



London Southend Airport and Environs Joint Area Action Plan Walking and Cycling ‘Greenway Network’ - Linking the Community

Study on behalf of Southend Borough Council,
Essex County Council and Rochford District Council



December 2015

Revised February 2016

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Report prepared for Southend Borough Council by Sustrans

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Executive Summary

This report outlines the actions required to create a Greenway Network to the north and east of the proposed Southend Airport Business Park (SABP). Utilising existing infrastructure, cycling and walking networks and PROW the Greenway Network will provide a means for local residents to access employment, education, services and key attractors using sustainable modes of transport in a mainly traffic free environment. In addition it will create 'linear parks' and open up access to a number of 'green lungs', 'pocket parks' and open spaces in Rochford District including Cherry Orchard Jubilee Country Park.

Policy T5 forms an integral part of the London Southend Airport and Environs Joint Area Action Plan. Within this policy there is specific reference to 'The establishment of a segregated route for walking and cycling to the north of the JAAP area linking to Hall Road funded through Saxon Business Park (aka Southend Airport Business Park)'. As master plans, planning applications and detailed designs take shape for both SABP and the Hall Road Development, Rochford, this report takes the most up to date plans into account and highlights opportunities to link the internal cycling and walking networks proposed and provides recommendations for the development of a wider network to enhance local provision. SABP will offer shared pedestrian/cycle footways both sides of the spine road and traffic free routes across the site linking the footpaths and existing cycle routes. Hall Road development will provide a network of 'quietways' utilising the 30mph road network within the development in addition a diagonal traffic free 'boulevard', northern and eastern boundary routes and an extension of the existing shared footway (north of Hall Road) will be provided. The 'new' public open space to the west of the site will also provide a north/south opportunity.

Existing infrastructure in the immediate vicinity of SABP offers real opportunities which are key to the proposed network. This report also identifies how, with localised investment and careful use of existing infrastructure (e.g. Butterley Bridge aka The brick work tunnel under Cherry Orchard Way), the existing provision can be extended to reach communities in Hawkwell, Rochford and Southend.

This report has emphasised the value of good quality construction. The better the route, the higher quality the surface, the more complete the drainage, the less will be the need for major repair works. By investing in the best possible design and construction we can minimise subsequent maintenance requirements. It is important to note that based on the requirements of ECC PROW team surfacing of existing bridleways in urban or semi-urban areas, or new bridleways which will be delivered as part of existing planning obligations, the surface must be either road planings or granite dust.

In summary the new provision proposed as part of SABP and the Hall Road development will undoubtedly improve provision in the area however, now there is an opportunity to create a far reaching traffic free network.

The report is split into four main sections:

- Annotated illustrations and plans for the Greenway Network
- How the options benefit the development areas within the JAAP
- Outline costs and programme of works
- Additional reports include: Land Ownership, land agreements and PROW status/designation Existing and New PROW; Cycle routes and access points to Southend Airport Business Park; Ecology Opportunities & Cherry Orchard Way Overbridge. Butterley Bridge Inspection Report

By the end of the report there will be clear outcomes as to which sections of the Greenway Network should be prioritised and how to phase developments; giving strong indications as to which recommendations should be developed as integral parts of the local development.

For information on the local context, development of the London Southend Airport and Environs walking and cycling network and associated routes please see the 2014 Sustrans report 'London Southend Airport and Environs Joint Area Action Plan walking and cycling improvements'.

Map 1. Ironwell Lane Greenway: From Rectory Road, Hawkwell via Ironwell Lane to Ashingdon Road in Rochford - investigating shared use provision and links with the Hall Road Development, Rochford

The most direct, convenient and attractive route from Hawkwell to the SAPB is via Ironwell Lane and the proposed network of routes within the new Hall Road Development, Rochford. The Ironwell Greenway, if developed correctly would provide a high quality, traffic free route that will be a key feature of the Greenway Network.

Ironwell Lane is an urban fringe/semi-rural traffic free byway, the surface is of a poor standard and while it is now a suitable walking route, it would need widening and surface improvements to accommodate utility cyclists. Ironwell lane is used by equestrians and also provides access to small holdings therefore their requirements must be considered. Within proposals for the Hall Road Development, Rochford are plans to include a shared use path running parallel to Ironwell Lane from BW55 to the north east corner of the development. It is proposed that the surface improvements on Ironwell lane will take this into account therefore reducing overall costs and impact of works.



Ironwell Lane looking towards Rochford

In Rochford, Ironwell Lane emerges onto the busy Ashingdon Road opposite Rochford Community hospital and Rochford Primary/Nursery schools. This staggered road is difficult for cyclists (and pedestrians) to negotiate because of heavy (and turning) traffic. Crossings, footpath conversions and possible reallocation of road space would assist vulnerable users here. See Sustrans ‘London Southend Airport and Environs Joint Area Action Plan walking and cycling improvements’ report for recommendations.

Oak Road and St Andrews Road also provide additional links to Hall Road and the existing shared use provision. Both are quiet residential roads with

10mph speed limits however they are partly or fully private roads and may require some local negotiations. Simple measures to indicate the presence of cyclists here would suffice. See Sustrans ‘London Southend Airport and Environs Joint Area Action Plan walking and cycling improvements’ report for recommendations.

To the west Ironwell Lane emerges onto Rectory Road, an uncontrolled crossing would be necessary to link with Clement Hall Way. Clement Hall Way is a generally quiet 30mph road and has the advantage of serving the new residential area (Clements Hall Way/ Thorpe Road development of 176 houses where a cycle way and footpath network, public open space and landscaping will be created) and Clements Hall Leisure centre. Simple measures to indicate the presence of cyclists here would suffice. See Sustrans ‘London Southend Airport and Environs Joint Area Action Plan walking and cycling improvements’ report for recommendations.

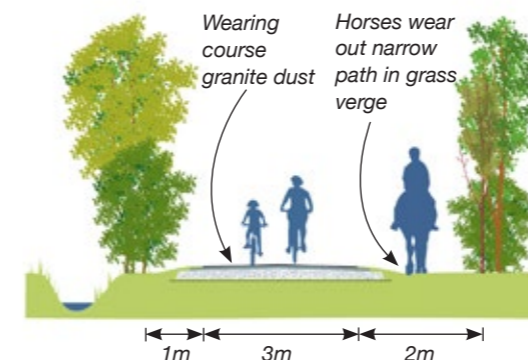
Plans for the Hall Road Development, Rochford suggest a revised road layout and a new speed limit of 30mph along the length of Hall Road thus providing a network of ‘quietways’. In addition there are plans for a diagonal shared use path linking Ironwell Lane with Hall Road as well as shared use provision on the northern and eastern boundary. An access roundabout is proposed at the entrance to the new development with plans for an island crossing on the spur into the new development, no detail in the planning application of a link into the southern end of the proposed country park or a new crossing of Hall Road. A crossing of Hall Road should be considered in any planning stages of the site to create a north south route, to link to the new country park.

Recommendations

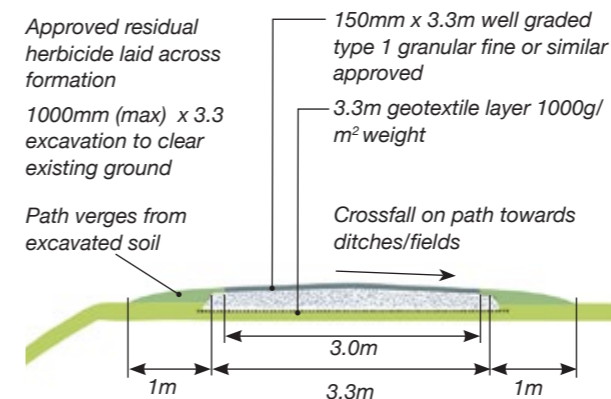
1. Single row of bollards preferred at western end of greenway to prevent unauthorised access. 1.5m spacing. Min 5m from end of carriageway. Restrictive access controls should be avoided on the greenway and all entry points made flush.
2. Ironwell Lane is a wide, dense green corridor in the landscape and as such acts as a highway for wildlife. A gap is present at this location and no easy alternative route exists for wildlife wishing to reach the trees and open spaces around Rectory Terrace.

Filling the gap between Ironwell Lane and the Nursery with native species would allow access and movement between these areas for creatures such as bats, small mammals and invertebrates. This filling should be done using native species and can be themed for birds, small mammals or as a linear orchard using fruit bearing species.

3. 730m from Ironwell Lane western end to junction with BW55/new access point to development. Minimum 3m wide path with 1m mown verge. Wearing course: granite dust (As specified by ECC) – 3mm to dust – 20mm thick. See Path Type A for specification.



Ironwell Lane shared use cycle/footway with separate bridle path



Path Type ‘A’ cross section drawing

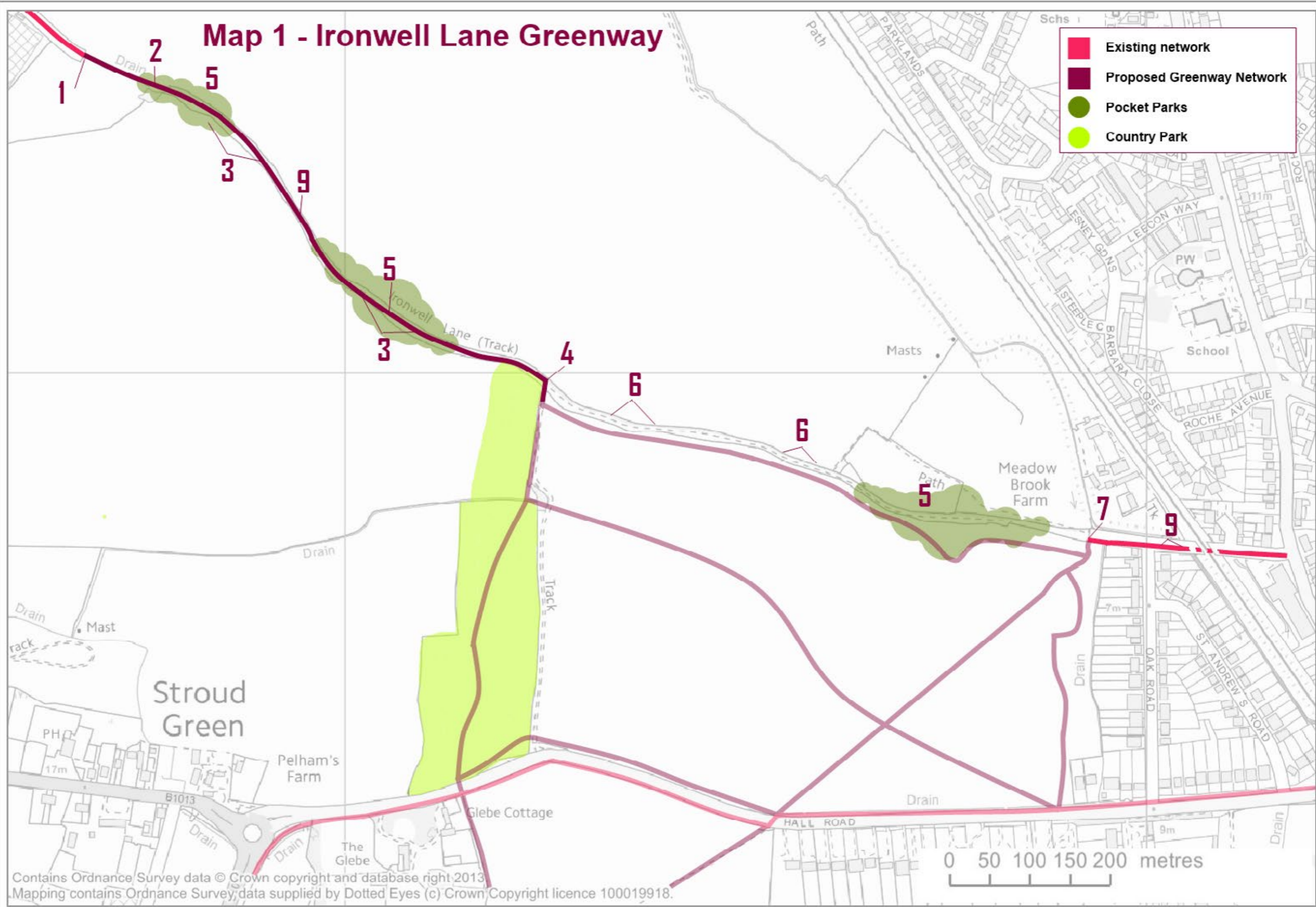


Ironwell Lane

4. The junction between Ironwell Lane and BW55 to the south is narrow and constrained by dense bushes and trees. Scrub clearance in this area would encourage other species including wildflowers to colonise this space as well as improving the utility of the path. Trees should not be felled in this area to maintain the character of the greenway but the space could be enhanced with artwork or inventive signage. This will act as a gateway/link to the proposed shared use provision within the Hall Road development and the country park.
 5. Open spaces occur periodically along the Ironwell Lane bridleway that could be managed better to create ‘pocket parks’ encouraging wildflower grassland and flowering plants, possibly including a bench or public artworks.
 6. Byway remains unchanged in this section, no works required. Parallel provision provided within the Hall Road Development, See Map 2a. This section will remain unchanged and open to public and could be enhanced with artwork or inventive signage.
 7. Single row of locking bollards preferred at eastern end of greenway to allow authorised access to small holdings. 1.5m spacing. Restrictive access controls should be avoided on the greenway and all entry points made flush.
 8. Automatic cycle counters to be installed to monitor short, medium and long term usage.
 9. Lighting to be erected on verge. Lighting required as route is intended for commuting and other utility trips. Bollard lighting has been specified by Rochford District Council and Rochford Parish Council for the short section from Hall Road Development to the railway bridge on Ironwell Lane. Therefore similar specification will be suggested here.
 10. Directional signage, to be retro-reflective as route will be used after dark.
- Nb* If Traffic Regulation Order to limit motor vehicles is granted then a turning circle may also need to be provided where Ironwell Lane merges from carriageway to Byway.

Map 1 - Ironwell Lane Greenway

- Existing network
- Proposed Greenway Network
- Pocket Parks
- Country Park



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Map 2a and 2b. Saxon Greenway: Between Cherry Orchard Way and Ironwell Lane with permeability through Southend Airport Business Park and the Hall Road Development, Rochford

This is a key section in the creation of a Greenway Network providing access to green lungs for residents of Rochford, the residents of the Hall Road Development and employees based at SAPB. Policy T5 forms an integral part of the London Southend Airport and Environs Joint Area Action Plan Submission Draft. Within this policy there is specific reference to ‘The establishment of a segregated route for walking and cycling to the north of the JAAP area linking to Hall Road funded through Saxon Business Park (aka Southend Airport Business Park)’

A network of shared use provision is already proposed within both the Hall Road Development and SAPB (see ‘How the options benefit the development areas within the JAAP’ below), Map 2a and 2b indicate the opportunities that exist to link these to a wider network.

A network of ‘quietways’ utilising the 30mph highways, a diagonal traffic free ‘boulevard’, northern and eastern boundary routes and an extension of the existing shared footway (north of Hall Road) is proposed within the Hall Road development. The ‘new’ country park to the west of the site will also provide a north/south opportunity.

SABP will offer shared use provision as well as traffic free links with the park. It is proposed that shared ped/cycle footways are provided both sides of the spine road and that there are traffic free routes across the site linking the footpaths and existing cycle routes. Links from within the development to the wider network are being considered with the developers, architects, SBC and Sustrans in discussion. Proposals are to extend the internal cycle routes that traverse the site to a point where a link north towards Hall Road may be developed.

For the links from Hall Road to SABP we would tend to favour the most direct routes and, as these tend to traverse/cross land in private ownership negotiations with local land owners will be essential. Public Rights of way exist but only in the form of an indirect public footpath which automatically limits the access options for cyclists and horse riders. Certainly the public footpath with a link to the proposed Roach crossing is a good option, but cycling and horse rights will need to be secured. See Sustrans ‘Land Ownership,

land agreements and PROW status/designation’ Appendix 2 for more details. In order to establish what opportunities exist in the area to the south of Hall Road discussions are needed with C Tabor (land owner) and ECC PROW to establish views on footpath conversion to bridleway and views they have on a proposed link to the Roach crossing.

There is some uncertainty surrounding the land to the south of the River Roach, initial investigations suggest that it is in private ownership (Glebe Hall Road estates, C Tabor estates and possibly another land owner (yet to be identified need) – see map below). Should the link between Hall Road and SAPB be approved it is vital that discussions are held land owners and with potential developers of the site adjoining SABP.

Nb* Discussions are ongoing with SABP developers to try and ensure that proposed access through the business park aligns with any route development to the north.



Greenway Network Land Ownership Aug 2015

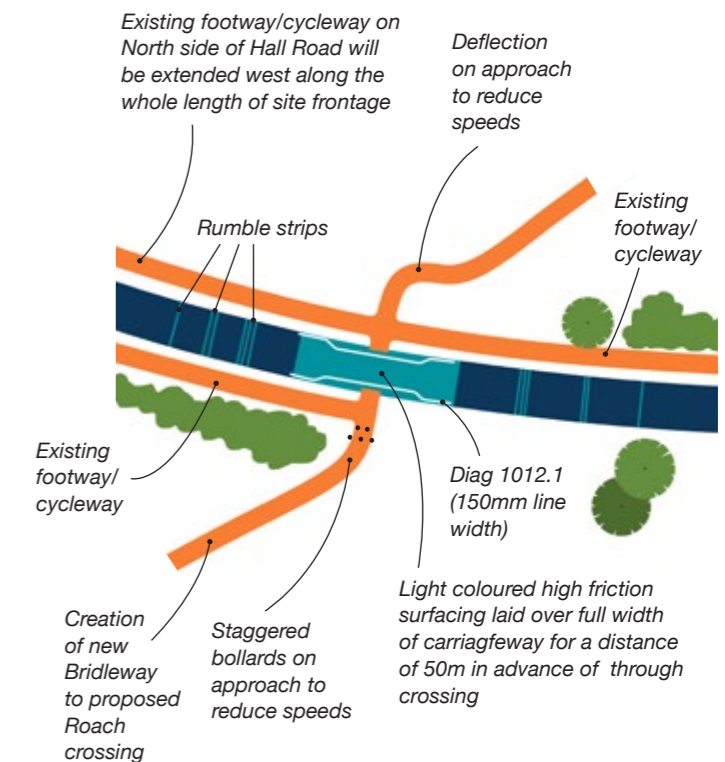
Recommendations

- 730m shared use provision within the Hall Road development running parallel to Ironwell Lane. Current plans show this to be compacted gravel (hoggin, or similar). Sustrans recommends that this and other traffic free routes within the development are 3m wide Asphalt shared use paths 60mm AC 20 Surf 100/150 possibly with Fibredec surface dressing. See Path Type D for recommended construction.
- Network within the Hall Road Development will be mainly ‘Quietways’ offering north, south, east and west links using 30mph highway network.
- A diagonal traffic free link from Hall Road to Ironwell Lane is also proposed. Current plans show this to be a public footpath asphalt surface with Charcon Countryside Classic Standard (carriageway); Silver grey PCC kerb (rear edge) edging. The ‘boulevard’ will provide suitable links from a proposed upgraded uncontrolled crossing of Hall Road, through the site, across the balancing pond via a causeway and out onto Ironwell Lane. Sustrans recommends that this and other traffic free routes within the development are 3m wide Asphalt shared use paths 60mm AC 20 Surf 100/150 possibly with Fibredec surface dressing. See Path Type D for recommended construction.
- As the proposal for the Hall Road Development progresses work with Essex County Council Country parks team, Rochford District Councils planning officers and ECC Highways is essential to identify a north/south cycling and walking link through the proposed country park (linking Ironwell Lane and Hall road). Either upgrade BW55 surface to meet ECC PROW shared use standards or create a new shared use path within the country park.

500m from Ironwell Lane to Hall Road (north south link through Country Park). 3m wide Asphalt path 60mm AC 20 Surf 100/150 possibly with Fibredec surface dressing See path Type D recommended specification.
- Extend proposal for existing footway on the north side of Hall Road west along the whole length of the site frontage using land within the site, across the new roundabout and to the country park.

- 2 x crossing of Hall Road. Bituminous raised table with crossing point, surfacing, lighting, signing, lining but not include drainage. It is understood that the speed limit on Hall Road will be reducing from 40mph to 30mph therefore 2 uncontrolled crossings (no refuge) of Hall Road are recommended. With these slower speeds cyclists will generally be able to cross conveniently in a single movement with traffic volumes up to around 6000 vpd. Intervisibility between users is important and may require management of vegetation within the visibility splay. Greater use of signing, road markings and coloured surfacing and kerb-line modifications are often appropriate to increase driver awareness and reduce crossing distances, particularly where traffic flows are higher.

Hall Road Crossing

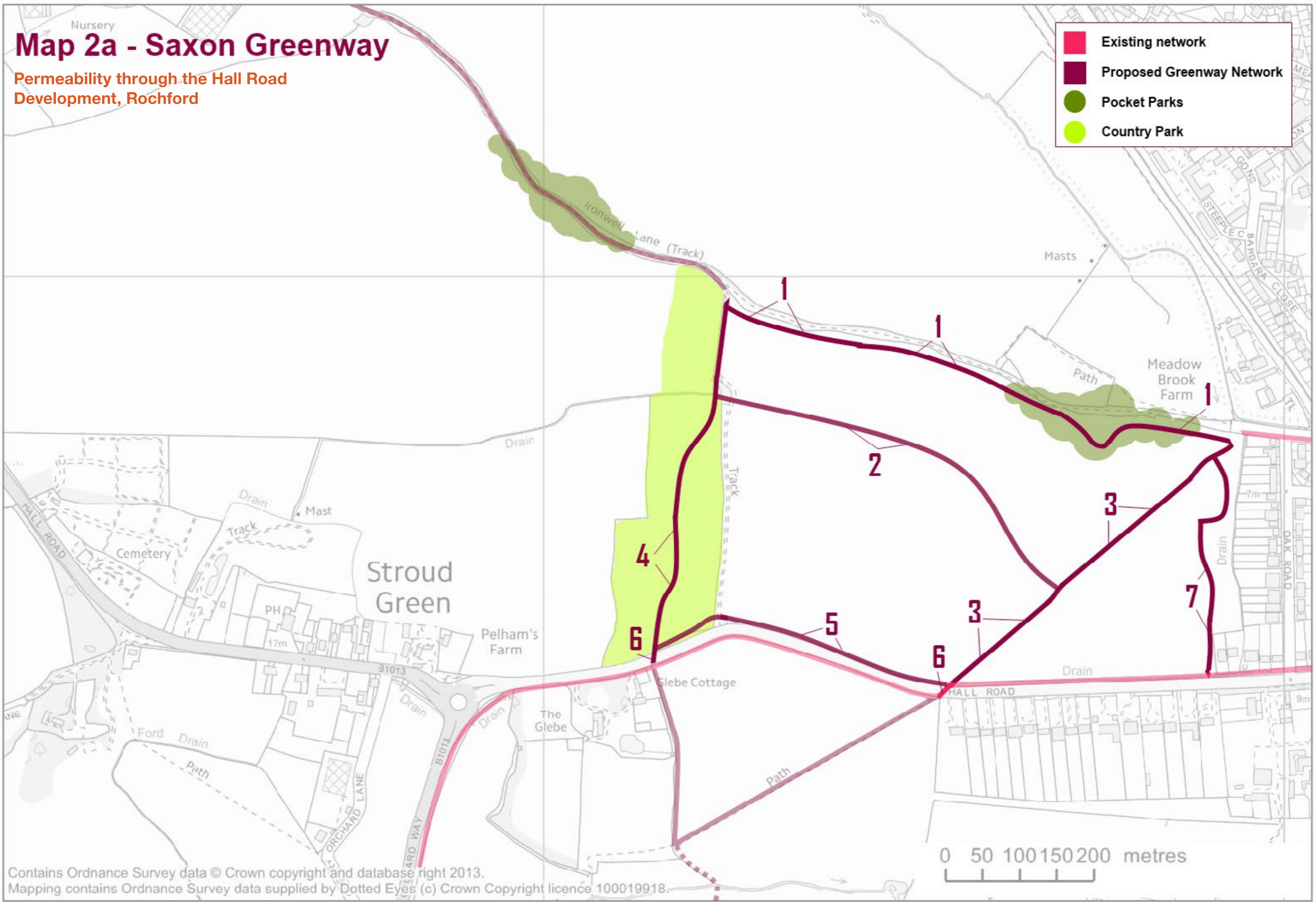


- Ironwell Lane to Hall Road (north south link through Hall Road Development on the eastern boundary). Sustrans recommends that this and other traffic free routes within the development are 3m wide Asphalt shared use paths 60mm AC 20 Surf 100/150 possibly with Fibredec surface dressing. See Path Type D for recommended construction.

Map 2a - Saxon Greenway

Permeability through the Hall Road Development, Rochford

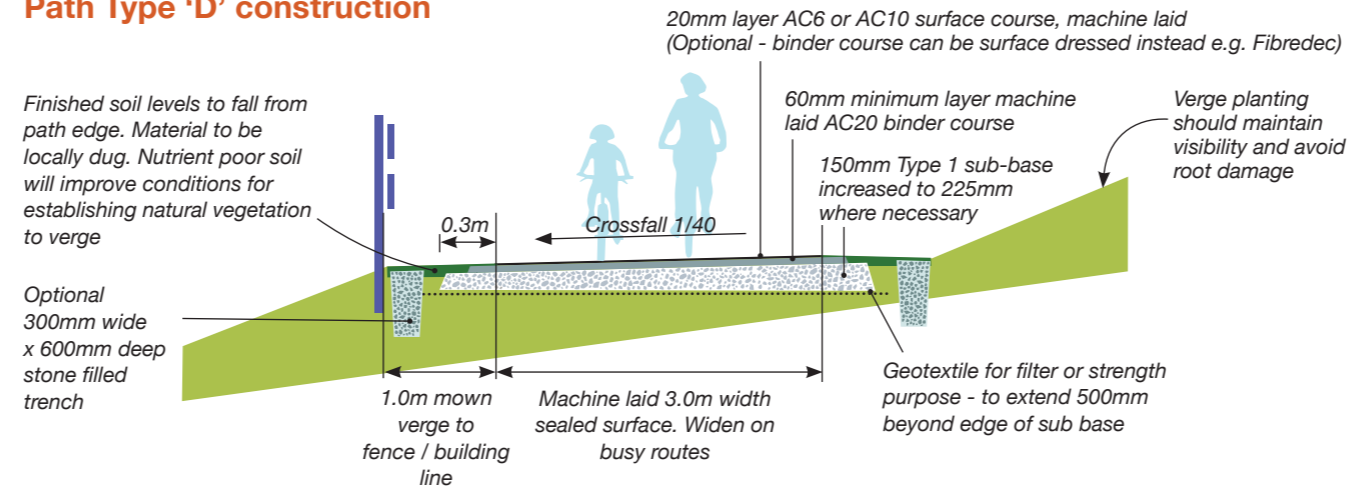
- Existing network
- Proposed Greenway Network
- Pocket Parks
- Country Park



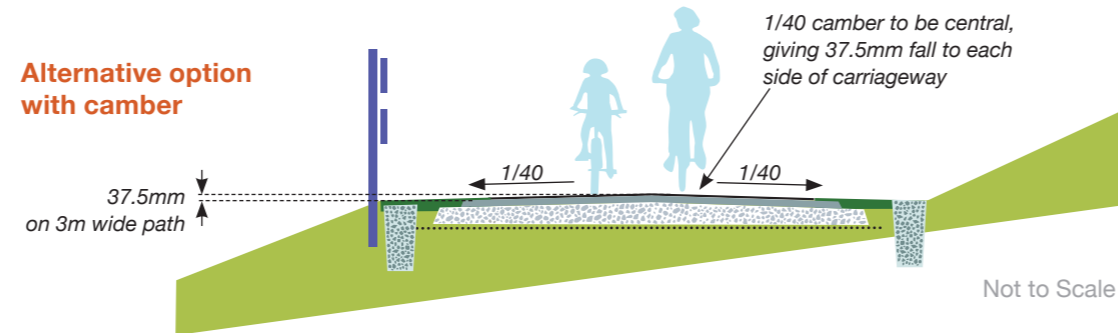
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8. 345m from Hall Road to Roach crossing (FP 5 to change status to BW through creation order). Minimum 3m wide path with 1m mown verge. Wearing course: granite dust (As specified by ECC) – 3mm to dust – 20mm thick. See Path Type A for specification.
9. 315m from Hall Road to Roach crossing (eastern edge of arable land) 3m wide Asphalt path 60mm AC 20 Surf 100/150 See Path Type D for specification.
10. 460m from FP5 to Southend Airport Business Park (to link with the proposed network within SAPB). 3m wide Asphalt path (east and west approach) 60mm AC 20 Surf 100/150 See Cherry Orchard Way Overbridge - Butterley Bridge Inspection bridge report for specification.
11. Roach Crossing. As part of the wider network, it is proposed a timber bridge be built over the River Roach approximately 500m downstream east towards Rochford. A 7m long 3m wide timber bridge with 1.4m high parapets, suitable for use as a cycle and pedestrian bridge with no motorised vehicle access is recommended. See Cherry Orchard Way Overbridge - Butterley Bridge Inspection bridge report for specification of bridge.
12. Bridge construction access will also be required should the proposal be taken forward- works access via private land will be essential.
13. Network within SABP will be shared ped/cycle footways both sides of the spine road with traffic free routes across the site linking the footpaths and existing cycle routes. The shared footways are 2.5m to 3m wide with a 1.5m verge. Sustrans recommends that the traffic free routes are 3m wide Asphalt paths 60mm AC 20 Surf 100/150 possibly with Fibredec surface dressing. See Path type D for recommended construction.

Path Type ‘D’ construction



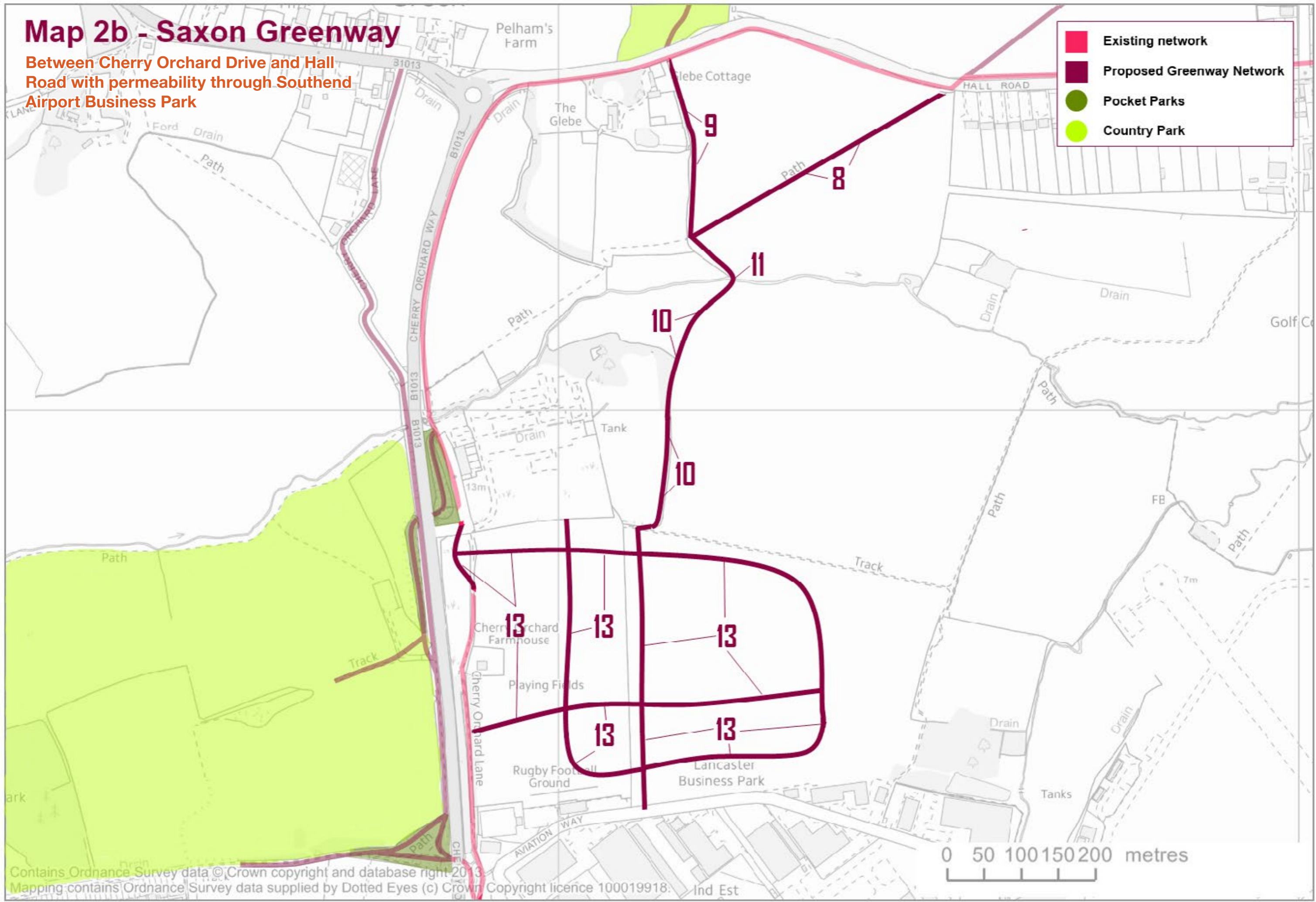
Alternative option with camber



Map 2b - Saxon Greenway

Between Cherry Orchard Drive and Hall Road with permeability through Southend Airport Business Park

- Existing network
- Proposed Greenway Network
- Pocket Parks
- Country Park



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Map 3. Cherry Orchard Greenway: Linking Southend Airport Business Park, Cherry Orchard Jubilee Country Park and Green Lane via Butterley Bridge (aka the brick work tunnel).

The majority of the surface on BW10 is potholed and needs resurfacing, upgrading and widening in places. There is also evidence that the route is used by equestrians and as a result their requirements must be considered. However the route has direct links with Cherry Orchard Jubilee Country Park, the existing underpass under Cherry Orchard Way and BW48 (which links to Butterley Bridge).

BW48 runs parallel with Cherry Orchard Way (B1013). Widening and patch repairs along its length from the triangle of scrub to the south (Cherry Orchard Pocket Park) all the way to Cherry Orchard Lane (north). The new access link to the country park from Cherry Orchard Way will need careful consideration and a priority crossing must be considered. This treatment will help to maintain continuity and priority for the route alongside the main road, which is commonly a key cycle desire line.

Opportunities exist at Butterley Bridge (aka The Brick work tunnel) to link Cherry Orchard Jubilee Country Park with SAPB and the wider cycling and walking network to the North, East and South of Cherry Orchard Way.



Bridle Way 10



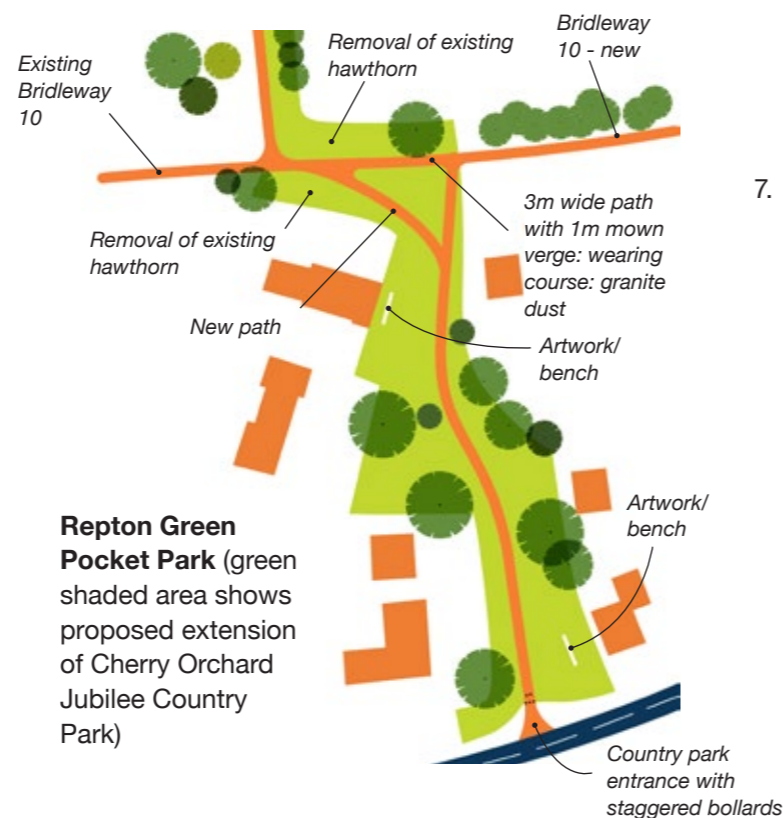
Bridle Way 10 running parallel with Cherry Orchard Way (B1013)

Recommendations

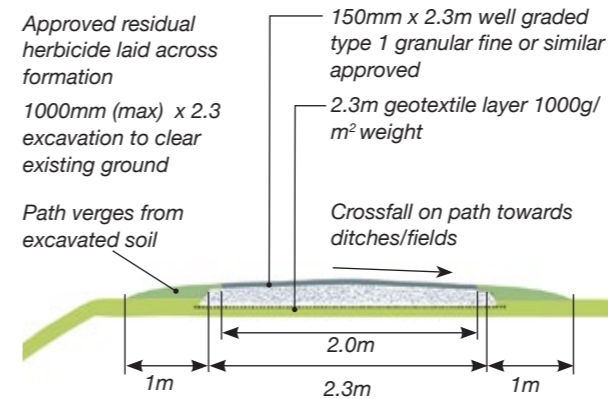
1. Repton Green. The bridleway passes very close to Repton Green, a small community space with mown grassland along a footpath. A single line of tall hawthorn separates the two spaces and creates a dark corridor along the greenway. The removal of this hawthorn would open up the space and create more of a joined-up feel encouraging more people to use the path and enter the neighbouring country park.



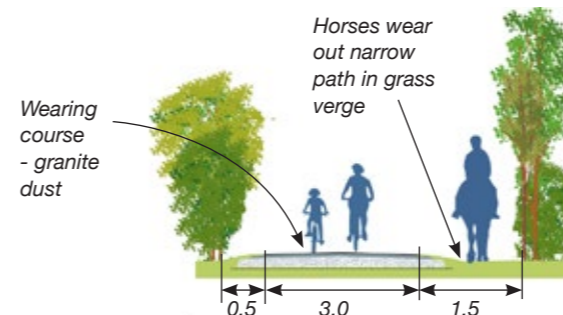
2. The entrance to the country park is quite dark and narrow. Opening up this space would provide better access to the park and would provide opportunities for creating wildlife habitats (such as habitat piles) or wildlife themed artworks (such as sculptures containing bat boxes).



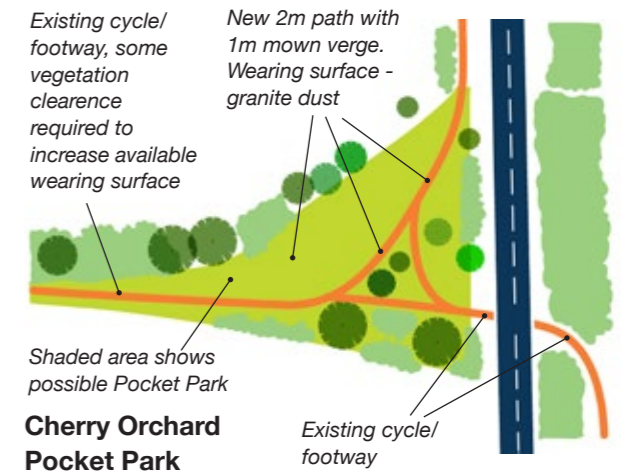
3. Directional signage for Cherry Orchard Greenway to reflect country park signage, to be retro-reflective as route will be used after dark.
4. 40m of new path within Repton Green. Minimum 3m wide path bitmac wearing course. See Path Type A for specification.
5. Single row of locking bollards preferred at eastern end of greenway to allow authorised access. 1.5m spacing. Restrictive access controls should be avoided on the greenway and all entry points made flush.
6. 530m from Repton Green to existing surface. Minimum 2m (up to 3m) wide path with 1m mown verge. Wearing course: granite dust (As specified by ECC) – 3mm to dust – 20mm thick. See path type A for specification.



7. Chicane boulders to be removed and replaced with single row of locking bollards to allow authorised access for maintenance. 1.5m spacing. Restrictive access controls should be avoided on the greenway and all entry points made flush.

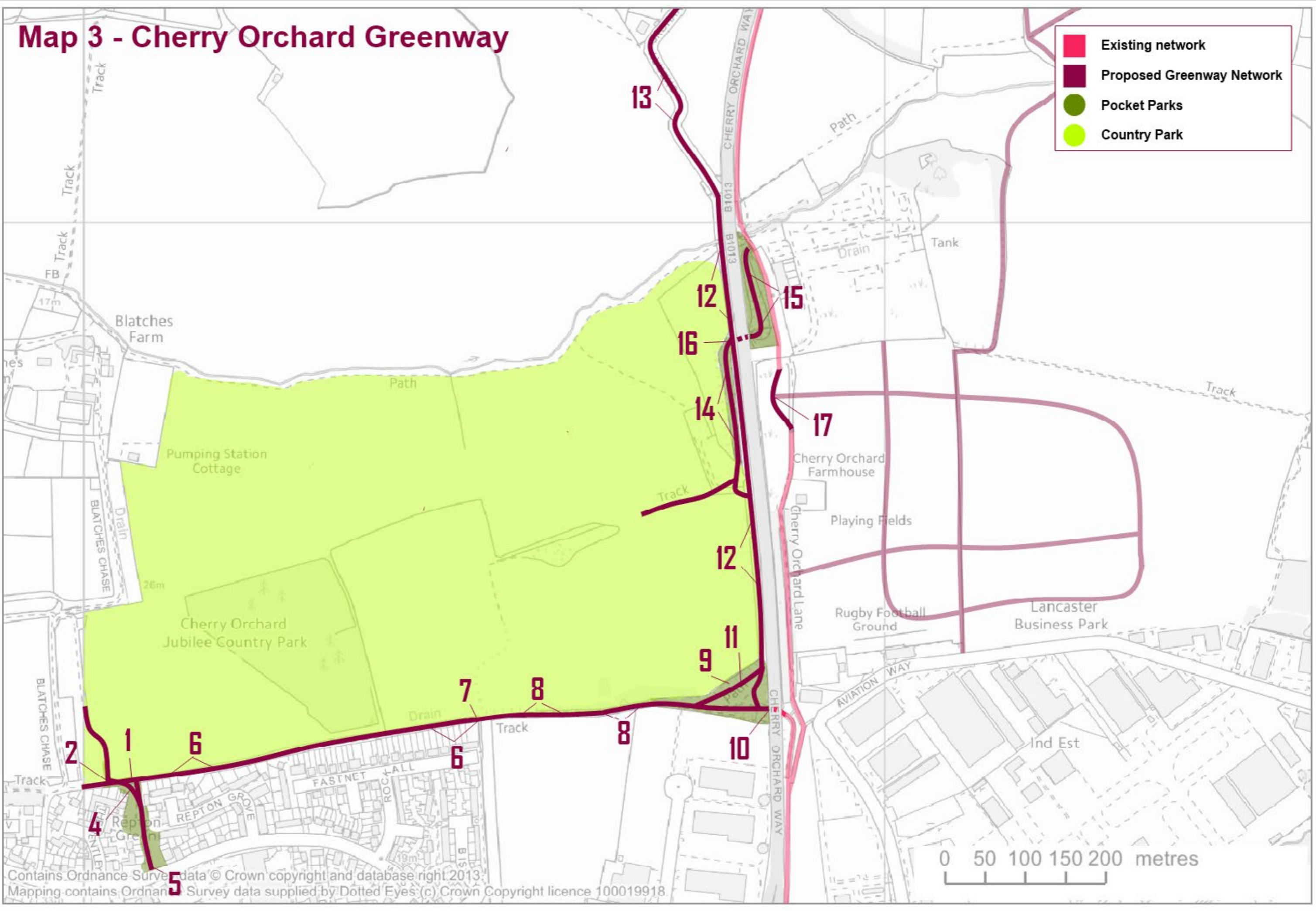


8. Existing 2m wide granite dust path. The stretch of hedgerow between Cherry Orchard Way and the country park boundary has been planted with native species. These species do not yet form a continuous hedge, however proper management would allow the dense bushy structure favoured by wildlife to develop creating a valuable feature. Some vegetation clearance required to increase wearing surface.
9. Cherry Orchard Pocket Park. This triangle of scrub and grassland contains a wide variety of habitats and microhabitats that are highly suitable for a range of invertebrates, nesting birds, bats, small mammals and other wildlife. This would be an ideal location to create habitat piles and encourage wildlife activities such as BioBlitz days or school group activities. The creation of a management plan for this area could be used to attract funding and interest to the project as a whole as well as ensuring the site is properly managed for wildlife.



Map 3 - Cherry Orchard Greenway

- Existing network
- Proposed Greenway Network
- Pocket Parks
- Country Park



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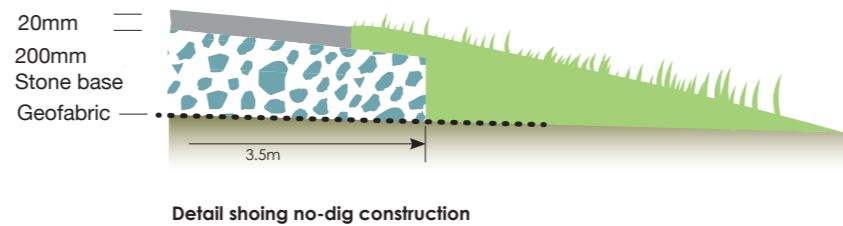
- 10. The underpass in this location is formed from pre-cast concrete blocks and no features that could support roosting bats or nesting birds were observed. This structure is of a type not normally favoured by these species groups and includes artificial lighting that would further deter many bat species.
- 11. 90m linking BW10 and BW48. Minimum 3m wide path with 1m mown verge. Wearing course: granite dust (As specified by ECC) – 3mm to dust – 20mm thick. See Path Type A for specification
- 12. 630m from Cherry Orchard Pocket Park to Cherry Orchard Lane (north), Minimum 2m wide path with 1m mown verge. Wearing course: granite dust (As specified by ECC) – 3mm to dust – 20mm thick. See Path Type B for specification.
- 13. Cherry Orchard Lane (north). No works required.



- 14. Western Approach Ramp. The cutting to the west of Cherry Orchard Way within the country park contains tall grass on a sunny slope and as such is highly suitable for invertebrates. A bush cricket was observed in this area, thought to be Grey Bush Cricket *Platycleis albopunctata*. Proper management of this habitat to retain tall grass and encourage wildflowers will help support and expand local invertebrate populations. The approach ramp is approximately 160m long, with an approximate gradient of 1 in 40 throughout its length. 180m Minimum 3m wide path bitmac wearing course. See Path Type A for specification.

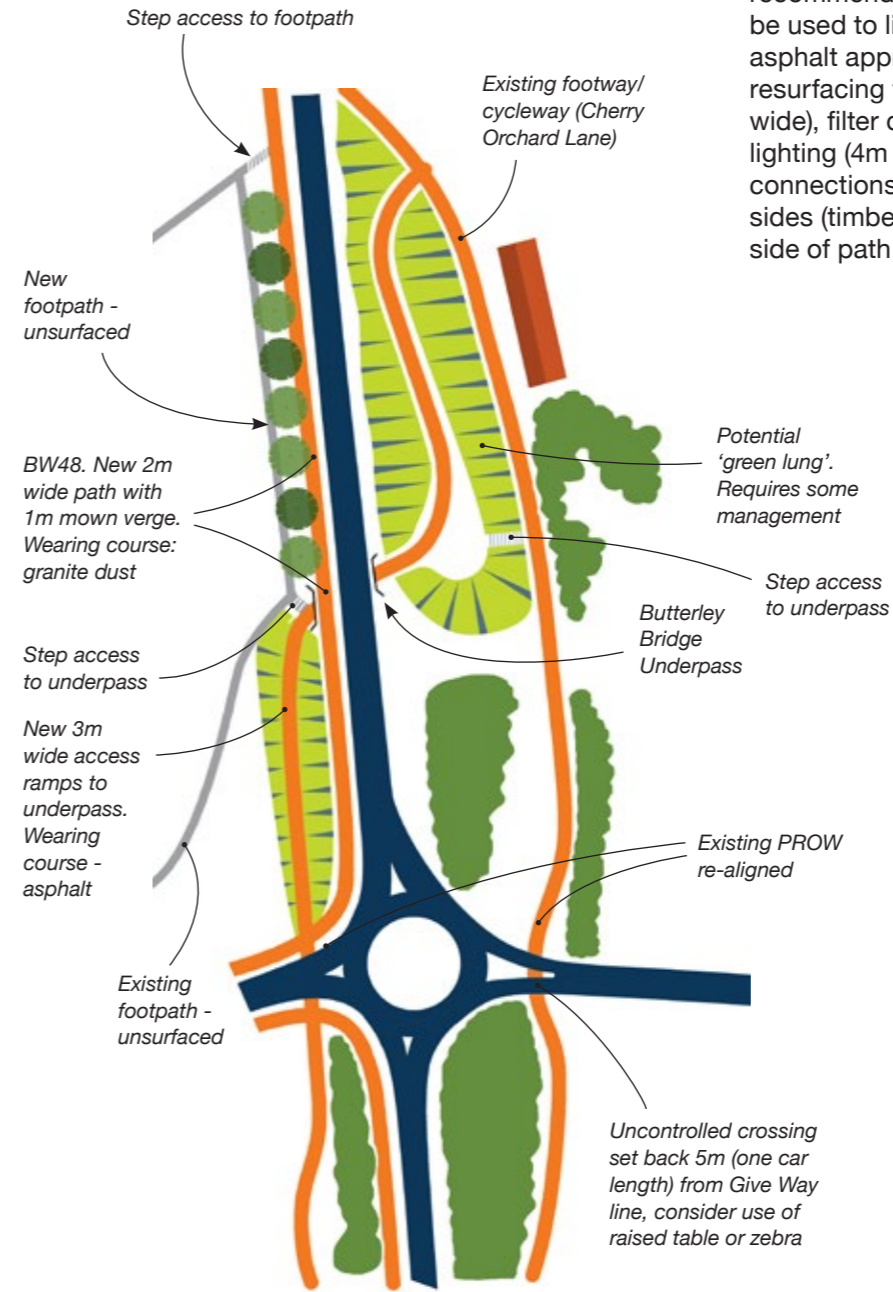
- 15. Eastern Approach Ramp. Similarly to the western side, the entrance has cast in-situ reinforced concrete wing walls to retain the road embankment either side. These change in height from 3.0m adjacent to the underpass down to the ground approximately 4m from the underpass. There is a hedge and fence across the top of the structure to prevent access from above. 120m Minimum 3m wide path bitmac wearing course. See Path Type A for specification.

- 16. The underpass is approximately 25m long, 3m tall and 3.6m wide, constructed from precast concrete box culvert sections. Resurfacing through structure (35m, 3.6m wide).

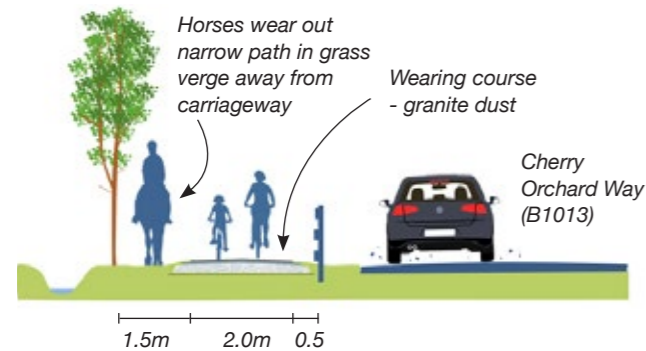


- 17. Proposed SAPB access roundabout and new crossing of Cherry Orchard Lane. Details yet to be confirmed at time of writing.

The Cherry Orchard Way Overbridge report (see appendix 1) provides the results of a detailed inspection of Butterley Bridge and recommendations for how the bridge could be used to link the Greenway Network include asphalt approach paths east and west, resurfacing through structure (35m, 3.6m wide), filter drains on approach, site clearance, lighting (4m columns at 10m spacing, include connections, light ducting, concrete steps both sides (timber edge and handrail) and fencing to side of path area.



Butterley Bridge depicts a spur to the country park – this features in the JAAP policies and would need to be taken into consideration when looking at the bridleway etc. in this area

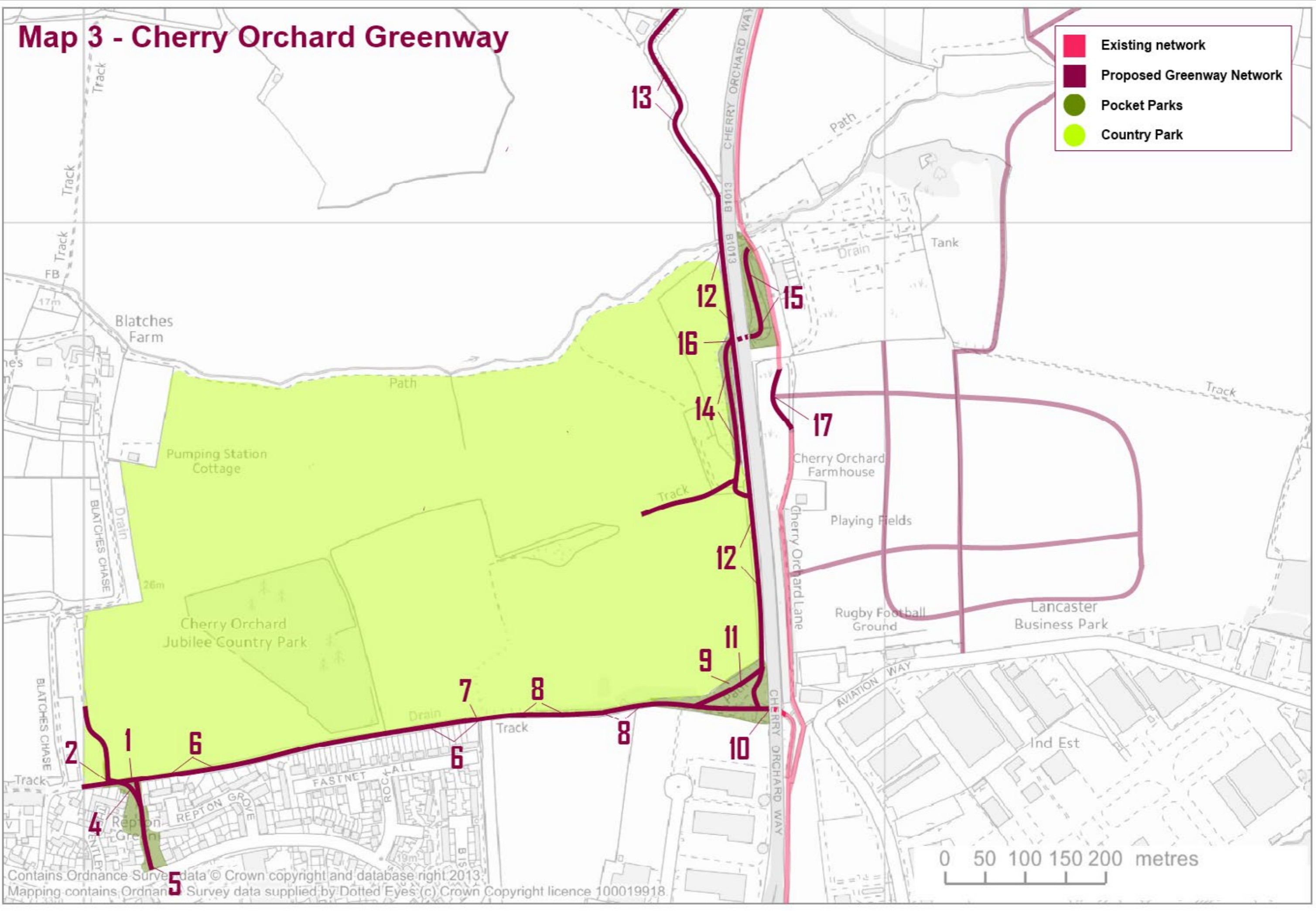


Cherry Orchard Greenway. BW48. Shared use cycle/footway with separate bridle path



Map 3 - Cherry Orchard Greenway

- Existing network
- Proposed Greenway Network
- Pocket Parks
- Country Park



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How the options benefit the development areas within the JAAP

Wherever possible Southend-on-Sea Borough Council, Rochford District Council and Essex County Council do provide for Greenways in their local plans and in development briefs prepared for new sites or other areas. This is invaluable if the development control officers can be committed to the evolution of a network of Greenways in their area and it is equally vital that a wide range of local authority players are also signed up to this vision. These should include the Highways, Engineering and Environmental Departments, in order that crucial crossings, fragments and links to routes can automatically be included and designed to a good standard, in the on-going process of construction and renewal. The Parks, Recreation and Education Departments are all equally crucial players in developing effective schemes.

Land assembly is a vital element in the development of effective routes. This is evident through new development, creating links as opportunities arise through housing schemes and redevelopment projects, or through the patient assembly of new routes across open fields and other alignments to link through to country parks or to avoid major roads. Usually it is best to methodically get on with this work before the details of the scheme are drawn up and discussion is opened in public, partly because it is not until the final land assembly is put in place that one can be confident of the route and secondly it is all too easy for land negotiations to be stalled in the face of possible opposition from some individuals.

Developing a network

In urban areas the cycle network will comprise the highway network, modified where necessary, together with traffic free routes which offer more direct journeys, overcome barriers or offer attractive routes. Within the proposed network the more strategic main routes will be identified for prioritisation of investment and promotion. The London Southend Airport and Environs Joint Area Action plan Walking and Cycling Network should be:

Coherent

- link all potential origins and destinations
- be continuous and recognisable
- offer consistent standard of protection throughout
- be properly signed
- include well located cycle parking

Direct

- be based on desire lines
- result in minimal detours or delays
- provide a positive advantage in terms of directness and priority over motor traffic

Safe

- be safe and perceived as safe
- provide personal security
- limit conflict between cyclists and pedestrians and other vehicles

Comfortable

- be smooth, non-slip, well maintained, drained and free of debris
- have sufficient width for the level of use
- have easy gradients
- be designed to avoid complicated manoeuvres
- enable cyclists to maintain momentum
- minimise impacts of noise, spray and headlight dazzle from other traffic

Attractive

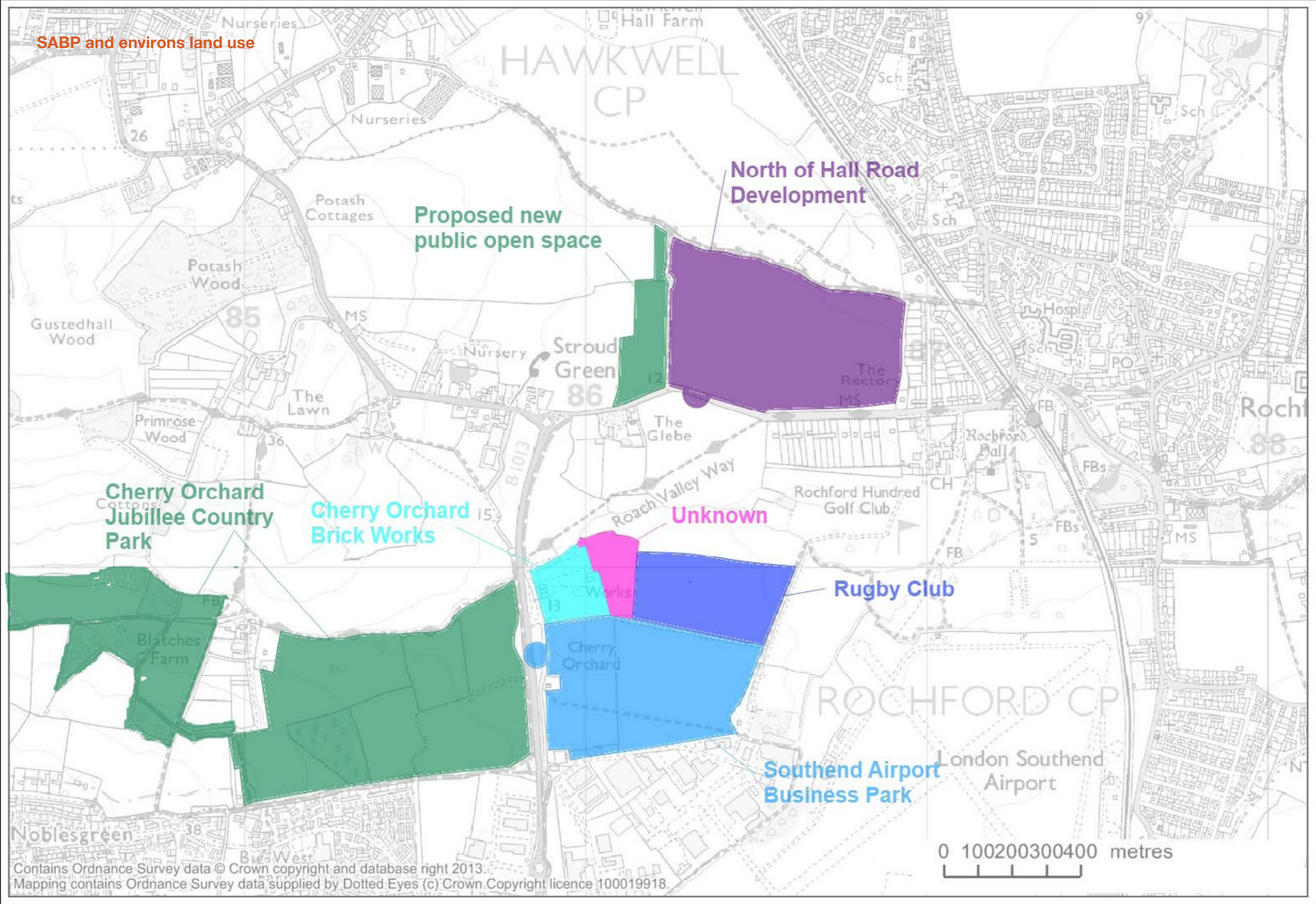
- be attractive and interesting
- integrate with and complement their surroundings
- contribute to good urban design
- enhance personal security
- be well maintained

Adaptable

- Where substantial increases in cycling are expected, consideration should also be given to the adaptability of infrastructure to accommodate large increases in use

For the purposes of this study we have developed a hierarchy of routes: focussing on the more strategic main routes which have been identified for prioritisation of investment and promotion. Ongoing consultation with Essex County Council, Southend Borough Council and Rochford District Council plus a comprehensive survey of the area as part of the London Southend Airport and Environs Joint Area Action Plan Walking and Cycling Network Greenways study which identified three main corridors.

SABP and environs land use



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How the options benefit the development areas within the JAAP: Bellway Homes – Land north of Hall Road, Rochford (10/00234/OUT)

According to the ‘Design & Access Statement April 2010’ for ‘Hall Road Rochford. ‘Additional cycle and pedestrian links will provide further connections with both Hall Road and Ironwell Lane (at the north east corner of the site.) Ironwell Lane provides good connection from the site to Rochford Centre’.

An additional link for dog walkers will also exist in the north west corner of the site. Within the site there is a network of residential streets which present a number of quietways for cycling and walking. In addition there is a diagonal ‘boulevard’ which will provide suitable links from the existing uncontrolled crossing of Hall Road, through the site, across the balancing pond via a causeway and out onto Ironwell Lane. There are no plans within the application to make improvements to or provide any additional links to Ironwell Lane or to improve the crossing of Hall Road.

The ‘Bellway Homes Proposed residential development: Transport Assessment’ advises that the existing footway on the north side of Hall Road will be extended west along the whole length of the site frontage using land within the site. The existing 30mph limit at Rochford will be extended west to include the western access junction.

It is worth noting that there are plans to create a country park to the west of the site with the local authority adopting the site in the longer term. This presents another ‘green space’ that the Greenway Network should link to and may provide another option for a north/south route from Hall Road to Iron Well lane.

1st phase (south east corner of the development) has been approved and works have commenced (2015/16). 2nd phase (north west corner of the development) awaits approval.

Nb* Sustrans has been in regular contact with JCN Design who are acting on behalf of Belway Homes.



1. Typical new housing in Central area
2. Typical new housing in Avenues area
3. Typical new housing in North and West Edge areas
4. Buffer zone to Hall Road with low density housing set back from existing trees
5. Buffer zone to Oak Road gardens with low density housing set back from garden boundaries
6. 20-metre buffer zone to Ironwell Lane Hedge
7. New Primary School
8. Central Green
9. New Country Park with woodland buffer to Green Belt
10. Neighbourhood Equipped Area of Play
11. Local Equipped Area of Play
12. Local Area of Play
13. Swale
14. Retention Pond
15. Incidental Public Open Space
16. Vehicular Accesses from Hall Road
17. Central Square
18. School Entrance
19. Public Open Space at school entrance
20. New roundabout on Hall Road

Project Hall Road, Rochford			
Drawing Title Illustrative Master Plan			
Date Aug 11	Drawn by SC000040	Checked by CA	Checked by CA
Project No. 182702	Drawn by PL 02	Checked by PL 02	Checked by PL 02

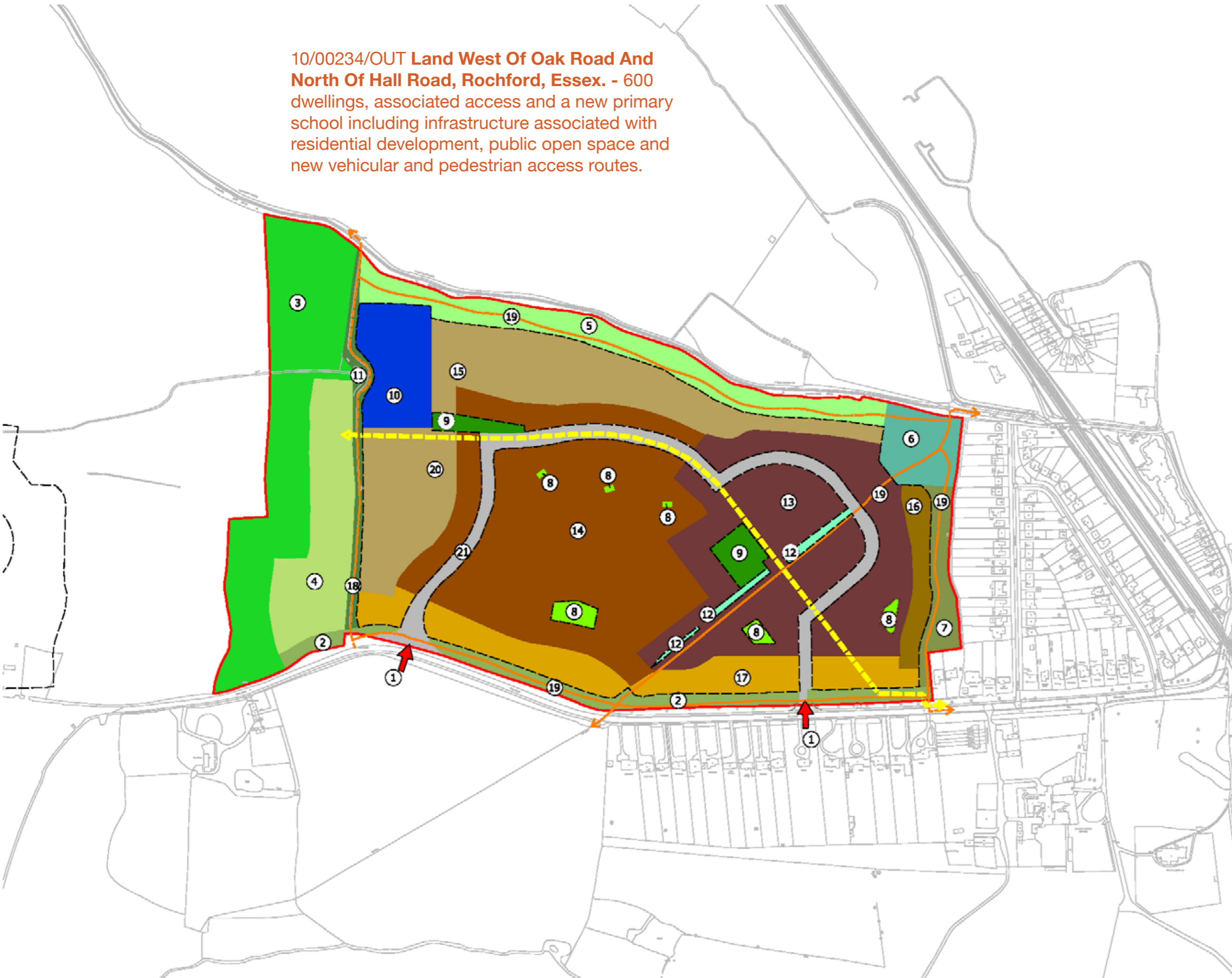
Proposed Hall Road Development, Rochford - 600 dwellings, associated access and a new primary school including infrastructure associated with residential development, public open space and new vehicular and pedestrian access routes

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10/00234/OUT Land West Of Oak Road And North Of Hall Road, Rochford, Essex. - 600 dwellings, associated access and a new primary school including infrastructure associated with residential development, public open space and new vehicular and pedestrian access routes.

The scaling of this drawing cannot be guaranteed

Revision	Date	By	Check
A	18 Aug 10	AG	CA
B	10 Sep 10	AG	CA
C	15 Sep 10	AG	CA
E	11 Jul 11	JF	CA
F			
G	28 Sep 11	PM	CA
H	10 Nov 11	AD	CA



- ### Legend
- Site boundary
 - - - Development area
 - 1 Access from Hall Road
 - 2 Landscape buffer to Hall Road (min 20m from structural planting). Includes 1 LAP
 - 3 Country Park- Landscape buffer to Green Belt (passive use)
 - 4 Country Park- Open space for active recreation (Includes 1 LAP and 1 LVP)
 - 5 Landscape buffer to Green Belt (min 20m from structural planting) Includes 1 LAP
 - 6 Wetland mark, including recreation ponds
 - 7 Landscape buffer to Oak Road rear gardens
 - 8 Residential Public open space (provides 4m² illustrative area) Includes 4 x LVPs (1 per acre)
 - 9 Public Open Spaces "School Green" and "Village Green". Includes 1 LAP
 - 10 School site (min 20m width)
 - 11 Edging hedge, pond and fern track
 - 12 Sheds (incorporating crossover where necessary) Includes 1 LAP
 - 13 Density Band A: Central Area, 35-40 dwellings per hectare
 - 14 Density Band B: 1st Avenue, 30-35 dwellings per hectare
 - 15 Density Band C: North and West edges, 25-30 dwellings per hectare
 - 16 Density Band D: Eastern edge, 20-25 dwellings per hectare
 - 17 Density Band E: Hall Road fringe, 12-20 dwellings per hectare
 - 18 Edging fern track
 - 19 Illustrative route for proposed footpath or cycle path
 - 20 Private green link across site from Hall Road to Country Park
 - 21 Open Area

Project:
Land west of
Rochford

Drawing Title:
Site Parameters Plan

Date: 25.08.11	Scale: 1:2500 @ A1	Drawn by: BB	Check by: CA
Project No: 18293	Drawing No: PL-03	Revision:	H

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- Binding Margin -

How the options benefit the development areas within the JAAP: Southend Airport Business Park (SABP)

Southend Airport Business Park (SABP) will provide high quality, modern, sustainable and spacious B1 (Business and B2 (General Industry) accommodation supplemented with supporting uses. The business park will offer a home to a range of high-tech businesses and provide quality jobs for local people.

The accommodation within the business park will be sensitively integrated into the natural landscape which encourages the development of a sustainable, long-term business community where people will aspire to work and thus reinforce and contribute to the success of the employment area.

The business park, including new areas of public open space and the upgrading of the landscape, will create a ‘green lung’ linking Rochford Town Centre in the east and Cherry Orchard Country Park in the west, providing a high quality green environment for residents, visitors and workers.

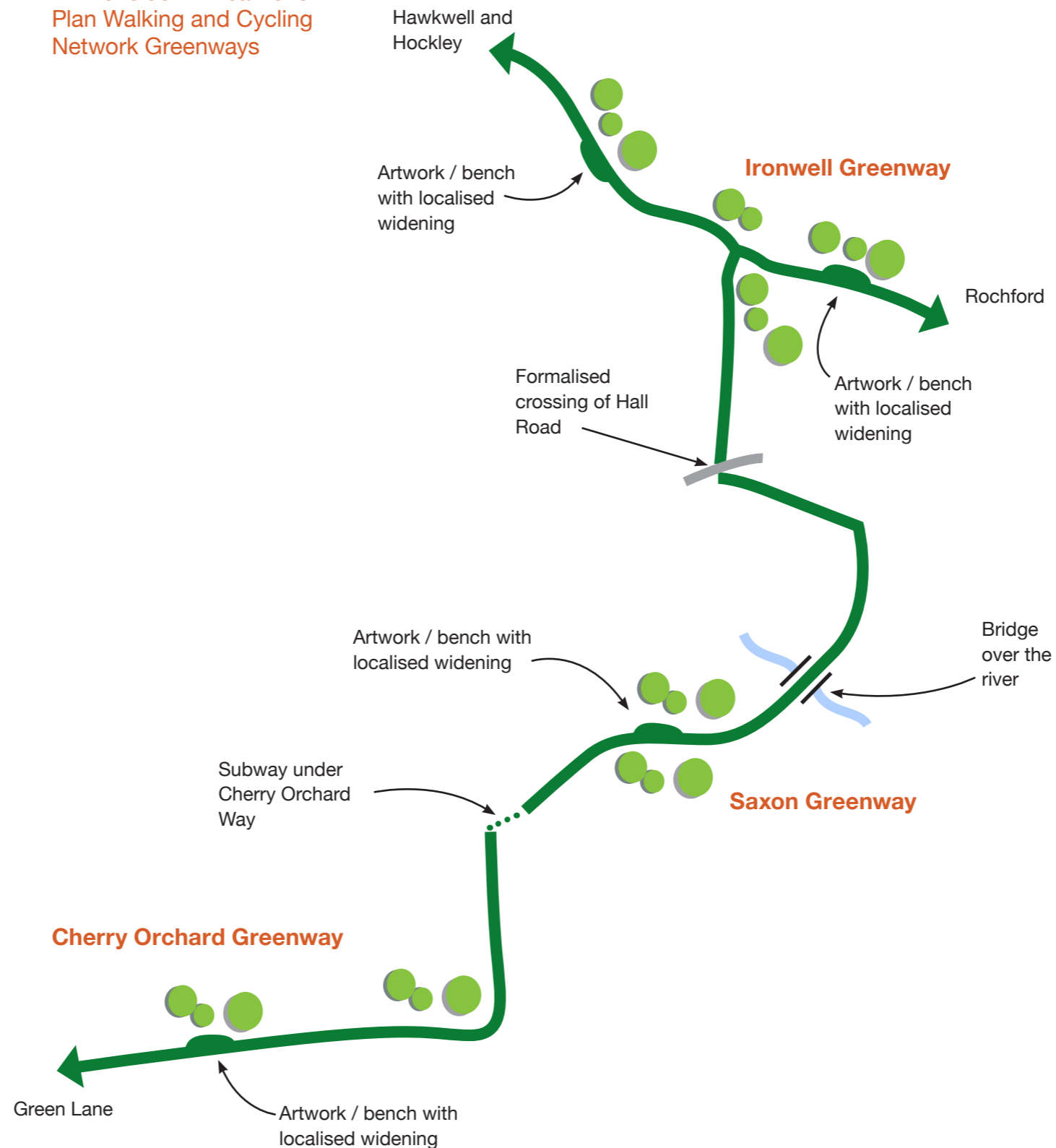
It is proposed that shared ped/cycle footways are provided both sides of the spine road (that runs through the business park) and that there are traffic free routes across the site linking the footpaths and existing cycle routes. The routes are 2.5m to 3m wide with a 1.5m verge.

Links from within the development to the wider network are being considered with the developers, architects, SBC and Sustrans in discussion. Proposals are to extend the internal cycle routes that traverse the site to a point where a link north towards Hall Road may be developed.

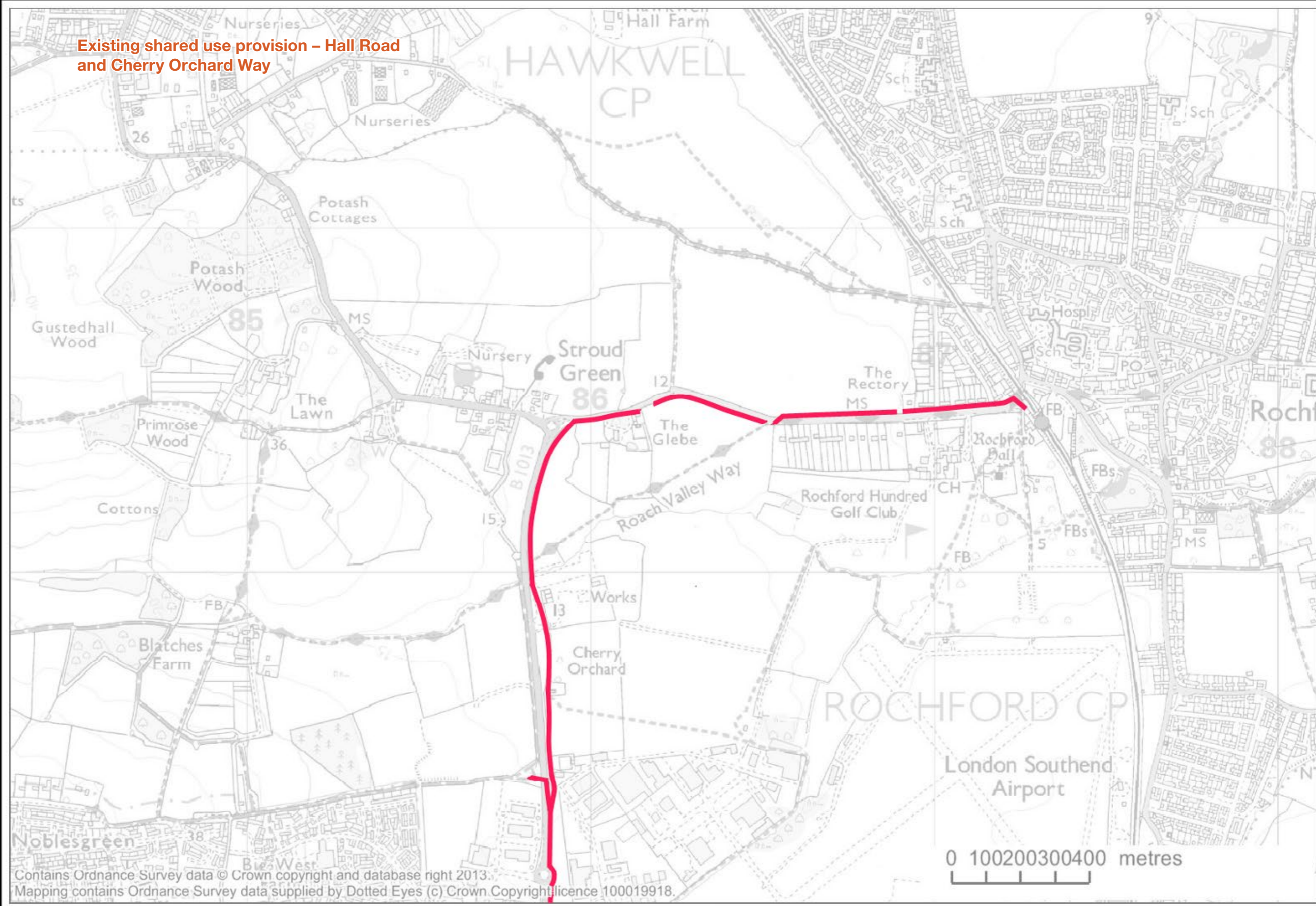
At the time of writing discussions are continuing with regards to the new access roundabout on Cherry Orchard Way. Designs are being considered that provide an option to extend a spur from the roundabout to create a new access road to Cherry Orchard Country Park. This will potentially have an impact on BW48 and the access ramp to Butterley Bridge see appendix 1. It is vital that the access ramp to Butterley Bridge is considered when creating any news spurs on the roundabout.

Nb* Sustrans has been in regular contact with Jefferson Sheard Architects and Henry Boot Developments Ltd as part of this study. No images of SABP agreed layout available at time of writing.

Visual Representation of London Southend Airport and Environs Joint Area Action Plan Walking and Cycling Network Greenways



Existing shared use provision - Hall Road and Cherry Orchard Way



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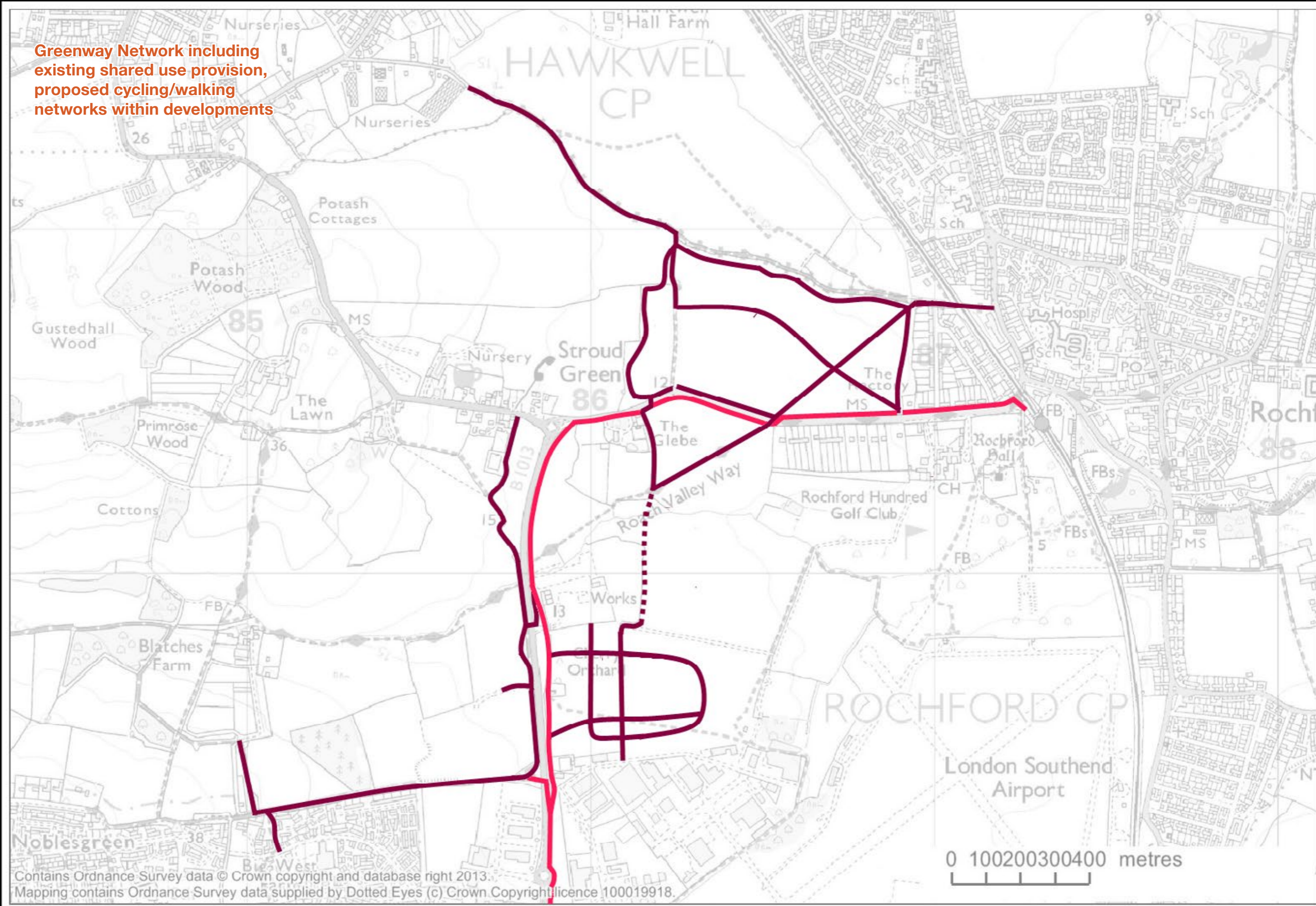
Proposed cycling/walking networks within developments

Proposed cycling/walking network within new development north of Hall Road

Proposed cycling/walking network within SABP

0 100200300400 metres

Greenway Network including existing shared use provision, proposed cycling/walking networks within developments



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0 100200300400 metres

Linking existing foot, cycling and bridleways

There is a wide variety of footpaths, bridleways and byways that link into the SAPB and with wider JAAP environs. These are used wherever possible to create the Greenway Network referred to in this report and where a public right of way does not exist then measures have been taken to explore alternatives before proposing PROW creation.

Effectively the proposed ‘Greenway’ network comprises (from the Southend Boundary), bridleways 10, 48 and 47 Rochford; a length coincident with Hall Road before resuming northwards along bridleway 55, linking to byway 11 Rochford/19 Hawkwell (which straddles the Parish boundary). As existing bridleways/byway the paths are of variable width but obviously already accommodate cyclists as well as horses and walkers however for the network to be a success then PROW upgrading will also be required. The Ironwell Lane Greenway and Cherry Orchard Greenway will require PROW surface upgrading to create meaningful links to local communities and

improve access the countryside. The Saxon Greenway will require either a PROW upgrading and surface improvements or a PROW creation of a new link.

As the Highway Authority Essex County Council has the ultimate responsibility for PROW across Essex. Essex Highways, on behalf of Essex County Council, has a statutory duty to maintain and protect the network of Public Rights of Way. Sustrans understands that the Rights of Way Improvement Plan for Essex which was published in 2009 is due for an interim review next year (2016). One of the changes that will be incorporated into this review will relate to the surface treatment (as well as creation of new bridleways) in urban areas. It is understood that new/semi-hardened paths in development areas will not generally be acceptable and that surfacing of existing bridleways in urban or semi-urban areas, or new bridleways which will be delivered as part of existing planning obligations, will be either road planings or granite dust. See for more information on surfacing recommendations.

For more details and visual aids that demonstrate the existing foot, cycling and bridleways please see the ‘Existing and New PROW, cycle routes and access points’ report appendix 7.

Ownership, Land Agreements, Status and Designation

Land searches via the Land Registry and discussions with Rochford District Council, Southend-on-Sea Borough Council and Essex County Council have revealed a number of different land owners exist along the proposed Greenway Network. The majority of the proposed network utilises existing PROW, current cycling/walking provision and networks within new developments (namely SABP and the Hall Road Development, Rochford). Using these routes precludes the need for land negotiation however there are some sections of land where, should the network be taken forward, some careful negotiation would be required. Appendix 2 the ‘Greenway Network Land Ownership Report Sep 2015’ identifies those land owners, highlights key opportunities and shows how, with careful negotiations, a much wider Greenway network can be created. As a result of Sustrans investigations there are two key areas within the Greenway Network that require further investigation. 1. Eastern approach ramp to Butterley Bridge and 2. The link from Hall Road to SABP via a River Roach crossing.

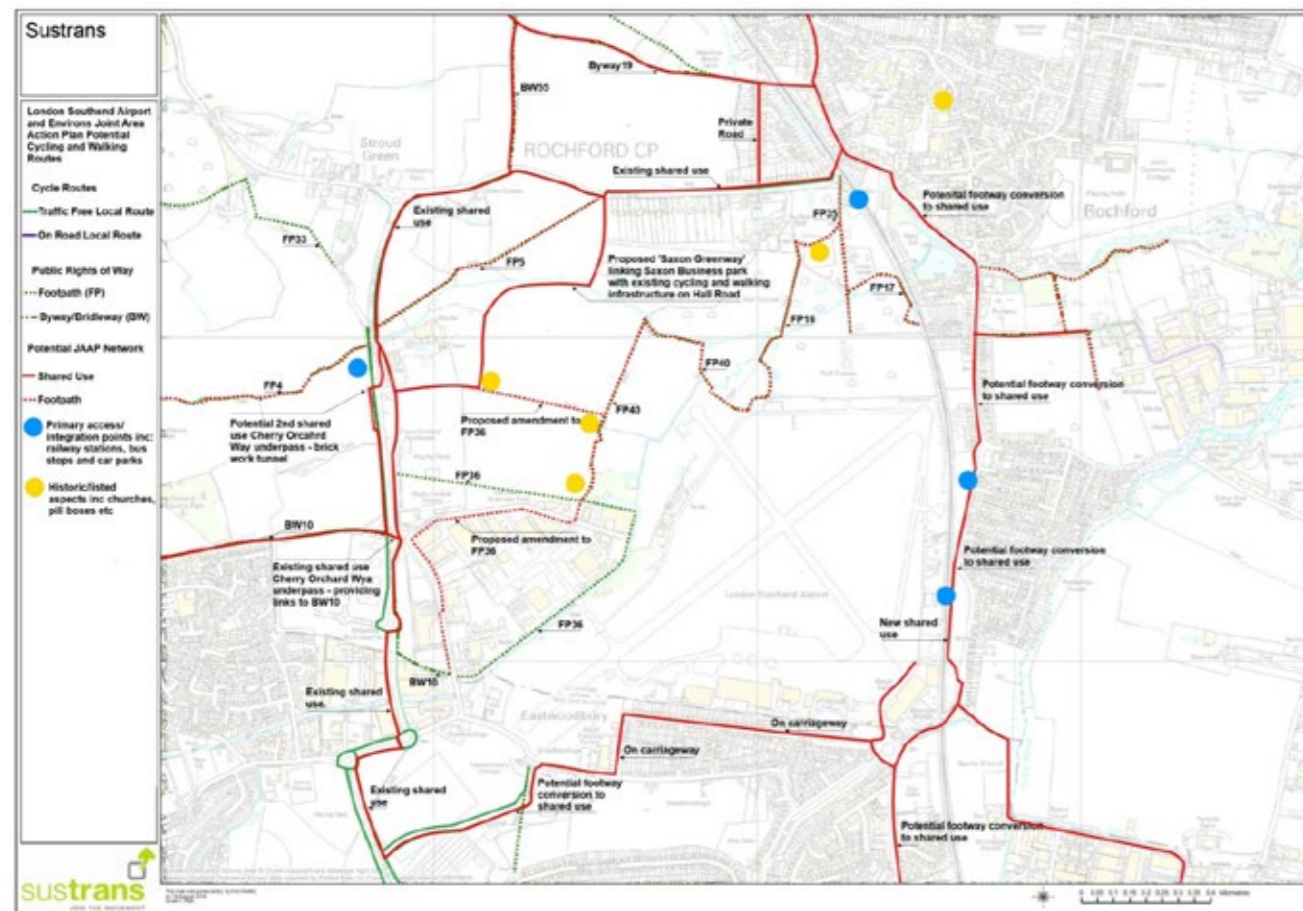
movement between these areas for creates such as bats, small mammals and invertebrates.

Crossing of the River Roach, while the exact crossing point on the river is not yet decided it was concluded that there are options to cross in line with links north to Hall road and south to the perimeter of SABP see Butterley Bridge inspection report for details of bridge design/cost. The creation of a crossing point would also present some additional ecological benefits such as allowing more light to reach the channel which would encourage the development of aquatic species.

With proper management the use of existing bridleways to help extend the Greenway Network will also bring ecological benefits for example retaining tall grass and encouraging wildflowers will help support and expand local invertebrate populations.

Further PEA or other survey will be required should any element of the Greenway Network be taken forward.

See appendix 9 for full Constraints and Opportunities Report.

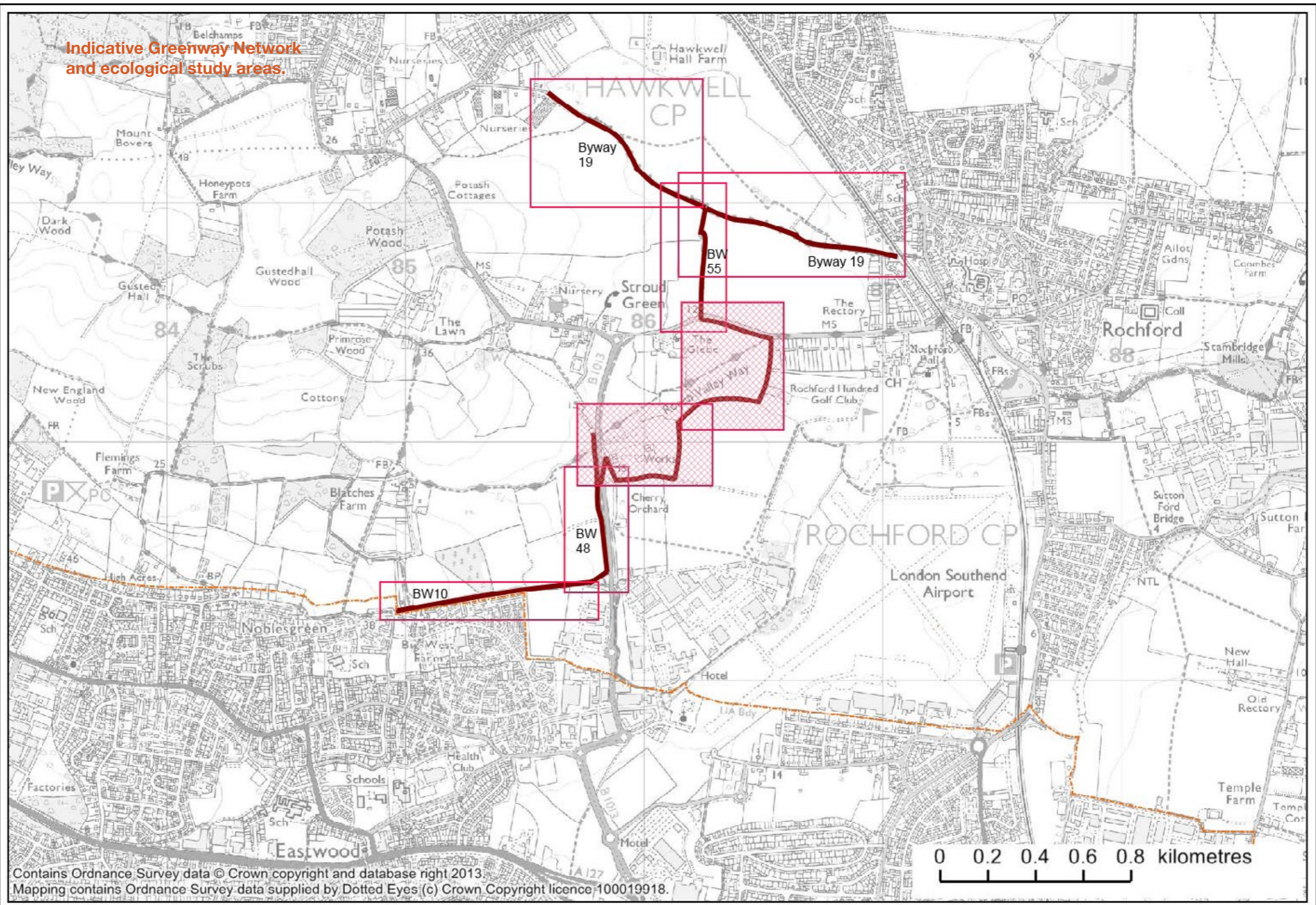


Ecological Survey

Sustrans ecologist attended a site meeting on Thursday 20th August to look at the opportunities and constraints along the routes and to assist in identifying a suitable crossing of the River Roach.

In conclusion Ironwell Lane bridleway presents a great opportunity to link Hawkwell and Rochford while also offering an opportunity to create ‘pocket parks’ through better manage of some of the open spaces, encouragement of wildflowers and other species through scrub clearance, a chance to maintain some of the large trees which are a feature of the path offering a particularly attractive element to the route and filling the gap between Ironwell Lane and the Nursery with native species would allow access and

**Indicative Greenway Network
and ecological study areas.**



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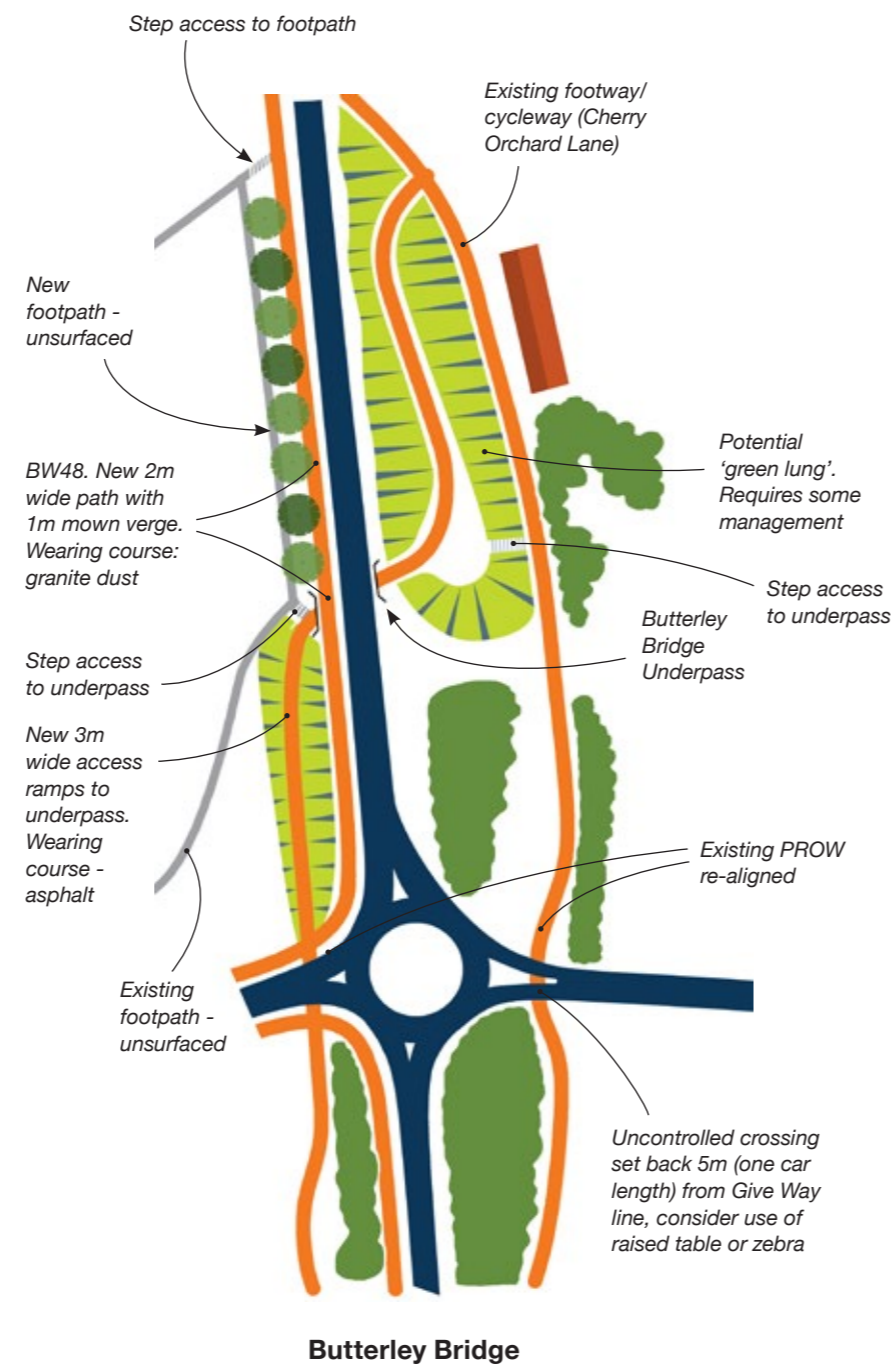
Existing Structures

Re-using old structures, especially railway and canal infrastructure or road bridges, can be an effective way of creating continuity for a traffic free route.

Butterley Bridge (a pre-cast concrete tunnel, made up of a number of culverts units with tensional steel rods locking them together under Cherry Orchard Way) could provide a very useful connection for SABP to the existing cycle/walking network and Cherry Orchard Jubilee Country Park avoiding conflicts at Cherry Orchard Way. The topography is favourable suggesting that works on approach ramps can be minimised.

In the first instance Richard Hollis, Bridge Engineer, Essex Highways has confirmed that the Cherry Orchard Way tunnel (known by ECC as Butterley Bridge) is in fact an ECC structure ref 1577 which was constructed in 1997. To that end it is inspected every two years and condition reports/drawings from the last inspection suggest that the structure is in “Good Condition” see appendix 8 ECC Butterley Bridge Inspection Report. There are two pumps within the structure with chambers in the field to the east. ECC check the pumps annually with the electronics being checked 4 times a year. During the annual inspection the chambers and pumps are de-sludged while the pumps are stripped and completely serviced.

Sustrans bridge engineers have provided an additional inspection report based on a desk study and site visits to Butterley Bridge. The report outlines Current condition, Proposed use of the overbridge and Outline costs for utilising the structure as part of the Greenway network - see appendix 1.



View from Cherry Orchard Lane



View Looking from above Butterley Bridge looking towards the country park



Eastern approach ramp



View of western access to Butterley Bridge

Crossing the River Roach

The crossing of the River Roach is seen as a key opportunity to improve traffic free provision north of SABP. This report demonstrates the opportunities that exist north of Hall road therefore these links and the bridge itself are seen as vital in creating a continuous network. Desire lines will be difficult to reflect however the proposed route to link the crossing with the proposed network aims to avoid deviation from a direct route. The 3.5m proposed width acknowledges suppressed demand and will allow for growth in user numbers. Maintenance of the structure has not been discussed in this report but should be something considered, in addition Environment Agency consent will need to be sought as the structure will be within 9m of a watercourse.

Sustrans bridge engineers and ecologists have provided additional reports based on a desk study and site visits to the area. The reports outline possible impact on the water course, recommended crossing point and outline costs - see appendix 1.



Reach Lode river crossing, Cambridgeshire



Pre-fabricated lightweight structure - Watermead Park

Surfacing

Path surfacing is probably the single most critical element determining the popularity of a Greenway. A surface which is smooth, firm and dry throughout the year and throughout its lifetime will generate far higher levels of use than will any sort of informal surface which is prone to damage from water, erosion and even horses. On this project we recommend that stakeholders should fully explore all other path surface options (see Sustrans Technical Information Note No. 8 appendix 6).

As the Highway Authority Essex County Council has the ultimate responsibility for PROW across Essex. Essex Highways, on behalf of Essex County Council, has a statutory duty to maintain and protect the network of Public Rights of Way. Sustrans understands that the Rights of Way Improvement Plan for Essex which was published in 2009 is due for an interim review next year (2016). One of the changes that will be incorporated into this review will relate to the surface treatment (as well as creation of new bridleways) in urban areas. It is understood that new/ semi-hardened paths in development areas will not generally be acceptable and that surfacing of existing bridleways in urban or semi-urban areas, or new bridleways which will be delivered as part of existing planning obligations, will be either road planings or granite dust. See Appendix 2.

Nb* Discussions continue with ECC PROW regarding legal status of the paths, surfacing and maintenance. For schemes outside the development envelopes funding for construction and maintenance could be in the form of S106/CIL plus on-going maintenance support in the form of commuted sums. It is hoped that a proposal can be put forward by Sustrans in partnership with local stakeholders to create a formal agreement for a maintenance plan that will allow for the PROW to be surfaced to a high specification.

Maintenance and adoption issues

Long Term Maintenance/Asset Management Plan.

Path life cycle costs

Sustrans initially surfaced many off-road sections of the National Cycle Network with unbound

limestone or granite dust surfaces, which were considered most economic and more environmentally friendly at the time. Experience over the last 15- 20 years or so has shown however that already

significant path sections have suffered erosion, rutting, ponding or other damage that make

these paths unattractive and unusable in very wet weather conditions. As a result annual

maintenance requirements for unbound surfaces are generally higher than for bound surfaces.

The following provides an example of how the whole life costs of a path, including construction, routine maintenance and major repairs, varies between different surface types.

- Path construction (rural routes) for bound surface - £30/m² without ancillaries. Path surface lasts 25–30 years, then repairs and additional wearing course required (approx. £15/m²). Annual maintenance cost £1- 2/m²/year. Therefore, total cost for 50 year life-cycle per m² of path construction (at current cost):

Initial Construction	£30
Repair after 25 yrs.	£15
Annual maint. (50 x £1.50)	£75
Total	£120/m²

Comparable construction with limestone dust - £25/ m² without ancillaries. Path surface lasts 12 years, then requires thorough repair / resurfacing (approx. £15/m²). Annual maintenance costs are higher than for bound surfaces, around £ 2/m²/year. Therefore total cost for 50 year life-cycle per m² of path construction (at current cost):

Initial Construction	£25
Repair after 12, 25 and 37 yrs	£45
Annual maint. (50 x £2.50)	£100
Total	£170/ m²

This total could increase considerably if the path wears at a faster rate, possibly needing a complete rebuild after a shorter period. This may be due, for example, to an exposed position, heavy usage, inadequate drainage, under bridges, at junctions, on gradients or use by horses.

Similar comparisons could be demonstrated for urban fringe and urban routes. Where paths are more heavily used, unbound surfaces require proportionally more repair and maintenance than in the above example. Bulk material consumption for the initial path construction is similar for unbound and bound surfaces; however over a 50 year life-cycle unbound surfaces will require more additional aggregate for repair rather than bound surfaces.

This report has emphasised the value of good quality construction. The better the route, the higher quality the surface, the more complete the drainage, the less will be the need for major repair works. By investing in the best possible design and construction we can minimise subsequent maintenance requirements.

Ideally the routes, particularly the Greenways, will be seen by the public as their own and they will be motivated to look after them, defend them against abuse, clear up rubbish and raise funds for additional features, improvements and so forth. This public involvement should be adopted as part of the management of the route, with local committees, local representatives, local volunteers and numerous events all designed to ensure that the sense of their local space is fostered as far as possible.

Local Sustrans volunteers can help to look after the local network of routes, and so encourage more people to walk and cycle. They can be the ‘eyes and ears’ for Sustrans and our many partners and deal with minor maintenance problems and report major problems so they get dealt with rapidly.

Revenue funds are always restricted, and the sums allocated to walking and cycling routes are usually small and certainly nowhere near the amount which is needed for what should be seen as the preferred way of travelling for local journeys. maintenance costs incurred need to be included in any funding strategies while in addition we must encourage local authorities to prioritise maintenance works and to ensure that routes are seen as an integral part of travel. Cycling and Walking routes must be seen as a legitimate part of the transport fabric.

Outline Costs

Note: The outline costs in the table below are indicative of a feasibility proposal stage costing, prior to detailed surveys being undertaken for design and construction.

Costs exclude the following:

- VAT (costs below are exclusive of VAT)
- inflation beyond 2015 or Significant changes to markets
- land costs, legal fees, Highway consultation
- constructing on contaminated land
- diversion of services
- landscaping
- access roads for construction

Greenway Network: Budget costs

	Quantity	Unit	Rate	£:p
Ironwell Lane Greenway				
Path Type A (Ironwell Lane western end to BW55)	730	m	107	£78,110.00
Path Type C (Ivanhoe Nurseries to Ironwell Lane)	100	m	100	£10,000.00
Direction sign posts and signs (Timber sign post (200 x 200 x 1800mm))	6	No	*£144.78	£868.56
Bollards (plastic)	7	No	*£160.03	£1,120.00
Tree planting/landscaping	3	No	£2,500	£7,500
Seating and benches in locations to be determined (Timber sleeper bench (simple 3 sleeper type))	2	No	*£349.14	£698.28
Bollard Lighting (1.5m columns at 10m spacings, inc connection)	730	m	400	£292,000.00
Light ducting (excavation and s/f 100mm dia pipe)	730	m	48	£35,040.00
				£425,336.84
Saxon Greenway				
Path Type D (Ironwell Lane to Hall Road (north south link through country park)).	500	m	141	£70,500.00
Path Type D (Hall Road to Roach Crossing western field edge)	315	m	141	£44,415.00
Path Type A (Hall Road to Roach crossing (FP5))	345	m	107	£36,915.00
Path Type D (FP5 to Roach Crossing)	100	m	141	£14,100.00
Path Type D (Roach Crossing to Southend Airport Business Park)	360	m	141	£50,760.00
Tree planting/landscaping	2	No	£2,500	£5,000
Direction sign posts and signs (Timber sign post (200 x 200 x 1800mm))	12	No	*£144.78	£1,737.00
Seating and benches in locations to be determined (Timber sleeper bench (simple 3 sleeper type))	2	No	*£349.14	£698.28
Bituminous raised table with crossing point, surfacing, lighting, signing, lining but not inc drainage.	2	No	£10,000	£20,000
Timber 7m span, 3.5m wide Bridge	1	No	9,000	£9,000
Concrete pad foundation	1	No	5,000	£5,000
				£258,125

Cherry Orchard Greenway	Quantity	Unit	Rate	£:p
Tree planting/landscaping (Repton Green Pocket Park and Cherry Orchard Pocket Park)	3	No	2,500	7500
Vegetation clearance	1100	m	6	£6,600.00
Direction sign posts and signs (Timber sign post (200 x 200 x 1800mm))	6	No	*£144.78	£868.68
Cherry Orchard Jubilee Country Park Information board	2	No	500	£1,000.00
Seating and benches in locations to be determined (Timber sleeper bench (simple 3 sleeper type))	4	No	*£349.14	£1,396.56
Path Type D (Repton Green Pocket Park)	40	m	141	£5,640.00
Path Type A (Repton Green to existing surface)	530	m	110	58300
Path type A (Cherry Orchard Pocket Park)	90	m	107	9630
Path type B (Cherry Orchard Pocket Park to Cherry Orchard Lane north)	630	m	72	45360
Removal of boulders	1	No	500	500
Bollards (plastic)	7	No	*£160.03	£1,120.00
Butterley Bridge (inc asphalt approach paths east and west, resurfacing through structure (35m, 3.6m wide), filter drains on approach, site clearance, lighting (4m columns at 10m spacing, inc connections), light ducting, concrete steps both sides (timber edge and handrail) and fencing to side of path area.	1	No	134,438	£134,438.00
				£272,353.24
Site setup - prelims				
Prelims – site set up	3	No	£7,500	£22,500
Prelims – weekly costs	12	weeks	£1,500	£1,500
Prelims - site demob	3	No	£1,500	£4,500
Site security				
	15	weeks	£1,500	22,500
Subtotal				£1,006,815.36
Fees			40%	£402,726.14
Contingencies**			44%	£442,998.76
TOTAL				£1,852,540.26

Path Type	Notes	Rate/m
A: 3m wide granite dust wearing course – inc soil excavation (re-use in verge), wearing course (100mm thick (6mm - dust)), type 1 (150mm compacted depth (175mm layer) & Geotextile.		107
B : A: 2m wide granite dust wearing course – inc soil excavation, wearing course (100mm thick (6mm - dust)), type 1 (150mm compacted depth (175mm layer) & Geotextile.		72
C: Resurfacing of 4m wide existing surface - no dig.		100
D: 3m wide bitmac wearing course – inc soil excavation, type 1, 60mm AC 20 Surf 100/150, geotextile etc.		141

*Typical Construction Costs. Information based on quotes received by Sustrans for typical path construction items 2013

**Outline costs at an early stage therefore 30% contingency given the current construction market.

Possible Programme of works:

At this stage the programme can only be sketched out. The network of routes highlighted in this report are likely to be delivered in stages with the most useful parts first. As SABP has been highlighted as a key destination it seems sensible to suggest that the first phases to be delivered should focus around the business park. Subsequent phases can extend the network outwards towards the more residential areas.

By way of illustration a selection of priority routes could be broken down into the following phases:

Note: Cost and budget estimates in this section exclude allowances for VAT, Inflation beyond 2015 or Significant changes to markets, Land costs, archaeological surveys, legal fees, Highway consultation, Constructing on contaminated land, Diversion of services, Landscaping, Access roads for construction, fees and contingency. Allowances should also be made for land negotiations and compensation. See detailed costing tables in section above for more detail.

Ironwell Lane Greenway			
Phase Number	Phase name	Element reference	Estimated costs (£)
1	PROW improvement (inc lighting)	Map 1: points 3 & 4.	£88,110
2	Lighting	Map 1: point 9	£292,000
3	Extras inc pocket parks etc	Map 1. points 1,2 & 5 - 10	£45,226

Saxon Greenway			
Phase Number	Phase name	Element reference	Estimated costs (£)
1	New route through Hall Road country park	Map 2a: point 4.	£70,500
2	Crossing of River Roach	Map 2b: point 11	£14,000
3	PROW/Cycle route creation Roach Crossing to Southend Airport Business Park	Map 2b: point 10	£50,760
4	PROW/Cycle route creation	Map 2b: points 8 & 9	£95,430
5	Hall Road Crossings	Map 2a: point 6.	£20,000
6	Extras inc seating, tree planting etc		£7,435

Cherry Orchard Greenway			
Phase Number	Phase name	Element reference	Estimated costs (£)
1	Butterley Bridge	Map 3: points 14,15 & 16	£134, 438
2	PROW improvement	Map 3: points 4, 6, 7, 8, 11 & 12	£127,150
3	Extras inc. pocket parks etc	Map 3: points 1,2,3,5 & 9	£10,754

A possible programme of works for Ironwell Lane Greenway over 3 years										
	2015		2016			2017				
	Quarter		Quarter			Quarter				
	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	
1. Discussion , revision and adoption of proposals										
2. Meetings, agreements to land and planning procedures, stage by stage										
3. Construct phase 1 - PROW improvements (to tie in with completion of Hall Road Development)										
4. Construct phase 2 - Lighting										
5. Construction phase 3 - Extras										

A possible programme of works for Saxon Greenway over 3 years										
	2015		2016			2017				
	Quarter		Quarter			Quarter				
	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	
1. Discussion , revision and adoption of proposals										
2. Meetings, agreements to land and planning procedures, stage by stage										
3. Construct phase 1 - New route through Hall Road country park										
4. Construct phase 2 - Roach Crossing										
5. Construction phase 3 - Roach crossing to SABP										
6. Construction phase 4 - PROW/Cycle route creating										
7. Construct phase 5 - Hall Road crossings (to tie in with completion of Hall Road Development)										

A possible programme of works for Cherry Orchard Way over 3 years										
	2015		2016			2017				
	Quarter		Quarter			Quarter				
	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	
1. Discussion , revision and adoption of proposals										
2. Meetings, agreements to land and planning procedures, stage by stage										
3. Construct phase 1 - Butterley Bridge										
4. Construct phase 2 - PROW improvements										
5. Construct phase 3 - Extras inc. pocket parks etc										

Potential Funding Sources

Funds for this type of project can come from a variety of sources. Walking and cycling schemes help local authorities meet a wide range of objectives in the field of health, environment and transport with relatively low capital costs. Match funding could be sought from a variety of grant sources; the scale of that funding will depend upon each funder’s criteria and how this network fits them.

Investing in walking and cycling infrastructure on a large scale can be expected to have a significant impact on the lifestyle and health of the local population as well as contributing to their transport and leisure needs. Therefore the schemes highlighted in this report should score very highly against typical funding criteria. The local authority can be expected to contribute from highway, council regeneration and leisure funds as well as LTP3 and LGF. Other potential funding sources are:

Developer contributions. For schemes outside the development envelope this could be in the form of S106/CIL or alternatively the developer could offer to build some of the network (e.g. Saxon Greenway) while also offering on-going maintenance support to ECC’s PROW budget in the form of commuted sums.

- Rights of Way Improvement Plan. New bridleway which will be delivered as part of existing planning obligations are likely to be a County priority.
- Supporting growth. New housing and economic growth are national and local priorities and the Greenway Network as a whole could be seen as facilitating both and may thus attract funding. Much current funding is through the Local Enterprise Partnership and their support is likely to be needed.

Local Transport. This network has potential to serve as a route for those commuting between Hawkwell/ Rochford and SABP and also between Hawkwell/ Rochford/SABP and the network of green lungs in the area. Whilst funding for Local Transport is limited at present there is potential for it to increase in future.

Specific grant funding. For example Tesco’s 2015/16 Local Community Grant.

Funders and grant availability does change over time and so applications for funding need to be put in at the appropriate time , i.e. when all consultation processes have been completed and route construction is to go ahead.

Conclusion

This report sets out a clearly defined network of routes that interconnect SABP, Hall Road Development with the local communities and existing network. If delivered these routes would give people the opportunity to travel in ways which benefit their health and the environment around them. The area considered is of a size that means walking and cycling to employment opportunities, local shops and services is a realistic expectation for most. Early efforts should be made to prioritise routes for delivery, capture funding from developers and internal sources as well as making initial approaches to landowners and placing planning applications.

The entire network set out in this report is extensive and may take years to deliver, however walking and cycling schemes are relatively cheap compared to major highway schemes. Early investment and action is required to ensure a step change towards sustainable transport can become a reality over the coming years.

Appendix 1

Cherry Orchard Way Overbridge

Butterley Bridge Inspection Report

September 2015



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Background

Cherry Orchard Way underpass is a concrete structure owned by Essex County Council, known as Butterly Bridge. The underpass carries Cherry Orchard Way, the B1013, in a north/south direction from Southend to Stroud Green near Rochford to the west of Southend airport. (Figure 1: Location Map)

The overbridge was built in the 1990s, to enable the existing narrow gauge railway owned and operated by Hanson’s formally Cherry Orchard Brickworks Company, to remain open during the improvements to the B1013. The brick works were to the east of the road and their clay quarry was to the west of the road. The brick works and quarry closed in early 2000s with the quarry being left to become a Country Park and the works site is designated as a development site for houses and light industry.

The overbridge and approach ramp on the western side are all owned by Essex County Council, the eastern approach ramp is owned by a private third party. Horses are kept on the private land and have previously used the overbridge space as an informal shelter.



Figure 1: Location Map – Red dot indicates location

Current Condition

Existing Information

The information relating to latest bridge inspection report supplied by Essex County Council is summarised in Table 1 below.

04/08/2015		Feature History Report		Page 1 of 5
Asset Id Like: 1577/* Report Type: Assessment				
Site: CHERRY ORCHARD WAY (32200194)			Area: Rochford	
Asset No: 8,001.00		Asset Id - Location: 1577/44566 - BUTTERLEY BRIDGE		
Feature Type: Underbridge		District: Rochford		
Batch: 10013700 - Inspection Batch				
Route: Structures General East Area W		Officer: Ansar Miah	Date: 29/06/2014	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	The structure is in a good condition.
Engineer Comments	STEC	Comments	.0000	Good condition.
Work Required	STWR	No Comments	.0000	
Batch: 10010030 - Structures General East Area W				
Route: Structures General East Area W		Officer: Dean Warren	Date: 21/03/2013	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	Roger Church 21/03/2013 Structure inspection from outside only due to the structure being used to house horses.
Engineer Comments	STEC	Comments	.0000	John Cooper 04/04/2013 Structure in good condition. Horses to be removed.
Work Required	STWR	No Comments	.0000	
Batch: 10007746 - 1027783 - BCI INSPECTION				
Route: zBCI EAST		Officer: Roger Church	Date: 04/05/2010	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	Small tree growing above west headwall Overall good condition Culvert being used as a stable with one end (East) blocked off
Batch: 10005699 - 178664 - UNKNOWN				
Route: zBCI EAST		Officer: JIM WILLSON	Date: 13/05/2004	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	Good condition
Batch: 10003663 - 733510 - BCI INSPECTION				
Route: zBCI EAST		Officer: JIM WILLSON	Date: 26/09/2006	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	Good condition.
Batch: 10001449 - 735213 - BCI				
Route: zBCI EAST		Officer: JIM WILLSON	Date: 28/05/2008	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	Impact damage to armco barrier West side Good Condition One post damaged - no action Lots of graffiti

Table 1: Essex highways information on previous inspections of the structure

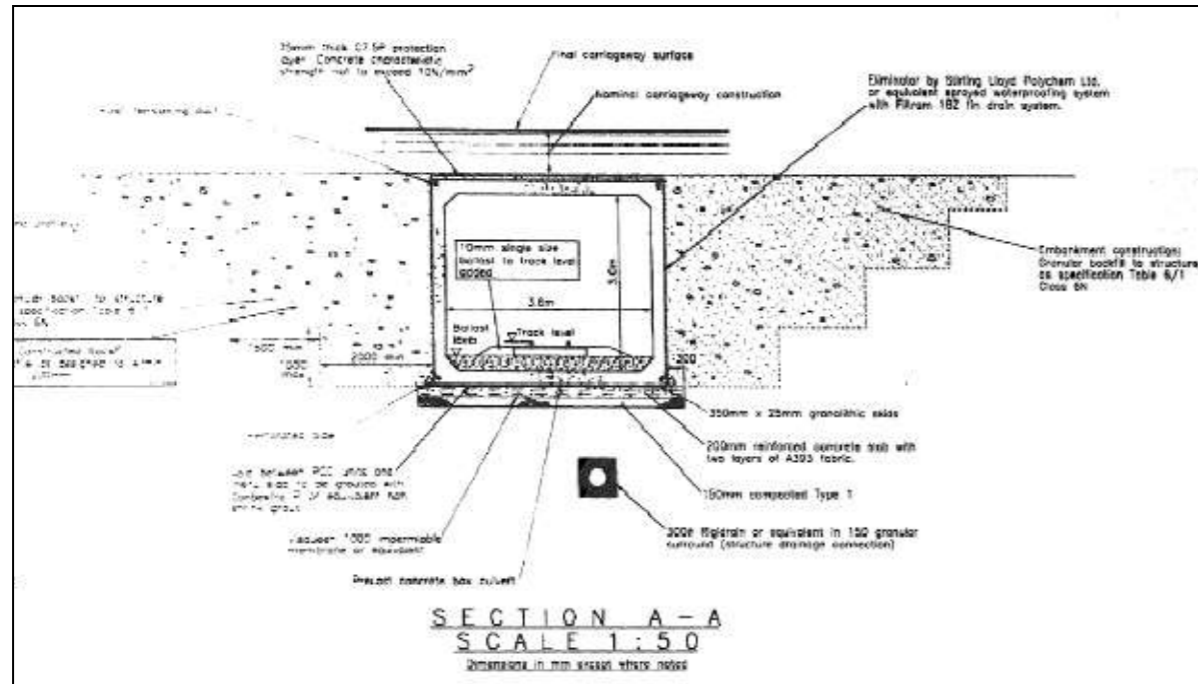


Figure 2: As-built drawings

Inspection Details

A visual inspection of the overbridge structure was undertaken on 28 August 2015, by Sustrans with the assistance of Essex Highways. The structure and the western approach ramp are owned by Essex County Council, the eastern side is in private ownership. Access to the overbridge is from Cherry Orchard Jubilee Country Park car park on the western side of the structure. Access to the eastern side of the bridge was limited due to horses being kept on the land. Although the structure is closed to the public, there is evidence from the graffiti that members of the public have had unauthorised access to the structure.

Western Approach Ramp

The approach ramp on the western side is approximately 160m long, with an approximate gradient of 1 in 40 throughout its length.



Photograph 1: View from southern end



Photograph 2: View looking south

The entrance for the approach ramp is near the entrance to the car park and could easily be connected to a wider network. An electricity substation is located near this point, their access to maintain this structure need to be considered when designing the path alignment. The land on the western side of the structure is owned by Essex County Council.

Although the majority of the old narrow gauge railway has been removed, there are still some sleepers remaining on site. At various locations along the approach ramp it is possible to see and feel through the grass that the old track ballast is in-situ.

The western wing walls of the overbridge are made from cast in-situ reinforced concrete, which retain the road embankment on either side. There is a vehicle restraint barrier mounted to the top of the bridge, with a hedge and fence either end of this preventing access from the road down to the structure.



Photograph 3: Western wing walls



Photograph 4: Vehicle barrier



Photograph 5: Vehicle barrier from the road side



Photograph 6: Hedge & fence north of barrier

Eastern Approach Ramp

There is less of a height change in the eastern approach, and the ramp is almost flat. The approach curves round and meets Cherry Orchard Lane, where there is further evidence of the former railway. This land is currently used to graze horses and is under the ownership of a third party. The eastern side is not open to the public and so was only inspected from the boundary fence.

There are some steps leading down from the Lane to the structure, which were installed for the maintenance of the drainage pumps.



Photograph 7: Entrance from Cherry Orchard Lane



Photograph 8: Eastern approach ramp



Photograph 9: Steps down to pumps



Photograph 10: Pump access chambers



Photograph 11: Eastern wing walls

Similarly to the western side, the entrance has cast in-situ reinforced concrete wing walls to retain the road embankment with side. These change in height from 3.0m adjacent to the underpass down to the ground approximately 4m from the underpass. There is a hedge and fence across the top of the structure to prevent access from above.

Underpass Structure

The underpass is approximately 25m long, 3m tall and 3.6m wide, constructed from precast concrete box culvert sections. Each box section is 1.4m wide and there are 18 sections connected together. The entrance to the structure have Essex County Council gates installed to prevent public access through the structure. The gate at each end has been modified and does not have an ECC padlock, they are private locks thought to be installed by the owner of the horses. Throughout the underpass there is evidence of the space being used as an informal shelter for horses for a number of years. Based on the current condition of the straw, horse activity within the structure doesn't appear to have taken place in the last 3 to 6 weeks. There is still a horse in the space to the east of the structure.



Photograph 12: West gate entrance



Photograph 13: East gate entrance



Photograph 14: Pre-cast concrete culvert section



Photograph 15: General condition of the structure

Generally the concrete and the overbridge is in good condition, there is one area of minor damage to the concrete on the south side of the structure in the fourth section from the east. There is no evidence of water ingress or damage between the joints of the concrete sections, or through the ceiling generally. Similarly there was no vegetation growth on the walls or floor, indicating cracks or gaps in the concrete. It was not possible to inspect the floor of the structure due to the amount of straw and horse manure covering it. Where the straw was cleared, we were able to see the track ballast from the old railway indicating that only the rails and sleepers had been removed.



Photograph 16: Defect on south side of structure



Photograph 17: Ceiling of the structure



Photograph 18: Southern wall



Photograph 19: Northern wall



Photograph 20: Floor of structure



Photograph 21: Evidence of old railway

The walls and ceiling were free from undulations and all sections were aligned, indicating no signs of movement or settlement of the structure. When tapped the walls sounded solid and free from voids, however a hollow area could be heard in the ceiling about 1m from the southern wall. As it could be detected over the full length of the structure, this is thought to be a service duct of some description for the road above.

Drainage and Lighting

The underpass currently has no provision for lighting within the structure. However there is lighting on Cherry Orchard Way and Lane, to which a connection could be made for the provision of lights on the approach ramps and underpass.

Discussions with Essex Highways indicate that there is a pumped drainage system within the underpass to prevent flooding by surface water within the structure. Although no details for the drainage were visible within the structure due to the floor being covered with ballast and straw. The pumps and sumps for the drainage could not be inspected due to access restrictions on the eastern side of the structure. It is not known where the water would be pumped and discharged to, either a sewer in the lane or directly into the brook. Although Essex Highways maintain and inspect the pumps on an annual basis, it is therefore assumed that they are in good working order.

Proposed Use of the Overbridge

It is proposed that the structure be opened up to the public as a walking and cycling route between the designated housing and business development area to the east, with the country park to the west. With this use in mind, the existing height and width of the structure are adequate for the current predicted volume of users. The approach ramps are of a suitable gradient and free from obstructions to allow them to be used as ramps for multi-user access. It would be simple enough to add stepped access close to the entrance of the structure to cover predicted pedestrian desire lines, to the park and from the road above.

Based on the existing street lighting on the road above and the lane to the east, it should be possible to light the overbridge and the approach ramps to provide 24 hour use of the path. Following further investigation of the drainage to the structure, a pumped system is installed to prevent the path being closed due to flooding.

The main barrier to opening up the structure to the public is the third party landownership on the eastern side of the structure.

Outline Costs

The outline costs in the table below are indicative of a feasibility proposal stage costing, prior to detailed surveys being undertaken for design and construction.

Asphalt path west approach (180m, 3m wide)				
	unit	cost	quantity	sub-total
excavate soil	m ³	£ 9	594	£ 5,061
re-use in verge (60mm)	m ²	£ 2	360	£ 688
install sub-base (150mm type 1)	m ²	£ 13	594	£ 7,502
install 60mm AC 20 Surf 100/150	m ²	£ 14	540	£ 7,560
completion of formation	m ²	£ 1	594	£ 475
disposal of excess soil	m ³	£ 13	36	£ 461
install geotextile	m ²	£ 4	630	£ 2,520
30mm timber edging	m	£ 3	360	£ 1,235
Sub-total				£ 25,502

Asphalt path east approach (120m, 3m wide)				
	unit	cost	quantity	sub-total
excavate soil	m ³	£ 7	396	£ 2,582
re-use in verge (60mm)	m ²	£ 2	240	£ 458
install sub-base (150mm type 1)	m ²	£ 11	396	£ 4,209
install 60mm AC 20 Surf 100/150	m ²	£ 14	360	£ 5,040
completion of formation	m ²	£ 1	396	£ 317
disposal of excess soil	m ³	£ 13	24	£ 307
install geotextile	m ²	£ 4	420	£ 1,680
30mm timber edging	m	£ 3	240	£ 823
Sub-total				£ 15,417

Resurfacing through structure (35m, 3.6m wide) No-dig type of construction				
	unit	cost	quantity	sub-total
excavate hard material and dispose to registered landfill	m ³	£ 117	19	£ 2,211
install sub-base (150mm type 1)	m ²	£ 11	126	£ 1,339
install 60mm AC 20 Surf 100/150 permeable surface	m ²	£ 17	126	£ 2,142
install cell web geotextile	m ²	£ 7	126	£ 882
lighting	nr	£ 60	4	£ 240
Sub-total				£ 6,815

Extra costs				
	unit	cost	quantity	sub-total
Filter drains on approach paths	m	£ 51	300	£ 15,300
Site clearance	m ²	£ 2	1050	£ 2,006
Lighting (4m coumns at 10m spacings, inc connection)	nr	£ 400	30	£ 12,000
Light ducting (excavation and s/f 100mm dia pipe)	m	£ 48	300	£ 14,400
Concrete steps both sides (Timber edge and handrail)	nr	£ 8,000	2	£ 16,000
Fencing to side of path area	m	£ 45	600	£ 27,000
Welfare and site set-up	%	15%	77039	£ 11,556
Project Management & Site supervision	%	12.5%	77039	£ 9,630
Contingency	%	40%	98224	£ 39,290
Sub-total				£ 147,181

Total for Works				£ 194,914
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Table 2: Outline costs

Wider Network Connections

This inspection report has been produced to support the wider network connections report written by Sustrans Essex Area Manager. The network connection report outlines all the possible route options using this structure and the likely time scales to undertake the works discussed above.

As a part of the wider network, it is proposed a timber bridge be built over the River Roach approximately 500m downstream east towards Rochford. The table below is an indicative cost for a 7m long 3m wide timber bridge with 1.4m high parapets, suitable for use as a cycle and pedestrian bridge with no motorised vehicle access. Together with an indicative cost for the installation of 100m of cycle path across fields, 3.5m wide of sealed surface construction.

Asphalt path east approach (100m, 3m wide)				
	unit	cost	quantity	sub-total
excavate soil	m ³	£ 7	330	£ 2,152
re-use in verge (60mm)	m ²	£ 2	200	£ 382
install sub-base (150mm type 1)	m ²	£ 11	330	£ 3,508
install 60mm AC 20 Surf 100/150	m ²	£ 14	300	£ 4,200
completion of formation	m ²	£ 1	330	£ 264
disposal of excess soil	m ³	£ 13	20	£ 256
install geotextile	m ²	£ 4	350	£ 1,400
30mm timber edging	m	£ 3	200	£ 686
Sub-total				£ 12,848

Bridge and foundation				
	unit	cost	quantity	sub-total
Timber 7m span, 3.5m wide bridge	nr	£ 9,000	1	£ 9,000
Steel 7m span, 3.5m wide bridge	nr	£17,000	1	£ 17,000
Concrete pad foundation	nr	£ 5,000	1	£ 5,000

Table 3: Additional costs

Appendix 2

Greenway Network – linking the community

Land Ownership, land agreements and PROW status/designation

Ownership, Land Agreements, Status and Designation

Negotiation

Whilst some Greenways, cycle tracks and footpaths follow routes in a single ownership – e.g. canal towpaths by Canal and River Trust – much more likely, and certainly within the context, the proposed routes will be the result of patient negotiation, goodwill and a certain degree of good fortune. The quality of a route and its level of use depend largely on the ground secured by its negotiators.

Local land ownership is essential for the Greenway Network project to flourish and for it to retain its distinctive local character. For this report we have gathered information from Rochford District Council officers, Essex County Council Public Rights of Way, the land registry and from site inspections. Within the scope of this project it has not been feasible to carry out full consultation with land owners and local interested parties however we are able to provide an outline of the issues, concerns and opportunities.

Public Rights of Way

Public Rights of Way (PROW) are minor public highways that exist for the benefit of the community at large, in much the same way as the public road network does. They are the most widely recognised facility that gives the public the opportunity to enjoy the countryside.

There are two main categories of Public Right of Way that are the focus for this project and both would cater for a variety of users:

- Byway Open to All Traffic (BOAT) – commonly referred to as ‘Byway’: For walkers, horse riders, pedal cyclists, horse drawn carriages and motor vehicles.
- Bridleway: For walkers, horse riders and pedal cyclists. Cyclists must give way to walkers and horse riders.

On Public Rights of Way, the Highway Authority is responsible for:

- signposting rights of way where they leave a highway and way marking routes where appropriate.

- keeping the path free of surface vegetation
- ensuring the right of way is maintained to a standard suited to its use and status
- helping landowners in repairing gates and stiles
- ensuring paths are free of obstructions

On Public Rights of Way, Landowners are responsible for:

- keeping paths free of side growth and overhanging vegetation
- maintaining gates and stiles
- keeping rights of way free of obstructions

Permissive rights for walkers and cyclists

Permissive rights exist along paths where landowners have agreed with the local authority or others for access to be available to particular categories of user under certain conditions. There are examples of permissive routes for pedestrians and cyclists in Essex, in particular on land in private ownership on the Wivenhoe Trail between Colchester and Wivenhoe. These agreements are for set periods.

Conversion of a field footpath to a cycle track or a cycle route

In order to convert all or part of a footpath to a cycle track, a footpath conversion order must be made. Footpath conversion orders are made under Section 3 of the Cycle Tracks Act 1984 and the Cycle Tracks Regulations 1984 (SI1984/1431).

Having obtained the necessary consents where the footpath crosses agricultural land, and having undertaken the required consultation process, a footpath conversion order is made by the local highway authority. If there are unwithdrawn objections, the order has to be confirmed by the Secretary of State, if necessary after a public local inquiry.

If there are no objections, or the objections are withdrawn, the order can be confirmed by the local highway authority. Section 2 of the Cycle Tracks Act 1984 applies and the adjacent or shared use track should be clearly signed.

On conversion from a footpath to a cycle track, the cycle track becomes a highway maintainable at public expense even if the footpath had not previously had that status.

If the footpath crosses agricultural land, the consent of the landowner is still required. In practice the Act is not used much and walking groups do not like it because on conversion, the footpath is removed from its delineation as a PROW on the relevant OS map.

The procedure is tortuous, especially if there are objections – the application has then to go to a Public Enquiry – so it is generally much more practical to obtain permissive rights to accomplish the change from footpath to shared footpath/ cycle path.

Here in some cases the local authority has insisted on the new path being constructed parallel to, but separate from the footpath. This has not been a successful solution because walkers promptly, quite properly, use the well-defined and surfaced path, abandoning the footpath itself. If the “cycle route” was designed for cyclists only in mind, then it will now be too narrow for the actual shared use which takes place in practice.

So generally we find that constructing a proper shared use route along the line of the footpath, and maintaining the footpath designation, is the better approach and one which is satisfactory to nearly all the public. For those who see this action as eroding walkers’ quite wonderful heritage of 100,000 miles of public footpath, the new route does not only offer a higher quality path suitable for everyone – the elderly, those with prams and using wheelchairs for example – but also one available throughout the year even when many other field paths become difficult to use. Furthermore a good route will create additional new routes for pedestrians, and overcome many barriers, such that overall the pedestrian stands to gain much more than they might “lose”.

Conversion of a field footpath to a bridleway

Public bridleways are defined in statute as highways over which there is a right of way on foot, on horseback or leading a horse, with an invalid carriage or on a bicycle. Under the Countryside Act 1968 (section 30) bicyclists (but not unicyclists or tricyclists) have a right to use bridleways provided they give way to walkers and horse riders.

Bridleways are sometimes rendered impassable for pedestrians, cyclists and horse riders by the movement of farm vehicles and livestock, by forestry operations, by poor drainage or by lack of maintenance. Without proper management of the path, horses can also severely damage surfaces, making cycling and walking difficult.

Converting a footpath to a public bridleway (the preferred method subject to width), will require a legal procedure, but which would extend the rights of access to horse riders, and which would maintain the right of way on the definitive map. This is only really possible if the path is wide enough, or could be widened, as shared use with horses can render a narrow path impassable to walkers and cyclists.

The decision on the actual surface should be based on local circumstances, expected use and treatments already in use locally. It should be noted that maintenance of bridleways should not result in a less commodious facility for any of the legitimate users. Legal truncation of the bridleway width may be necessary but bridleways often have a defined width in the definitive map statement so legal procedures must be followed if the width is to be reduced. Where a surface has to be shared because of width restrictions (less than 4 metres), a fibre reinforced surface dressing should be used. The use of this sort of surface has been agreed with the British Horse Society (BHS) where no alternative grass surface is possible. Where gradients are involved consideration needs to be given to the adhesion qualities and to whether any special treatment is required. Whilst dust surfaced paths, shared with horses, have proved very satisfactory in some locations, they can deteriorate rapidly and a poor surface, badly maintained, is known to discourage pedestrians and cyclists. This

deterioration may be localised because of overhanging trees or it may be down to the indifferent quality of local materials. It makes no environmental sense to transport good quality stone dust over large distances

In all cases, stone paths need more regular maintenance than a harder sealed surface. Sustrans prefers sealed surfaces in order to reduce further maintenance costs, especially where the same path is shared by all user groups, but appreciates that this is not equally commodious to all users

It is acknowledged that certain surfaces are not the preferred choice of all of users and compromises will have to be reached. A tarmac surface will preclude horses from anything but walking, whilst a stone/dust surface may be damaged by trotting or cantering horses making it difficult for wheeled users, especially wheelchairs. Alternatively a wood-chip surface would be unsuitable for cyclists

Careful examination of each local situation is necessary. Consultation and site meetings with landowners, the local authority and others, such as the Ramblers Association and groups representing those with disabilities, to examine the options and to discuss problems should ensure that the issues can be understood by everyone and agreement can be reached.

Creating a bridleway

Public rights of way can come into existence through creation (either by legal order or by an agreement made with the landowner) or dedication by the landowner (either expressly or by presumption or by “deemed dedication” following 20 years’ public use).

Creation orders - Highway authorities (county councils and unitary authorities), the Secretary of State at Defra (Department for Environment, Food and Rural Affairs) and the Welsh Government have the power to make an order creating any type of right of way over a piece of land where they think it would add to the public’s convenience or enjoyment.

A creation order may create a new right of way or establish ‘higher’ rights over an existing right of way

(turning a footpath into a bridleway, for example). The procedure for making a creation order is the same as for any other public path order, in that there’s a right to object to what’s being proposed.

Creation agreements - Highway authorities can enter into agreements with landowners to create footpaths, bridleways or restricted byways. They’re simply drawn up and signed by the two parties, and the right of way comes into existence on the date given in the agreement.

Unlike the procedure for creation orders, there’s no period set aside for objections to creation agreements, but notice of a creation agreement must be published by the highway authority in at least one local paper.

Express dedication - A landowner may expressly dedicate a right of way over his or her land, but this is rare. Express dedication is an act on the part of the landowner alone. There’s no agreement with the relevant highway authority, although the highway authority may subsequently agree to take on liability for maintenance of the right of way.

Whether express dedication has taken place depends on whether there is evidence of the landowner’s intention to dedicate a right of way (only the freeholder of a parcel of land can do so), and whether the public has accepted the dedication by starting to use the path.

Presumed dedication - Most public rights of way have come into existence by way of presumed dedication. Presumed dedication refers to a long-established principle that long use by the public without challenge can constitute evidence that the landowner intended to dedicate the used route as a public right of way.

Presumed dedication can take place under either common law or statute law, which provide slightly different frameworks. Anyone who has evidence that a right of way has come into existence by statute or common law can apply for a Definitive Map Modification Order (DMMO) to have the right of way recorded on the definitive map.

Different Types of Land Agreements

An alternative to PROW creation are personal agreements with landowners. Set out below is a list of the most commonly used agreements. Choice of the most appropriate type of agreement is dependent on the local situation and circumstance. As the ultimate aim is to pass maintenance responsibility to the relevant Highway Authority then formal discussions regarding what type of legal ownership they will require will be essential. Any funding bodies involved may also take a view on this.

Licenses

These are personal agreements between a landowner and the developer of the path, where the landowner agrees to allow cyclists to use the path (which could be on a public footpath, a private path or a path built on open land). These paths are not public rights of way (apart from any rights which already exist for walkers) and the landowner can withdraw permission to use the path on notice.

It is essential that notices are erected on the path advising users that the path is not a public right of way. Sustrans has standard notices.

It is the easiest agreement to obtain from a landowner because it binds the landowner to the least extent. For this reason licences are the weakest form of agreement from a point of view of the developer of the path. They can however be considered satisfactory provided that the landowner is one of the following types of body:

- a. A Statutory body such as a County or District Council.
- b. A quasi-governmental organisation such as the Environment Agency, Network Rail or the Forestry Commission.
- c. The Ministry of Defence.
- d. A national institution or a major charity such as the Church Commissioners or the National Trust.
- e. A major public limited company such as ICI or Anglian Water plc.

The weakness of a licence is twofold:

- a. The landowner is entitled to withdraw consent for the path on notice.
- b. The licence is not binding on any subsequent buyer of the land, (but you could ask the landowner to ensure that it will be).

The first weakness may not be of serious concern with the type of landowners listed above because, having taken a decision within the policy guidelines of the organisation at the appropriate level to grant a licence, it is not likely that they will reverse their decision unless serious problems arise or the land is required for another purpose. Because of the nature of the organisations, they will be sensitive to public opinion if the path were to be closed without an alternative route being made available.

It is possible that a licence is the only form of agreement you can get. If so, one could take the view that it is a necessary part of the process to satisfy the landowner that the path is satisfactory for him.

Leases

A lease is most likely to be used in situations where the land can be used for the route but where the freehold owner wishes to retain control over certain matters. These could be the maintenance of boundaries or vegetation or simply that the landowner doesn’t like the idea of parting with the land for ever.

It is possible that other rights may exist but can be accommodated, e.g. a previous tenant may graze some of the area but may not need the path section – in this case the tenancy can be varied. The period of the lease should be for 21 years or more if possible. A much longer period such as 99 years is ideal because it effectively removes the problem of what will happen at the end of the lease. A landowner may insist on a shorter term than 21 years, and in this case the views of any funding bodies may need to be taken into account as to whether their investment can be justified for this shorter duration.

Agreements for Lease

This is useful where the path developer does not want to commit itself to taking a lease until, for example, planning permission is granted or funding available. The terms of the lease will be agreed as part of the agreement and will be granted once the conditions have been fulfilled

Easement

An easement is a right over a landowner’s land. In the case of developing North Colchester Bridges routes it will almost always be a right of way for cyclists and walkers (and horse riders if appropriate).

An easement can either be freehold i.e. forever, or it can be for a term of years (a leasehold easement). There have been agreements where Sustrans has a lease over land and a right of way over adjoining land (usually a farm access road where the farmer wants to retain ownership of the land) for the period of the lease.

The problem with an easement is that it has to be from land where access already exists (e.g. a public road) and over land which adjoins land owned or leased by the developer of the path. A possible way round this requirement, if the developer does not have ownership, is to try to persuade the landowner to sell or lease a very small part of the right of way. An easement is probably cheaper than buying or taking a reasonably long lease

Freehold

A freehold, giving ownership for ever, gives its landowner the widest powers. It is familiar to all landowners and thus may be the method the landowner prefers. It will usually provide them with the greatest financial return compared with the alternative methods. However, from the path’s developers’ point of view, although it gives us everything we need, the cost of acquisition will be higher than other methods which might have been sufficient.

Compulsory Purchase Order

Local Authorities have powers to acquire land compulsorily. The procedure is that the authority notifies the landowner and the general public of the Compulsory Purchase Order (CPO) and the time limits within which any objections must be received and then submits the CPO to the relevant Minister for confirmation.

If there are objections, the Minister must hold a local inquiry. A local authority could decide to use CPO powers for these routes, although it would need to weigh up the costs of the inquiry and the likelihood of success.

The relevance of a CPO could arise when most of a route has been negotiated successfully but one or two landowners remain opposed or retain ransom strips. Negotiators should be very circumspect in referring to CPO. Many landowners will take the reference as a direct threat, and any goodwill that has been built up will be lost. At the same time bridleway creation orders may also be seen as a direct threat by landowners/ local residents and as a result careful consultation is required.

Essex County Council Public Rights of Way

For the Greenway Network to be a success then some PROW upgrading will be required. The Ironwell Lane Greenway, Saxon Greenway and Cherry Orchard Greenway all require some PROW surface upgrading to create meaningful links to local communities and improve access to the countryside.

As the Highway Authority Essex County Council has the ultimate responsibility for PROW across Essex. Essex Highways, on behalf of Essex County Council, has a statutory duty to maintain and protect the network of Public Rights of Way.

Sustrans understands that the PROW budget is under severe pressure, in particular the revenue budget has been restricted. As a result there is a limit on how many PROW creations are advanced due to the additional costs involved and the impact

on maintenance budgets. However there is pressure from the amount of development underway in the area and as a result each link may be considered a priority within the PROW Improvement Plan (particularly if the routes can demonstrate a strategic benefit to the definitive rights of way in the area). Therefore strategic/ selected creations to meet the PROW Improvement Plan may be considered and further consultation with the PROW team and local land owners is required.

PROW surface upgrading is also something that is considered as part of the report and the following email demonstrates ECC’s PROW stance on surfacing:

Dear Kris,

Thank you for your e-mail and hope you are well too,

Effectively the proposed ‘Greenway’ network comprises (from the Southend Boundary), bridleways 10, 48 and 47 Rochford; a length coincident with Hall Road before resuming northwards along bridleway 55, linking to byway 11 Rochford/19 Hawkwell (which straddles the Parish boundary).

The plan infers that the eastern end of byway 11/19 terminates at the railway line, whereas it actually continues eastwards to join the Ashingdon Road.

As existing bridleways/byway the paths are of variable width but obviously already accommodate cyclists as well as horses and walkers.

The Rights of Way Improvement Plan for Essex was published in 2009 and is due for an interim review next year.

One of the changes that will be incorporated into this review will relate to the surface treatment (as well as creation of new bridleways) in urban areas.

Such changes must of course be considered in the context of an entirely different financial climate to the one that existed in 2009.

During that period there was a significant reduction in the PROW Revenue budget.

We are endeavouring to offset this reduction by capitalising, as far as possible, defect repair works on the network.

New/semi-hardened paths in development areas therefore will not generally be acceptable.

However, with surfacing of existing bridleways in urban or semi-urban areas, or new bridleways which will be delivered as part of existing planning obligations, the surface will be either road planings or granite dust.

I hope this gives you sufficient background and context.

Regarding specific engineering, I have copied this to my PROW Engineer, Robin Wallbank (he is on leave until 2nd September).

Best Regards

Garry White

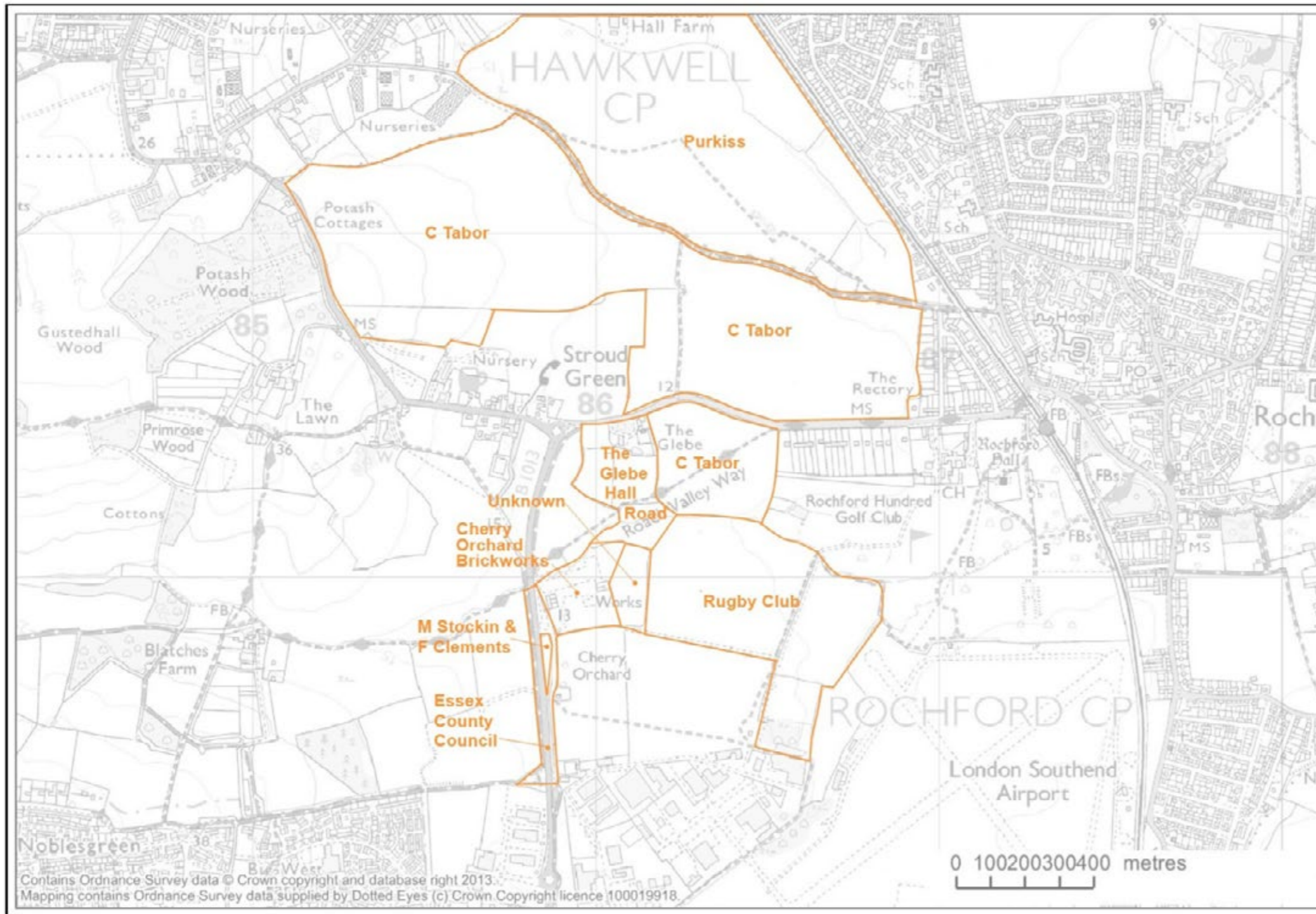
*Public Rights of Way and Records Manager,
Essex Highways, Ringway Jacobs | Essex
County Council*

*A2 Annexe, County Hall, Market Road,
Chelmsford CM1 1QH*

Tel: 01245 342935

Appendix 3

Current land ownership



Greenway Network Land Ownership Aug 2015

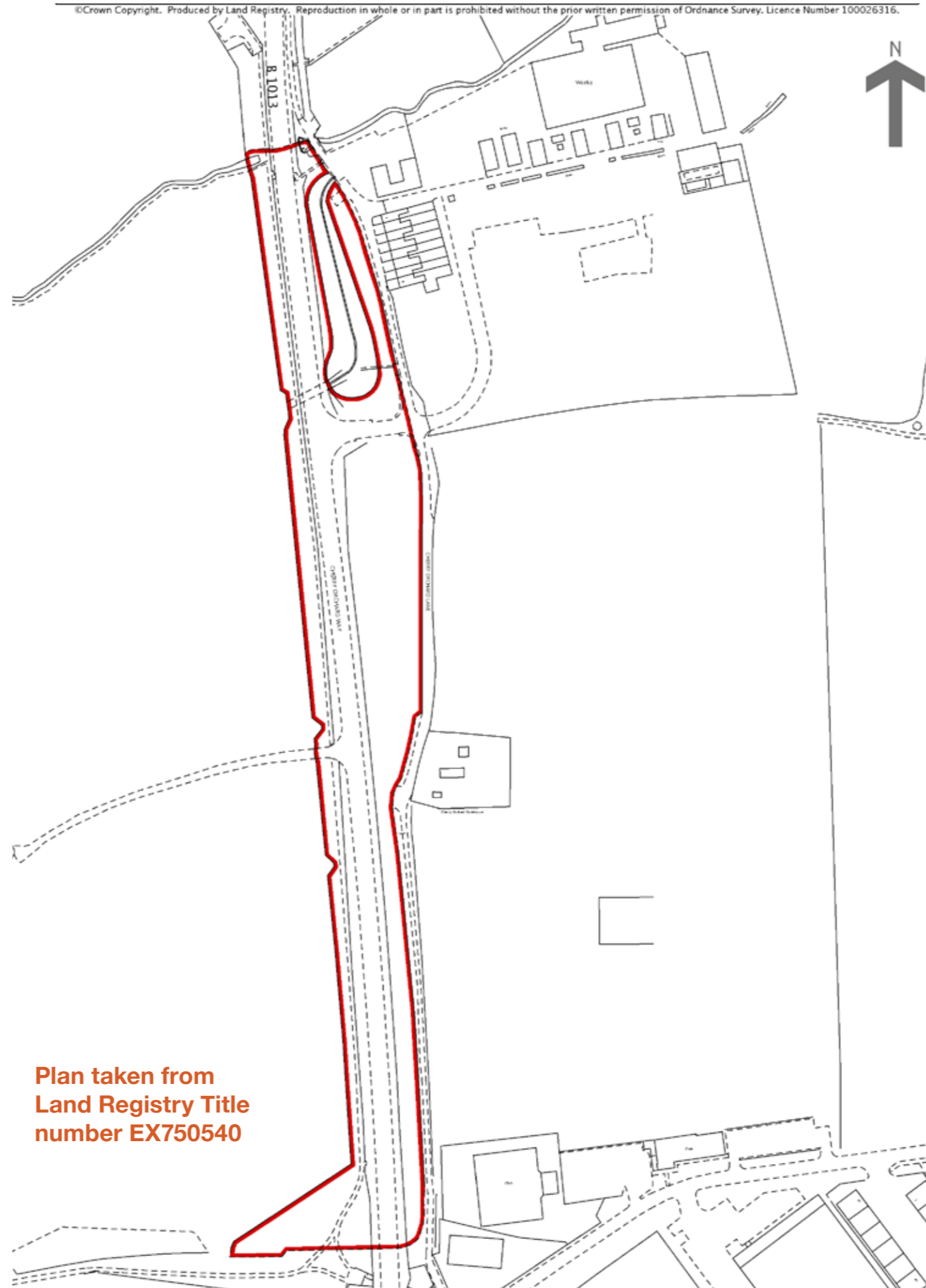
Appendix 4

Information gathered via Land Registry Searches, discussions with local authority etc.

A number of land searches via the Land Registry and discussions with Rochford District Council, Southend-on-Sea Borough Council and Essex County Council have revealed a number of different land owners exist along the proposed Greenway Network.

The majority of the proposed network utilises existing PROW/proposed networks within new developments which precludes the need for land negotiation however there are some sections of land where, should the network be taken forward, some careful negotiation would be required.

1. Eastern approach ramp to Butterley Bridge. The land to the west (EX828760) remains within the ownership of Essex County Council as it forms part of the Cherry Orchard Jubilee Country Park. While the land EX750540 has a title absolute attached to it advising that the land belongs to Essex County Council. Looking at plan of EX647092 it seems that the teardrop (ramp cutting down to underpass, east side) belongs to Stolkin/Clements. Careful negotiations will be required should the underpass be developed for public use.



Plan taken from Land Registry Title number EX750540

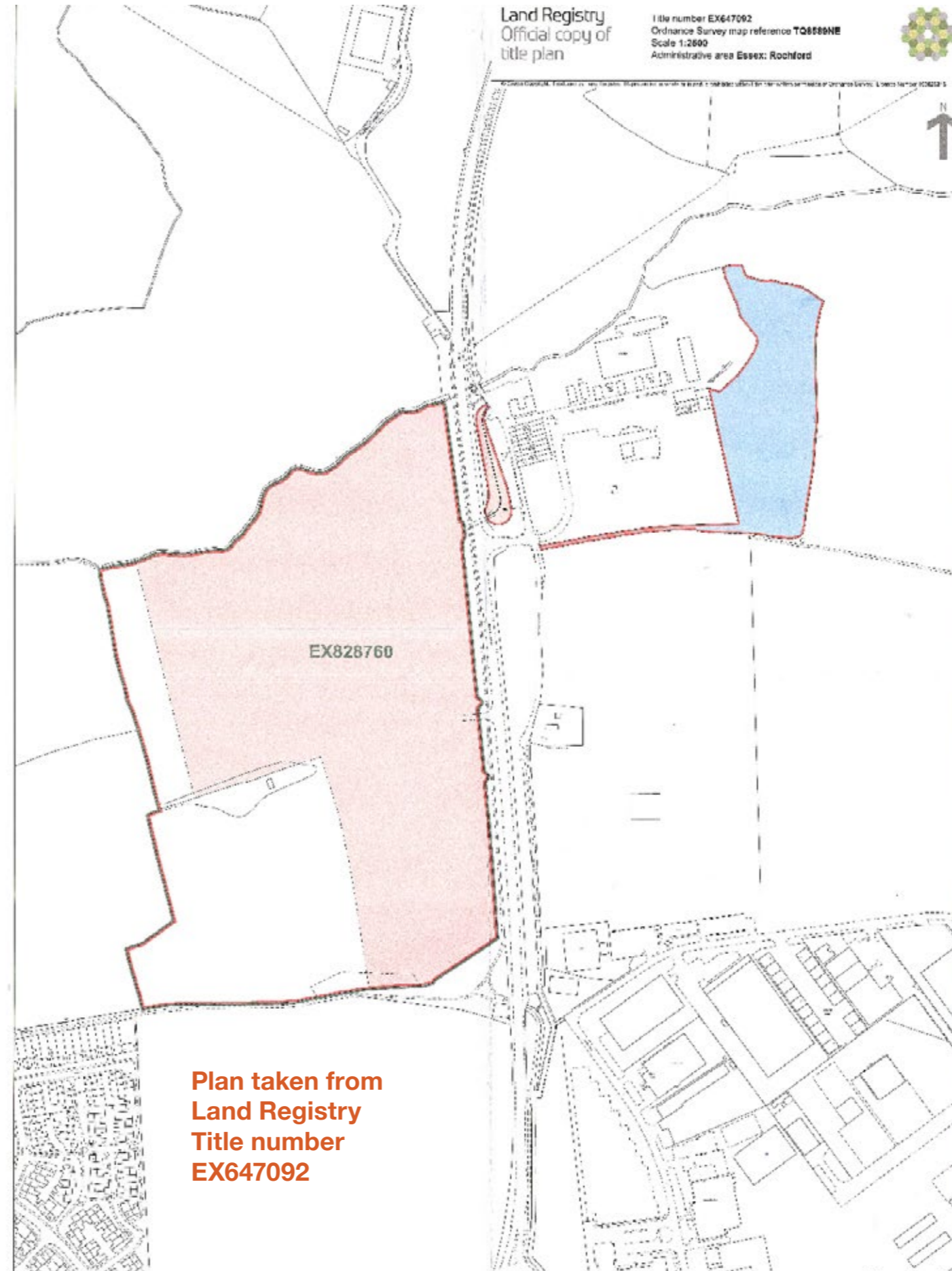
2. For the links to Hall Road from Southend Airport Business Park we would tend to favour the most direct routes and, as these tend to traverse/cross land in private ownership future negotiations with local land owners will be essential. Public Rights of way exist but only in the form of an indirect public footpath which automatically limits the access options for cyclists and horse riders. Certainly the public footpath with a link to the Roach crossing is a good option, but cycling and horse rights will need to be secured. (See Map 2b No. 8)

3. In addition to create a direct link to the north/south proposed route through Hall Road country park then a north/south route should be considered bordering to the west of the farm land to the south of Hall Road (see Map 2b No. 9) following the line of the existing hedgerow/tree line.

In order to establish what opportunities exist in the area to the south of Hall Road discussions are needed with C Tabor (land owner) and ECC PROW to establish views on footpath conversion to bridleway and views they have on a proposed link to the Roach crossing.

4. The route linking the Roach crossing to SABP (See Map 2b No. 10) will traverse a variety of different landowners property and therefore careful negotiation will be required. It is understood that the Rugby club land is listed as a High Risk Archaeological site and is therefore to be avoided. There is a swath of land between the Rugby Club and Cherry Orchard Brickworks which presents a very good alternative (See Greenway Network Land Ownership Aug 2015 above). The ownership of this land is still unclear at this time and further investigation is required. Discussions have been held with the SABP developers to ensure that the north/south proposed access through the business park aligns with this possible route to the north.

5. Should the Roach crossing get approval then bridge construction access will also be required and as a result access via private land will be essential.



Register EX647092 land on the west side of and land lying to the east of Cherry Orchard Way

Title Number : EX647092

This title is dealt with by Land Registry, Peterborough Office.

The following extract contains information taken from the register of the above title number. A full copy of the register accompanies this document and you should read that in order to be sure that these brief details are complete.

Neither this extract nor the full copy is an 'Official Copy' of the register. An official copy of the register is admissible in evidence in a court to the same extent as the original. A person is entitled to be indemnified by the registrar if he or she suffers loss by reason of a mistake in an official copy.

This extract shows information current on 25 AUG 2015 at 12:08:05 and so does not take account of any application made after that time even if pending in the Land Registry when this extract was issued.

REGISTER EXTRACT

Title Number	: EX647092
Address of Property	: land on the west side of and land lying to the east of Cherry Orchard Way, Southend-on-Sea
Price Stated	: Not Available
Registered Owner(s)	: MARK ROBERT STOLKIN of 14 Egerton Gardens Mews, London SW3 2EH FAYE MARY CLEMENTS of Hawkley House, 26 Chapel Street, Billericay, Essex CM12 9LU.
Lender(s)	: None

Title number EX647092

This is a copy of the register of the title number set out immediately below, showing the entries in the register on 25 AUG 2015 at 12:08:05. This copy does not take account of any application made after that time even if still pending in the Land Registry when this copy was issued.

This copy is not an 'Official Copy' of the register. An official copy of the register is admissible in evidence in a court to the same extent as the original. A person is entitled to be indemnified by the registrar if he or she suffers loss by reason of a mistake in an official copy. If you want to obtain an official copy, the Land Registry web site explains how to do this.

A: Property Register

This register describes the land and estate comprised in the title.

ESSEX : ROCHFORD

- 1 The Freehold land shown edged with red on the plan of the above Title filed at the Registry and being land on the west side of and land lying to the east of Cherry Orchard Way, Southend-on-Sea.
- 2 (29.08.2000) By the Conveyance and Surrender dated 6 January 1984 referred to in the Charges Register the land tinted blue on the filed plan was expressed to be conveyed together with certain rights. The said Deed also contains exceptions and reservations and the registration of the land tinted blue on the filed plan takes effect subject thereto.
- 3 (18.12.2008) The land edged and numbered in green on the title plan has been removed from this title and registered under the title number or numbers shown in green on the said plan.
- 4 (13.08.2014) A new title plan based on the latest revision of the Ordnance Survey Map has been prepared.

B: Proprietorship Register

This register specifies the class of title and identifies the owner. It contains any entries that affect the right of disposal.

Title absolute

- 1 (16.04.2007) PROPRIETOR: MARK ROBERT STOLKIN of 14 Egerton Gardens Mews, London SW3 2EH and FAYE MARY CLEMENTS of Hawkley House, 26 Chapel Street, Billericay, Essex CM12 9LU.
- 2 (09.08.2004) RESTRICTION: No disposition by a sole proprietor of the registered estate (except a trust corporation) under which capital money arises is to be registered unless authorised by an order of the court.

C: Charges Register

This register contains any charges and other matters that affect the land.

- 1 (29.08.2000) Lease (extent unknown) dated 1 March 1948 to Milton Hall (Southend) Brick Company Limited for an unknown term of years. Neither the original deed nor a certified copy or examined abstract thereof was produced on first registration.
- 2 (29.08.2000) By a Deed of Variation dated on or about 29 March 1958 made between (1) The Southend-on-Sea Estates Company Limited and (2) Milton Hall (Southend) Brick Company Limited the Lease dated 1 March 1948 referred to above was expressed to be varied. Neither the original deed nor a certified copy or examined abstract thereof was produced on first registration.

Title number EX647092

C: Charges Register continued

- 3 (29.08.2000) Supplemental Lease dated 19 July 1966 made between (1) The Southend-on-Sea Estates Company Limited and (2) Milton Hall (Southend) Brick Company Limited supplemental to the Lease dated 1 March 1948 referred to above. Neither the original deed nor a certified copy or examined abstract thereof was produced on first registration.
- 4 (29.08.2000) A Conveyance and Surrender dated 6 January 1984 made between (1) Milton Hall (Southend) Brick Company Limited and (2) Southend Estates Group Plc as amended by a Deed of Confirmation dated 30 October 1985 made between the same parties and (3) London Brick Property Limited contains restrictive covenants affecting the land tinted blue on the filed plan.
- NOTE 1: Copy Conveyance and Surrender filed*
- NOTE 2: Copy Deed of Confirmation filed under EX635072.
- 5 (29.08.2000) The Conveyance and Surrender dated 6 January 1984 referred to above is expressed to release and extinguish the matters contained in the Lease dated 1 March 1948, the Deed of Variation dated 29 March 1958 and the Supplemental Lease dated 19 July 1966 referred to above in the terms therein mentioned.
- 6 (29.08.2000) The land tinted pink on the filed plan is subject to such restrictive covenants as may have been imposed thereon before 29 August 2000 and are still subsisting and capable of being enforced.

End of register

Register Plan EX750540 land at Cherry Orchard Way, Southend-On-Sea

Title Number : EX750540

This title is dealt with by Land Registry, Peterborough Office.

The following extract contains information taken from the register of the above title number. A full copy of the register accompanies this document and you should read that in order to be sure that these brief details are complete.

Neither this extract nor the full copy is an 'Official Copy' of the register. An official copy of the register is admissible in evidence in a court to the same extent as the original. A person is entitled to be indemnified by the registrar if he or she suffers loss by reason of a mistake in an official copy.

This extract shows information current on 25 AUG 2015 at 14:21:45 and so does not take account of any application made after that time even if pending in the Land Registry when this extract was issued.

REGISTER EXTRACT

Title Number	: EX750540
Address of Property	: land at Cherry Orchard Way, Southend-On-Sea
Price Stated	: £20,500
Registered Owner(s)	: ESSEX COUNTY COUNCIL of County Hall, Chelmsford CM1 1LX.
Lender(s)	: None

Title number EX750540

This is a copy of the register of the title number set out immediately below, showing the entries in the register on 25 AUG 2015 at 14:21:45. This copy does not take account of any application made after that time even if still pending in the Land Registry when this copy was issued.

This copy is not an 'Official Copy' of the register. An official copy of the register is admissible in evidence in a court to the same extent as the original. A person is entitled to be indemnified by the registrar if he or she suffers loss by reason of a mistake in an official copy. If you want to obtain an official copy, the Land Registry web site explains how to do this.

A: Property Register

This register describes the land and estate comprised in the title.

SOUTHEND-ON-SEA

- 1 (20.07.2005) The Freehold land shown edged with red on the plan of the above Title filed at the Registry and being land at Cherry Orchard Way, Southend-On-Sea

B: Proprietorship Register

This register specifies the class of title and identifies the owner. It contains any entries that affect the right of disposal.

Title absolute

- 1 (20.07.2005) PROPRIETOR: ESSEX COUNTY COUNCIL of County Hall, Chelmsford CM1 1LX.
- 2 (20.07.2005) The price stated to have been paid on 15 April 2005 was £20,500.

C: Charges Register

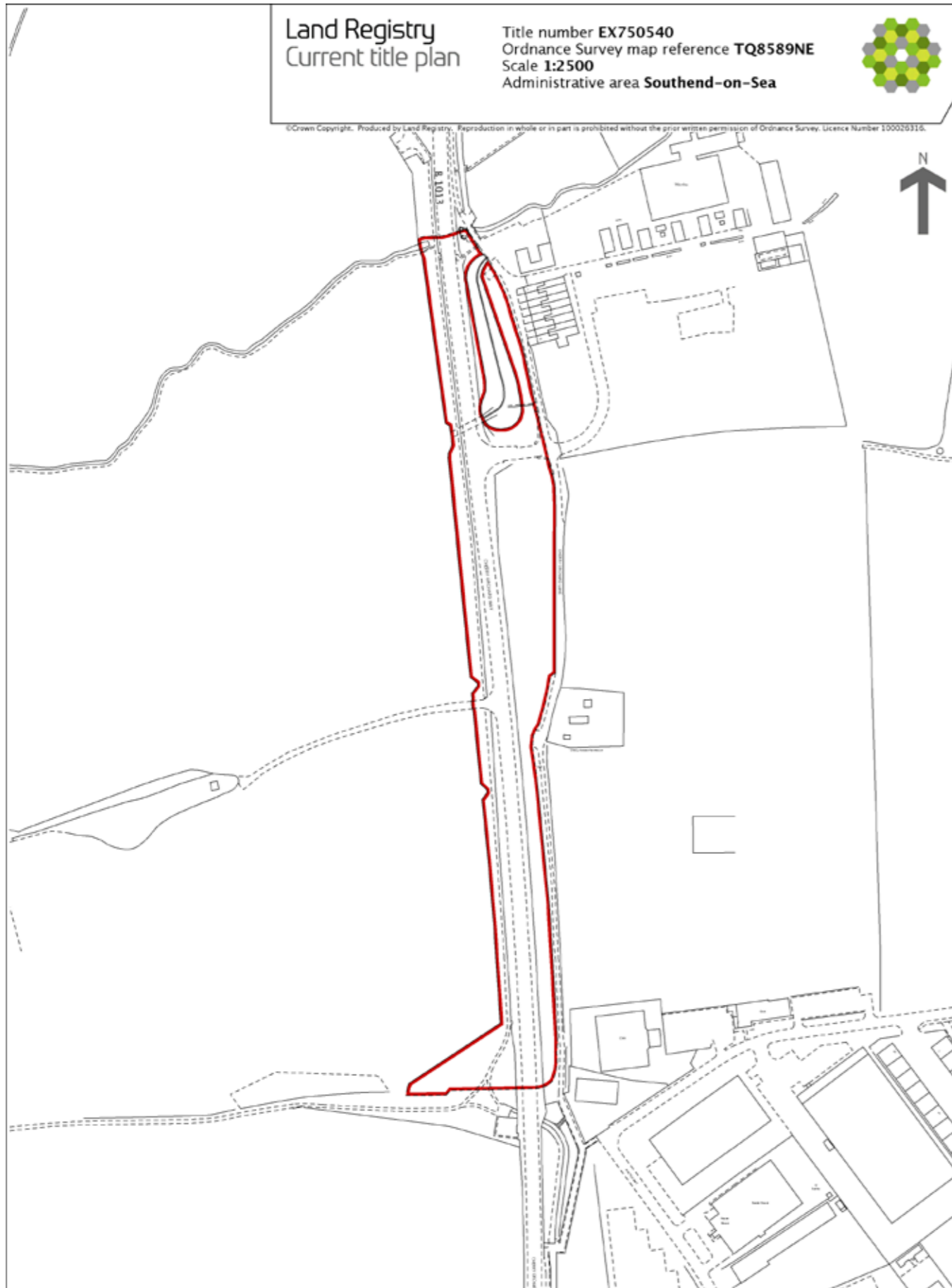
This register contains any charges and other matters that affect the land.

- 1 (20.07.2005) The land is subject to the following rights reserved by a Transfer of the land in this title dated 15 April 2005 made between 1) Southend Estates Group PLC (the Transferor) and 2) Essex County Council (the Transferee):-

"The Property is sold subject to all rights liberties privileges advantages easements quasi rights and quasi easements now used or enjoyed by any adjoining or neighbouring properties over under or through the Property and in particular but without prejudice to the generality of the foregoing
a) a right of way and all other rights which are currently enjoyed over under or through the existing access tunnel which runs beneath the Property b) the right to enter upon the Property or any part thereof for the purpose of inspecting repairing or renewing any boundary fences or other structures built or erected on any adjoining or neighbouring land

The Transferee hereby covenants with the Transferor not to allow the said access tunnel to fall into disrepair and forever hereafter to maintain the same so as to ensure that the said access tunnel can be used for its existing purpose"

End of register



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Appendix 5

Cherry Orchard Jubilee Country Park



Appendix 6

Cycle Path Surface Options





Technical Information Note No. 8

January 2012



Self-binding surfaces	
Description	<p>Self-binding gravel paths are versions of the standard limestone dust surface. All options require a 100 – 150mm thick aggregate base. There are many different products available, and most are only marketed regionally – contractors and builder’s merchants should have local information available. Self-binding materials may be based on limestone, slate waste or granite waste and others.</p> <p>The material is spread and levelled using a paving machine whilst damp/moist and then compacted using a roller or vibrating plate. The material ‘sets’ when dry, but not to the same extent as would a concrete or bitmac. The surface remains loose-ish and dusty, but does ‘harden’ to the point of becoming impermeable in some heavily trafficked projects. Each material is different and therefore it is important to visit a site where the desired material has been laid several years ago to see how it performs.</p>
Benefits	<p>This range of products is suitable for lightly trafficked environmentally sensitive areas. It does not harden quickly after delivery, therefore allowing time to get the material into difficult work sites (it can be stockpiled for a few days on site before laying).</p>
Suitability	<p>Suitable as alternatives to limestone dust surfaces, and where a bound surface is not acceptable.</p> <p>Self-binding surfaces tend not to work very well in areas</p> <ul style="list-style-type: none"> • where erosion is likely to take place such as on steep slopes, sharp corners, junctions or under bridges, • with difficult drainage or where water is present, • where heavy traffic uses a path • where equestrians use a path. <p>Where this type of surface is chosen, localised use of resin bonded or other sealed surfaces is recommended for such vulnerable sections.</p> <p>The life-cycle of self-binding surfaces tends to be significantly shorter than for bound surfaces (see Appendix B), and there is a continuous problem with overgrowing vegetation, ponding and pothole development, which very quickly make paths unacceptable to many cyclists and walkers (unless repaired quickly). Self-binding path surfaces can be easily repaired.</p> <p>The quality of the surface is sensitive to the workmanship with which it is laid so effort must be put into ensuring a high level of quality control, and it is important to select a contractor with sound experience of the particular product to be used.</p>
Selection of suppliers / brands (not exhaustive)	<p>Breedon Gravel (supplied by Breedon Aggregates) – the material laid across Queen Square in Bristol (on route between Temple Meads and Sustrans head office). Golden / amber colour</p> <p>Cedec (supplied by Ced Ltd) – can be grey, gold or reddish. Should not</p>

- Binding Margin -

Self-binding surfaces	
	<p>be laid too deeply.</p> <p>Centrac (supplied by Central Construction Services Ltd) – buff colour</p> <p>Coxwell Gravel - slightly reddish colour. It has been used on various sections of the NCN and is best suited to paths that are level and lightly used.</p> <p>Finepath (supplied by Tarmac) is made of recycled blast furnace slag, steel slag and secondary dusts, with added colour pigments. There have been frost-heave problems when laid in cold weather, otherwise the material is very frost resistant. This material has been used by British Waterways in the West Midlands (NCN 54)</p> <p>Goldpath (supplied by builder’s merchants) – golden / amber colour.</p> <p>Hoggin – composed of a well graded mixture of gravel, sand and clay, producing a buff colourer surface.</p> <p>Toptrac (supplied by Tarmac) - 100% recycled pathway material. It has in the past been used on NCN 5 in Kidsgrove (Staffs), but has now been overlaid with a bituminous surface. Used on NCN 767 in Clackmannanshire as a demonstration of different surfaces.</p>
Cost	Varies from product to product, but generally slightly cheaper to install than bituminous surfaces. Whole-life costs are generally more expensive than for bituminous surfaces (see Appendix B)
	
Toptrac (NCN 5 in Staffordshire)	Breedon Gravel
	

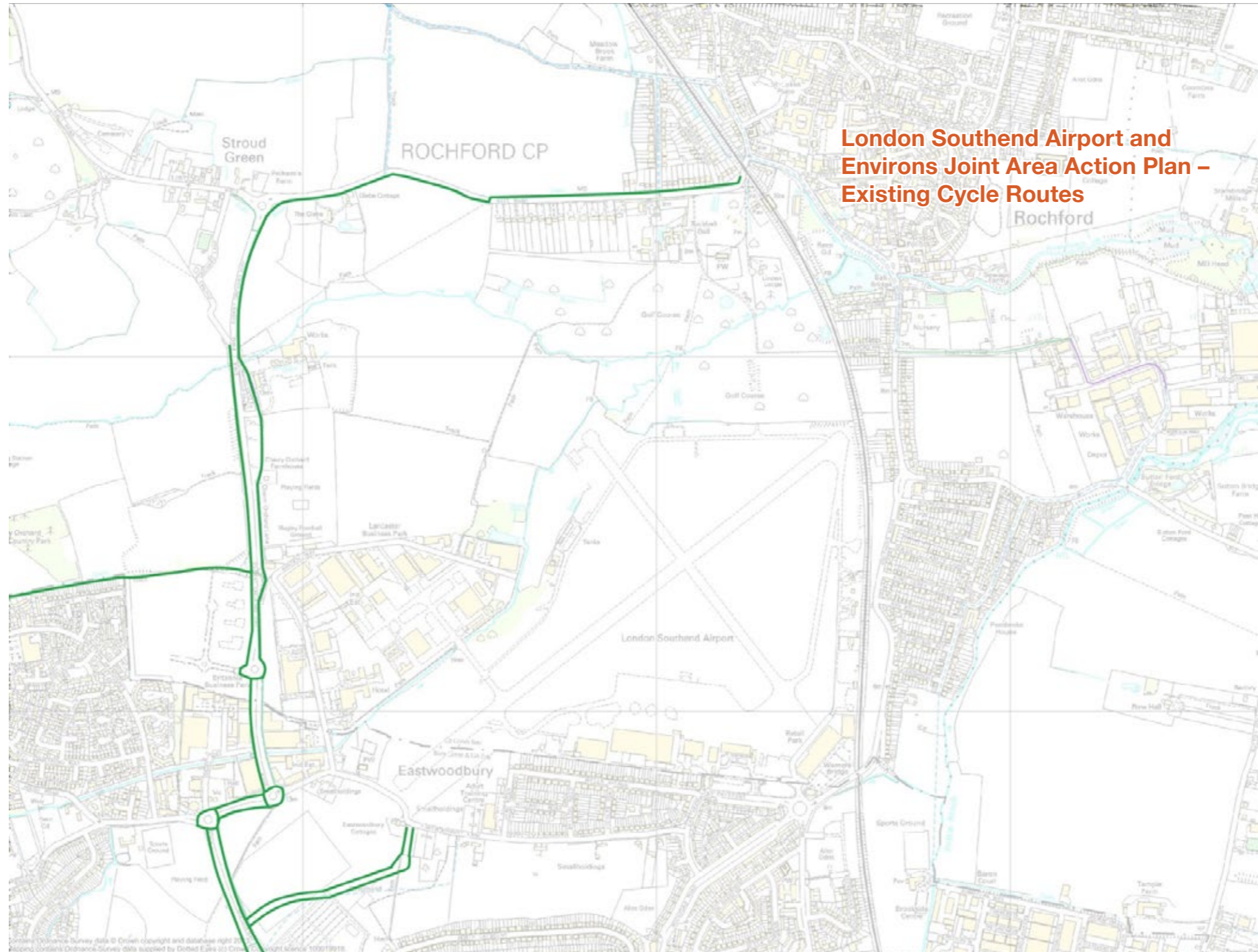
Self-binding surfaces	
Finepath in Birmingham	Finepath (NCN 54 in Wolverhampton)
	
Coxwell Gravel (NCN 6, Dunstable)	Coxwell Gravel
	
Goldpath	Goldpath
	
Hoggin	

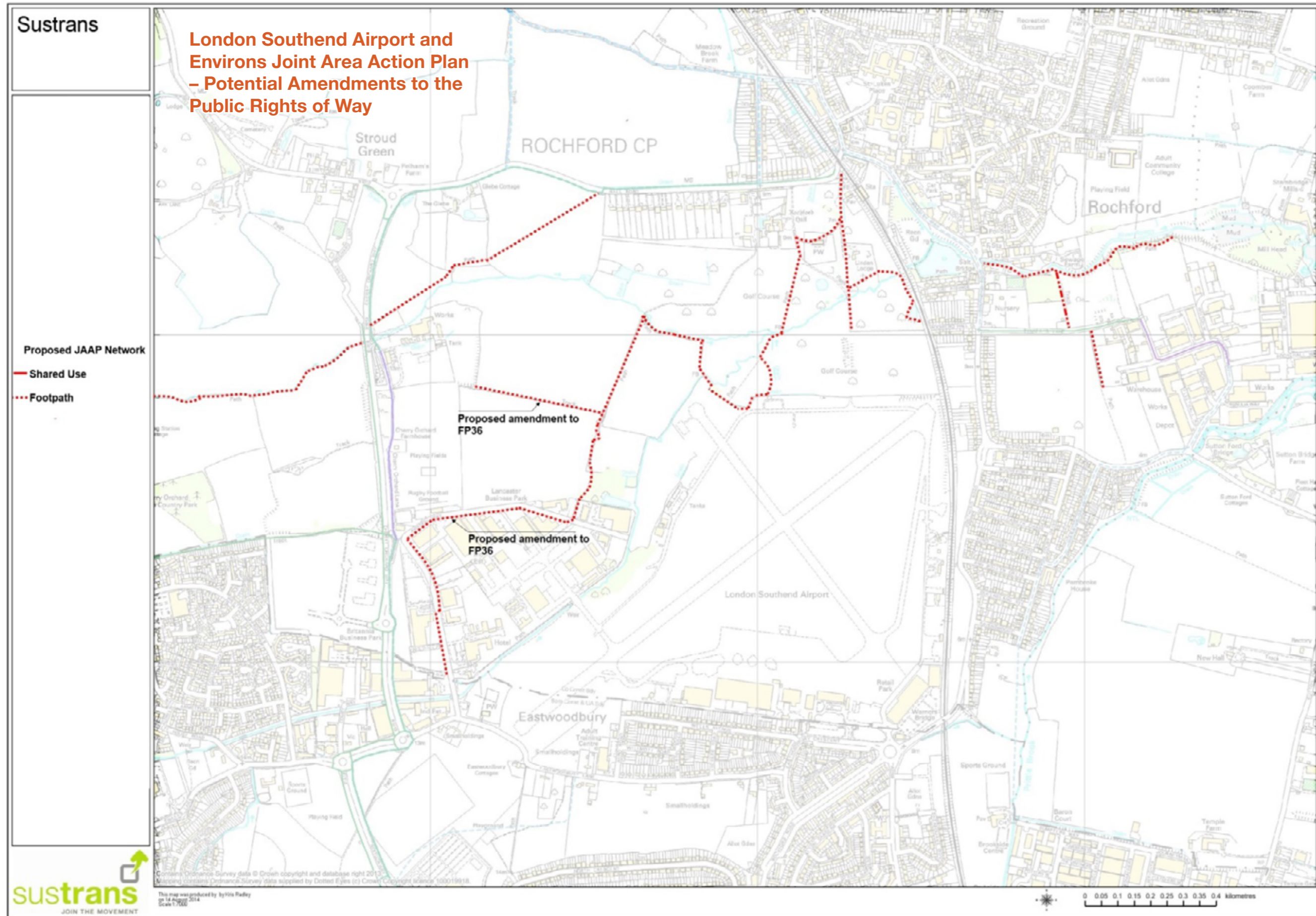
Appendix 7

London Southend Airport and Environs Joint Area Action Plan walking and cycling improvements

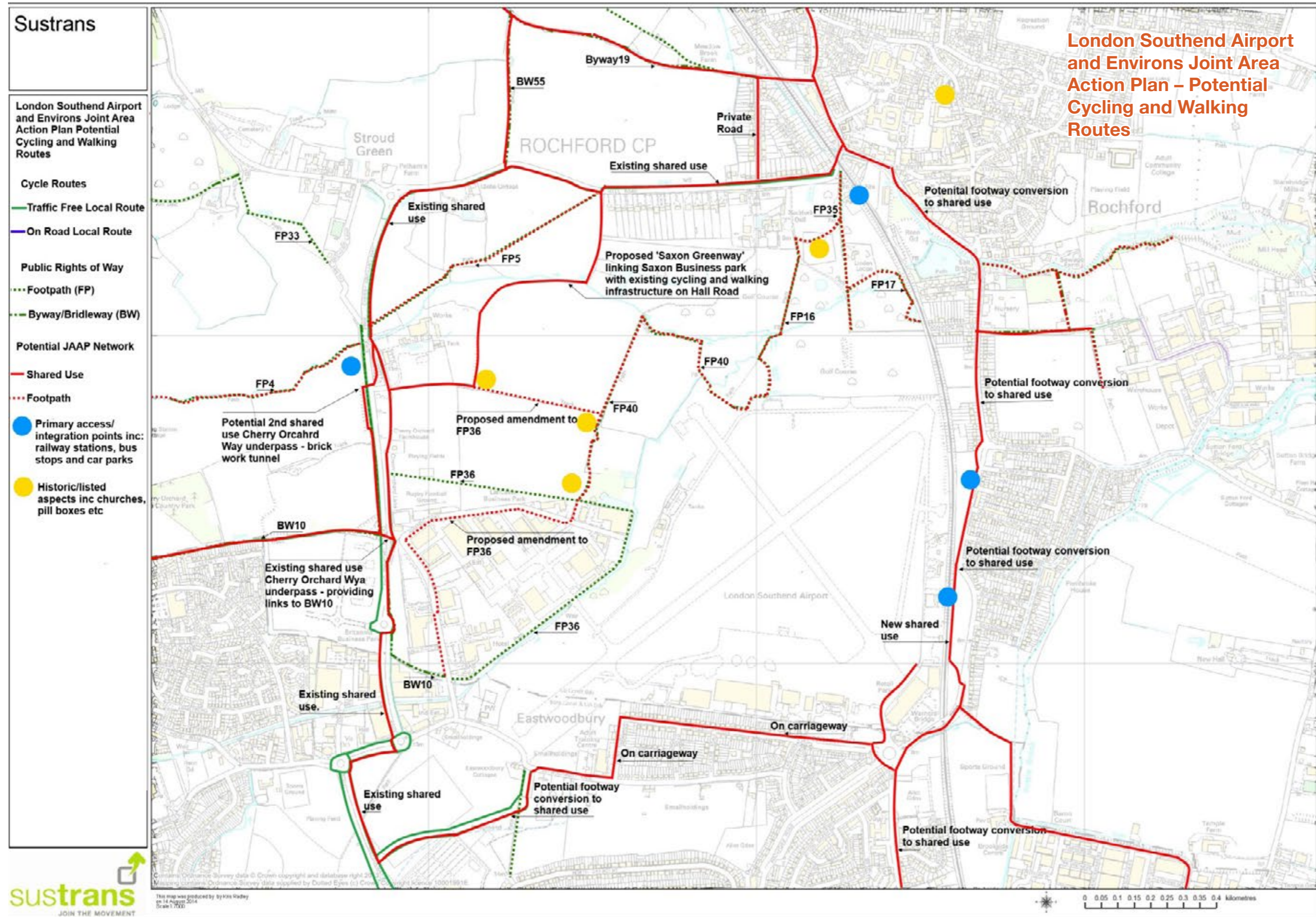
Existing and New PROW, Cycle routes and access points to Southend Airport Business Park

August 2014



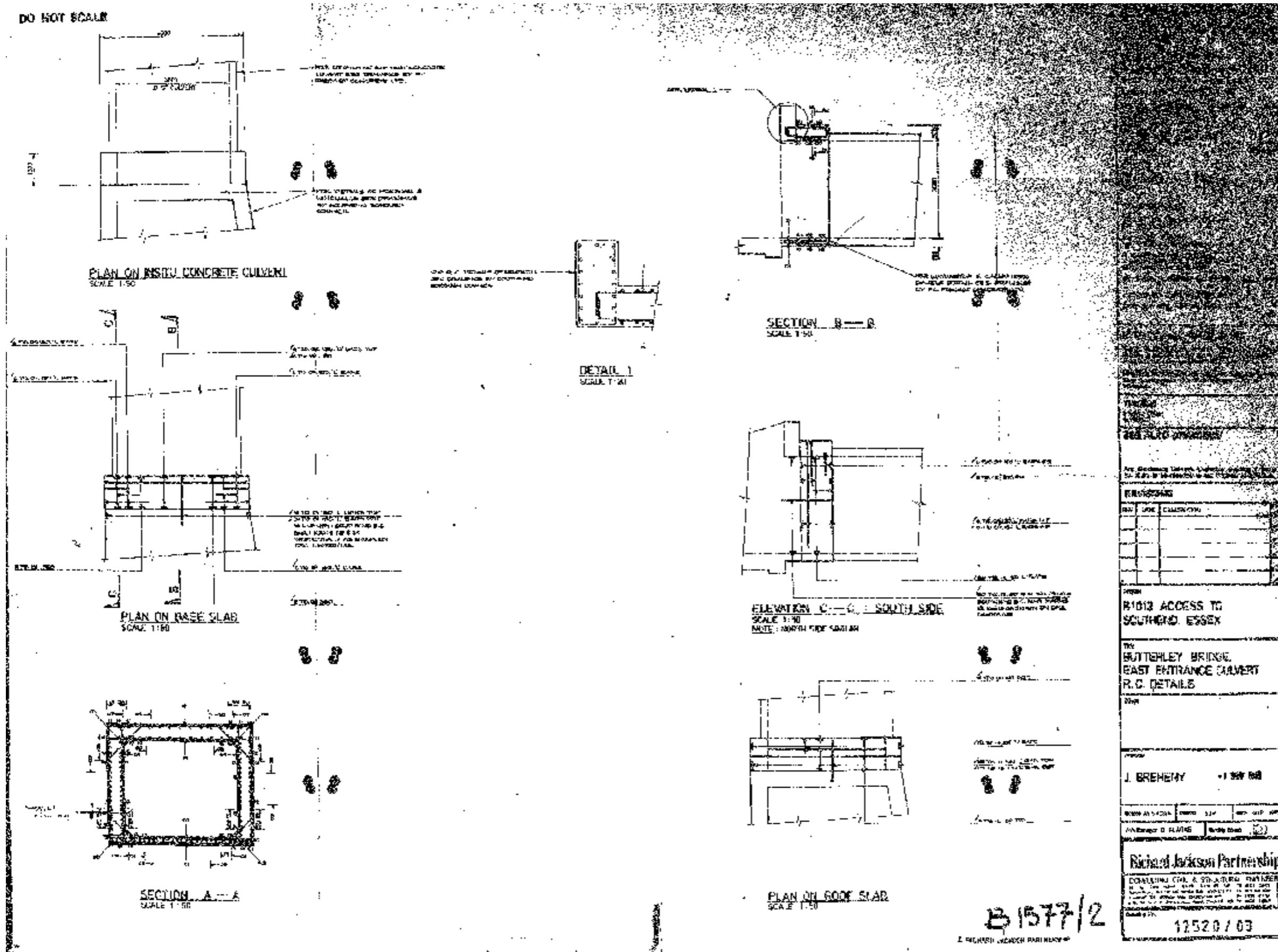


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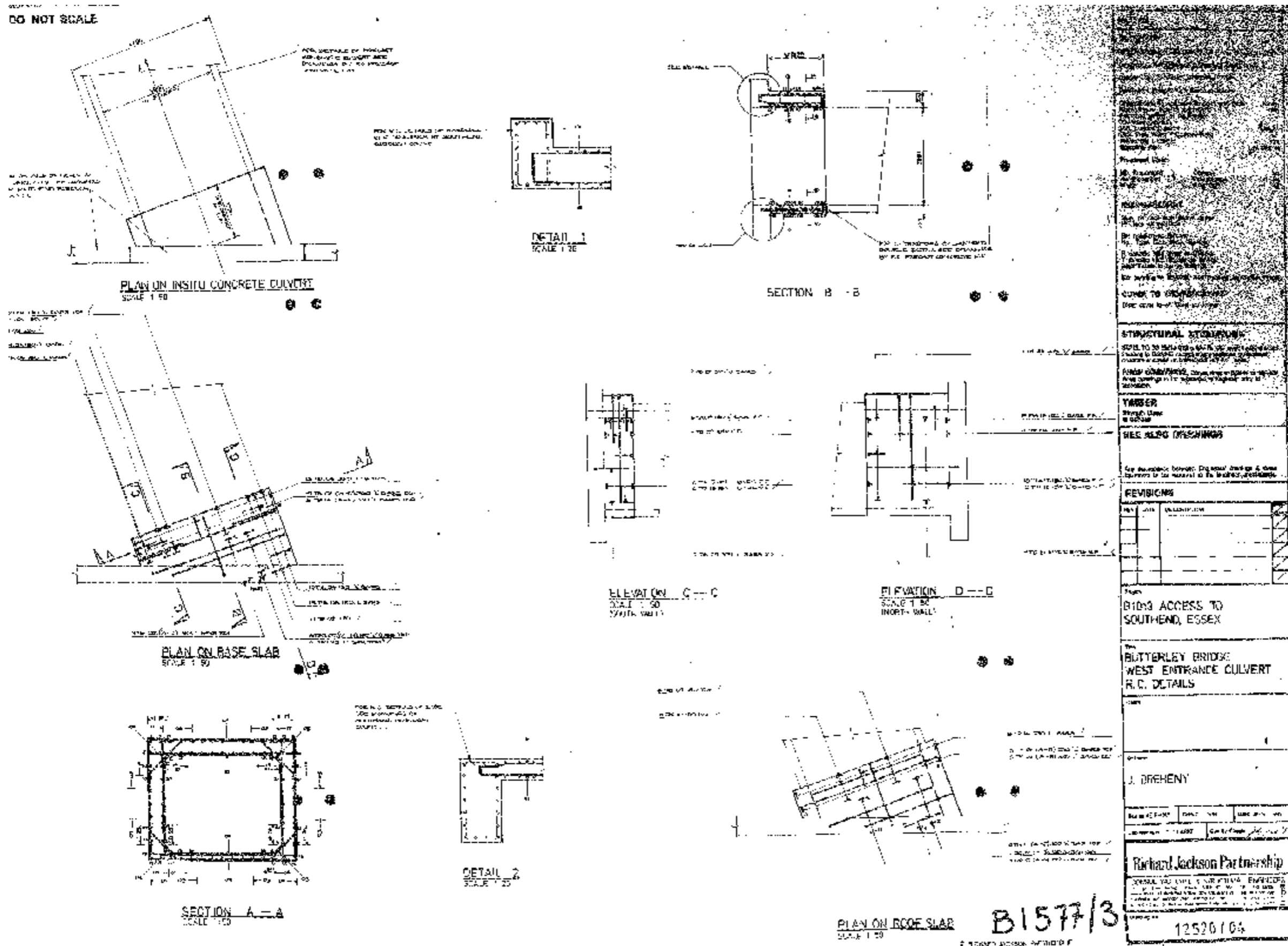
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Appendix 8 ECC Butterley Bridge Inspection Report

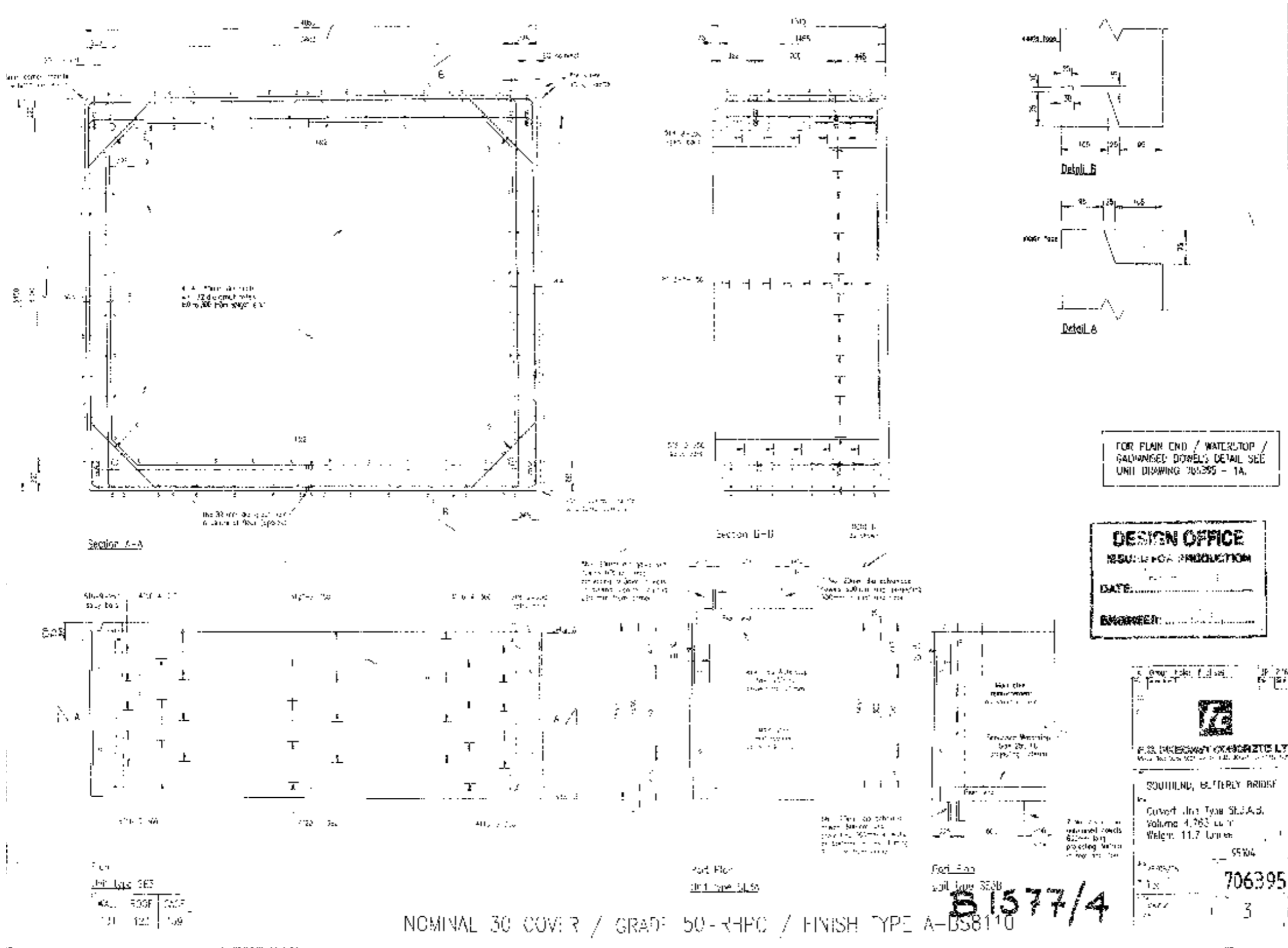


R1013 ACCESS TO SOUTHEND, ESSEX		
THE BUTTERLEY BRIDGE EAST ENTRANCE CHAVERT R.C. DETAILS		
J. BREHEMY - 1997 008		
NO. OF SHEETS	TOTAL NO. SHEETS	DATE
1	1	12/520/03
Richard Jackson Partnership		
CONSULTING CIVIL & STRUCTURAL ENGINEERS		
125, High Street, Southend-on-Sea, Essex, SSO 1 1AA		
Tel: 0206 207000 Fax: 0206 207001		
E-mail: rj@rjp.co.uk		
12520/03		

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04/08/2015

Feature History Report

Page 1 of 5

Asset: Id Like: 1577/*				
Report Type: Assessment				
Site: CHERRY ORCHARD WAY (32200194)		Area: Roch'ord		
Asset No: 8,001.00		Asset Id - Location: 1577/44566 - BUTTERLEY BRIDGE		
Feature Type: Underbridge		District: Roch'ord		
Batch: 10013700 - Inspection Batch				
Route: Structures General East Area W		Officer: Ansar Miah	Date: 29/06/2014	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	The structure is in a good condition
Engineer Comments	STEC	Comments	.0000	Good condition.
Work Required	STWR	No Comments	.0000	
Batch: 10010033 - Structures General East Area W				
Route: Structures General East Area W		Officer: Dean Warren	Date: 21/03/2013	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	Roger Church 21/03/2013 Structure inspection from outside only due to the structure being used to house horses.
Engineer Comments	STEC	Comments	.0000	John Cooper 04/04/2013 Structure in good condition. Horses to be removed.
Work Required	STWR	No Comments	.0000	
Batch: 10007743 - 1027783 - BCI INSPECTION				
Route: zECI EAST		Officer: Roger Church	Date: 04/05/2010	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	Small tree growing above west headwall Overall good condition Culvert being used as a stable with one end (East) blocked off
Batch: 10005699 - 178664 - UNKNOW				
Route: zECI EAST		Officer: JIM WILLSON	Date: 13/05/2004	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	Good condition
Batch: 10003603 - 733610 - BCI INSPECTION				
Route: zECI EAST		Officer: JIM WILLSON	Date: 26/09/2006	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	Good condition.
Batch: 10001449 - 735213 - BCI				
Route: zECI EAST		Officer: JIM WILLSON	Date: 28/05/2008	
Observation Type	Code	Grade	Score	Notes
Inspector Comments	STIC	Comments	.0000	Impact damage to armco barrier West side Good Condition One post damaged - no action Lots of graffiti

- Binding Margin -

Appendix 9 Ecology opportunities

There are a number of schemes currently underway across south Essex that could be used as a basis for partnership working and management in the long term.

Essex Wildlife Trusts Living Landscapes programme



“The Living Landscapes vision is to restore, recreate and reconnect our wildlife habitats including SSSIs, Local Wildlife Sites and Nature Reserves, so that the species living within them can move through the landscape more easily, and continue to survive and thrive long into the future. Living Landscapes is not purely focused on wildlife, as we are looking to improve links within the community and promote local economies so that everyone can benefit from the scheme.”

The JAAP provides an opportunity to extend and connect up region 46 (Upper Roach Valley) and 50 (Thames Medway Gravels South) to improve the WT Living Landscape Proposals.

The Essex BAP

The BAP has not been updated since 2013 as far as I can tell but contains plans for:

- Natural Grassland,
- Gardens in Urban Areas,
- Public Parks and Amenity Open Areas,
- Ancient and Veteran Trees,
- Arable Land and Field Margins,
- Rivers, Streams and Drainage Ditches,
- Garden Birds,
- Bats
- Dormouse

All of which we could help as part of greenway path verges and ongoing management.

The Essex Biodiversity Project was set up in 1999 for the purpose of implementing the Essex BAP <http://www.essexbiodiversity.org.uk/>

For example:

Essex Targets – Hedgerows

- 1 Maintain the net extent of hedgerows est. 17237km(x3m = 5171ha) by 2020
- 2 Achieve favourable condition of est. 6032km (35%) of hedgerows by 2020
- 3 Achieve a net increase in hedgerows of 1km per year to 2020
- 4 Maintain the number of isolated hedgerow trees to 2020
- 5 Increase the number of young hedgerow trees to 200 by 2020
- 6 Maintain hedgerows rich in native woody species to 2020

The South East Green Infrastructure Partnership

This is a coalition of the Wildlife Trust, Natural England, Groundwork, the Environment Agency, the Forestry commission and Town and Country Planning Agency. It’s a bit of a talking shop but has sources of information we could use to apply for local government funding.

East of England Biodiversity Network Report

Identifies the area as best improved by actions that ‘Extend and link fragmented habitats’. This is more for information as nobody is actively running this project any more.



Practical Projects

Things we can do to improve the Greenway network:

- Plant, manage and improve hedgerows along the network to link up nearby woodlands and provide habitats along the routes. There are local wildlife sites and designations for dormouse nearby so planting some hazel might be a good idea.
- Identify and manage mature and veteran trees along the routes and in parklands the routes pass through. The south east has a lot of mature trees left over from ancient woodland so identifying and making a feature of these trees will help with providing a sense of place and wildlife opportunities.
- Encourage volunteer ownership. Helping local volunteers to adopt the new route and become Wildlife Champions so that ongoing monitoring surveys and effective route management can be carried out once construction is complete.
- Produce a 5 year management plan to help guide and direct management to improve the routes for wildlife. This could include things like rotational hedgerow management (trimming a bit at a time) and seasonal grassland cutting.
- Dig a pond. Essex is big on amphibians and reptiles so anywhere we can add a pond will attract wildlife.
- Create bat friendly bridges with spaces or boxes for bats over watercourses. Local groups are often happy to manage and monitor these and share their data. This is also true for swallows and swifts or barn owls.

Kris Radley,
Sustrans Area Manager, Greater Essex
2nd Floor
4-6 Cowgate
Peterborough
PE1 1NA

29 November 2015

Bridleways around Rochford

Hi Kris,

Following on from our site meeting on Thursday 20th August I am writing with a list of comments relating to constraints and opportunities that are present along the routes we visited. Attached is a map of the routes with notable features numbered and described in more detail below:

- 1) Himalayan Balsam along the stream. This is the responsibility of the stream owner but could spread onto the Ironwell Lane bridleway if not managed.
- 2) See 1).
- 3) Open spaces occur periodically along the Ironwell Lane bridleway that could be managed better to create ‘pocket parks’ managed to encourage wildflower grassland and flowering plants, possibly including a bench or public artworks.
- 4) The junction between Ironwell Lane and the track to the south is narrow and constrained by dense bushes and trees. Scrub clearance in this area would encourage other species including wildflowers to colonise this space as well as improving the utility of the path. Trees should not be felled in this area to maintain the character of the greenway but the space could be enhanced with artwork or inventive signage.
- 5) The land to the south of Ironwell Lane that is to be developed for housing has herptile (likely reptile) fencing surrounding the field. Presumably this is the result of previous ecological surveys

and may be preventative (to stop reptiles entering the site) rather than being part of a translocation (to remove reptiles from the site). Either way this indicates that reptiles are present in the immediate area and habitats should be managed accordingly.

- 6) Several large trees are present along Ironwell Lane that should be retained and managed in the long term. Any path repair work should seek to avoid damage to these trees or their roots. Large trees are a particularly attractive element of the landscape and clearing dense scrub at the base of trees can better show off this feature to path users. It may be possible to create a ‘tree trail’ or other activities based on these trees.



- 7) Ironwell Lane is a wide, dense green corridor in the landscape and as such acts as a highway for wildlife. A gap is present at this location and no easy alternative route exists for wildlife wishing to reach the trees and open spaces around Rectory Terrace.

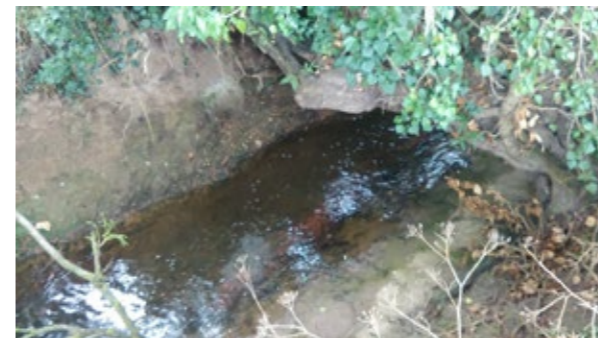
Filling the gap between Ironwell Lane and the Nursery with native species would allow access and movement between these areas for creates such as bats, small mammals and invertebrates. This filling should be done using native species and can be themed for birds, small mammals or as a linear orchard using fruit bearing species.

- 8) The hedgerow between Ironwell Lane and the nursery contains a number of non-native species. Depending on ownership it would be advantageous to replace these with native species in line with 7) above.

- 9) The hedgerow alongside this track is mechanically managed resulting in damage to standard trees and plants. More sympathetic management would improve its health and value for wildlife.
- 10) The dry ditch to the south of Hall Road will require a short bridge to cross. This area supports dense scrub and this habitat should be maintained as far as possible. Ideally this would include retaining branches that cross the path well above head height so that climbing species such as squirrels and Dormice do not have to come to the ground to cross the path.

The ditch itself is of limited value but may be seasonally wet so care should be taken not to significantly alter the flow of water through these ditches and, by extension, the River Roach.

- 11) The exact crossing point on the river is not yet decided however the banks are steep and heavily shaded by nearby trees along much of this section of the river. Small mammal prints were observed in mud alongside the river channel but suitable habitat for water vole is limited due to a lack of suitable food plants and shelter. Opening up the river, possibly by removing some trees would allow more light to reach the channel and would encourage the development of aquatic species but this should not be widespread in order to maintain the character of the river.



- 12) The new development on the brownfield land east of Cherry Orchard Way may result in the displacement of reptiles, birds, invertebrates and other species that favour short grassland and bare ground habitats. The creation of features such as rubble piles and bare ground scrapes along the greenways will help species find new areas to colonise and help protect these populations and allow them to relocate into suitable areas.



- 13) The cutting to the east of Cherry Orchard Way leading to the underpass is heavily grazed and shaded but may contain a seed bank of wildflowers or other interesting species. A change in the feeding regime of the horse currently living in the field would be beneficial for the grassland, local invertebrates and the horse itself.



- 14) The underpass is formed from pre-cast concrete blocks and although no detailed inspection was carried out no features that could support roosting bats or nesting birds were observed and this structure is of a type not normally favoured by these species groups.



- 15) The cutting to the west of Cherry Orchard Way within the country park contains tall grass on a sunny slope and as such is highly suitable for invertebrates. A bush cricket was observed in this area, thought to be Grey Bush Cricket *Platycleis albopunctata*. Proper management of this habitat will help support and expand local invertebrate populations.



- 16) This triangle of scrub and grassland contains a wide variety of habitats and microhabitats that are highly suitable for a range of invertebrates, nesting birds, bats, small mammals and other wildlife. This would be an ideal location to create habitat piles and encourage wildlife activities such as BioBlitz days or school group activities.

The creation of a management plan for this area could be used to attract funding and interest to the project as a whole as well as ensuring the site is properly managed for wildlife.



- 17) The underpass in this location is formed from pre-cast concrete blocks and no features that could support roosting bats or nesting birds were observed. This structure is of a type not normally favoured by these species groups and includes artificial lighting that would further deter many bat species.

- 18) The stretch of hedgerow between Cherry Orchard Way and the county boundary has been planted with native species. These species do not yet form a continuous hedge, however proper management would allow the dense bushy structure favoured by wildlife to develop creating a valuable feature.

- 19) The bridleway passes very close to Repton Green, a small community space with mown grassland along a footpath. A single line of tall hawthorn separates the two spaces and creates a dark corridor along the greenway. The removal of this hawthorn would open up the space and create more of a joined-up feel encouraging more people to use the path and enter the neighbouring country park.



- 20) The entrance to the country park is quite dark and narrow. Opening up this space would provide better access to the park and would provide opportunities for creating wildlife habitats (such as habitat piles) or wildlife themed artworks (such as sculptures containing bat boxes).

- 21) The habitat next to the roundabout includes short grassland, longer grassland and ruderal species along the ditch forming a mixture of habitats and microhabitats. The replacement of the fences in this area with a less rigid edge, possibly a line of stones or a low soil bund, would allow for better blending of these areas and a more natural feel to the location. Improvements in the management of the grassland for wildflowers would also help improve these habitats for wildlife.

Overall the bridleways form green corridors across a largely arable landscape and any improvements to the structure or diversity of these habitats would have wider benefits for local wildlife across the area. In addition, improvements to the surface of the paths and an increase in use will produce opportunities for better management, in particular of hedgerows and grassland, through volunteering and attracting external funding.

I have included photos below of other routes that have been improved through volunteer support and small scale funding as examples of what can be achieved on a modest budget.



If you have any questions or require anything further in relation to this project please feel free to contact me.

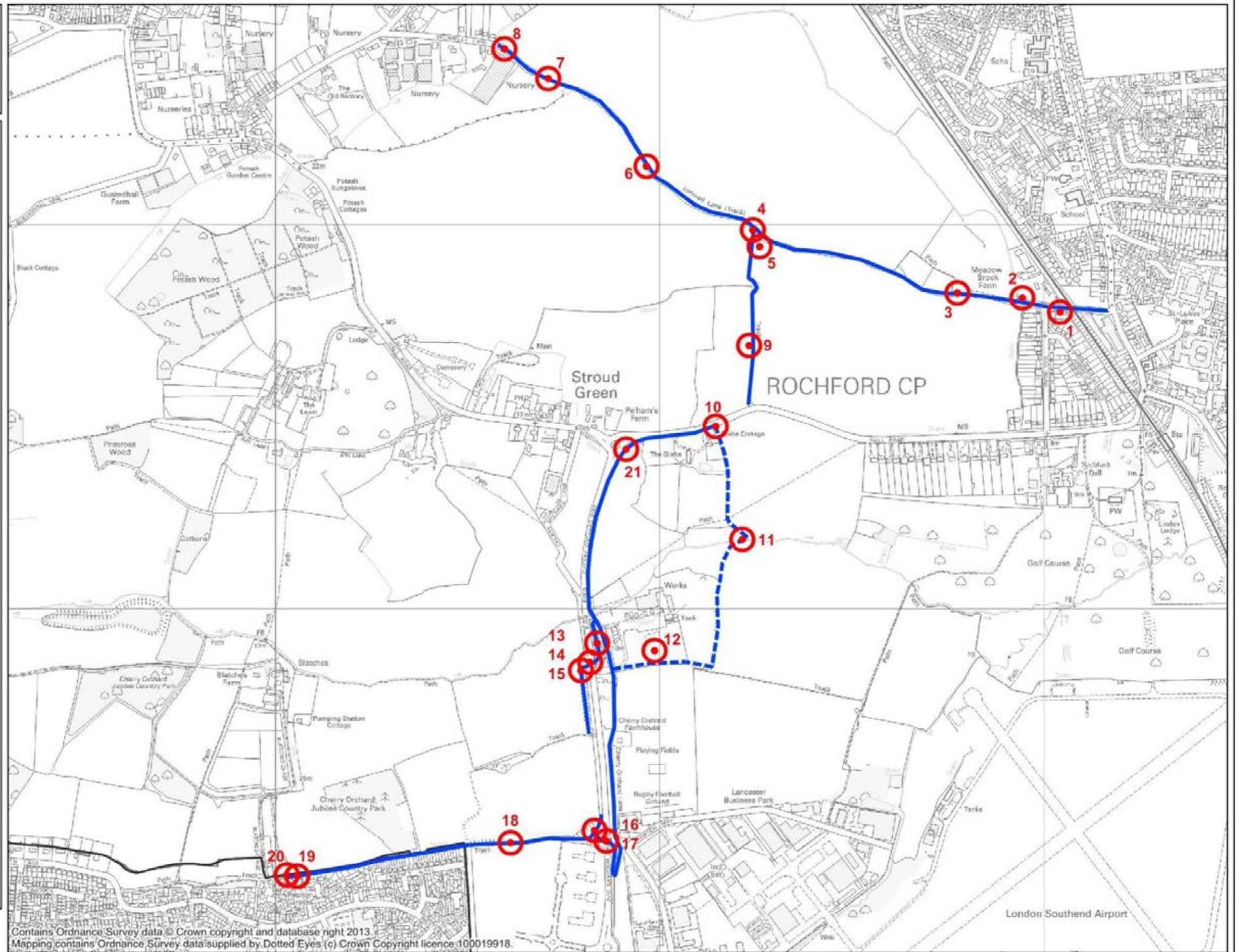
Kind Regards

A handwritten signature in black ink, which appears to read 'David Watson'.

David Watson MCIEM

Ecologist

Sustrans



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This map was produced by by westmidlands
on 25 August 2015
Scale 1:9500



- Binding Margin -