East Sussex Cycling and Walking Strategy

Battle LCWIP

June 2018

About Sustrans

Sustrans is the charity making it easier for people to walk and cycle.

We are engineers and educators, experts and advocates. We connect people and places, create liveable neighbourhoods, transform the school run and deliver a happier, healthier commute.

Sustrans works in partnership, bringing people together to find the right solutions. We make the case for walking and cycling by using robust evidence and showing what can be done.

We are grounded in communities and believe that grassroots support combined with political leadership drives real change, fast.

Join us on our journey. www.sustrans.org.uk

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Revision	Description	Author	Check	Date
1	Version 1	DY	SP	13/09/17
2	Version 2	DY	SP	23/03/18
3	Version 3	DY	SP	25/06/18

Contents

Introduction

Sustrans was commissioned by East Sussex County Council (ESCC) in March 2017 to support the development of a countywide Cycling and Walking Strategy. Our role is to lead on identifying new and improved walking and cycling routes and infrastructure that align with key County Council policies and programmes that support local economic growth, improvements to health and well-being and the environment, together with the engagement of key local stakeholders, who have a vested interest in the development of the strategy.

The scope of the work was limited to utility trips to work, education and shopping of up to 5km. It does not include consideration of leisure trips outside the urban areas.

Our approach was to review all existing identified schemes and proposals in each of the towns and to plot these on our Earthlight GIS platform. We then identified gaps in the network with support from local stakeholders and surveyed potential routes on foot and bicycle. The methodology we adopted is outlined in the table in the Appendix, which was informed by the Design Guidance published as part of the Active Travel (Wales) Act 2013 and the London Cycling Design Standards guidance on developing a coherent cycle network.

Network Maps

For each town, we produced a series of maps to inform our work and to share with stakeholders. The information was also made available on our online mapping system with a unique password protected login.

Trip Generators

This map identifies origin and destination points for major destinations across each town that are likely to generate significant numbers of trips.

Transport Network

This map identifies major roads, railways, proposed cycling and walking routes and contours. ESCC traffic flow data indicates the busiest roads in each town that present the main challenges to cycling and walking, both along the road and at crossing points.

Proposed Network

This map integrates the existing network, current proposals and our own recommendations from our surveys, the origin and destination points, cycle flows and core walking zones and routes, to convert these into a network of primary and secondary routes and proposed measures. The primary routes are judged to be the most popular and strategic routes, linking residential areas with the key trip generators. Secondary routes can be locally important but are less strategic as they fill the gaps in the primary network.

The primary network has been tested against the Propensity to Cycle website, which takes the Travel to Work data from the 2011 Census to test various scenarios for increasing cycling. It is a useful tool but it only models a fraction of all journeys and does not include school, shopping or leisure trips.

Designing for busy roads

Recently published guidance from Highways England (Interim Advice Note 195/16) is a useful starting point when considering whether the busier roads are likely to be suitable for cycling and walking.

This guidance suggests that the key threshold at all traffic speeds is an average annual daily traffic flow of 5,000 vehicles per day (vpd). At higher traffic flows, physical separation from motor vehicles is recommended.

Reducing traffic speed from 30mph to 20mph is clearly desirable, but if traffic flows cannot be reduced below 5,000 vpd, then physical separation will still be required. In these situations it is tempting to accommodate cyclists on existing footways, but this is not acceptable if it means a reduced level of service for pedestrians.

Speed Limit	Average Annual Daily Traffic (AADT)	Minimum Provision
40+	All flows	Cycle Tracks
30	0-5,000	Cycle Lanes
	>5,000	Cycle Tracks
	<2,500	Quiet Streets
20	2,500-5,000	Cycle Lanes
	>5,000	Cycle Tracks

From Interim Advice Note 195/16

Sustrans recommends a minimum shared path width of 3.0 metres in an urban setting, with reduced widths acceptable in certain circumstances. The table below is taken from the Sustrans Design Manual, a handbook for cycle-friendly design.

On some roads it may not be possible to accommodate cycle lanes, cycle tracks or a shared path and the designer must consider other alternatives, such as closing the road to through traffic or finding a different route alignment.

Type of route	Minimum path width
Urban traffic free	3.0m on all main cycle routes, secondary cycle routes, major access paths and school links; wider on curves and steep gradients. 2.5m possible on access routes and links with low use
Urban fringe traffic free	3.0m on all main cycle routes, major access paths and school links 2.5m possible on lesser secondary cycle routes and access links
Rural traffic free	2.5m on all main routes, major access paths and school links 2.0m possible on lesser routes and links

From Sustrans Design Manual

Traffic restrictions

Experience from towns and cities across the UK and in Europe suggests that in addition to providing good quality infrastructure for walking and cycling, it is necessary to restrict motor vehicles so that active travel is the natural and obvious choice for short trips. This does not mean any lack of accessibility for motor vehicles, just that they may need to make longer trips than the equivalent journey on foot or by bike.

There are various ways that traffic can be restricted and the designer will need to consider the appropriate solution for each location. A number of suggested measures are listed below:

- Vehicle Restricted Areas (pedestrian zones)
- Traffic calming and 20mph zones to reduce vehicle speeds
- Reduced availability of on-street and off-street parking
- Workplace Parking Levy
- Congestion charging
- Clean Air Zones

Filtered permeability

Filtered permeability gives pedestrians and cyclist accessibility and journey time advantages compared to other vehicles by exempting them from access restrictions that apply to motor traffic and by the creation of new connections that are available only to cyclists and pedestrians. Measures can include:

- cycle contraflows on one-way streets
- exemptions from road closures, point closures and banned turns
- permitting cycling in parks and open spaces
- traffic free paths such as links between cul-de sacs and public or permissive routes through private areas
- traffic cells, restricting through traffic in defined areas
- cycle parking situated closer to destinations than car parking

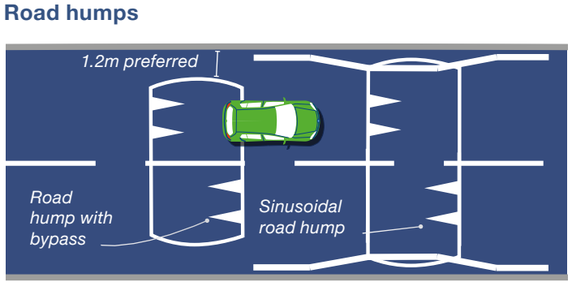
Recommended measures

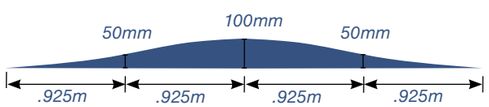
A number of technical solutions are included in the brief text descriptions for each location and some of these are summarised in this section.

Traffic calming

Physical measures to reduce traffic speed can be useful in locations where the limit is regularly exceeded or there is a record of crashes. There may be objections from local residents, emergency services and bus operators. Extensive traffic calming is unlikely to be supported on major roads, other than for short lengths. Common vertical and horizontal features are illustrated below.

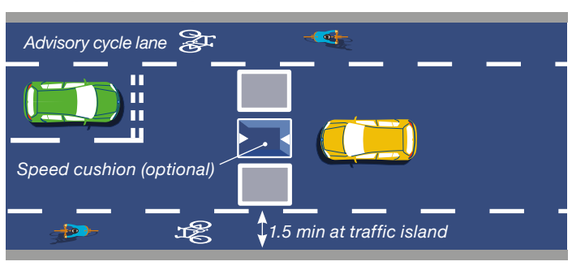
Road humps





Sinusoidal road hump cross section
(preferred geometry for vertical dimension)

Priority system - pinch point



Informal road crossings

Where a footway alongside a main road crosses a side road, clear priority should be given to pedestrians. The most effective approach is to provide a clear, wide contrasting surface that is raised above carriageway level.

If this is not possible for reasons of available space or cost, flush dropped kerbs should be provided as a minimum, according to ESCC Dropped Kerb Policy, included within their Cycling and Walking Strategy.

Zebra crossings

Unsignalled 'priority' crossings for both pedestrians and cyclists are a standard part of the toolkit in many parts of continental Europe but are not authorised for use in the UK. Some local authorities have experimented with "parallel Zebras" where extra space is provided for cyclists. These are becoming increasingly common in London and an example from Canterbury is illustrated below.

Chaucer Road, Canterbury

20mph speed limits

It is widely accepted that 20mph is much safer for all road users in urban areas and many towns across the UK have introduced 20mph as the default speed limit, particularly in residential areas. If collisions do occur, the risk of a fatality or serious injury is significantly reduce at 20mph compared with 30mph.

There are 60 local authorities in the current list of places implementing a community-wide 20mph default speed limit published by 20's Plenty for Us. In the South these include Brighton & Hove, Chichester and Portsmouth. Some towns in East Sussex already have 20mph zones, notably Lewes.

Studies show that a 20mph limit can improve traffic flows and road capacity in some situations, by reducing stop-start traffic and promoting a more even flow through urban streets.

Whilst East Sussex County Council does support schemes to reduce the speed to 20mph, these are delivered within specified areas and 20mph zones will need to be supported by traffic calming measures. These can be difficult to implement due to formal objections from the public and bus operators. They should not be introduced in isolation due to potential for rat-running on parallel routes.

Road closures

Point closures are a simple, cheap, effective and reversible way to remove traffic from streets. They can also reduce the need for more extensive traffic calming and are best implemented across a wider area to avoid traffic displacement onto parallel routes.

Very few of these schemes are implemented in East Sussex due to the legal processes around road closure and concerns of emergency services. There are some examples in the County, such as New Road in Lewes. They have been used extensively in London to create "traffic cells" so that through traffic is eliminated from residential neighbourhoods.

Land Use Planning

The consideration of land use planning was an integral element of the audit work, as many towns and settlements will be accommodating further growth in housing and commercial development, in order to meet the Government targets for development in the South. We have not shown any development sites on our mapping, because these are subject to change and it is difficult to obtain an accurate picture for all towns. We have taken account of potential development sites in our network planning where this has been agreed and published in Local Plans.

There are some references to specific sites in the detailed route descriptions for each town. As a general principle, developers should make walking and cycling easy within their sites. They should also provide good quality connections to the existing walking and cycling network and proposed routes within this report.

Propensity to Cycle Tool

The aim of the PCT is to inform planning and investment decisions for cycling infrastructure by showing the existing and potential distribution of commuter cycle trips and therefore inform which investment locations could represent best value for money. PCT uses two key inputs:

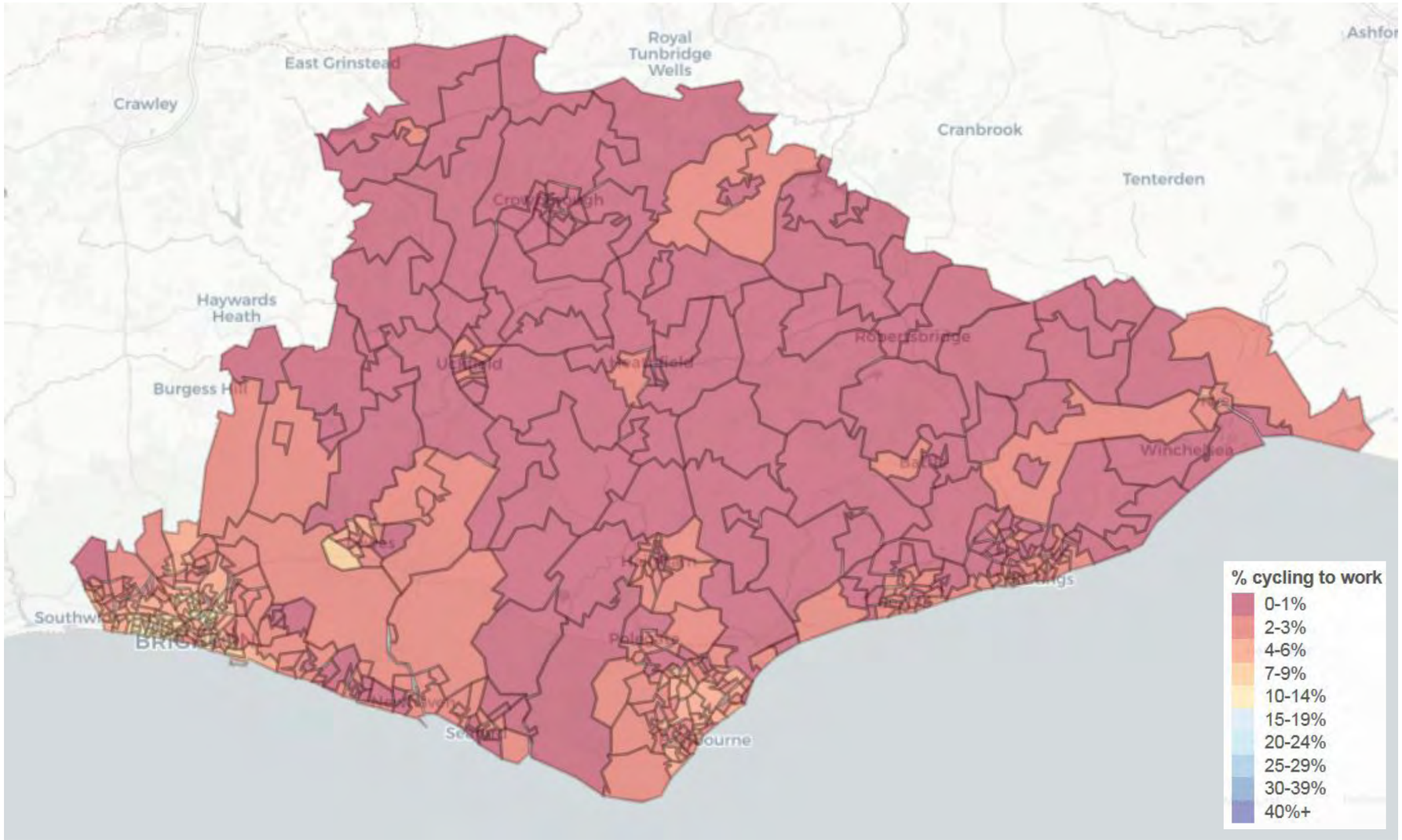
- Census 2011 Origin and Destination commuting data (O-D data)
- Cycle Streets routing

The model estimates cycling potential adjusted for journey distance and hilliness as well as predicting the likely distribution of those trips using the Cycle Streets routing application.

The model can be applied to consider different scenarios such as: Gender Equality, where women cycle as frequently as men; Go Dutch, if cycling levels were the same as in the Netherlands; and, Government Target, where cycling levels meet the target for current government's aim for cycling (based on the Cycling Delivery Plan).

There are a number of limitations to this model which should be considered especially when making decisions based on the patterns shown. These limitations include the data only showing travel to work trips, therefore only covering a small proportion of all journeys. Travel to school, shopping and for leisure is not included. The data also misses out the minor stages of multi-stage commuter trips so cycle journeys to train stations and bus stops are not represented. Lastly the distribution of journeys is a prediction of the likely route taken based on the Cycle Streets routing algorithm and not the actual routes being used.

It is worth noting that whilst the model builds an assessment of cycling propensity, it does not segment potential users, or provide any insight into pedestrians. Although this model does provide planners with an overview to identify areas for appropriate investment for cycling trips to work, it does not provide further information on those potential cyclists and their personal attributes and behaviours to help design the most effective interventions.



In East Sussex we have used the "Go Dutch – Fast Routes" scenario to produce PCT maps for each town. The map above shows current levels of cycling to work, which are very low with the exception of some parts of Lewes and Eastbourne. The map includes Brighton and Hove, where the proportion of trips made by bike is significantly higher.

PCT is an open source transport planning system, part funded by the Department for Transport. It was designed to assist transport planners and policy makers to prioritise investments and interventions to promote cycling. More information is available from the PCT website:

https://www.pct.bike/m/?r=east-sussex

Propensity to Cycle Map

KEY

EMPLOYMENT

2011 Census Workzones
Density of Employment (Jobs per Hectare)

- 50 - 100
- 100 +

POPULATION

2011 Population Data
Density (People per Hectare)

- 50 - 100

TRAFFIC DATA

Daily Traffic Volume

- 0 - 2,500
- 2,500 - 5,000
- 5,000 - 10,000
- 10,000 +

TRIP GENERATORS

Education, Health, Leisure

- Key Location
- Secondary Location
- Administrative Boundary

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PROJECT
East Sussex Cycling & Walking Strategy

TITLE
BATTLE
TRIP GENERATORS AND
TRANSPORT NETWORK

Drawn	Checked	Date	Scale at A3
DL	JF	19/4/2018	1:15,000

STATUS
ISSUED

DRAWING NUMBER	REVISION
20204.B-SD-MAP-00-01	A

Description of the Town

Battle is a small historic town and civil parish in the local government district of Rother, East Sussex. It was reputedly the site of the Battle of Hastings, where William, Duke of Normandy, defeated King Harold II to become William I in 1066.

Today, Battle is a small former market town of considerable character, with the town centre designated as a conservation area and the immediate surrounding countryside is within the High Weald Area of Outstanding Natural Beauty (AONB)

Being situated astride one of the principal High Weald east-west ridges, the town has grown up in a linear fashion and resulted in movement around and across the town being channelled through the centre.

The parish population was 6,673 according to the 2011 Census. Battle has a relatively high proportion of 0-14 year olds, not just in comparison to Rother District but also to the wider county, region and nation. It has four schools:

- Claverham Community College is a comprehensive secondary school college that serves the educational needs of some 1,100 children between the ages of 11 and 16.
- Battle Abbey School is an independent coeducational day and boarding school serving the needs of some 470 children between the ages of 3 and 18.
- Battle Pre-School Playgroup serves some 30 children up to the age of 5.
- Battle and Langton Primary School serves the needs of some 430 children between the ages of 4 and 11.

The town provides an important service centre role for its residents and the adjacent villages, alongside being a key tourist destination.

Economy

Traditional industries within the town use to include gun powder, however in more recent times Battle has become a popular tourist destination resulting in a thriving tourist economy promoted by the 1066 publicity machine.

Vibrant independent shops, galleries eateries and businesses inhabit many of the period buildings tucked around the picturesque High Street's quaint twittens (passageways) and squares.

Transport

Battle is connected to the strategic road network by the A2100 and A21, The A269 and A271.

Battle rail station was built in 1852 and is regarded as the finest small station in early English style in England. It is located on the Hastings Line, and Southeastern (the Train Operating Company TOC) provides rail services to London Charing Cross, via Tunbridge Wells. Therefore a number of commuters use this rail station, along with providing access to visitors.

Southeastern TOC in partnership with ESCC, has recently secured £51.7k from the DfT, to improve cycle parking facilities at the station, during 2017/18.

Policy

Rother District Council's Local Plan 2014, includes a number of key objectives focussed on sustainable transport, including:-

- achieve a re-balancing of the transport system in favour of sustainable modes as a means of access to employment, health services, recreation and community facilities
- maximise transport choice and otherwise provide for efficient and safe movement, in both urban and rural areas

This led to the inclusion of Policy TR2 – which is focussed on ensuring future planned growth is supported by integrated transport.

One of the key objectives for Battle is 'To reduce congestion and improve accessibility, especially by non-car modes'.

Therefore Policy BA1: Policy Framework for Battle, outlines the need to deliver measures 'that minimise the demand for cross-town vehicular traffic; and improve pedestrian and cycle access to services/ facilities from new and existing development'.

Strategic Housing Land Availability Assessment (SHLAA) 2010 identified potential for up to approx. 600 dwellings over the Plan period 2006-2026. This comprised some 260 dwellings already 'in the pipeline' as a result of early completions, permissions or outstanding allocations (including Blackfriars). Further land with potential was identified to the south east of the town, south of the Hastings Road. It is important to state that the SHLAA is a background evidence study and not a formal policy document.

Local Groups

Battle has a number of active community groups, focused on walking and cycling and particularly on developing the Battle Greenway concept and proposal. This includes Cycle 1066, Battle Ramblers and Battle Town Council.

Barriers to Walking and Cycling

These include:

- A lack of a dedicated walking and cycling route across the town.
- High levels of traffic congestion
- Severance due to a lack of dedicated crossing facilities.
- Low levels of service for pedestrians across the town, caused by poor quality footways and crossings.
- Traffic congestion - significant numbers of visitors for major events and at peak periods.
- Location of schools exacerbating traffic congestion.
- Pattern of development exacerbating and contributing to congestion problems

Opportunities for Walking & Cycling

- Contribute to reducing congestion, particularly within the town centre.
- Opportunities to link to supporting the visitor economy
- Appetite for cycling and walking from the local community, to support safer access to the local schools.

Town Wide Recommendations

In addition to route specific recommendations listed in this report, the following town wide recommendations are suggested:

- Focus on Battle Schools Greenway development for pedestrians and disabled use but include considerate shared use walking and cycling sections where possible
- Clear vegetation ingress across Battle's footpath network to improve accessibility
- Take into account relevant land owners considerations
- Link future developments to the Battle Greenway where possible
- Improve walking and cycling access into the rail station

Battle Proposed Network

BATTLE

Lillybanks

110.1.7

110.1.6

209.1.1

110.1.5

110.1.2

110.1.3

110.1.1

110.1.4

202

201

100.1.4

100.2.1

100.2.2

100.2.3

100.3.1

100.3.2

100.3.3

100.1.1

100.1.2

Tollgates

203

100.4.1

100.4.2

100.4.3

100.4.6

100.4.5

204

205

206

100.5.1

100.5.2

207

209.1.2

209.1.3

Blackfriars

Great Wood

Caldbec Hill

Key:

- Primary Routes
- Secondary Routes
- Walking Only Routes
- Highlighted Route
- Recommendation Location

0 0.1 0.2 0.3 0.4 kilometres


100.1.1 A271 North Trade Road


100.1.2 Hampden/Asten Sunken Track


100.1.3 Recreation Ground Access


100.1.4 Pre-School Boundary Fence

100 Battle Schools Greenway

Route description

Route 100 forms a primary west-east traffic free Greenway route to the south of the busy A271 North Trade Road and A2100 High Street. It utilises the southern footway beside the A271 to quiet residential Tollgates, Hampden Close and Asten Fields before joining a Public Right of Way Footpath at the Southeastern corner of the recreation Ground to the Cricket Ground. According to OS mapping. The final 180m section to the High Street is via a private track with Public Right of Way footpath status and Park Lane which leads to the centre of Battle and Abbey Green.

In recent years local groups have been promoting the potential route as the “Battle Schools Greenway” and produced a leaflet supported by Battle Town Council and NHS Sussex to promote the scheme.

Battle Train Station is some 800m distant to the east of Abbey Green however the heavily congested A2100 and its restricted width is a significant barrier for occasional, novice and family cyclists.

Supported pedestrian crossings in the town centre are infrequent leading to many pedestrians following desire lines rather than formal crossings

Route 100 also serves Battle Sports Centre located behind the Claverham Community College, Battle Recreation Ground and Tennis Club, the Cricket Ground, the 1066 Country Walk and Battle Abbey.

Pedestrian Twittens (passageways) and four residential streets link the proposed Greenway to the A271 North Trade Road and A2100 High Street shops and eateries some 220m away.

100.1 Claverham Community College to Recreation Ground

Existing conditions

Claverham Community College has two entrances from the congested A271. Some 300m of south-side footway to Hampden Close benefits from a controlled crossing with built out footway to the residential area on the north side of the A271 via Battle Gates. Continuing on Tollgates and Hampden Close the route comes to an abrupt halt at a barrier. A wooded/shrub bed area conceals a rough sunken lane between Almonry Farm and the A271 North Trade Road which severs the proposed route.

Asten Fields contains relatively denser housing provision as the route continues past Battle Pre-School to the recreation ground’s gated entrance. Asten Fields peels back to the A271 North Trade Road opposite Isherwood Road. A new shared use path is proposed beside the western boundary of the recreation ground to the A271 opposite Chain Lane as part of the Battle Greenway route

Barriers to walking and cycling

The A271 North Trade Road is congested for long periods, constricted by relatively narrow single lane carriageways and footways and peak time congestion combined with the school run can bring traffic to a halt. The sunken lane and associated scrub and trees severs the proposed route.

Recommendations

100.1.1 Widen 300m of south-side footway into verges where available and/or extend the existing build out already in situ. Safety assessment to consider upgrade of footway to shared use

100.1.2 Land owner consents either side of and including sunken farm track. Levels and wildlife surveys, ground works, to join up Hampden Close and Aston Fields for walking and cycling

100.1.3 Check status of Hammerhead access to recreation ground and obtain landowners consent to utilise for shared use path

100.1.4 Relocate Pre-school boundary fence and install shared use path subject to 100.1.3 outcome

100.2 Recreation Ground to Market Road

Existing condition

Levels difference become more apparent on this section as the route joins recreation ground footpath and skirts the southern boundary of the elevated Recreation Ground to a wide drain. A mature tree restricts the approach and sight lines to the ford/ culverted crossing of the drain bed followed by a steep set of stone steps which climb to the natural land contour above.

A fenced tree-lined PROW footpath alley continues some 100m to Battle and Langton Primary School situated on Market Road. Market Road provides access to extensive car and coach parking around Market Square. Both Saxonwood Road and Market Road link the proposed greenway to the A271 North Trade Road.

Barriers to walking and cycling

It is a trespass to cycle on a Public Right of Way Footpath without land owners consent. Constrained sightlines due to tree and encroaching vegetation. A series of poor quality surface concrete steps are a physical barrier to bicycle and wheelchair users.

Recommendations

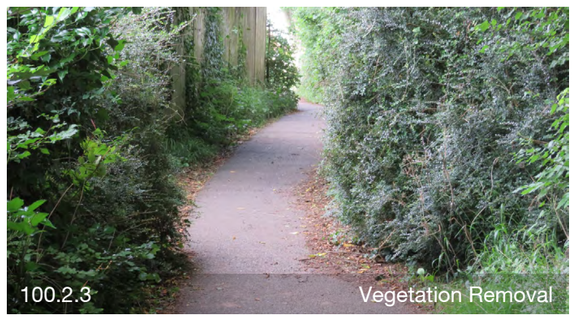
100.2.1 Seek land owner permissions to widen footpath for shared use

100.2.2 Topographic, wildlife and other surveys around drain area. Groundwork's to assist with levels difference. Alternatively, span the drain by installing a new shared use bridge

100.2.3 Tree and scrub removal and widen PROW footpath into cleared and levelled space

100.2.1 Recreation Ground Path

100.2.2 Bridge Drain



100.2.3 Vegetation Removal

100.3 Market Road to Battle Abbey Gatehouse

Existing conditions

The Greenway footpath kinks as the route continues over a culverted drain before rising gently to Guild Shaw and the Cricket Ground.

A steep/narrow PROW footpath that climbs 140m northward to the High Street.

The Greenway route continues some 250m passing Guild Shaw and the Cricket Ground to a Bridleway and Park Lane. The Bridleway is part of the signed 1066 Country Walk and Park Lane terminates at Abbey Green and the High Street.

Barriers to walking and cycling

Available width at pinch points and sightlines. Permissions required to allow considerate cycling on the footpath.

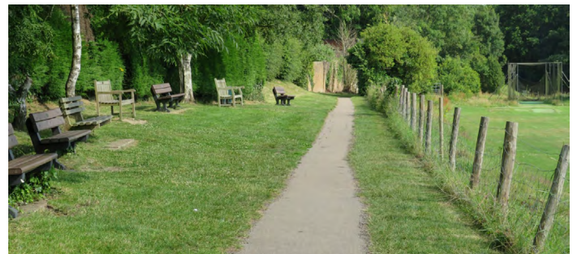
Recommendations

100.3.1 Clear encroaching vegetation to improve sightlines along l footpath

100.3.2 Replace pumping station boundary fence with see-through fencing to overcome unacceptable sightlines

100.3.3 Seek permission to widen cricket ground footpath where possible for considerate shared use walking and cycling

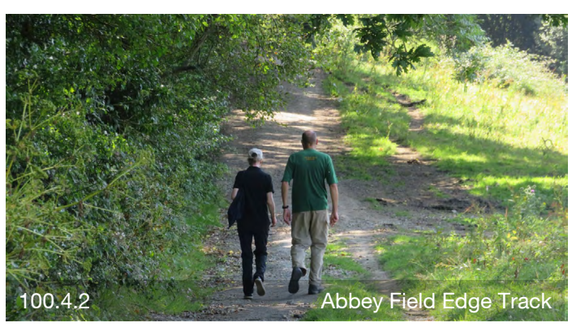
100.3.2 Water Treatment Works



100.3.3 Cricket Ground Path

100.4.1 Private Track to Park Lane

100.3.1 Vegetation Removal



100.4.2 Abbey Field Edge Track

100.4 Battle Abbey Gatehouse to Station approach

Existing conditions

The 670m descent on A2100 Upper Lake and Lower Lake to Station Approach is problematic for inexperienced cyclists due to traffic congestion, limited carriageway width, parked cars and general lack of space. Marley Lane could provide cycle access to the station area subject to other recommendations detail 100.5.being implemented but not from Upper Lake. Pedestrians benefit from a delightful elevated footway beside the Abbey Wall which descends to a controlled crossing of the A2100. The opposite footway to Station Approach avoids users needing to cross the congested B2195 Powdermill Lane.

Barriers to walking and cycling

Identifying a safe link for cyclists into the rail station area is problematic due to Traffic volumes, parked cars and lack of available carriageway space. A2100 Daily traffic flows are more than 10,000 so even if speeds were reduced it would not meet minimum standards for a cycle route. It does not appear that footways could be shared.

Recommendations

100.4.1 Seek permissions to utilise private track for Greenway extension.

100.4.2 Seek permission from English Heritage and Battle School to assess potential field edge extension of Greenway south of Battle School to Powdermill roundabout.

100.4.3 Install raised table crossing of B2095 Powdermill Lane and widen southern footway into adjacent scrub area.

100.4.4 Continue footway widening into adjacent scrub area beside A2100 Lower Lake from Powdermill roundabout to Station Approach.

100.4.5 Install signalled zebra crossing of A2100 Lower Lake and improve access arrangements in and out of Station Approach.

100.4.6 Widen the eastside footway into verge and upgrade to shared use or paint cycle symbols along centre of Station approach carriageway to alert car drivers

100.5 Battle Rail Station to Level Crossing

Existing conditions

The Station provides some 230 car parking spaces. Modern office accommodation and housing share the site. The station platform is situated 250m along Station Approach midway between the A2100 and the level crossing on Marley Lane which can be accessed via a confined lit public footway beside the railway line.

A stepped pedestrian bridge spans the railway line to the opposite platform. There are no disabled access arrangements requiring disable users to continue to Hastings in order to cross the railway line to the opposite platform.

Barriers to walking and cycling

Lack of disabled access to station platforms. Restricted footpath width beside railway line.

Recommendations

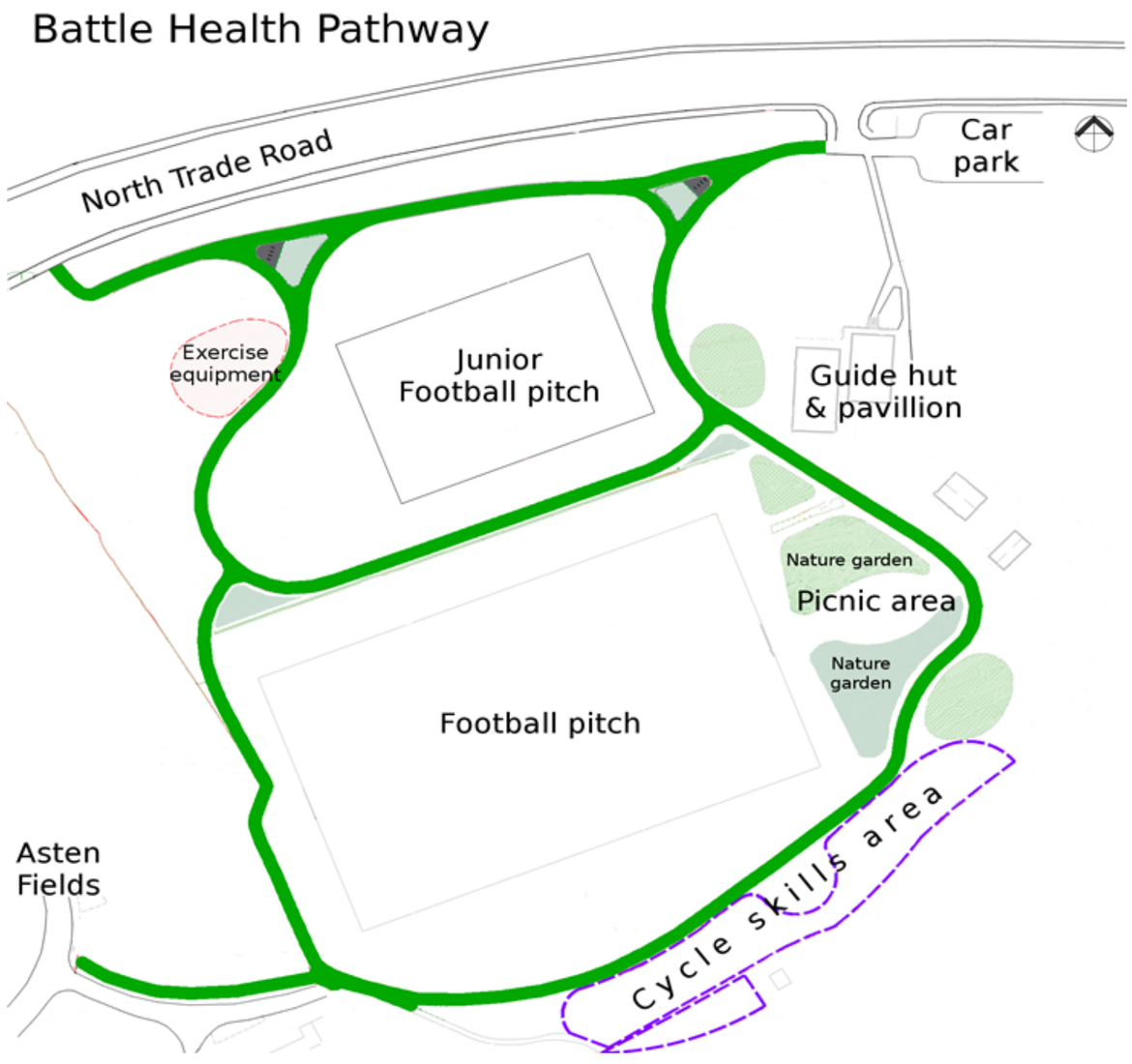
100.5.1 Seek Network Rail and Automotive Estate landowner's permissions to relocate boundary fences where possible and widen/ improve existing footpath for shared use walking and cycling.

100.5.2 Widen existing footway to Marley Gardens.

100.5.3 The infrastructure improvements above will support integrated access between rail and cycling, and maximise the investment of Southeastern's new cycle parking facility at the station.

100.5.1 Network Rail Path

100.5.2 Marley Road Footway



110 Battle North

Route description

Route 110 forms a primary on road route from Market Road linking Battle Schools Greenway to the A2100 High Street and onto the northern residential area of the town. Route 209 provides a bridleway and footpath link to the Rail Station area.

110.1 Mount Street and Caldbeck Hill

Existing conditions

Market Road is a 20mph zone but can be congested during peak times. The car and coach park generates both local and visitor trips. The A2100 London Road/ High Street and A271 North Trade Road converge at Market Square roundabout.

The A2100 High Street is constrained by historic facades and footways and is mostly congested due to heavy traffic through traffic.

The High Street/Mount Street junction is also congested. A painted KEEP CLEAR section of the A2100 north-side carriageway aids traffic flow in and out of Mount Street. St. Martin's town centre car park 130m further along Mount Street generates trips adding to junction congestion.

Mount Street and Caldbeck Hill are lined by delightful individual period properties, footways and some wide grass verges. Limited on road parking provision, and, mostly double yellow lines to both sides of the carriageway are effective resulting in good sight lines along the way.

Mount Joy and Virgins Lane link northern residential areas to the High Street.

A 100m footpath and two sets of steps provide a pedestrian link between Mount Joy and Bowmans Drive.

Barriers to walking and cycling

Traffic congestion at Market Square roundabout, the High Street, and, Mount Street junction. Mount Joy and Bowmans stepped links cannot accommodate prams/pushchairs or the less able including wheelchair users. Crossing the A2100 London Road from the proposed Lilly Banks development area to Virgins Lane is unassisted and difficult due to traffic volume and speed (National Speed Limit)

Recommendations

110.1.1 Paint cycle symbols along Market Street carriageway to alert car and coach drivers. Install quality cycle parking area within Market Square.

110.1.2 Re-design roundabout space to accommodate all users. Provide quality pedestrian crossings over each arm of the roundabout.

110.1.3 High Street 20mph zone.

110.1.4 Raised Table at Mount Street junction. Re-assess modal priorities.

110.1.5 Accessibility assessment of stepped provision at Mount Joy/Bowmans Lane link. Install cycle wheeling ramp.

110.1.6 Junction Improvement's at Virgin's Lane subject to proposed Lillybank Farm development.

110.1.7 Signalled crossing of A2100 London Road to Virgins Lane subject to proposed Lillybank Farm development.


110.1.2 Market Square Roundabout


110.1.6 Virgin's Lane Junction


110.1.3 A2100 High Street


110.1.7 A2100 London Road


110.1.4 Mount Street Junction

110.1.5 Mount Joy Steps


202 Western Avenue Footpath


204 Automotive Estate PROW


203 Park Lane


205 Eastern Platform to Level Crossing

201 - 207 Battle Links

Route descriptions

A series of short secondary links have been identified as follows.

Recommendations

201 Assess proposed Battle Health Greenway and create link from Asten Fields over Recreation Ground to A271 North Trade Road.

202 Clear Western Avenue pedestrian link to High Street from encroaching vegetation.

203 Establish status of Park Lane and track. Seek permissions for cycling if required.

204 Seek permissions from Automotive Estate landowners for shared use walking and cycling on existing PROW footpath through estate. Consider footpath diversion to parallel Network Rail path in exchange for land owner relocating boundary fence to accommodate – see item 100.5.1.

205 Assess potential for link to level crossing from eastern station platform.

206 Ensure Blackfriars development includes walking and cycling link to Station area.

207 Seek permissions to widen and improve Public Right of Way footpath to Recreation Ground.

209 Uckham Lane, Marley Lane, Great Wood

Route description

This section provides an opportunity to create a circular leisure route. A Bridleway peels east then south to the recreation ground via Course Barn Farm and Cottages. Marley Lane can be accessed on road or via a useful but confined 300m Public Right of Way footpath (207) beside the railway line which spills onto Marley Lane at the level crossing.

Barriers to walking and cycling

Mud and surface conditions. Narrow and confined sections of track. A sense of insecurity.

Recommendations

209.1.1 Seek permissions to improve surface and drainage, realign fences where possible and widen bridleway/footpath where required.

209.1.2 Improve access into Great Wood. Vegetation clearance to improve sight lines.

209.1.3 Seek permissions to upgrade and resurface bridleway through Great Wood.

Table of recommendations

The tables below summarise all the recommended interventions which are itemised in the descriptions of each route. A brief description of each item is provided, along with a very broad assessment of priority and cost.

Priority

High = safety critical and essential to the overall quality of the route

Medium = not safety critical but important to the quality of the whole route and important in its own right

Low = not essential, but would improve the quality of the route

Cost

High = more than £100,000

Medium = £20,000 to £100,000

Low = less than £20,000

These are very broad values and not intended as a precise guide to final costs. More work is needed to provide detailed cost estimates, which is beyond the scope of this report.

Item	Brief Description	Priority	Cost
100 Battle Schools Greenway 3410m			
100.1.1	Widen 300m of south-side footway	High	Medium
100.1.2	Landowner consents either side of/and sunken track	High	Low
100.1.3	Check status of access road to recreation ground	Medium	Low
100.1.4	Relocate pre-school fence, install shared use path	High	Low
100.2.1	Landowner consents to widen recreation ground path	High	Medium
100.2.2	Topograhic and other surveys	High	Medium
100.2.3	Tree and scrub removal	High	Low
100.3.1	Tree and scrub removal	High	Low
100.3.2	Replace pumping station fencing	High	Low
100.3.3	Landowner consents to widen cricket ground path	High	Medium
100.4.1	Landowner consents to utilise track	High	Low
100.4.2	Landowner consents English Heritage Battle School	High	High
100.4.3	Raised table crossing of B2095 Powder Mill Lane	High	Medium
100.4.4	Widen 50m of west-side footway B2095/A2100	High	Medium
100.4.5	Signal crossing of A2100	High	Medium
100.4.6	Widen Station Approach Footway for shared use or -	High	Medium
100.4.6	Paint cycle symbols along Station Approach	Medium	Low
100.5.1	Landowner consents - Network Rail, Automotive Est	High	Low
100.5.2	Widen 520m of Marley Road footway	High	High

Item	Brief Description	Priority	Cost
110 Battle North 1060m			
110.1.1	Paint cycle symbols along Market Street	High	Low
110.1.2	Re-design roundabout space and crossing points	High	High
110.1.3	High Street 20mph zone	High	Low
110.1.4	Raised table crossing Mount Street Junction	High	Medium
110.1.5	Install cycle wheeling ramp to steps	Medium	Medium
110.1.6	Virgin's Lane junction improvements	Medium	High
110.1.7	Signalled crossing of A2100 London Road	Medium	High
201	Battle Health Greenway - Local Scheme	Medium	Low
202	Tree and scrub removal	Medium	Low
203	Establish status of Park Lane and track	Medium	Low
204	Landowner consents - Automotive Estate	High	Medium
205	Assess rail station eastern platform viability	Medium	Low
206	Link to potential Blackfriars Development	Medium	Medium
207	Landowner consents to widen PROW footpath	High	Medium
209 Uckham Lane, Marley Lane, Great Wood 2460m			
209.1.1	Landowner consents - Bridleway/FP improvements	Medium	Medium
209.1.2	Improve access provision into Great Wood	Medium	Medium
209.1.3	Landowner consents - Bridleway improvements	Medium	Medium

East Sussex Delivery Methodology

The following methodology draws upon the Active Travel Act (Wales) and LCDS to provide a sequential process for the ESCC Walking and Cycling Strategy (NB. This is for cycling only, a separate process will be used for walking based on Wales guidance)

Stage	Purpose	Inputs	Outputs	Tools/ Guidance	Stakeholders Engaged
1. Network Criteria	To identify and agree network aims of client and local authority, in order to focus route scoping, planning and engagement. This should be in line with project brief and local policy and should include: - Type of journeys the route should cater for - Density of the network - Specific network requirements - Quality criteria	Engagement and research to understand existing and future aspirations through: - Review of existing plans and strategies (including transport strategy) - Review of relevant quality criteria - Review of project brief - Engagement with client	One page document outlining agreed aims and requirements around: - Priority journey types (e.g. utility/ leisure journeys) - Aspirational network density (mesh widths and clustering of destinations) - Network requirements (coherence, directness, safety, comfort, attractiveness) - Levels of Service measurement to be applied	- LCDS – Section 2.1.2, Cycle Network Strategy - Active Travel Wales Design Guide – Section 5.7, Network Planning For Cycling - Active Travel Wales Design Guide – Section 5.8.4, Network Aims and Requirements	- East Sussex County Council - District/Borough Councils (Planning Policy, Environment & Sustainability)
2. Information Gathering	To gather the information required to plan and scope network routes that connect to key trip generators, make best use of existing and planned active travel infrastructure, and reflect future aspirations of local authorities and stakeholders. It will also highlight future opportunities for investment and delivery, by identifying future highways, regeneration, housing, and business developments.	1. Desktop research to identify the following: - Employment and residential areas - Local amenities (shopping centres, schools, leisure centres, council offices) - Transport interchanges - Greenspace and leisure routes - Existing cycle and walking routes (classified by type) - Plans within wider strategies (e.g. town centre regeneration, traffic management plans, Local Development Plans, active travel plans) - ONS data on travel patterns (Propensity to Cycle) - Collision data - Existing PRoW, walking paths 2. Stakeholder engagement to identify the following: - Cycle and walking routes currently planned or in delivery - Aspirational cycle and walking routes - Future highways upgrades - Future regeneration, housing, business development projects - Traffic volumes and speeds - Local land use constraints and opportunities - Barriers to movement	Comprehensive base map containing: - All existing trip generators within study area - Future developments and projects that will influence demand - Overview of existing road network, classified by accessibility - Existing and planned cycle and walking network - Aspirational networks defined by stakeholder group	- Sustrans GIS Earthlight mapping - Wales Active Travel Act: Design Guidance – Section 5.8.21, Information Gathering - LCDS – Section 2.3.3, Mesh Density Analysis - LCDS – Section 2.3.4, Accessibility classification	- East Sussex County Council - Local Cycle Groups - Local Walking Groups/Ramblers - District/Borough Councils (Planning Policy, Environment & Sustainability) - South Downs National Park Authority - Local Access Forum

Stage	Purpose	Inputs	Outputs	Tools/ Guidance	Stakeholders Engaged
3. Network Mapping	To identify the geographic locations that will form the strategic trip generators of the network, and the types of route required to connect them. Identify if/ where new cycle and walking connections are required to deliver a cycle network that meets the requirements of client aims.	1. Identification of trip generators across the study area, plotting links, and designating route type. This will involve: - Plot departure and destination trip generators using base mapping - Clustering trip generators to reduce complexity of connections (e.g. larger employment sites) - Identify desire lines between trip generators - Classification of route type (primary, secondary, local routes) 2. Assess connectivity of existing and proposed network - Overlay network desire lines with existing and proposed routes - Assess suitability of existing and proposed routes against network requirements (coherence, directness etc.), and route type 3. Identify gaps in network to be resolved in stage four.	Revised network map(s) to share with stakeholders showing: - Clusters of departure and destination points/ trip attractors - Existing, planned and aspirational routes classified by route type (primary, secondary, local) - Gaps within the network shown as desire lines, and type of route requirements to meet network criteria - Options to resolve gaps for site assessment	- Sustrans GIS Earthlight mapping - Wales Active Travel Act: Design Guidance – Section 5.8.49 – Assessment of Routes - LCDS – Figure 2.3, Cycling Levels of Service Assessment	- East Sussex County Council - District/Borough Councils (Planning Policy, Environment & Sustainability)
4. Route Assembly & Assessment	To scope and identify deliverable routes and infrastructure that will complete strategic connections to meet network requirements. To identify routes to be included within network plan based on ability to meet network criteria and deliverability.	1. Desktop review of potential route connection to resolve gaps within network 2. Audit of existing routes and planned routes 3. Engagement with local stakeholders to seek local knowledge around connections (if insufficient information at Stage 2) 4. Survey and assess potential routes against network requirements and level of service criteria. - Classify type of connection - Route ride with stakeholders - Undertake levels of service assessment to review directness, coherence, safety, comfort, attractiveness - Identify upgrades required to deliver routes, and major barriers to delivery - Assess deliverability of route options 5. Select routes to be included within Network Map	Draft network map to be shared with project stakeholders for validation, including: - Proposed network routes, classified by type (primary, secondary, local), and by stage of delivery (existing, planned, new) - Key trip generator clusters (including existing and planned destinations)	- Wales Active Travel Act: Design Guidance – Section 5.8.49 – Assessment of Routes - LCDS – Figure 2.3, Cycling Levels of Service Assessment	- Local Cycle Groups - Local Walking Groups/Ramblers - District/Borough Councils (Planning Policy, Environment & Sustainability) - South Downs National Park Authority Local Access Forum
5. Validation	To validate the draft network map with community and local authority stakeholders to ensure aspirations and comments are captured correctly,	1. Engagement with stakeholders involved through the project as agreed with client to attain comments and approval of map. Engagement to be conducted through face to face meetings, or submission of draft map as required.	Agreed network map to be submitted to client for review.	- Wales Active Travel Act: Design Guidance – Chapter 5.8.58, Validation of Integrated Map	- East Sussex County Council - Local Cycle Groups - Local Walking Groups/Ramblers - District/Borough Councils (Planning Policy,

Glossary of Terms

(taken from London Cycling Design Standards)

Advisory cycle lane

A dashed white line marking an area of the carriageway designated for the use of cyclists. Motor vehicles may need to cross the markings but generally should not enter the lane unless it is unavoidable.

ASL – Advanced stop line

Stop line for cyclists at traffic signals ahead of the stop line for general traffic, with a waiting area marked with a large cycle symbol and extending across some or all of the traffic lanes.

Bus lane

Lane designated for bus use during the signed hours of operation. Signs also advertise whether other vehicles, such as cycles, are permitted in the lane during those times.

Bus stop bypass

A bus stop layout in which through-movement for cycles is away from the carriageway and from the bus stop cage. Can be achieved with shared use or partially separated footway around the bus stop but usually features a dedicated cycle track passing behind the bus shelter.

Carriageway

That part of a road or highway constructed for the use of vehicular traffic (including cycles).

Chicane

A horizontal deflection in the carriageway used as a speed-calming measure.

Continuous footway

Technique used at priority junctions and other vehicular accesses to assert visual priority for pedestrians over turning vehicles by continuing the footway material across the access or the mouth of the junction. A 'continuous cycleway' can be added in a similar way if a cycle lane or track is present.

Contraflow or Cycle contraflow

A facility allowing cyclists to travel in the opposite direction to one-way motor traffic. Requires a Traffic Order and can be implemented using lane markings, which may or may not have some other form of physical protection, or by using signing only.

Courtesy crossing

Location designed to invite pedestrians (or cyclists) to cross and to encourage vehicles on the carriageway to give way – although there is no legal obligation to do so. Often used as part of a design approach aimed at reducing vehicle speeds.

Cycle bypass

Form of physical separation for cycles enabling them to avoid a controlled feature for other road users – e.g. traffic signals or a pinch-point requiring 'give way' to oncoming traffic.

Cycle street

A street where the carriageway is dominated by cyclists and, by virtue of the width and design of the street, all motor traffic moves at the speed of the slowest cyclist.

Cycle track

A cycle facility physically separated by kerbs, verges and/or level changes from areas used by motorists and pedestrians. It may be next to the road or completely away from the carriageway and may either be at footway level, carriageway level or in-between.

Decluttering

Rationalisation of street furniture, signs and signals aimed at minimising the amount of such objects in the street environment, thereby reducing visual and physical clutter.

Dropped kerb

Feature to facilitate access, usually between the footway and the carriageway. Must be flush when provided for pedestrians, wheelchair users or cyclists.

'Dutch-style' roundabout

A type of roundabout where cyclists are physically separated from other road users with orbital cycle tracks. It is one of many types of roundabout seen in the Netherlands.

Entry treatment or Raised entry treatment

Raised carriageway surfacing at a side road junction, taking the form of a hump with ramps on either side and usually provided at footway level. The purpose is principally to slow vehicle movements at the junction.

Filtered permeability

An area-based network planning approach to improving conditions for cycling by removing through motorised traffic in zoned areas. Cyclists can pass freely through motorised traffic restrictions between zones and so are favoured in terms of journey time and convenience.

Footway build-out

Area of footway that extends out further than the previous kerb edge and narrows the carriageway.

Greenways

Various shared use route types largely or entirely off-highway – generally designed for people of all abilities to use on foot, cycle or horseback, for leisure, local connection or commuting.

Homezone

A group of streets and spaces designed primarily to meet the needs of non-motorised users and where the speed and dominance of motorised traffic is reduced. A 10mph limit normally applies.

Horizontal traffic calming

Forms of traffic calming that work by changing the width available for driving. Typically these take the form of static elements such as build- outs or traffic islands, but they may also utilise car parking or temporary features.

Junction table or Raised table

Raised carriageway surface (often to footway level) at a junction, used as a speed control measure and a way of supporting pedestrian movement and pedestrian priority.

Light segregation

The use of intermittently placed objects to separate and protect a cycle facility (usually a marked cycle lane) from motorised traffic.

Mandatory cycle lane

A section of the carriageway marked by a solid white line that is designated for the exclusive use of cyclists during the advertised hours of operation.

Parallel priority crossings or 'parallel crossing'

A cycle crossing next to a zebra crossing where users of the main carriageway have to give way to both pedestrians and cyclists crossing that carriageway.

Pedestrian crossings

One of various crossing types for pedestrians that do not allow cycle access. Includes signal-controlled types (Pelican, Puffin and Ped-X crossings) and priority crossings (Zebra crossings).

Pedestrian Zone

Area closed to vehicles, including cycles – often marked with exceptions for loading. Cycles may also be specifically exempted, or they may be included by designating a 'Pedestrian and Cycle Zone'.

Pinch point

Locations where the carriageway narrows, often as a result of traffic calming measures or addition of refuge islands. Unless well designed, they can add to collision risk and discomfort for cyclists by forcing them into close proximity with motorised traffic.

Point closure

Method of closing a street to through-traffic, ideally in the form of a modal filter (i.e. allowing access for cyclists).

Priority junction

A junction where the priority is shown by 'give-way' road markings – i.e. the minor arm gives way to the major arm.

Quietway

A branded cycle route type established by the London Mayor's Vision for Cycling (2013). Quietways are strategic routes using less heavily trafficked local streets and off-carriageway facilities.

Raised delineator

A raised strip, between 12 and 20mm high, that separates areas used by cycle and pedestrians when they are at the same level. It is defined in TSRGD (diagram 1049.1) and therefore has legal status as a road marking.

Refuge islands

Islands in the carriageway to support either pedestrian crossing or vehicle right turns (which may include cycle-only turning pockets). Their placement and design should avoid creating hazardous pinch-points for cyclists.

Segregated cycle lane/track

Cycle facility separated by a continuous or near-continuous physical upstand along links (usually verges or kerbed segregating islands).

Shared use area, footway or path

A footway, footpath or part of any public space shared between pedestrians and cyclists but where motorised vehicles are not permitted. It is identified by the shared use sign – a blue circle with white pedestrian and cycle symbols. In these spaces, pedestrians have priority.

Shared space

A design approach that seeks to change the way streets operate by reducing the dominance of motor vehicles, primarily through lower speeds and encouraging drivers to behave more accommodatingly towards pedestrians and cyclists.

Shared surface (level surface)

A street or space either with no distinction between footway and carriageway or no kerb upstand between the two.

Speed cushions

Small speed humps installed across the road with gaps at distances that, ideally, allow certain users such as buses and large emergency service vehicles to pass easily, but force most other motorised vehicles to slow down to negotiate the humps.

Speed humps

Raised areas, typically placed horizontally across the carriageway, designed to reduce traffic speeds. The ramps either side of the hump should have a sinusoidal profile so as to minimise discomfort to cyclists.

Tactile paving

Textured paving that helps people with sight impairments to read the street environment around them by feeling the change in surface underfoot and/ or seeing the change in material.

Two-stage turn

A manoeuvre allowing cyclists to make an opposed turn at a junction in two stages, without having to move across lanes of moving traffic. Between two traffic signal stages, the cyclist waits in the junction, away from the traffic flow.

Uncontrolled crossing

A pedestrian and/or cycle crossing where vehicles do not legally have to give way but may do so out of courtesy. They are used where vehicle flows and speeds give safe opportunities for crossing the street without the need for a controlled facility.

Vertical traffic calming

Forms of traffic calming that rely on a change of level in the carriageway for slowing effect – typically speed humps or speed cushions.

Visibility splay

The physical space at an access or junction through which a road user exiting from the minor arm needs good, clear visibility in order to see potential conflicts or dangers in advance of the distance they need in order to brake and come to a stop.

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