with a high content of quarry waste laid (well compacted) on 150mm type 1 sub-base				
	Industrial waste products	1/2	100mm wearing course/150mm base course graded fuel ash/pulverised fuel ash/colliery shale/red shale				
	Road planings	2	Screened recycled road planings				

There is a

similar table for walking and cycling with similar categories and an additional category 4 of inadequate:



	Adequa	cy scale		
Surface material	Walking Cycling route		Construction details	
Hot rolled asphalt surface course	1	1	25mm hot rolled asphalt wearing course (6mm aggregate size) on 60mm bituminous macadam base course on 150mm thick type 1 sub-base	
Bituminous macadam surface course	1	1	25mm dense bitumen macadam wearing course on 60mm bituminous macadam base course on 150mm thick type 1 sub-base	
Surface dressing on stone base or bitumen	1	1	Single coat gravel 3-6mm size 50mm dense bituminous macadam of 20mm aggregate size on 100-150mm type 1 granular material	
Clay pavers	4	3	65mm thick on sand on 150mm type 1 sub-base	
Concrete block flags	1	1	65mm thick blocks on 30mm sharp sand bed and 150mm type 1 sub-base	
In situ concrete	1	2	40mm granolithic concrete on 75mm concrete on 150mm type 1 sub-base, surface to be textured to provide satisfactory skid resistance	
Naturally binding stones and gravels	2	2	20mm depth limestone/hoggin (3mm dust) or other such as 50mm depth Breedon gravel (6r m dust) or 75mm depth Coxwell Gravel (30mm fines)	
Sand	3	4	75mm sand on 150mm free draining layer	
Wood chips	2	4	Chips laid to a compacted thickness of 225mm on free draining surface layer	
Grassed gravel	1	3	150mm surface course of aggregate mixed with 25% topsoil on 150mm aggregate on geotextile sub-base	
Reinforced turf	2	3	Rubber bonded fibre/grit sand laid on turf	
Scalping/ballast with quarry waste	2	2	Maximum 40mm size with a high content of quarry waste laid (well compacted) on 150mm type 1 sub-base	
Industrial waste products	2	3	100mm wearing course/150mm base course graded fuel ash/pulverised fuel ash/colliery shale/red shale	
Road planings	1	1	Screened recycled road plannings	

Since 2013 there have been developments along the route and in both Wicken and Soham and changes to national guidance. 2021 has also seen a period of great uncertainty with regards to the construction sector, with supply chain issues bringing price increases and possible delays. These increased can be factored into revised costs, but costs are still very uncertain.



## Updated recommendations

#### Construction

In order to comply with the minimum widths recommended in LTN 1/20 a path width of 3m is recommended. Reducing the width to 2.5m or 2m may be considered acceptable, but a strong case would have to be made and anything below 3m may not be eligible for Government funding. A 3m path is similar to one of the options in the 2013 report, but the recommendation now is for a 3m sealed surface to ensure that no users are excluded.

Sustrans now recommends a 3m DBM (Bituminous Macadam) surface and where there is space a separate 2m grassed gravel surface for horses. It is essential that the materials used are of adequate strength to withstand use by farm traffic and a similar specification to Details A and B in the 2013 report is recommended with a wider sealed surface than in the 2013 report.

In addition, it is recommended that potholes are filled and repaired on the surfaced part of Mill Drove.



#### **Costs**

Recent tenders suggest that a realistic price for a 3m wide path with a grassed gravel path would be £170-230/m. This range may appear excessive, but prices are hard to gauge at present and a flexible approach will be needed. Sustrans recommends a 3m path, but if 2m is considered acceptable there would be savings.

Table 1. Summary of costs

Item	Length	Unit Cost	Cost
3m wide sealed path	2400m	£170- 230/m	£410,000 - £550,000
2m sealed path	2400m	£140 - 200/m	£340,000- £480,000
Pothole repairs Mill Drove			£20,000
Prelims			£25,000