

Tendring District Cycling Action Plan

Highways/Transport Planning

January 2018



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Executive Summary

Essex Highways was commissioned by Essex County Council to produce a Cycling Action Plan (CAP) for Tendring District, as part of a commitment in the Essex Cycling Strategy to create Cycling Action Plans for every Borough/ District.

The purpose of the Essex Cycling Strategy is to set out the key elements of a long term plan that will lead to a significant and sustained increase in cycling in Essex, establishing it in the public's mind as a 'normal or regular' mode of travel, especially for short A-to-B trips, and as a major participation activity and sport for all ages.

To help achieve this, Essex is committed to establishing a coherent, comprehensive and advantageous cycle network in every major urban area, utilising a combination of on-carriageway and off-carriageway cycle facilities. To enable this, each Borough/ District in Essex will have an up-to-date Cycling Action Plan (renewed every five years). These are seen as key elements of a long term plan that will lead to a significant and sustained increase in cycling in Tendring District and in Essex.

This Tendring CAP is targeted towards the specific needs of Tendring residents, which will assist Essex County Council (ECC) in tackling wider problems associated with poor health, pollution, traffic congestion and inequalities of opportunities for Tendring's youth population and people on low incomes.

The aims of this action plan are to:

- Identify how cycling levels can be increased in the District;
- Enable any funding for new cycling schemes in Tendring to be prioritised;
- Create a usable, high-quality cycle network that connects residential areas with key employment locations, new development, railway stations and tourism; and
- Create opportunities to increase recreational cycling in Tendring.

Understanding current levels and conditions for cycling has been important in developing this CAP, which has involved analysis and consideration of 2011 Census data, the Active People Survey (by Sport England), Department for Transport count data, collision data, cycle crime statistics and topography.

In order to create an environment where cycling is normal for the residents of Tendring, it will be necessary to remove existing barriers to cycling and a series of cycle routes provided, with the aim of creating a connected cycle network over time. Cycling infrastructure should provide for both key utility journeys and encourage leisure cycling.

The key recommendations and schemes are listed in Sections 6, 7 and 8 of this CAP and are summarised in Section 11 and below.

Key Recommendations

Taking into account the current barriers to cycling in Tendring District, commuter flow analysis and locations of committed development, the following key recommendations have been made for cycle enhancements in the District:

- Review existing route signage and lighting;
- Improve maintenance of existing routes (it is an aim of the Essex Cycle Strategy to prioritise more frequent and improved maintenance of the cycle network);
- Prioritise enhancement of the East-West Flagship routes along the sunshine coast connecting Jaywick and Clacton via a high quality route.
- Prioritise development of N-S Flagship route, connecting residential areas in the south of Harwich to the employment and tourism opportunities at Harwich port and Harwich International Station/ Harwich Parkeston Quay Station via a high quality route;
- Develop additional Flagship Routes through Feasibility Studies to Detailed Design;
- Promote and market Flagship Routes with 'Cycle Superhighway' style branding and disseminating techniques;
- Provide new and improved cycle parking with a focus on encouraging demand for commuter trips at railway stations;
- Provide new infrastructure on key roads with cycle-friendly topography but no existing facilities;
- Update the existing cycle map every two years taking on board new innovation in cycle-map design, and promote it and disseminate it widely through a range of channels and outlets;
- Develop a more direct east-west route through all major towns, providing access between residential areas, the town centres and key rail stations; and
- Provision of north-south utility cycle routes in all major towns to connect residential and employment areas (Harwich in particular), the sea front and the potential east / west cycle routes.

Next Steps

This is a draft Action Plan and, although the potential schemes have been developed in discussion with Council representatives, further consultation is required before the overall Action Plan can be finalised.

The character of the existing highway network has been taken into account, when developing potential cycle routes and schemes – in particular existing traffic levels. Broad costs of schemes have been identified, as well as broadly prioritising schemes against deliverability, directness, extension of the existing network and proximity to key attractors. However, the potential routes and schemes have not been constrained to a set budget and the feasibility and the precise cost of the routes can only be established through further study.

1 Introduction

1.1 Preamble

As part of the county-wide Essex Cycling Strategy, Cycling Action Plans are being developed for individual Boroughs and Districts of Essex, including one for the District of Tendring. This document provides an opportunity to develop and promote cycling in Tendring through improved infrastructure, together with the wider promotion of cycling by Active Essex, Essex County Council (ECC) and Tendring District Council (TDC), to establish it in the public's mind as a 'normal' mode of travel, especially for short a-to-b trips, and as a major participation activity and sport for all ages.

Two key commitments of the Essex Cycling Strategy are to:

- Establish a coherent, comprehensive and advantageous cycle network in every major urban area, utilising a combination of on-carriageway and off-carriageway cycle facilities; and
- Ensure each District has an up to date Cycling Action Plan (renewed every 5 years).

The Cycling Action Plans should help to identify high quality and well planned infrastructure which will be vital in encouraging cycling and improving safety. ECC will ensure that every urban area has a well-planned cycle network that:

- Connects key destinations;
- Supports a network of recreational routes; and
- Caters for all users and abilities.

Coherent cycle networks will ensure that:

- The physical barriers to cycling in many of Essex's urban areas are progressively broken down
- Cycling becomes a prioritised mode of transport in the mind of Essex residents.

In addition, Active Essex (County Sports Partnership) priority aims and how cycling helps achieve these aims are included in Table 1.1.

Table 1.1: Active Essex priority aims

Active Essex priority aims	How cycling helps achieve these aims
Increase participation in sport and physical activity	Cycling is one of the most popular sports in Essex and can be enjoyed by people of all ages
Encourage healthy and active lifestyles	Cycling provides a means of active transport that can help to reduce the number of short car journeys
Develop sporting pathways	Alex Dowsett, cycling world record breaker, is from Essex and benefited from Active Essex Sporting Ambassador funding and support when he was a talented young cyclist
Encourage lifelong learning and skills development	Bikeability courses help children and adults to acquire physical skills and road safety awareness

1.2 Background

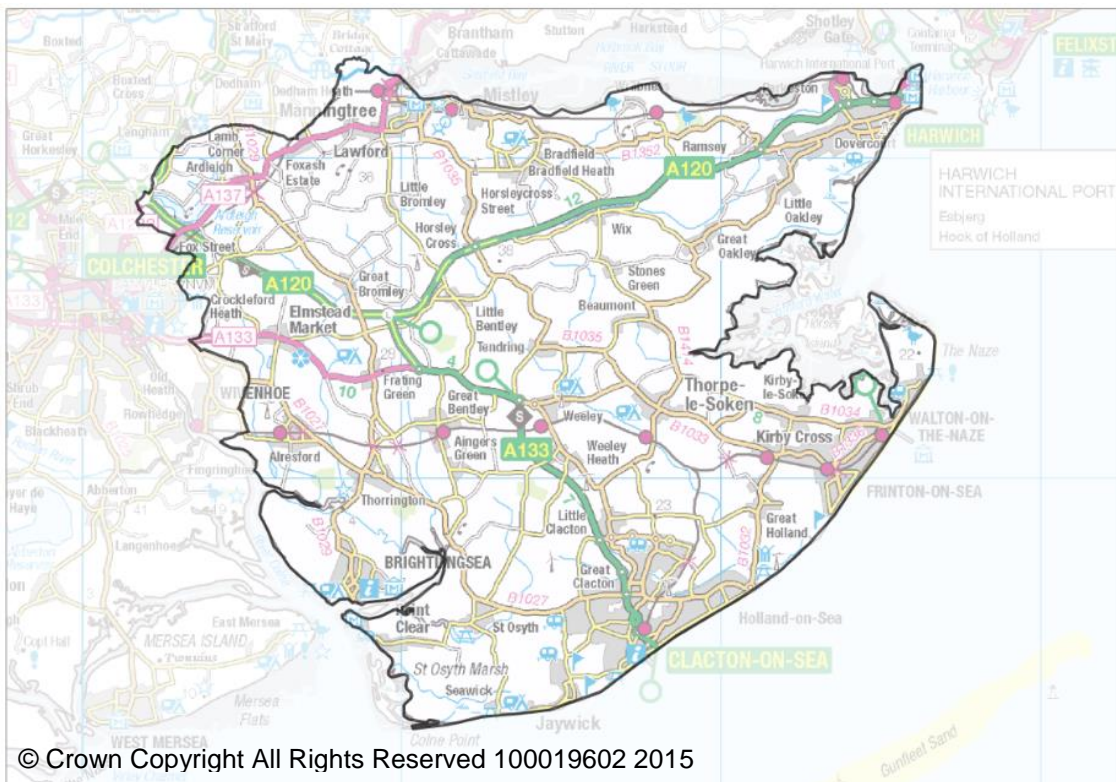
Tendring District is a largely rural area on the eastern side of Essex. The largest settlements are Clacton-on-Sea, Frinton-on-Sea, Walton-on-the-Naze and Harwich (Figure 1.1). The 2011 Census recorded the population in Tendring District at 138,048.

The District is also a major tourist destination containing the seaside towns of Clacton, Frinton and Walton, in addition to Harwich, which offers ferry connections to European locations and attracts a significant number of ‘cycle tourists’. Tourism is vital to the local economy, contributing £276 million as well as accounting for 13% of all employment within the District.

With a desire to safeguard and develop tourism, along with the concentration of new developments in the larger settlements of Clacton and Harwich, there is a need to develop more sustainable travel options in the district to help prevent traffic congestion and air pollution consequences of the increased population.

The Essex Cycle Strategy aims to improve facilities, safety and security for cyclists, as well as promoting a culture in which cycling is encouraged and welcomed. The Strategy also outlines the objective of integrating cycling into relevant policy initiatives and programmes. The Tendring District Local Plan (TLDP) supports the Essex Cycle Strategy in the provision of cycling infrastructure for new developments and facilitating improvements to the existing cycle network.

Figure 1.1 Tendring District Map



1.3 Aims of the Action Plan

Although Essex County Council (ECC) and Tendring District Council have been promoting cycling for many years, there has been a lack of planned and justifiable lists of interventions aimed at promoting cycling within the District which has meant that cycling has not always prioritised.

This action plan provides a justifiable list of interventions aimed at promoting cycling within Tendring District and in particular, the major towns of Clacton, Frinton, Walton and Harwich.

The aims of the Action Plan are to:

- Identify how cycling levels can be increased in the District;
- Enable any funding for new cycling schemes in Tendring to be prioritised;
- Create a usable, high-quality cycle network that connects residential areas with key employment locations, rail stations and town centres; and
- Create opportunities to increase recreational cycling in Tendring.

This is a draft Action Plan and, although the potential schemes have been developed in discussion with Council representatives, further consultation is required before the overall Action Plan can be finalised.

1.4 Report Structure

The remainder of this action plan is set out as follows:

- Section 2 – Policy Review;
- Section 3 – Data Analysis;
- Section 4 – Existing Network Provision and Barriers;
- Section 5 – Tendring’s Cycling Potential;
- Section 6 – Potential Infrastructure Improvements;
- Section 7 – Prioritisation and Costings of Potential Schemes;
- Section 8 – Flagship Routes;
- Section 9 – Smarter Travel Measures;
- Section 10 – Delivery and Funding; and
- Section 11 – Key Recommendations.

2 Policy Review

2.1 Introduction

This section provides a summary of the relevant national, regional and local policies related to cycling. Relevant National, Regional and Local Policy contexts have been examined, through consideration of the following documents: the UK Government's Cycling and Walking Investment Strategy (CWIS, 2017), the Essex Transport Strategy (2011) and the Tendring District Local Plan 2013-2033 and Beyond Preferred Options Consultation Document (2016).

These documents indicate that there is a great deal of support for cycling at all levels. At a national level, there is a long term vision for cycling to become the normal mode of choice for short journeys or as part of a longer journey. At a regional level, there is a particular emphasis on providing sustainable access and travel choice for Essex residents. It is recommended that cycling will be promoted as a way to reduce congestion within urban areas, to encourage healthier lifestyles, and as a valuable leisure and tourism opportunity that is important to the local economy.

At a local level, to support the planned growth in Tendring District, there is an emphasis on encouraging sustainable transport as a means of managing congestion, as well as accommodating sustainable growth. The health and wellbeing benefits that would be accrued alongside this are recognised in the Local Plan. Evidence shows that the proportion of people travelling to work by bicycle is currently well below the national average.

2.2 National Policy Context

2.2.1 Cycling and Walking Investment Strategy (CWIS)

Under the Infrastructure Act 2015, the UK Government is required to set a Cycling and Walking Investment Strategy (CWIS) for England. A Draft First CWIS was published at the end of March 2016, which set out the UK Government's ambition for creating a walking and cycling nation, the targets and objectives they are working towards, the financial resources available to meet their objectives, the strategy for delivering the objectives, and the governance arrangements that will review this delivery. Following consultation, a final version of the Strategy was published in 2017.

The final Cycling and Walking Investment Strategy states that the Government "wants to make cycling and walking the natural choices for shorter journeys, or as part of a longer journey". The aim is for more people to have access to safe,

attractive routes for cycling and walking by 2040. By 2040, the ambition is to deliver:

Better Safety (a safe and reliable way to travel for short journeys), through:

- Streets where cyclists and walkers feel they belong, and are safe;
- Better connected communities;
- Safer traffic speeds, with lower speed limits where appropriate to the local area; and
- Cycle training opportunities for all children.

Better mobility (more people cycling and walking – easy, normal and enjoyable), through:

- More high quality cycling facilities;
- More urban areas that are considered walkable;
- Rural roads which provide improved safety for walking and cycling;
- More networks of routes around public transport hubs and town centres, with safe paths along busy roads;
- Better links to schools and workplaces;
- Technological innovations that can promote more and safer walking and cycling;
- Behaviour change opportunities to support increased walking and cycling; and
- Better integrated routes for those with disabilities or health conditions.

Better streets (places that have cycling and walking at their heart), by:

- Places designed for people of all abilities and ages so they can choose to walk or cycle with ease;
- Improved public realm;
- Better planning for walking and cycling;
- More community-based activities, such as led rides and play streets where local places want them; and
- A wider green network of paths, routes and open spaces.

The document recognises that great progress has been made on cycling in the past six years. Cycling rates have increased in areas where dedicated funding has been made available and spend on cycling has risen from around £2 per person in 2010 to £6 per person in England in 2016-17. The Government want to build on these successes and to help achieve this have made over £1 billion

of Government funding available to local bodies that may be invested in walking and cycling over the next five years. The £1.2 billion is allocated as follows:

- £50 million to provide cycling proficiency training for further 1.3 million children;
- £101 million to improve cycling infrastructure and expand cycle routes between the city centres, local communities, and key employment and retail sites;
- £85 million to make improvements to 200 sections of roads for cyclists;
- £80 million for safety and awareness training for cyclists, extra secure cycle storage, bike repair, maintenance courses and road safety measures;
- £389.5 million for councils to invest in walking and cycling schemes; and
- £476.4 million from local growth funding to support walking and cycling.

In addition, the government is investing an extra:

- £5 million on improving cycle facilities at railway stations;
- £1 million on Living Streets' outreach programmes to encourage children to walk to school; and
- £1 million on [Cycling UK's 'Big Bike Revival' scheme](#) which provides free bike maintenance and cycling classes.

By 2020, the objectives of the CWIS are to:

- Increase cycling activity, where cycling activity is measured as the estimated total number of cycle stages made;
Increase walking activity, where walking activity is measured as the total number of walking stages per person;
- Reduce the rate of cyclists killed or seriously injured on England's roads, measured as the number of fatalities and serious injuries per billion miles cycled; and
- Increase the percentage of children aged 5 to 10 that usually walk to school.

2.2.2 Cycling and Walking Infrastructure Plans (CWIP)

A National CWIP is being developed to inform the CWIS. This will include the identification of nationally significant locations/infrastructure. Six outputs are currently being developed (three national and three local outputs):

- The national outputs focus on identifying criteria for national significance and developing a pipeline of potential schemes; and

- The local outputs are focused on developing a Level of Service tool, and guidance to Local Authorities on developing their own local CWIP.

Local Cycling and Walking Infrastructure Plans (LCWIPs), as set out in the Government's Cycling and Walking Investment Strategy, are a new, strategic approach to identifying cycling and walking improvements required at the local level. They enable a long-term approach to developing local cycling and walking networks, ideally over a 10 year period, and form a vital part of the Government's strategy to increase the number of trips made on foot or by cycle.

While only focusing on cycling it is hoped that ECC's suite of Cycling Action Plans will contribute to the future development of an Essex CWIP by providing:

- A network plan for cycling which identifies preferred routes and core zones for further development;
- A prioritised programme of infrastructure improvements for future investment; and
- A report which sets out the underlying analysis carried out and provides a narrative which supports the identified improvements and network.

2.3 Regional Policy Context

2.3.1 Essex Transport Policy

The Essex Transport Strategy (2011) seeks to achieve the following five broad outcomes:

- Provide connectivity for Essex communities and international gateways to support sustainable economic growth and regeneration;
- Reduce carbon dioxide emissions and improve air quality through lifestyle changes, innovation and technology;
- Improve safety on the transport network and enhance and promote a safe travelling environment;
- Secure and maintain all transport assets to an appropriate standard and ensure that the network is available for use; and
- Provide sustainable access and travel choice for Essex residents to help create sustainable communities.

'**Policy 14 – Cycling**' states that Essex County Council will encourage cycling by:

- Promoting the benefits of cycling;

- Continuing to improve the cycling facilities within the main urban areas of Basildon, Chelmsford, Colchester and Harlow;
- Developing existing cycling networks in other towns where cycling offers an appropriate local solution;
- Working with schools and employers to improve facilities for cyclists;
- Improving access to local services by integrating the Public Rights of Way, walking and cycling networks to form continuous routes; and
- Providing training opportunities to school children and adults.

Cycling will be promoted as a way to reduce congestion within urban areas, to encourage healthier lifestyles, and as a valuable leisure and tourism opportunity that is important to the local economy.

Improving the safety of the cycling network is also a key concern within the *Essex Transport Strategy*. Policy 14 of the plan sets out Essex County Council's approach to encouraging cycling, which includes developing cycle networks within towns across Essex and improving access to local services and schools for cyclists. In terms of locational priorities in relation to cycling for the local centres within the Haven Gateway, which includes Clacton-On-Sea, Harwich and Walton-On-Naze, these include:

- Providing for and promoting access by sustainable modes of transport to development areas;
- Improving local cycle networks; and
- Promoting sustainable travel choices.

The *Essex Transport Strategy* seeks to promote sustainable travel, by providing the infrastructure for sustainable travel and promoting the use of travel plans. With regard to cycling, the *Essex Transport Strategy* considers actions to improve access for cyclists and pedestrians in particular, and identifies the following improvements as essential:

- Addressing gaps in existing networks;
- Better linkages for walking and cycling routes within the Public Rights of Way network;
- Improving signing;
- Improving crossing facilities; and
- Ensuring that pedestrian routes are accessible for everyone.

The *Infrastructure Act 2015* includes a new legal requirement for the Government to produce a cycling and walking investment strategy. The DfT's *Cycling Delivery Plan (2014)* refers to a new national cycling target, to double the number of

cycling stages (trips) nationally over a 10 year period. This new target will be adopted by Essex County Council as part of the *Essex Cycle Strategy (2015)*.

Additionally, the Government has introduced a £6bn Local Growth Fund for cycling and walking. It has also set a target of achieving an annual cycling spend of £10 to £20 per head of the population. In the District this could see between £1.4m and £2.8m per year spent on improving cycling provision.

2.3.2 Essex Cycle Strategy (2016)

In response to the legal requirement, and also the requirements of the Essex Transport Strategy, the Essex Cycle Strategy has been prepared with the aim of setting out a strategy for providing coherent cycle networks. The purpose of the strategy is to set out the key elements of a long term plan that will lead to a significant and sustained increase in cycling in Essex, establishing it in the public's mind as a 'normal' mode of travel, especially for short a-to-b trips, and as a major participation activity and sport for all ages. The strategy has been produced in conjunction with Essex County Council, the 12 Essex Districts/ Districts, the two Unitary Authorities (Southend-on-Sea and Thurrock) and other key stakeholders. It has taken account of current UK policy, data on cycling levels within Essex and best practice from around the world. Specifically, it commits to:

- I. Establishing a coherent, comprehensive and advantageous cycle network in every major urban area, utilising a combination of on-carriageway and off-carriageway cycle facilities;
- II. Ensuring each Borough or District has an up to date cycling action plan (renewed every 5 years);
- III. Providing well placed and high quality cycle parking at key public destinations such as town centres, leisure facilities and railway stations;
- IV. Ensuring that all new housing includes secure and easily accessible cycle storage and that new secure cycle storage is facilitated in existing housing developments;
- V. Ensuring that cycling is prioritised over motorised transport in all new developments – making it easier to carry out short trips by bicycle than by car. Cycle routes within commercial and residential developments will be more direct and convenient than car routes and will connect in to existing cycling infrastructure on leaving the site;
- VI. Prioritising more frequent and good maintenance of our cycle network;
- VII. Providing a clear and consistent standard of good quality, well placed cycle signage – to an appropriate density, with provision of journey times as well as distances (to cater for all audiences) where possible;

- VIII. Continuing to improve cycle safety at sites with actual and perceived safety problems; and
- IX. Developing an improved mechanism for the reporting of safety issues.

2.4 Local Policy Context

2.4.1 Tendring District Local Plan 2013-2033 and Beyond Preferred Options Consultation Document (July 2016)

Tendring is located within the Haven Gateway North Essex sub-area, which also encompasses Braintree and Colchester. Within this region, Colchester will accommodate the majority of future growth as identified in the Essex Transport Strategy, however there is also focus on the local communities, especially Clacton and other coastal towns in Tendring.

Tendring District Council (TDC) identify in their new Local Plan that new developments should be accessible by sustainable modes of transport, including cycling. TDC recognise that the road network is limited and that greater opportunities lie in encouraging short trips to be made by cycling. They would like to promote cycling and better integrate all forms of transport. Cycling will be encouraged through travel planning and smarter choices initiatives. TDC are preparing various route-based strategies for strategic road corridors that will aim to provide walking and cycling improvements along the routes where appropriate.

TDC recognised that their 'Strategic Urban Settlements' (Clacton-on-Sea, Harwich and Dovercourt, as well as the Colchester fringe) provide better opportunities for the use of cycling because they have established town centres, employments areas and infrastructure. Within the North Essex authorities, three new garden communities are proposed, with one of these on the border of Tendring and Colchester. These communities are planned around a step change in sustainable transport systems that put sustainable modes, including cycling, at the centre of growth. These will also encourage and incentivise more sustainable travel patterns. Policy CP1 Sustainable Transport and Accessibility sets out that all new developments must be sustainable in terms of transport and accessibility. Therefore, development proposals should include and encourage opportunities to sustainable modes, including cycling.

TDC would also like to target cycling as a tourist attraction within the district.

It has been identified that sustainable alternatives to the private car (including cycling) to work is important in managing congestion and to accommodate sustainable growth. The Local Plan recognises that such solutions can have

wider public benefits, not only in terms of transportation choices but also for public health and safety, with increased physical activity, well-being and levels of use of public spaces.

Priority 4: Responsible Tourism of the Tendring District Local Plan states that a priority in Tendring is: *'making positive use of Tendring District's unique environmental assets like its countryside, coast and wildlife areas to promote activities like walking, cycling, sailing and bird watching'*.

Policy CP1 Sustainable Transport and Accessibility states that: *'Proposals for new development must be sustainable in terms of transport and accessibility and therefore should include and encourage opportunities for access to sustainable modes of transport, including walking, cycling and public transport. Providing options for non-motorised vehicles is especially important for the large- scale developments in Clacton and the Colchester Fringe'*.

3 Data Analysis

3.1 Introduction

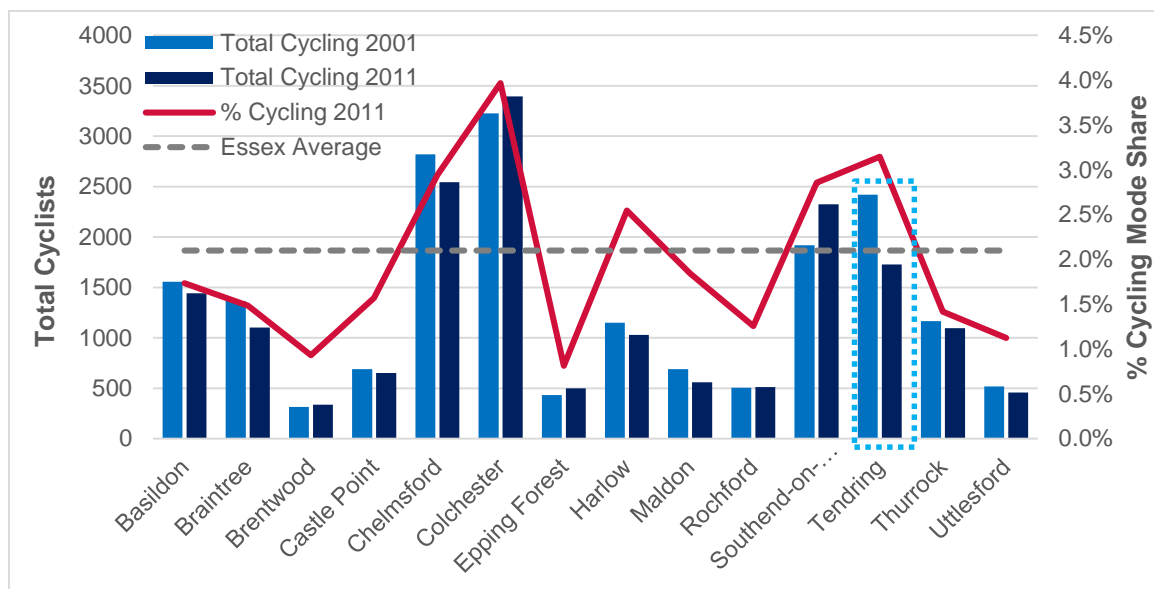
When planning for cycling infrastructure it is important to first understand current levels and conditions for cycling. This section includes analysis of:

- 2011 Census data;
- The Active People Survey (by Sport England);
- Department for Transport count data;
- Collision data;
- Cycle crime statistics; and
- Topography.

3.2 Census Data

As part of the 10 year national census, respondents are asked to state their main mode of travel to work by distance. The 2011 Census results for Essex are provided in Figure 3.1 below.

Figure 3.1 Cycle to Work by District/ Borough, Census 2001-2011



It can be seen that in Tendring the modal share for cycling has fallen between 2001 and 2011, with usage in the District lower than the average for Essex. In 2001, usage was greater than the county average.

Figure 3.2, 3.3 and 3.4 show the percentage cycling to work by origin in Clacton, Frinton and Harwich, respectively.

Figure 3.2 % Cycling to Work by Origin in Clacton

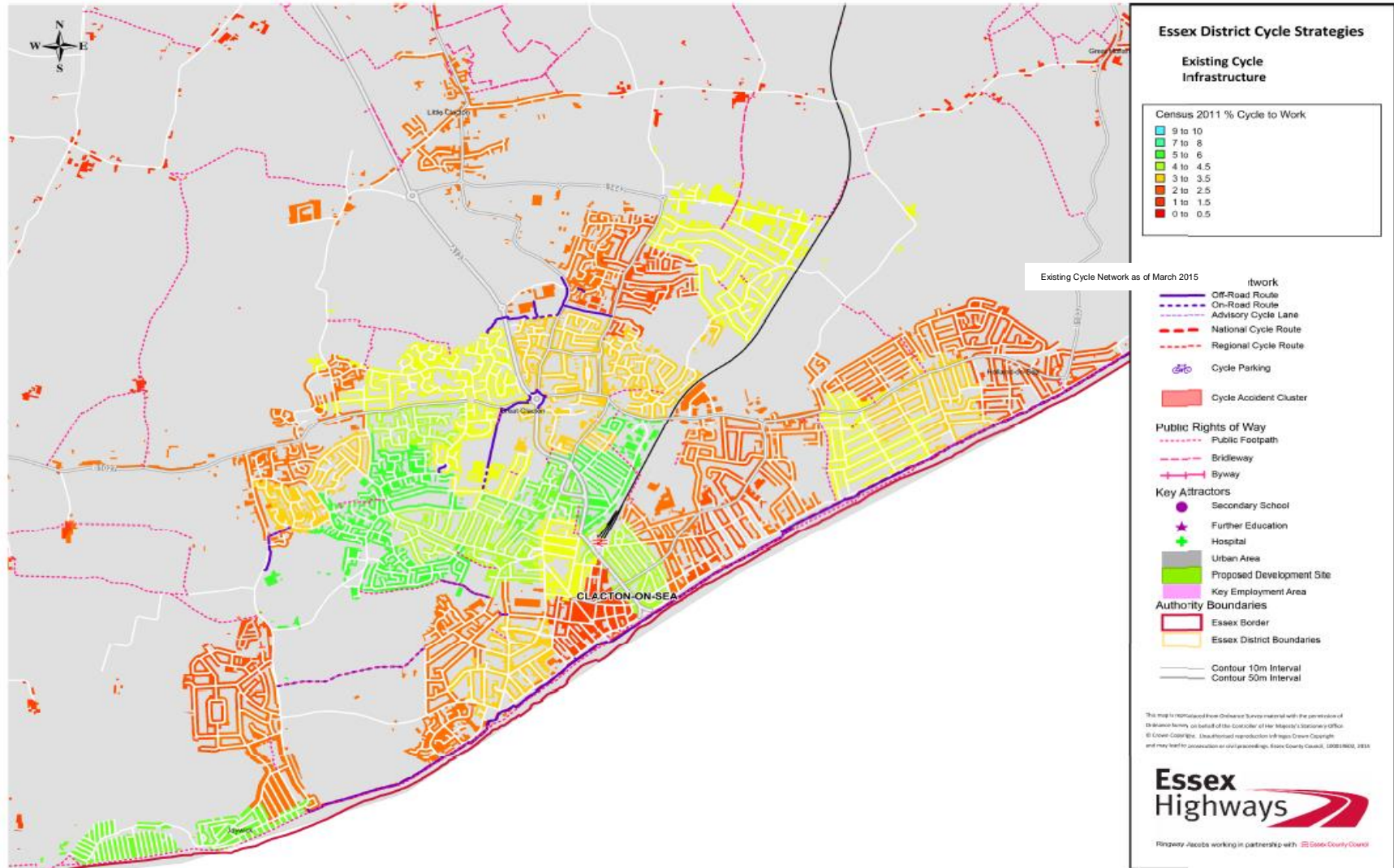


Figure 3.3 % Cycling to Work by Origin in Frinton

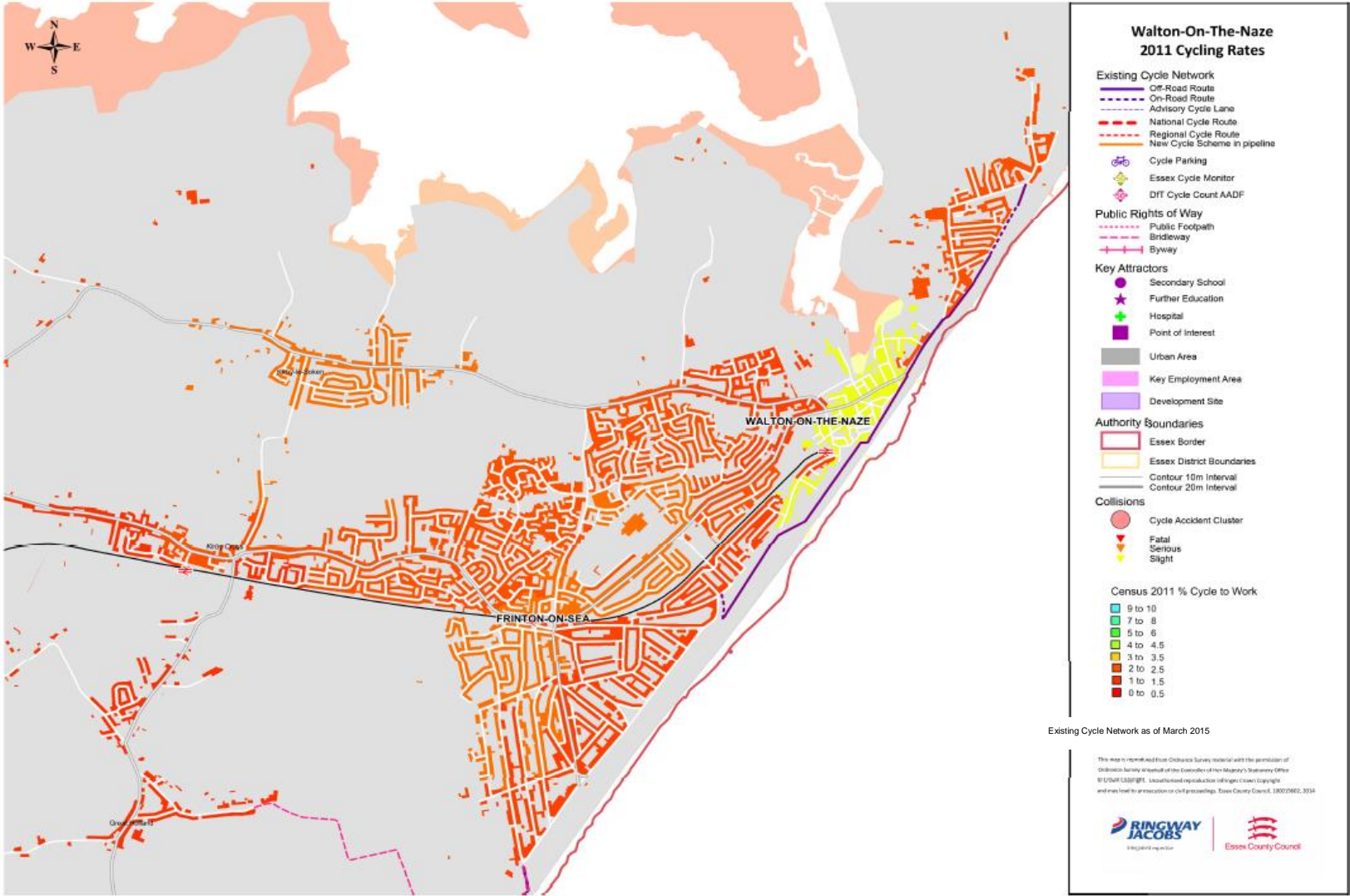
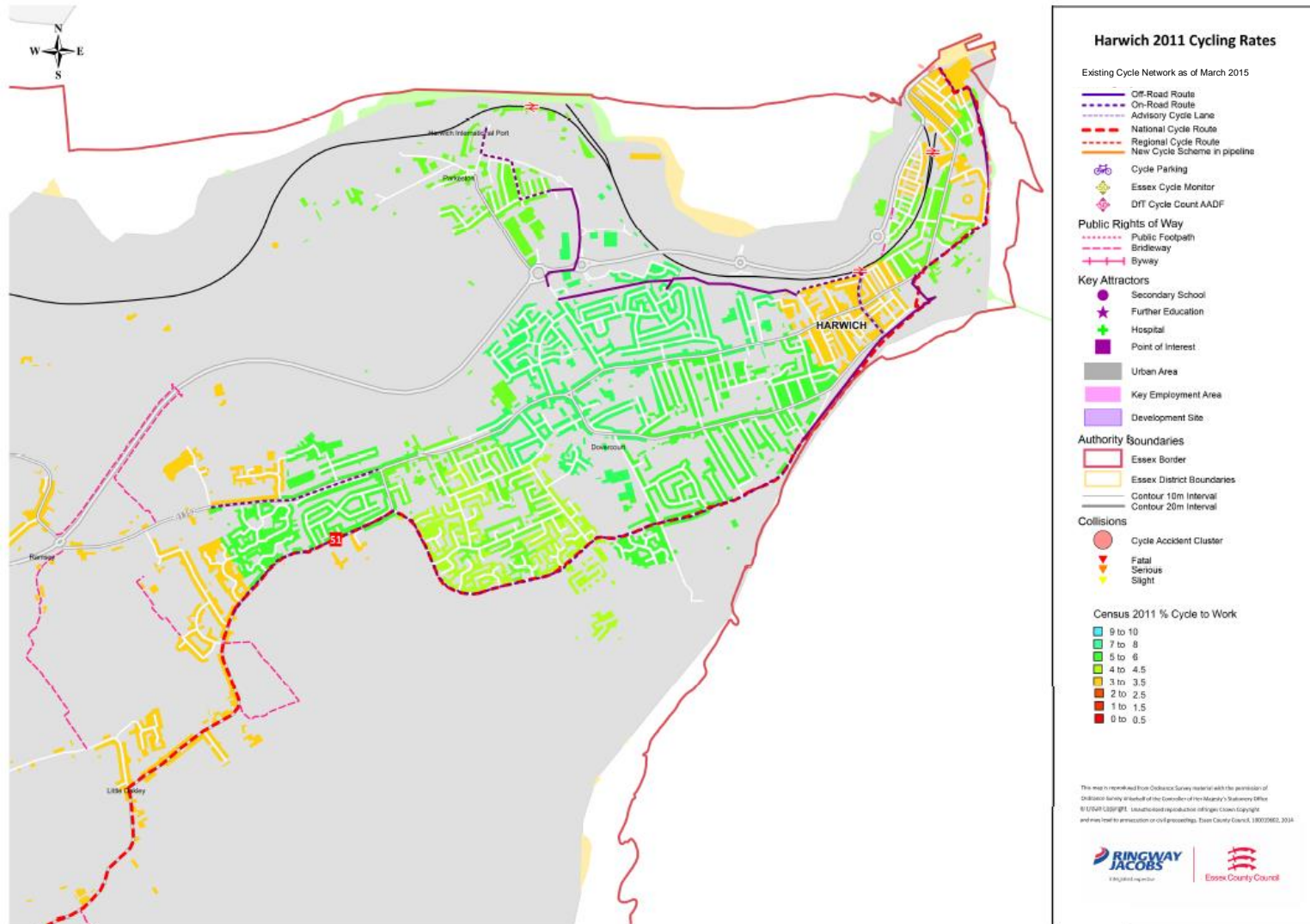


Figure 3.4 % Cycling to Work by Origin in Harwich



There is a marked difference between all three towns in terms of percentage cycling to work by origin, most notably between Harwich and Frinton/Walton. In Harwich, journeys to work by cycle comprise of approximately 3-6% of the total journeys taken. This is considerably higher than the percentage seen in Frinton/Walton, which ranges between 0-3% of total journeys, with most areas registering towards 0-1%.

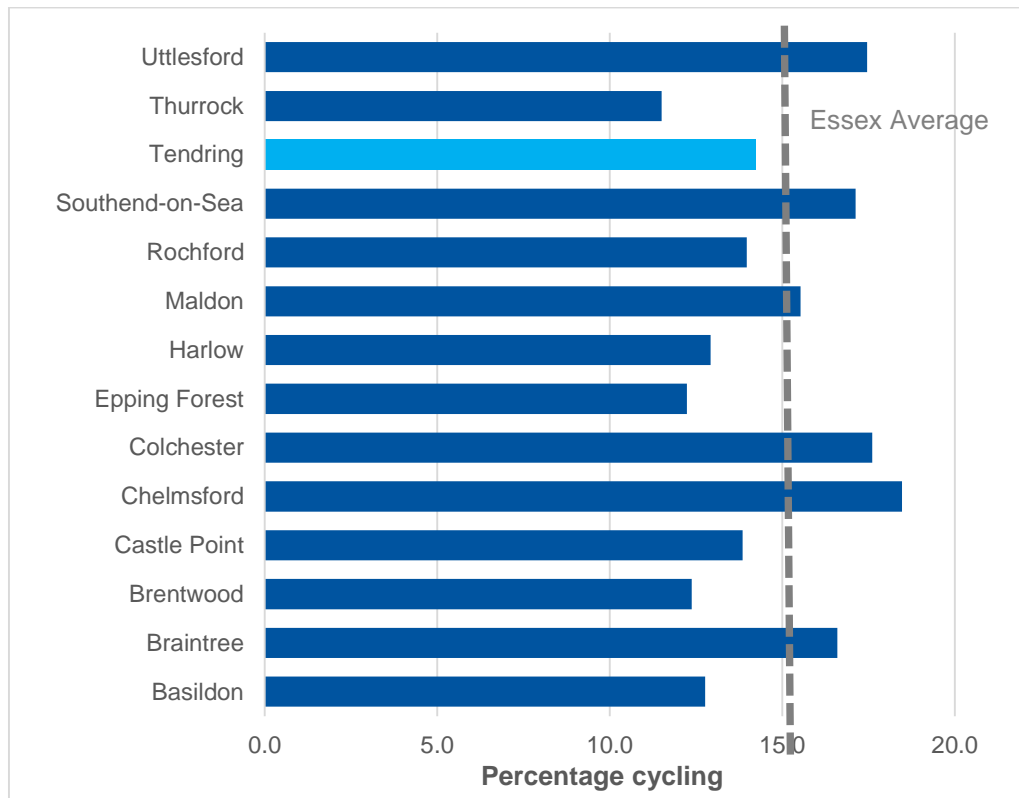
The larger town of Clacton experiences a wider range of cycling levels, ranging between 0-6%. Cycling to work levels are higher in the western, predominantly residential areas, while towards the town centre, cycling levels are at their lowest.

3.3 Sport England Active People Survey

Sport England carry out an Active People Survey annually, which involves interviewing 500 people from every District in England about their propensity to do physical activity. It is the largest survey of sport and active recreation in Europe.

Figure 3.5 shows 2010-2013 average propensity to cycle at least once per month for any purpose based on the Sport England data. The results show that across Essex, Tendring has relatively low levels of residents cycling at least once a month, with the average propensity to cycle (14.2% in Tendring) being slightly lower than the Essex average of 15%.

Figure 3.5 Sport England Propensity to Cycle At Least Once Per Month 2010-2013



3.4 DfT Count Data

The Department for Transport collects vehicular flow data at various locations on the road network around the country. These counts record all vehicles using the carriageway, including pedal cycles. Using DfT Annual Average Daily Flow (AADF) data, information pertaining to numerous locations within the district was taken. The data provides a brief overview of the cycle usage along particular routes within the district.

In Clacton, the most prominent counts are situated on, or in close proximity to, the A133, the main route for vehicle traffic into the town. Areas on the periphery experience lower flows. The 5 highest flows are as follows:

- A133 London Road between the junctions with St John's Road and Old Road: AADF of 183 cycles. An alternative potential route (13) has been identified in Table 7.1 which would cater for this high demand);

- Old Road between the junctions with Cambridge Road and Crossfield Road: AADF of 178 cycles (alternative potential route 13 would cater for this demand);
- A133 Carnavon Road at the junction with High Street: AADF of 145 cycles. This location is on the potential Flagship Route, as well as the end of potential scheme 17, which will both aim to safely accommodate this high level of cycle demand with a high quality facility;
- St Osyth Road between the junctions with Lake Walk and Jameson Road: AADF of 125 cycles. This lies on potential route 10; and
- Holland Road between the junctions with Walton Road and Skelmersdale Road: AADF of 94 cycles. This lies on potential scheme 17.

Fewer counts were recorded for Frinton and Walton which in part reflects their size in comparison to Clacton. The recorded counts themselves also reflect this. The 2 highest are as follows:

- Elm Tree Avenue between the junctions with Frietuna Road and Roydon Way: AADF of 82 cycles. This high level of cycle demand will be accommodated by potential scheme 2; and
- Hall Lane between the junctions with Green Lane and Prince's Esplanade: AADF of 47 cycles.

The 3 largest counts for Harwich are as follows:

- Oakley Road between the junctions with Hewitt Road and Hankin Avenue: AADF of 172 cycles. This is located on the existing cycle network;
- A136 Station Road between the junctions with Garland Road and the A120: AADF of 119 cycles. This is located on the existing network;
- Fronk's Road between the junctions with Fronk's Avenue and St Michael's: AADF of 83 cycles. This high demand could move to potential alternative route 3.

Figure 3.6, Figure 3.7 and Figure 3.8 show the existing AADF cycle data for Clacton, Frinton and Harwich, respectively.

Figure 3.6 Existing Cycle routes with AADF counts in Clacton

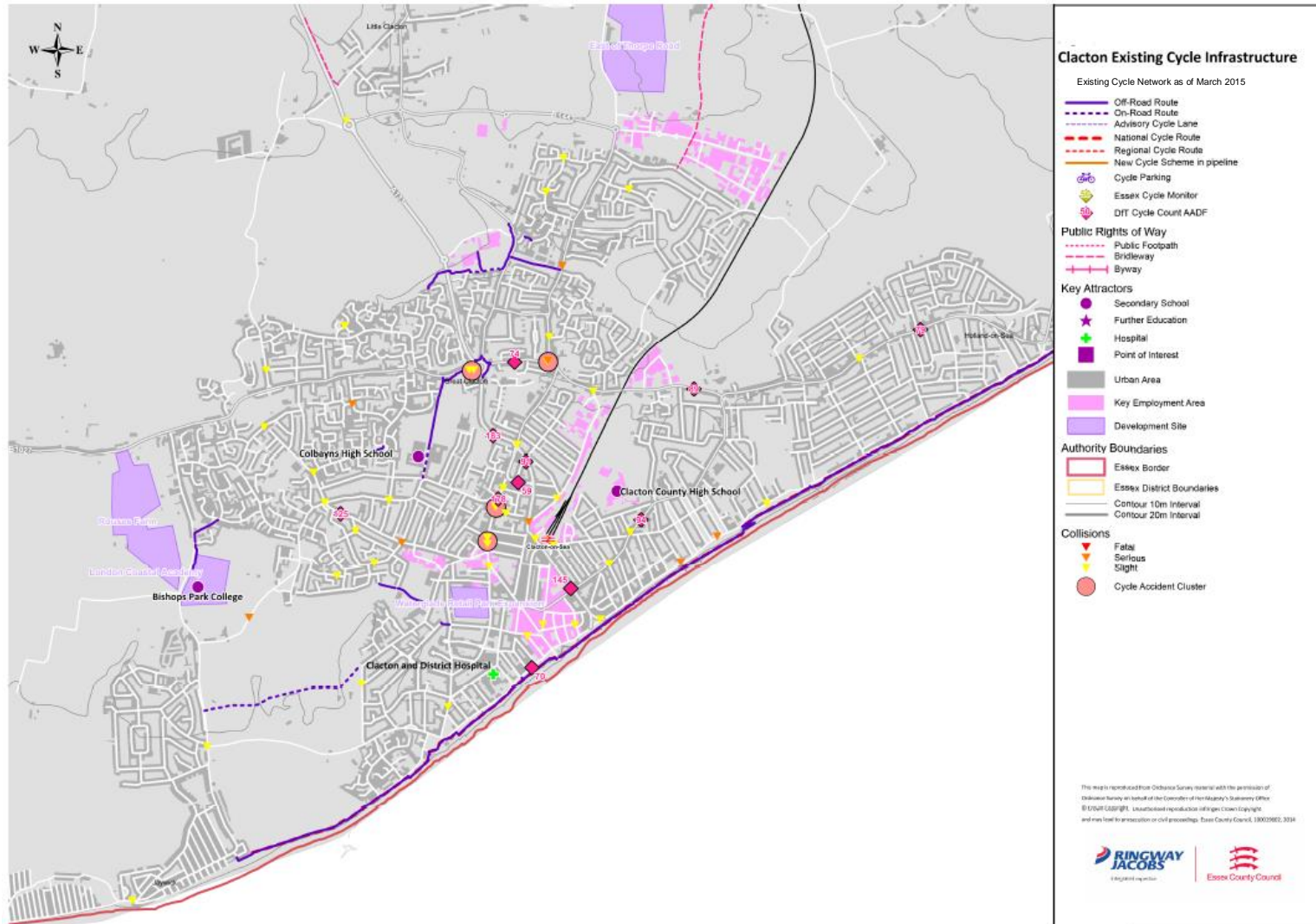


Figure 3.7 Existing Cycle routes with AADF counts in Frinton

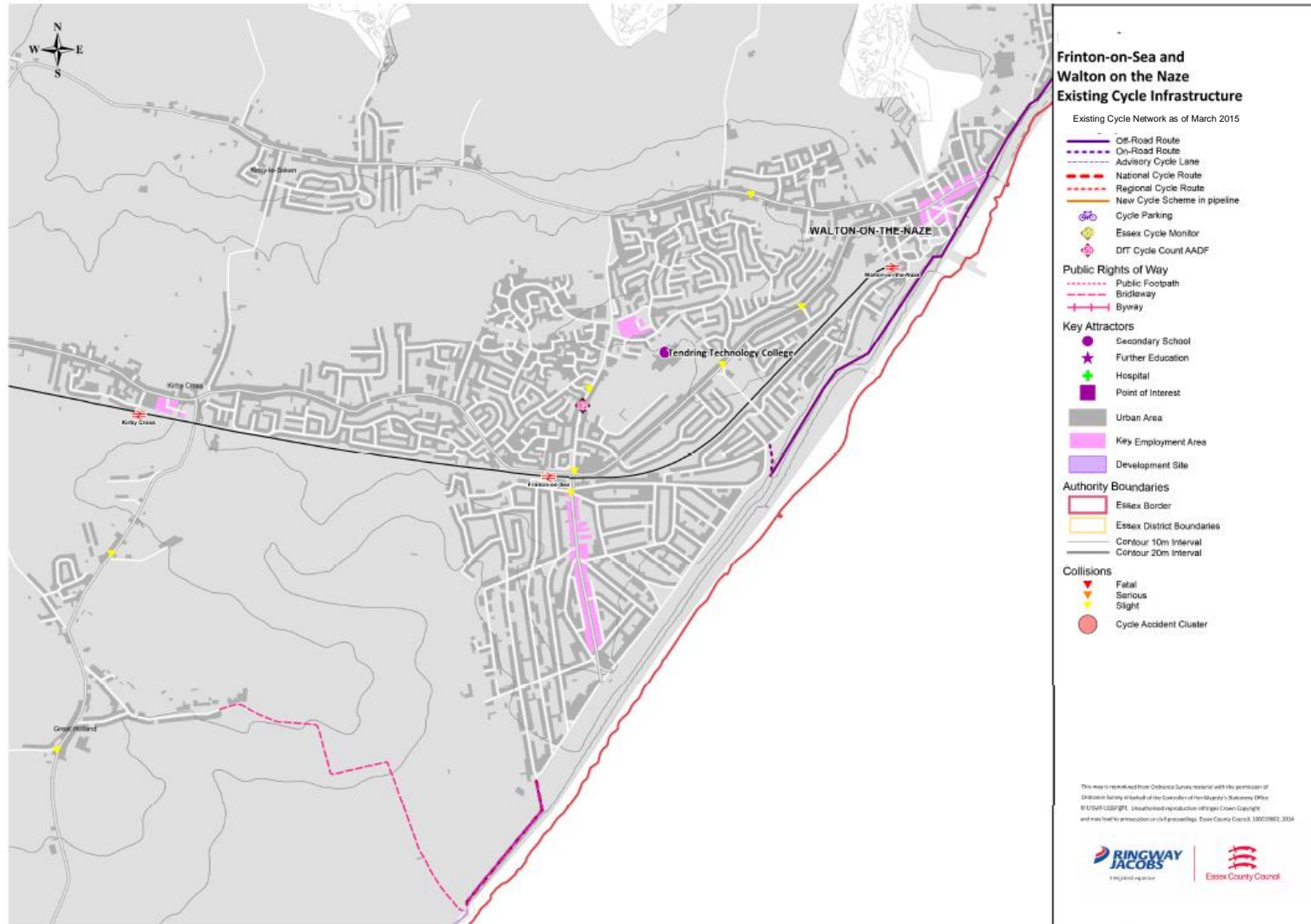
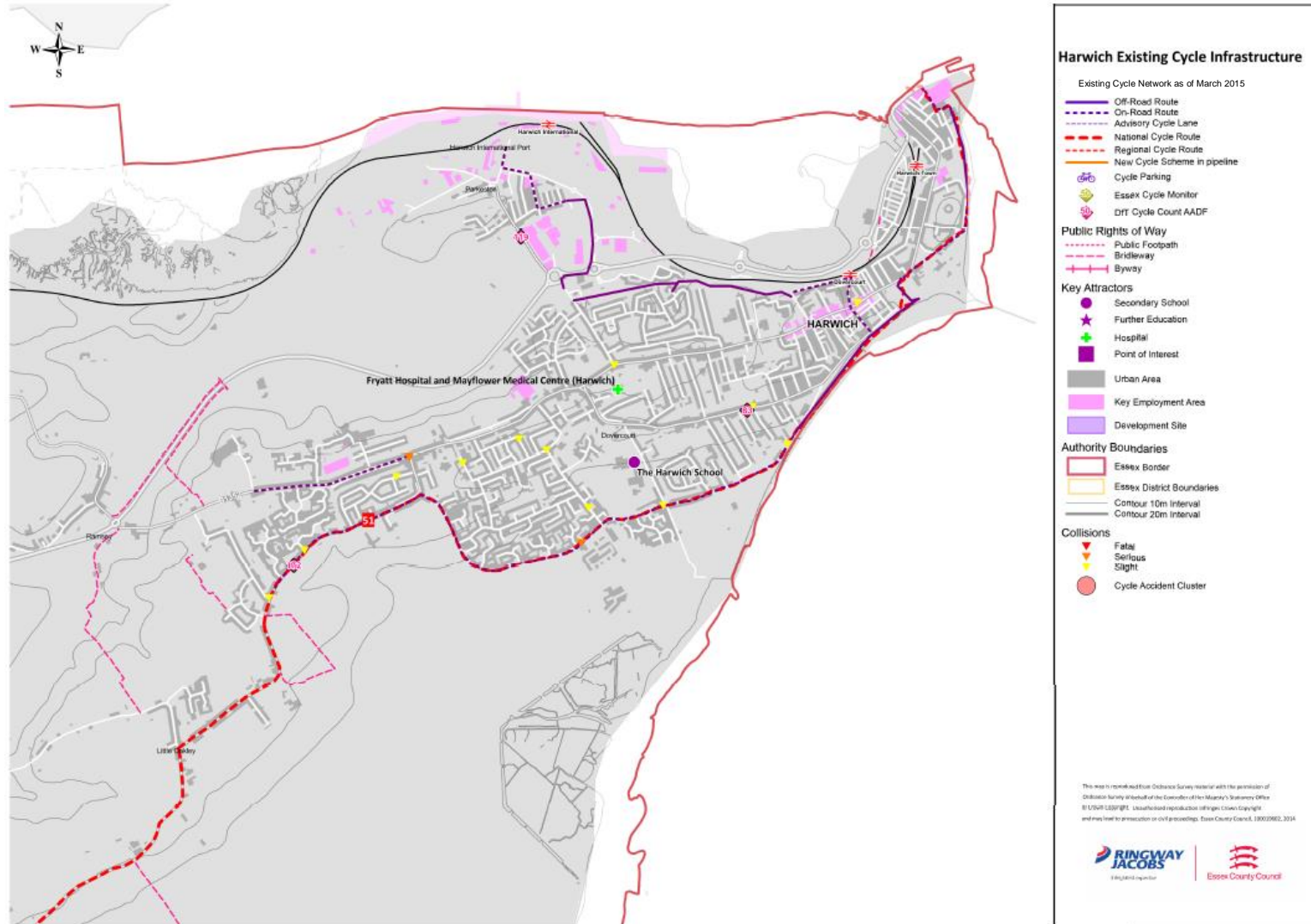


Figure 3.8 Existing Cycle routes with AADF counts in Harwich



3.5 Collision Data

3.5.1 Collision Statistics

Fear of personal injury is often cited as a barrier to cycling but whilst this is an important issue, it is useful to use statistics rather than just perception to direct improvements to highway infrastructure to improve the cycling environment. The location of cycling personal injury collisions also serves to identify where cyclists are travelling in higher numbers which can be useful when deciding where to prioritise new infrastructure.

Table 3.1 shows the number of recorded Personal Injury Collisions (PICs) involving cyclists by District for the five year period between August 2012 and July 2017.

Table 3.1: Personal Injury Collisions Involving Cyclists Aug 2012-Jul 2017

	Fatal	Serious	Slight	Grand Total	% of total cycle accidents in Greater Essex	Number cycling to work ¹	% of total cycling to work in Greater Essex
BASILDON	0	37	135	172	8%	1412	8%
BRAINTREE	2	37	90	129	6%	1070	6%
BRENTWOOD	0	16	41	57	3%	320	2%
CASTLE POINT	0	24	69	93	5%	631	4%
CHELMSFORD	2	56	194	252	12%	2486	14%
COLCHESTER	0	72	227	299	15%	3310	19%
EPPING FOREST	1	36	105	142	7%	482	3%
HARLOW	2	13	60	75	4%	1018	6%
MALDON	1	15	42	58	3%	548	3%
ROCHFORD	1	25	63	89	4%	498	3%
SOUTHEND	1	63	266	330	16%	2260	13%
TENDRING	3	28	117	148	7%	1683	10%
THURROCK	0	35	101	136	7%	1078	6%
UTTLESFORD	0	18	41	59	3%	433	3%
ESSEX	12	412	1285	1709		13891	
GREATER ESSEX	13	475	1551	2039	100%	17229	100%

Tendring experiences an average rate of injury involving cyclists when compared to the other Districts and Boroughs within Essex, with a total of 148 PICs recorded

¹ Source: ONS Cycling to Work Summary Table, taken from Census Table CT0015EW.

during the 5 year period, 7% of the county total of cycle personal injury collisions. To provide context to these figures, Tendring has 10% of the total cycle journey to work trips in the county, indicating that the level of cycle collisions is low relative to the level of cycling that takes place in the District. In addition, incidents in urban areas are more prominent than those occurring in rural areas, especially in Clacton and Harwich where a high concentration of incidents have been recorded.

3.5.2 Collision Clusters

This section analyses clusters of incidents involving cyclists within Tendring District. (i.e. when 2 or more incidents have occurred in a particular location).

Clusters have only been identified in Clacton, as displayed below in Table 3.2. There are no incident clusters present within the wider Tendring District.

Table 3.2 Tendring District Cycle Collision Clusters

Junction Name	No. of Recorded Incidents	Severity	Incident Correlation?	Description of Correlated Incidents
Clacton				
St Johns Road/ North Road	3	2 Slight, 1 Serious	Y	Vehicles turning right from St Johns Road failed to give way to cyclists travelling in the opposite direction, resulting in collisions
St Johns Road/ London Road	2	2 Slight	N	
Old Road/ Crossfield Road	2	2 Slight	N	
Old Road/ Page Road	2	2 Slight	N	

As seen above, the junction of St Johns Road and North Road saw 3 recorded incidents, 2 of them Slight and 1 Serious. All 3 incidents display correlation in terms of their circumstance, with cars turning right into oncoming cyclists. None of the remaining incident clusters offer any correlation.

Overall, 9 incidents were recorded from the identified clusters, with 8 classified as Slight and 1 as Serious.

3.5.3 Cycle Accidents along Routes

Table 3.3 displays the list of cycle accidents along routes in Tendring District between 2012 and 2015.

Table 3.3 Cycle Incidents along Routes

Section	Approximate length of section	No. Incidents	Severity	Existing cycle route?
Clacton Town				
Thorpe Road-Old Road-Wash Lane: j/w Credon Drive-j/w Marine Parade West	3.5 km	12	10 Slight, 2 Serious	No-but sections form part of potential on-road routes
London Road-Wellesley Road-Carnarvon Road: j/w St Johns Road-j/w Marine Parade East	2.25 km	7	6 Slight, 1 Serious	No-but sections form part of potential on-road routes
Frinton / Walton				
Walton Road: j/w Elm Tree Avenue-j/w Kirby Road	2.1 km	3	3 Slight	No-but small sections of route form part of potential on-road route
Harwich				
Oakley Road-Low Road-Wick Lane-Lower Marine Parade: j/w mayes Lane-j/w Fronk's Road	4 km	5	4 Slight, 1 Serious	Yes-route forms part of an on-road section of NCN 51
Ramsey Road-Main Road-High Street: j/w Oakley Road-j/w Bay Road	2.9 km	3	2 Slight, 1 Serious	Yes-small section of existing marked on-road cycling and potential off-road section

Table 3.3 shows that within the towns of Clacton, Harwich and Frinton & Walton, there are 5 specific stretches of road which have experienced at least 3 incidents (each). Two of these stretches of road are located in Clacton and Harwich with one located in Frinton & Walton. Only the routes within Harwich currently form part of any existing cycling infrastructure, with the route along Oakley Road – Low Road – Wick Lane – Lower Marine Parade forming part of NCN National Route 51.

Of most concern are the two identified stretches in Clacton where 12 and 7 respective incidents were recorded over the 36 month period, three of which were classified as Serious. These are problematic considering their status as major north-south links.

Figure 3.6, Figure 3.7 and Figure 3.8 display the distribution of recorded cycle accidents in Clacton, Frinton/Walton and Harwich, respectively. Figure 3.9 shows the district wide cycle accidents.

3.6 Cycle Crime

Cycle crime (mainly theft) is reported both to Essex Police and British Transport Police; although it should be noted that cycle thefts are generally considered to be under reported. Figures for both these constabularies are combined by District in Table 3.4 below.

Table 3.4: Total Reported Cycle Crime by District

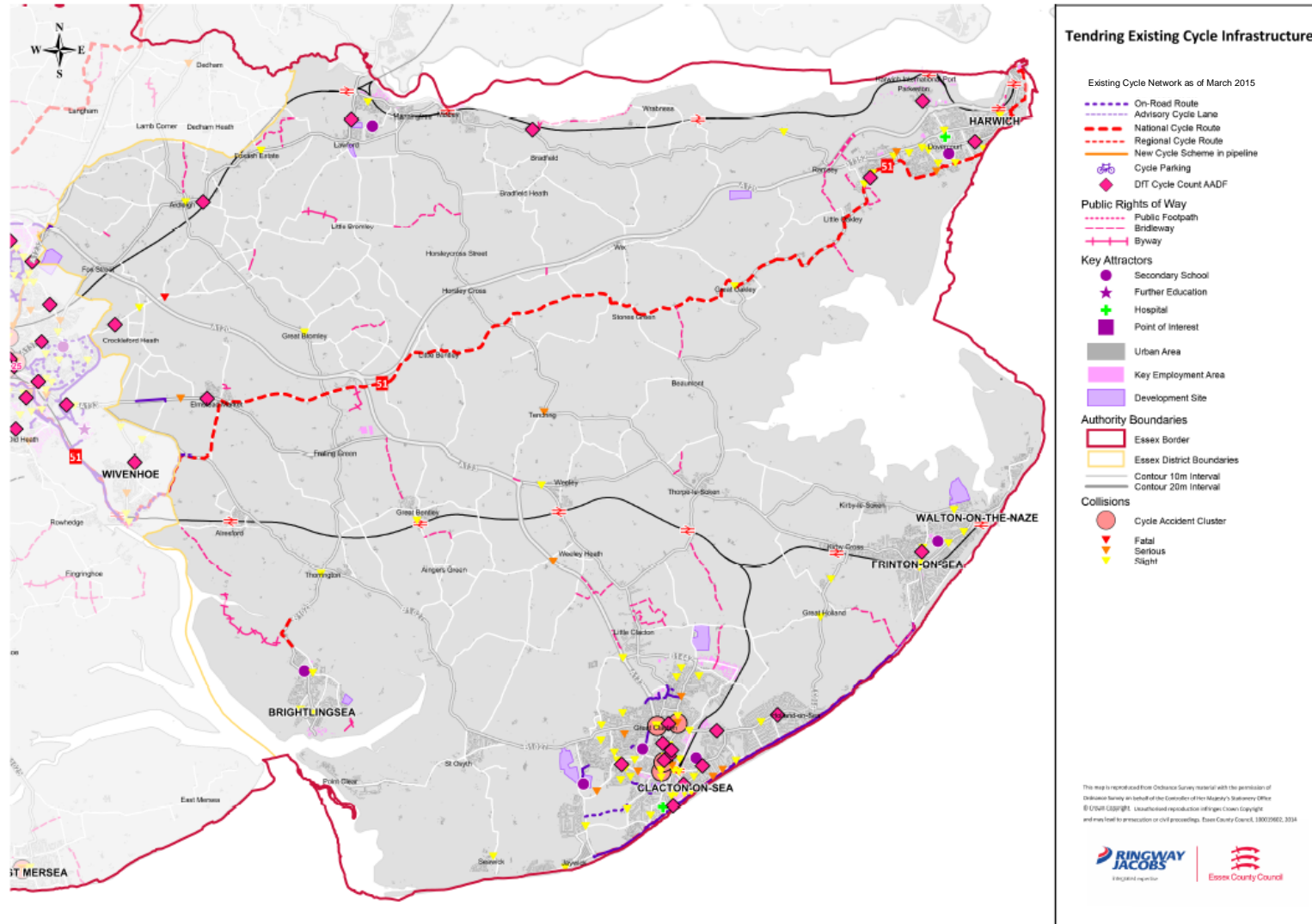
All Essex Reported Cycle Thefts	2013	2014*	Year ending June 2016	Year ending June 2017	% of all cycle thefts in Greater Essex (2017)	Annual number of cycle thefts per cycle commuter ²
Basildon	221	208	173	203	8%	0.15
Braintree	116	98	160	154	6%	0.15
Brentwood	63	59	34	71	3%	0.23
Castle Point	45	73	63	81	3%	0.13
Chelmsford	292	274	334	450	17%	0.19
Colchester	355	373	247	390	15%	0.12
Epping Forest	37	53	69	53	2%	0.12
Harlow	127	108	166	244	9%	0.25
Maldon	26	28	14	21	1%	0.04
Rochford	43	50	51	23	1%	0.05
Southend-on-Sea	450	326	403	467	18%	0.22
Tendring	180	167	124	160	6%	0.10
Thurrock	217	205	251	235	9%	0.23
Uttlesford	41	30	23	27	1%	0.07
Essex	1546	1521	1458	1877		0.14
Greater Essex	2213	2052	2112	2579	100%	0.16

*to Nov 20th only

2. Based on 2017 thefts and ONS Census 2011 Journey to work by cycle total for District/ Borough/ City (ONS Cycling to Work Summary Table, taken from Census Table CT0015EW)

The District of Tendring accounts for 6% of all reported cycle thefts in Essex, with 160 crimes reported in 2017. This is the seventh highest recorded figure in the county, behind Districts such as Colchester and Chelmsford which have larger populations. The number of cycle thefts per cycle commuter is 0.10 in Tendring (ranked 11th in the County), which is below the County average of 0.16, indicating that the rate of cycle theft in Tendring District is low, given the number of cycle commuters.

Figure 3.9: Distribution of recorded cycle accidents in Tendring



3.7 Topography

There are a number of factors which determine the popularity of cycling in any given area. Of the geographical factors, by far the most significant is topography, as identified in many research studies and policy statements. These include research carried out by Dr John Parkin who concluded; ‘hilliness was found to be, by far, the most significant determiner of the proportion that cycled to work in a District’². A DfT fact-sheet observed ‘although it is obvious that it is easier to cycle in flat areas, the extent of the differences is surprising, and has policy implications.’

Tendring District for the most part is an extremely flat District in Essex with almost all of it under 30m above sea level. Generally speaking, elevation is higher in the west, and gradually declines to a negligible figure when reaching the coast in the east.

Although the towns appear to have a varied topography, the differences in height are relatively small and shallow in gradient with the largest incline seen in Harwich accounting for approximately 20m, over a distance of 900m.

Figure 3.6, Figure 3.7 and Figure 3.8 show the topography of Clacton, Frinton/Walton and Harwich, respectively.

² Parkin, J. Wardman, M and Matthew, P. (2008) *Estimation of the determinants of bicycle mode share for the journey to work using census data*. Transportation, 35 (1). pp. 93-109.

4 Existing Network Provision and Barriers

4.1 Introduction

The District of Tendring is a largely rural area located on the North East Essex coast. It includes the urban areas of Clacton-on-Sea, Frinton-on-Sea, Walton-on-the-Naze and Harwich. Tourism forms an important element of the District's economy, with the seaside towns of Clacton, Frinton and Walton. The port of Harwich provides ferry connections to European locations.

4.2 Existing Infrastructure

There is some existing cycling infrastructure provision within the district. National Cycle Network (NCN) Route 51 (Colchester – Harwich – Oxford) bisects the district, with an additional spur of this National Route running along the coast between Jaywick and Frinton-on-Sea (National Cycle Network (NCN) Route 150). Tendring District Council has produced brochures detailing possible routes to cyclists originating from the major settlements within the area such as Clacton-on-Sea (from here on, Clacton), Harwich and Manningtree. The aforementioned routes predominantly utilise existing roads rather than off-road facilities. The only areas in which there are concentrations of off-road cycling infrastructure are Clacton itself, the coastline between the town and Frinton-on-Sea (Frinton) and Jaywick.

4.3 Clacton-On-Sea

The cycle network within Clacton is fairly inconsistent with a number of isolated sections of off-road cycle routes located throughout the town. The most prominent section is along the seafront, which provides a route to Frinton-on-Sea. There are also some sections of off-road routes in the northern periphery of the town. As stated before, a number of cycle routes originate from the town as 'Cycle Tendring' routes which are promoted on the Tendring District Council website, with the majority of these routes being on-road. There are clusters within the town where cycle parking facilities have been provided. These locations are by the railway station, Pier Avenue and West Avenue, and areas on the seafront.

Figure 4.1 Existing cycle networks ending abruptly, on Thorpe Road and Alton Park Road



4.3.1 Clacton Access to Public Transport

Clacton Railway Station is located on A133 Carnavon Road and is approximately 500m north of the town centre. There are no existing cycle routes in place, although the potential of Scheme 15 to access the station and schemes 3 and 16, which pass close by, are recognised in this CAP. Cycle parking is available at the station, with 124 storage spaces provided in the form of compounds, Sheffield stands and wheel racks. Approximately 30 spaces were used during the site visit.

4.3.2 Access to Employment in Clacton

The main employment centres within Clacton are in the town centre and along the railway corridor in the north east of the town. The town centre is situated on the seafront and lies adjacent to the coastal off-road cycle route. As a result it is well connected to south-western and north-eastern areas of the town. Numerous cycle parking facilities are also provided in the locality.

The two business/employment centres to the north east of the town (Hockley Business Centre and Clacton Factory Outlet) are poorly connected and are isolated from the disparate and fragmented cycle network. On-road cycling is currently required to access these sites. Potential routes 18 and 22 will provide better cycle access to these areas.

It should be noted that there is a further, smaller employment centre to the north of the town (Brook Retail Park). There is existing off-road cycle infrastructure in

the vicinity of this location but it is not connected and is therefore isolated from the rest of the network.

4.3.3 Clacton Access to educational institutions

Of the schools and colleges present within Clacton, only Colbayns High School is located on a dedicated off-road cycle route. This however, ends abruptly when the route meets a junction of the A133. Students are encouraged to cycle to the school and the institution took part in Essex County Council's Bikeability project. Both Bishops Park College and Clacton County High School have poor access to existing cycling infrastructure.

4.4 Frinton-on-Sea/ Walton-on-the Naze

There is currently very little cycling infrastructure in Frinton and Walton. Although Frinton is connected to Clacton via an off-road cycle route, this terminates at the southern periphery of the town. It does however, resume in the town centre and forms another off-road route north to Walton along the seafront.

4.4.1 Access to Public Transport in Frinton/ Walton

Frinton, Walton and the nearby village of Kirby Cross are all served by rail stations on the Walton-on-the-Naze section of Sunshine Coast branch of the Great Eastern Mainline. There are currently no cycle routes to the stations. Walton-on-the-Naze station is located close to the existing off road cycle route along the seafront but it is not directly connected.

Frinton-on-Sea station is situated on Station Approach, approximately 600m from the town centre. Sheltered cycle storage and Sheffield Stands are present at the station for cycle parking, providing a total of 6 spaces, 2 of which were used during the site visit.

Walton-on-the-Naze station forms the terminus of the Sunshine Coast line and is accessed from Church Road. It is 500m from the town centre. 10 parking spaces comprising of 5 Sheffield stands are available at the station and only 2 were used during the site visit.

Kirby Cross station serves the hamlet of Kirby Cross which is located on the western periphery of Frinton. A total of six Sheffield Stand spaces have been provided for cycle parking.

4.4.2 Access to Employment in Frinton/ Walton

There are three main employment centres in Frinton and Walton; their two respective town centres, and a small industrial estate to the north of the town

(Triangle Shopping Centre). Reflecting the lack of dedicated infrastructure in the town, none of the centres are located on cycle routes.

4.4.3 Access to educational institutions in Frinton/ Walton

Owing to the absence of cycling infrastructure in the towns, Tendring Technology College is poorly served by cycle routes. The institution does however provide cycle parking facilities for students and staff who wish to cycle to the site.

4.5 Harwich/ Dovercourt

The contiguous towns of Harwich and Dovercourt are both located on NCN National Route 51 which follows the southern boundary of the town and is comprised of a mixture of on and off-road sections. A further route is also present, which comprises of on and off-road link which connects NCN National Route 51 with both Dovercourt and Harwich International rail stations.

Figure 4.2 Existing Cycle routes ends abruptly at Parkeston Road



4.5.1 Access to Public Transport in Harwich/ Dovercourt

There are three rail stations present in Harwich which are from west to east as follows: Harwich International, Dovercourt and Harwich Town. All three are located on the Mayflower branch of the Great Eastern Mainline.

Harwich International is situated to the north of town and serves the port of Harwich. It is accessed from East Dock Road. Although it is not located on NCN National Route 51, the station is connected to both by a link route which utilises both on-road and off-road spaces. A total of 36 sheltered cycle storage spaces

have been made available at the station, 5 of which were utilised at the time of site visit.

Dovercourt station serves the town of Dovercourt and is sited on Station Lane, approximately 200m to the north of its centre. It is not situated on NCN National Route 51, but as with Harwich International, is connected to it via the on-road section of the previously stated route. Sheffield stand spaces are provided on-site, 3 spaces of which were used at the time of the site visit.

Harwich Town station forms the terminus of the Mayflower branch and is approximately 1.1km from the town centre, although it is only 500m from the seafront. It is accessed from George Street. The station is a short distance from an off-road section of NCN National Route 51 but there is not a route which connects the two.

4.5.2 Access to Employment in Harwich/ Dovercourt

There are a number of employment centres located in the town, with the international port to the north of the town being by far the most prominent. Although it is not located on NCN National Route 51, a link route comprising of on and off-road sections is provided, connecting it through the town centre.

The remaining employment centres, Harwich town centre and warehouses to the east are both situated on NCN National Route 51 and on associated routes which provide access predominantly to southern and central areas.

4.5.3 Access to educational institutions in Harwich/ Dovercourt

The Harwich School is situated a short distance (approximately 300m) to the north of an on-road section of NCN National Route 51, although this does not form an official cycle route.

4.6 Key barriers to cycling in Tendring

Although not served by as many transport arteries as other districts or boroughs within Essex, there are still a number of barriers to cycling which make many local journeys by bike indirect and lengthy. Although all modes are affected by such barriers, cycling is particularly distance-sensitive so barriers preventing short trips can considerably suppress demand.

Within the district, obstacles to cycling include:

- The A120 trunk road, which bisects the district forming a north-south barrier as it connected Harwich Port in the east, to Colchester, Braintree

and Stansted in the west. The A120 is also a dual carriageway, restricting safe crossing points. The A133 connecting Clacton to the A120 also forms a considerable barrier to cycling. Despite the presence of the A120 and the A133, the majority of the roads in the district are rural in nature, and as such are generally subject to low traffic flows. Cyclists are encouraged to use these routes through schemes such as 'Cycle Tendring', however the roads are subject to national speed limits outside of any settlements which may discourage less confident cyclists. Potential scheme 16, which is also a potential flagship route, runs along the A133, so conditions for cyclists will be improved when this is implemented along that section. Potential scheme 13 will offer an alternative route to cycling along the A133 in Clacton; and

- The Sunshine Coast and the Mayflower branch of the Great Eastern Mainline divide Tendring. The Mayflower branch closely follows the River Stour, and therefore levels of severance seen are lower than that of the Sunshine coast, which bisects the central and southern areas of the district. This is exacerbated further when the line splits to serve both Clacton and Frinton.

Within local towns, potential barriers include:

- The morphology of the roads in Clacton and Harwich may provide a barrier to some cyclists, especially in the centre of the town where the streets are generally narrow and provide off-street parking to vehicles. Despite this, many of the residential streets away from the town centres appear to be suitable for cycling;
- In Clacton, the Sunshine coast line causes some severance between east and west areas. , There are only 3 crossing points, none of which currently provide cycling infrastructure. This considerably lengthens journeys and may suppress cycling demand. Potential scheme 15 proposes to utilise the existing footbridge over the railway line, enhanced for cycle use. Potential scheme 18 crosses beneath the railway line using the existing carriageway. Potential scheme 20 utilises an existing level crossing to cross the railway line; and
- In Harwich, the morphology of the estuary of the River Stour means that there is a considerable additional distance when compared to the straight line distance between Harwich Town and one of the main employment centres for the area, at Harwich Port. The increase in distance may suppress some cycling demand.

5 Tendring's Cycling Potential

5.1 Introduction

This section provides a summary of existing travel behaviour within Tendring District as well as identifying the potential for cycling.

5.2 Commuter Flow Analysis

The 2011 Census records how residents choose to travel to work, as well as the location of their workplace. The aim of analysing this information is to establish where the predominant local commuter movements exist that could feasibly be undertaken by bicycle. This data can then be used to assess the commuter cycle potential for an area.

The predominant commuter flows for Tendring District have been calculated based on travel between Medium Super Output Areas (MSOAs). As journeys to work take place to and from all MSOAs within the district, only the top 10 most popular commuter journeys per mode have been identified for the District.

Below are a list of assumptions and exclusions when undertaking the analysis:

- The analysis focuses on the 3 main urban areas of Clacton, Frinton & Walton and Harwich. Because of this, not all of the top 10 journey to work figures may be included in the analysis. As an example, Manningtree accounts for 1 of the top 10 figures for journeys to work made by rail but has not been included;
- Where commuters have stated their main mode of travel to work as rail, it has been assumed that rail commuters would predominantly choose the closest station to them, unless a main line station is located within a similar proximity. In such a case, it is assumed the preference would be for the main line station. An additional assessment has been made which excludes a percentage of rail commuters living within 1km of the rail station, as it is expected the majority of those people would walk to the rail station;
- Cross district boundary analysis for car drivers has been excluded, as all the top 10 most popular origin / destination journeys to work by car occurred within the district; and
- It has been assumed that commuters would choose the same route and mode of travel to work (in the AM) as they do to return from work (in the PM).

5.3 Clacton-On-Sea

5.3.1 Cycle Trips

Possibly reflecting the underlying lack of infrastructure in much of the town and the propensity of the population to drive, journeys to work by cycle are relatively low. Only one of the ten highest cycle commuter journeys in the district occurred within Clacton. This was 36 commuter cycle trips from Tendring 015 in the west of the town to Tendring 014 in the east (Valley Road Retail Park and Clacton County High School).

Figure 5.1 displays the predominant commuter flows for journeys to work by bicycle within Clacton.

5.3.2 Car Trips

Journeys to work by car are the most prevalent of any mode within the town, with northern and eastern areas registering the largest number of departures. The destination of the largest flows of journeys is concentrated on the employment centres in the town centre and the north-eastern periphery. MSOA Tendring 013 on the northern boundary of the town displayed the largest movement with 483 journeys shared between the two main employment centres of the town centre (Tendring 016) and the Gorse Lane Industrial Estate (Tendring 010). Potential route 13 will assist cycle movements to the town centre from the north of the town and, in combination with scheme 11 could attract car drivers from the northern and north western areas to instead cycle to the town centre.

In addition, 221 car commuter journeys were recorded originating from the eastern side of town (Tendring 014) to the town centre. Potential scheme 17 would reflect this movement and so, if it is of high quality may serve to attract some cycle demand from existing car drivers.

All destination points are relatively poorly served by existing cycling infrastructure in the town, and interestingly all are within 5km of their origin MSOA. The potential new cycle network will be much more comprehensive in Clacton if it can be delivered, providing a network of routes, which aim to link the seafront, town centre, rail station and industrial areas of the town with residential areas, meaning that travel to work by bicycle would be much more achievable.

Figure 5.2 displays the predominant commuter flows for journeys to work by car within Clacton

5.3.3 Rail trips

Despite being the largest town in the district, of the journeys to work made by rail only Tendring 017, located in the south-west of the town, registers in the district wide top 10 seeing 108 journeys made to work by this mode. It is assumed that rail use from areas to the north and east of the town is still relatively high, but do not generate enough journeys to be incorporated into the district wide top 10.

Figure 5.3 displays the predominant commuter flows for journeys to work by rail within Clacton.

Figure 5.1 Predominant commuter flows for journey to work by bicycle in Clacton

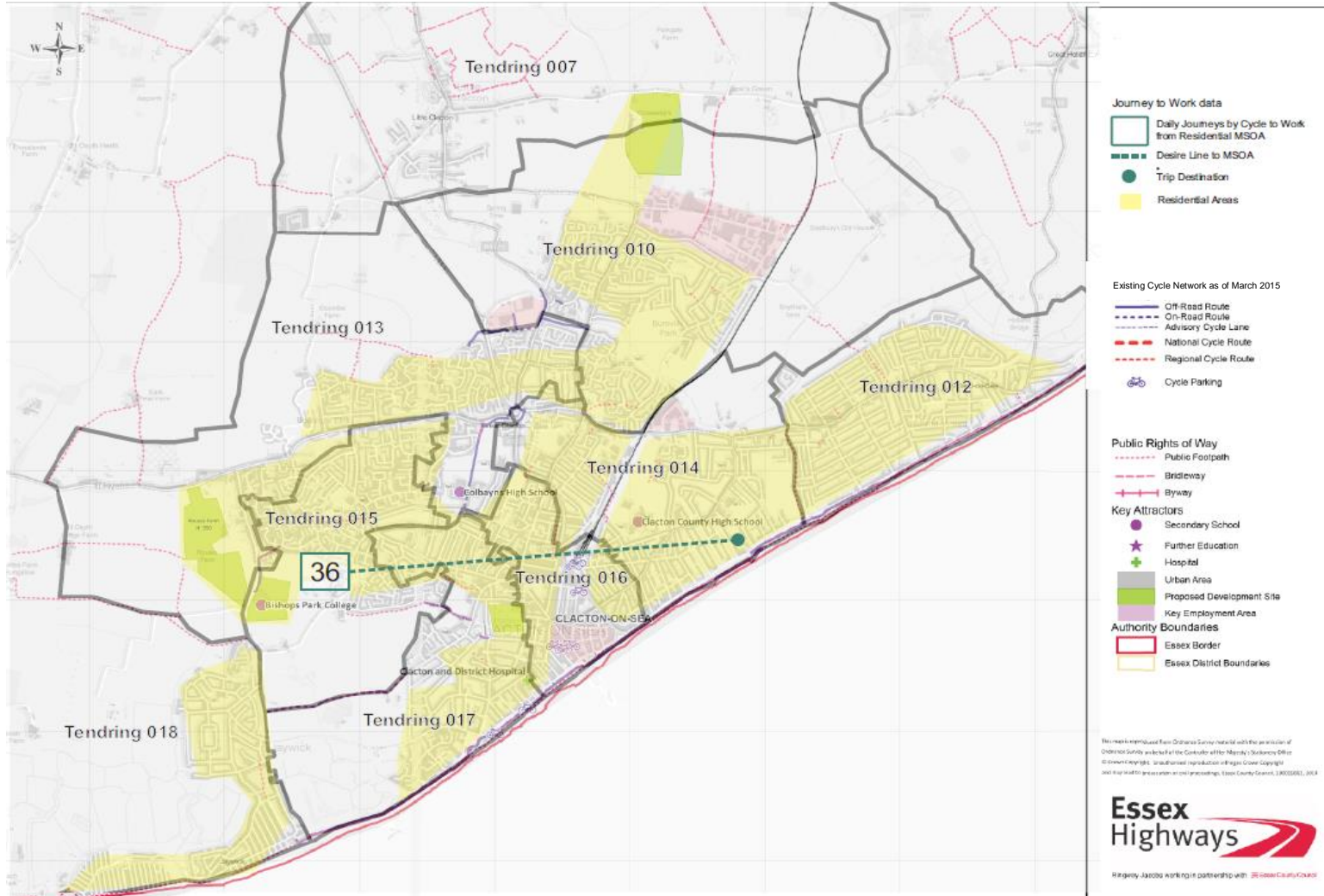


Figure 5.2 Predominant commuter flows for journey to work by car in Clacton

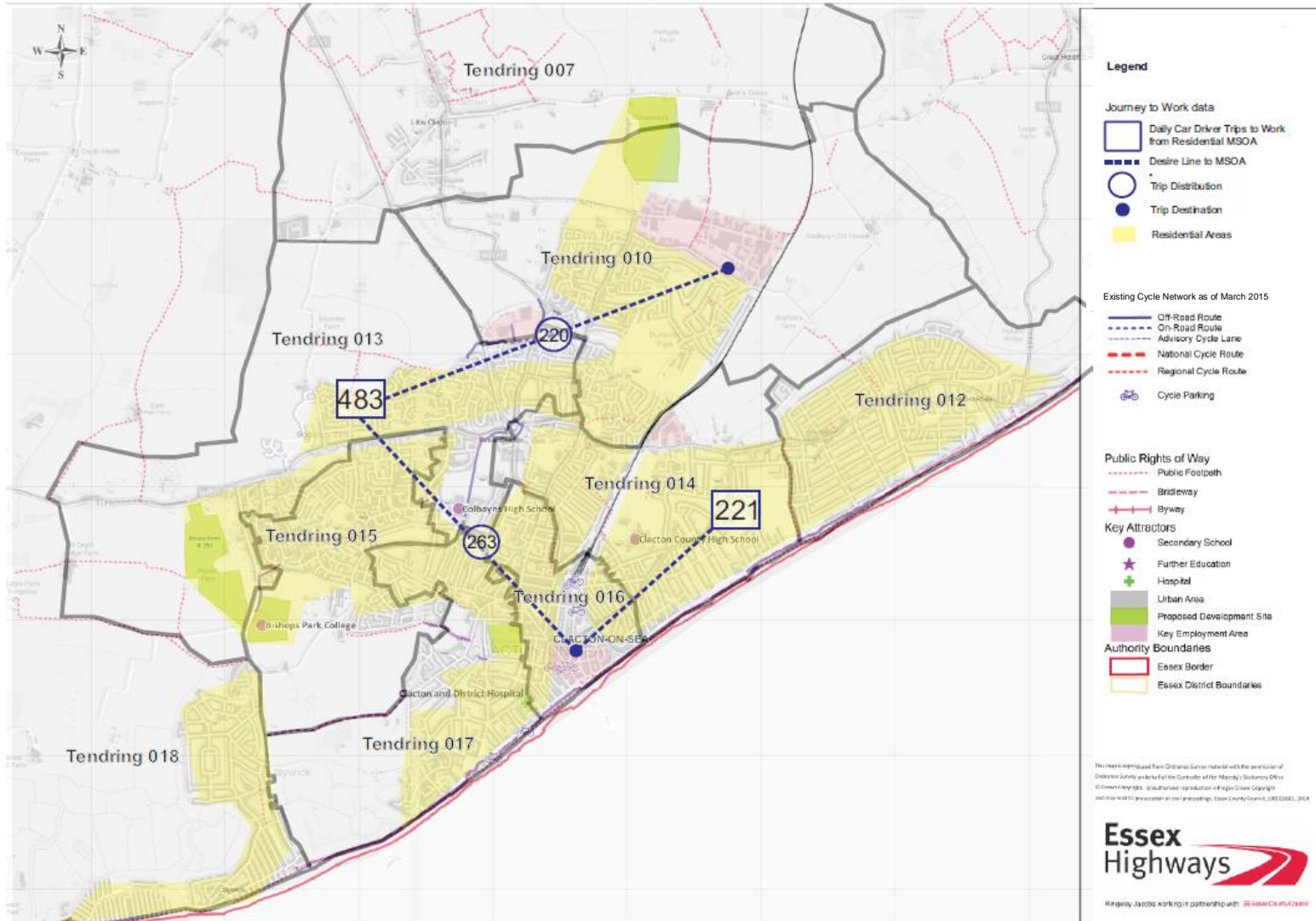
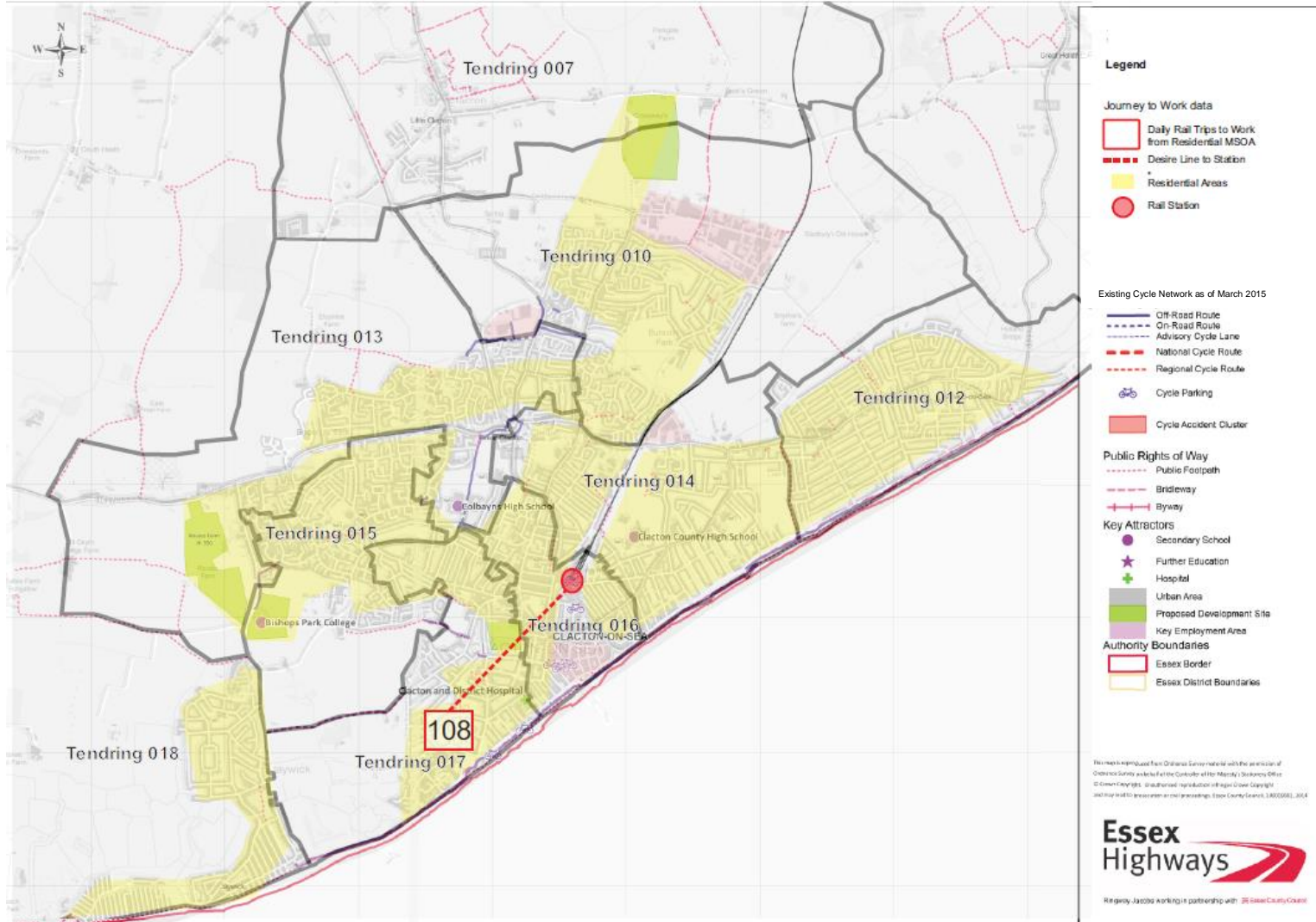


Figure 5.3 Predominant commuter flows for journey to work by rail in Tendring District (Clacton)



5.4 Frinton-on-Sea & Walton-on-the-Naze

5.4.1 Cycle Trips

Cycle commuting in Frinton and Walton only features once in the top 10 of the district and largely follows the same pattern as car travel with the largest movements originating from Tendring 008 to the north and concluding in Tendring 006 to the south and east. A total 41 journeys were recorded between the two. Figure 5.4 displays the predominant commuter flows for journeys to work by bicycle within Frinton & Walton.

5.4.2 Car Trips

Two of the highest car driver commuter trips in the district occur within Frinton on Sea. The most prominent journeys to work by car originate from the residential area located to the north west of the rail line within Tendring 008. A total of 181 internal car commuter trips take place within the same MSOA and 313 car commuter trips go from the north western side of Frinton towards Walton-on Naze (Tendring 006) for access to Walton town centre, Naze Marina and an industrial estate to the north, all major employers in the area. A series of potential schemes will provide improved cycle access between north western Frinton-on-Sea and Walton-on-the-Naze (potential schemes 1, 2, 4, 14 and 6).

Figure 5.5 displays the predominant commuter flows for journeys to work by car within Frinton & Walton.

5.4.3 Rail trips

Rail travel features four times in the top 10 of all major commuter trips by rail in Tendring. From the western and northern part of town (Tendring 008), an estimated 148 journeys were made to work by train, shared between Frinton-on-Sea station and Kirby Cross station on the western periphery of the settlement. In the eastern and southern side of town (Tendring 006), 112 journeys were evenly distributed between Frinton-on -Sea, and Walton-on-the-Naze station. Neither of the stations are currently accessible by cycle routes. However, potential scheme 10 provides on-road cycle access to Frinton-on-Sea station and potential schemes 7 and 9 provide much improved cycle access to Walton-on-the-Naze station. All of these potential schemes are linked to the wider area by other potential schemes.

Figure 5.6 displays the predominant commuter flows for journeys to work by rail within Frinton & Walton.

Figure 5.4 Predominant commuter flows for journey to work by bicycle in Frinton & Walton

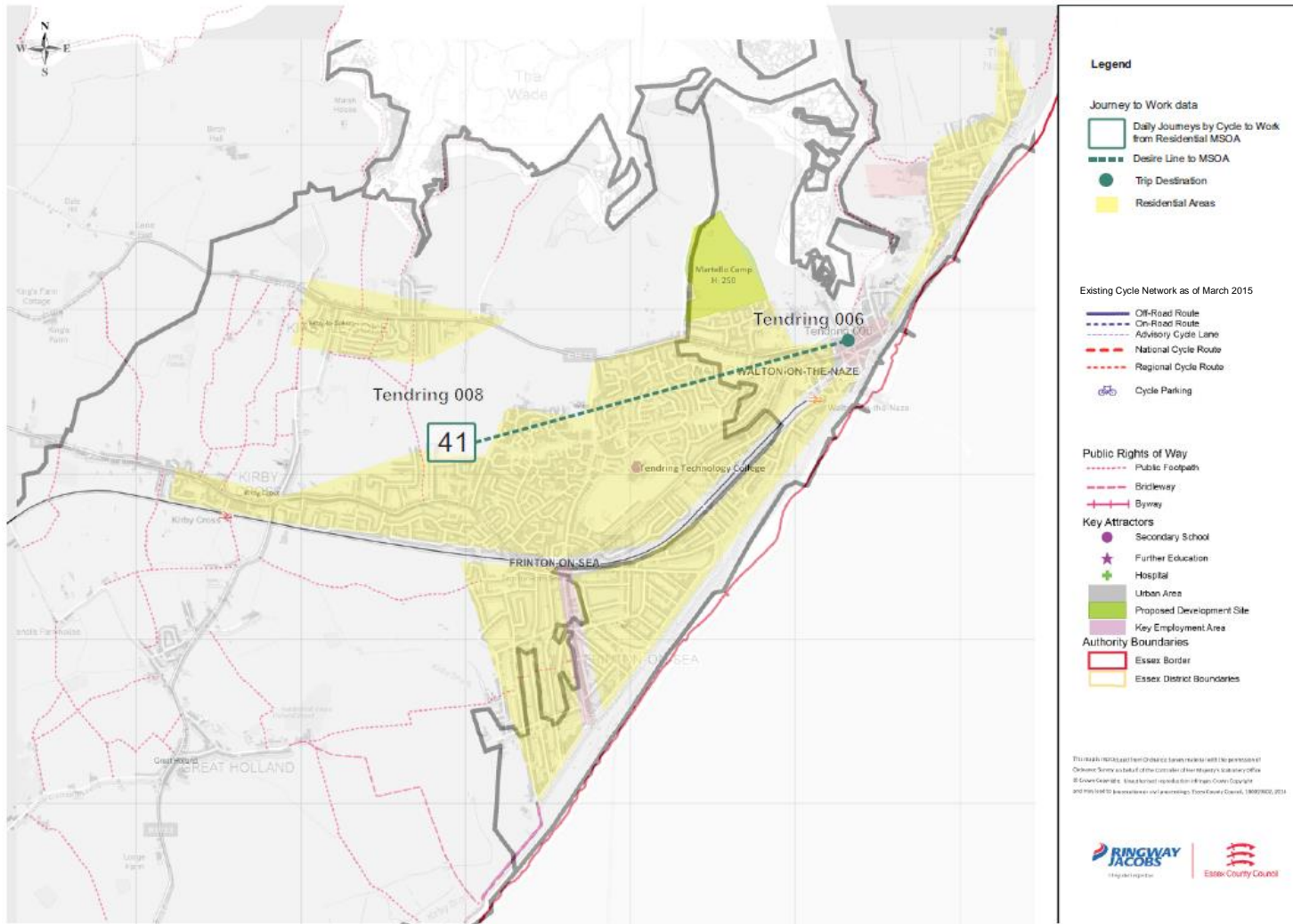


Figure 5.5 Predominant commuter flows for journey to work by car in Frinton & Walton

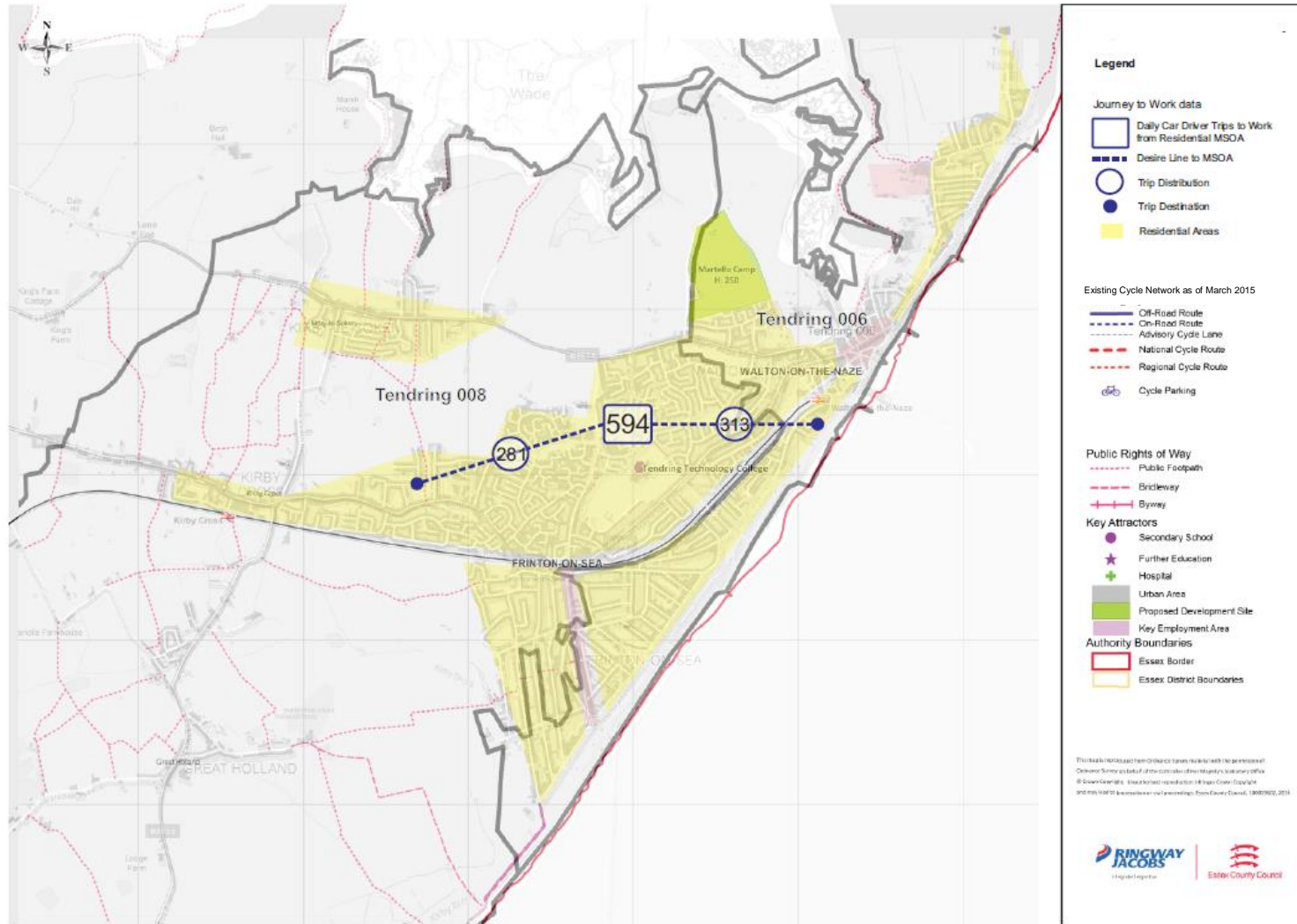
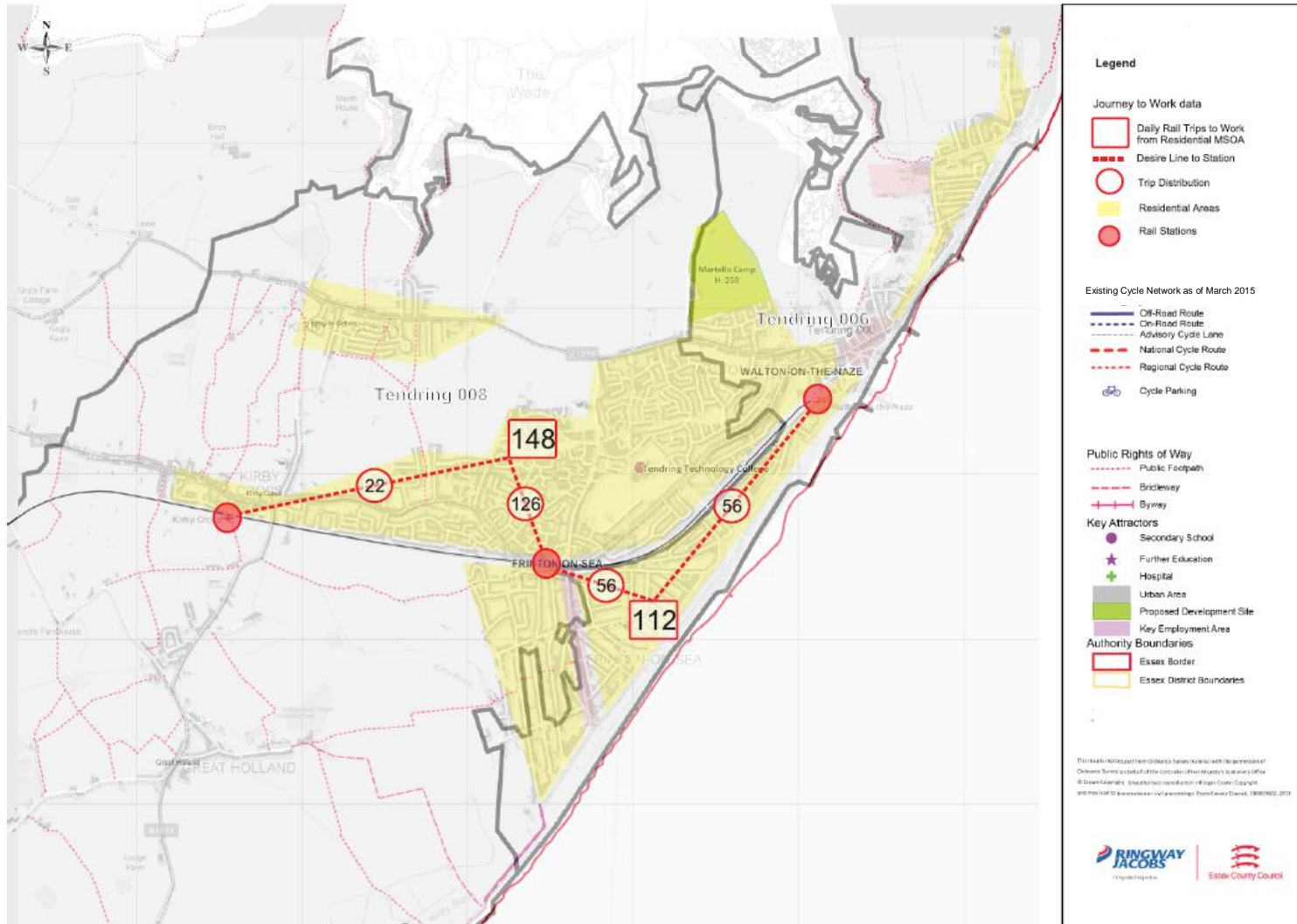


Figure 5.6 Predominant commuter flows for journey to work by rail in Tendring District (Frinton & Walton)



5.5 Harwich

5.5.1 Cycle Trips

Journeys to work made by cycle are far higher in Harwich than in any other town within Tendring District, featuring 6 times in the top 10 commuter trips by bicycle. As with car travel, the main movements originate from the large residential areas in the west and north of the town, to Harwich International port, with 70 and 77 cycle commuter trips respectively. Cycle commuter trips between the east (Harwich town) and central areas are also reasonably high. The potential Flagship Route in Harwich, discussed in section 8 of this report, will provide a key spine north-south through the town, linking the port with residential areas. Other potential cycle schemes link to this spine, providing improved cycle permeability east-west through the town.

Figure 5.7 displays the predominant commuter flows for journeys to work by bicycle within Harwich.

5.5.2 Car Trips

Car travel in Harwich is the most common mode of travel in the town, with five of the top 10 commuter journeys in the district taking place within Harwich. The most prominent origins are from western, southern and central areas of the town to Harwich International Port in the north (attracting 415 car commuters from the west, 275 from the east and 349 car commuters from central Harwich). and Harwich town in the north east (attracting 327 car commuters from the west and 254 from central Harwich). All of these journeys are under 5km in length. The potential flagship route will specifically improve connections to the port, with other potential schemes providing east-west connections to it.

Figure 5.8 displays the predominant commuter flows for journeys to work by car within Harwich.

5.5.3 Rail trips

Rail commuter use in Harwich is similar in prevalence to cycle use, with the number of commuter journeys to work from the western, central and eastern areas of the town recorded as 157, 106, and 91 respectively. Owing to the presence of 3 rail stations within the town, it is assumed that these figures will be shared between them.

Figure 5.9 displays the predominant commuter flows for journeys to work by rail within Harwich.

Figure 5.7 Predominant commuter flows for journey to work by bicycle in Harwich

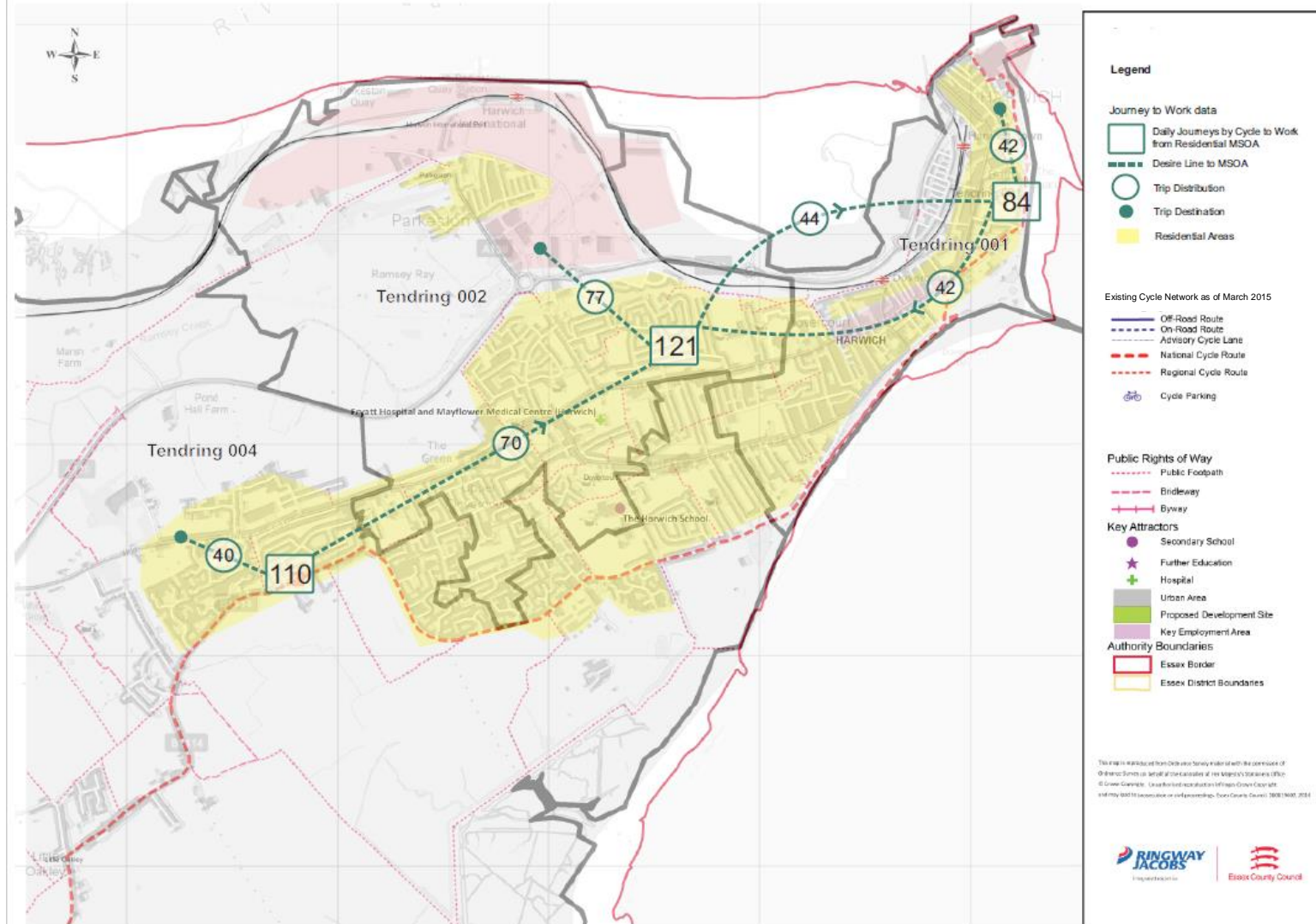


Figure 5.8 Predominant commuter flows for journey to work by car in Harwich

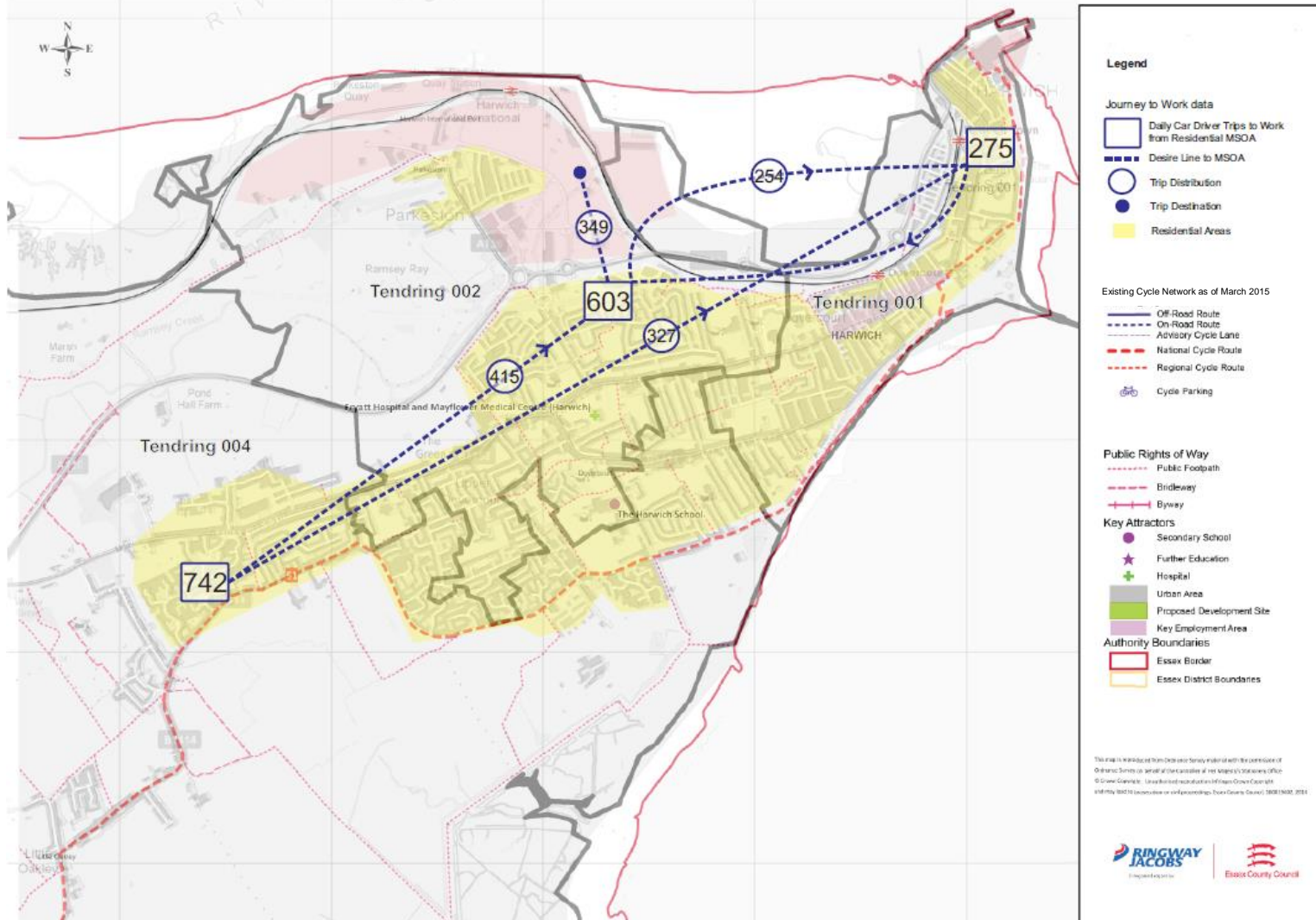
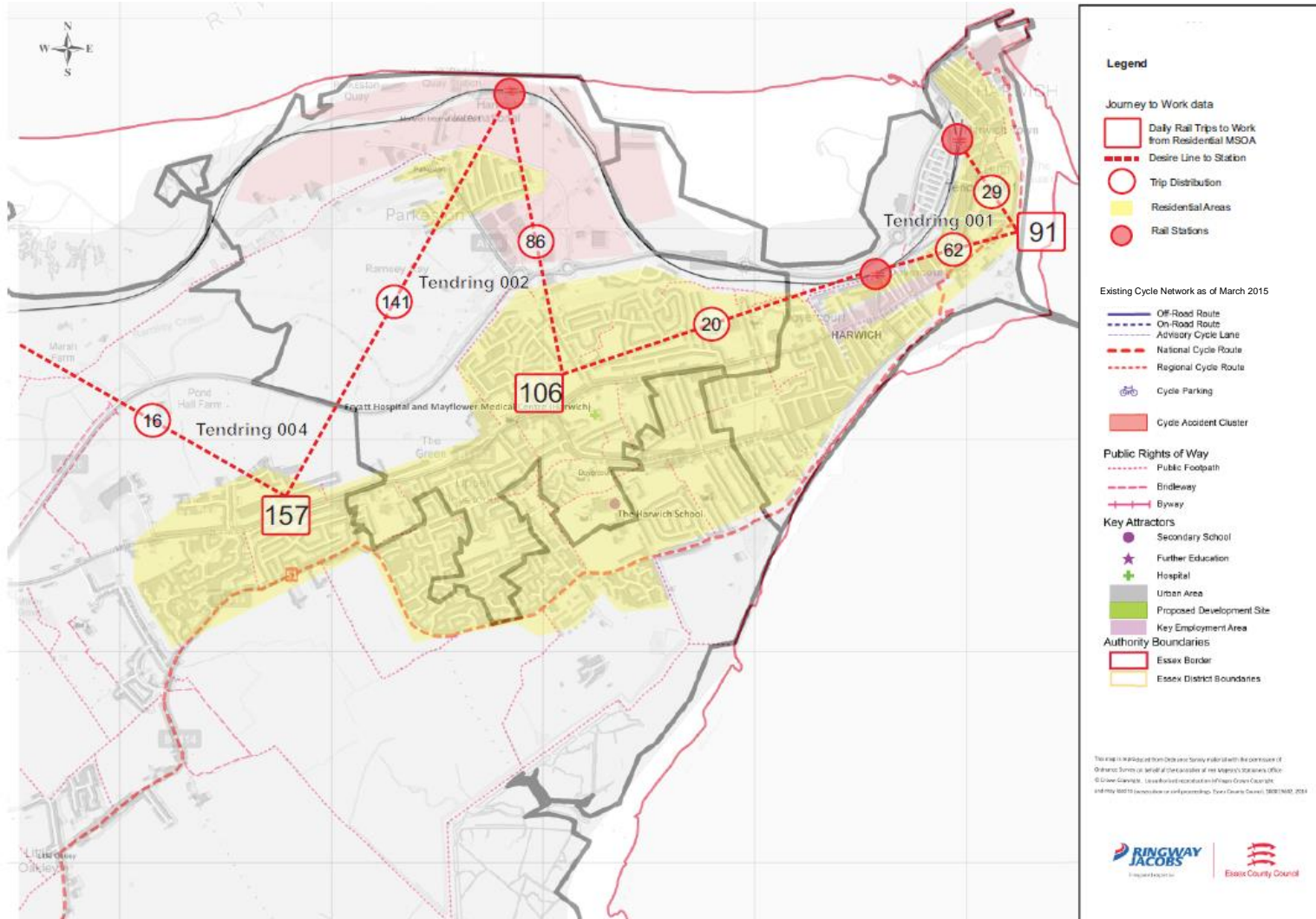


Figure 5.9 Predominant commuter flows for journey to work by rail in Tendring District (Harwich)



5.6 Mosaic Propensity to Cycle

Market segmentation is concerned with grouping together a diverse range of people to understand their current behaviour and the likelihood and triggers for maintaining or changing how they act in the future.

The MOSAIC Cycling Segmentation was developed for TfL by Steer Davis Gleave as an aid to cycling policy development, planning, implementation and evaluation. This was required to help target opportunity areas to best increase mode share and assist in increasing trips. This methodology is equally applicable for Essex.

The MOSAIC Cycling Segmentation classifies the population into seven segments, each with a different propensity to cycle e.g. those in the 'Urban Living' segment are 4.6 times more likely to be a cyclist than those in the 'Comfortable Maturity' segment. This can then be applied to postcodes and displayed on mapping as shown in Figure 5.10.

The segmentation analysis shows that propensity to cycle is relatively low in Clacton, probably reflecting the demographic of the town. Any area where the propensity to cycle is relatively high is predominantly situated within northern and western areas, on the corridors of St Osyth Road and St Johns Road where a low amount of cycle infrastructure already exists. Future cycle infrastructure improvements should take account of the demographic of these areas and be prioritised accordingly.

It is noticeable that the propensity to cycle in Frinton and Walton is even lower than Clacton (Figure 5.11). This is probably due to a higher proportion of retired residents. The propensity to cycle in Harwich is seen to be significantly higher than either Clacton or Frinton and Walton (Figure 5.12). This is in line with the Census data.

Figure 5.10 MOSAIC Analysis – Propensity to Cycle in Clacton

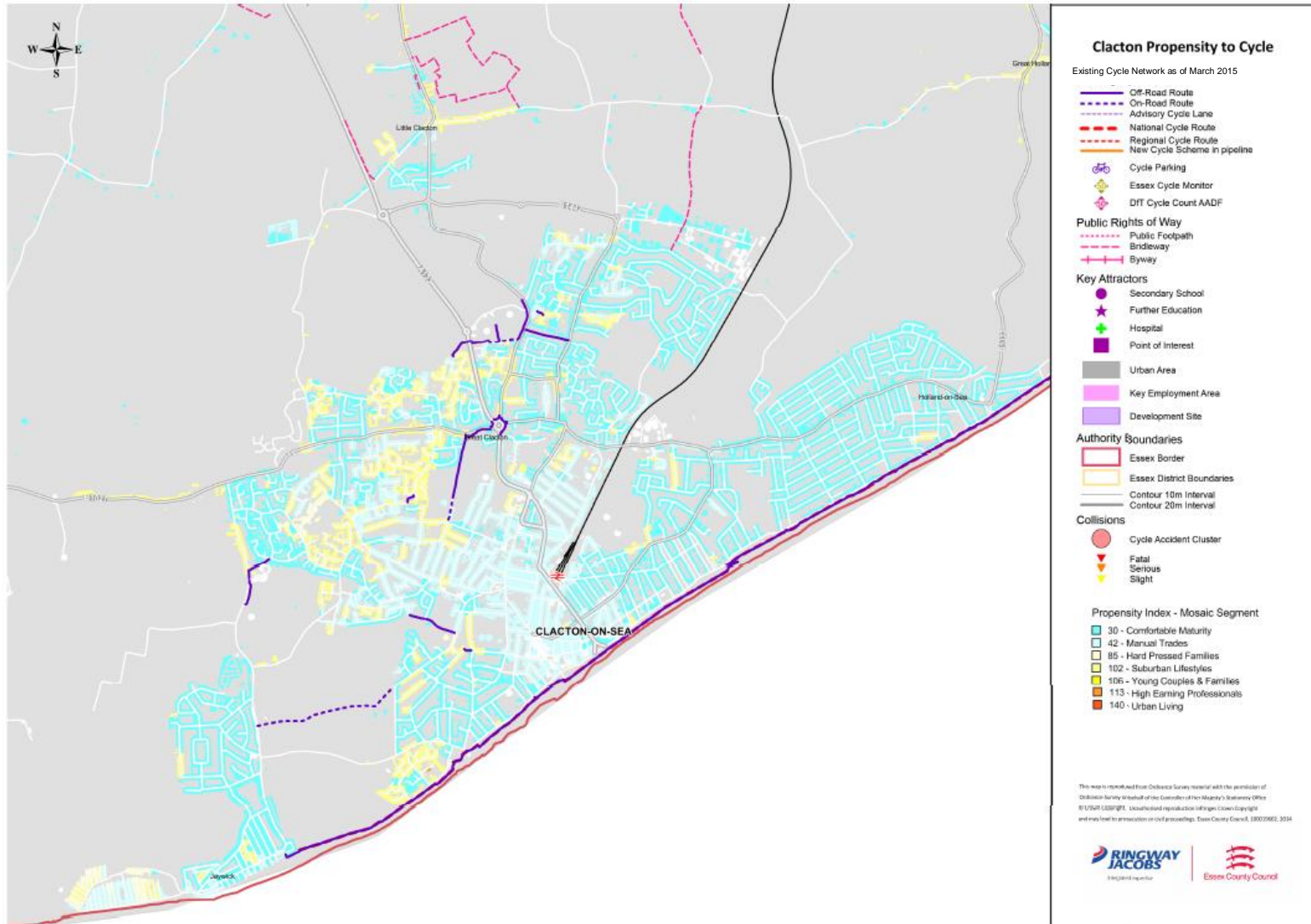


Figure 5.11 MOSAIC Analysis – Propensity to Cycle in Frinton & Walton

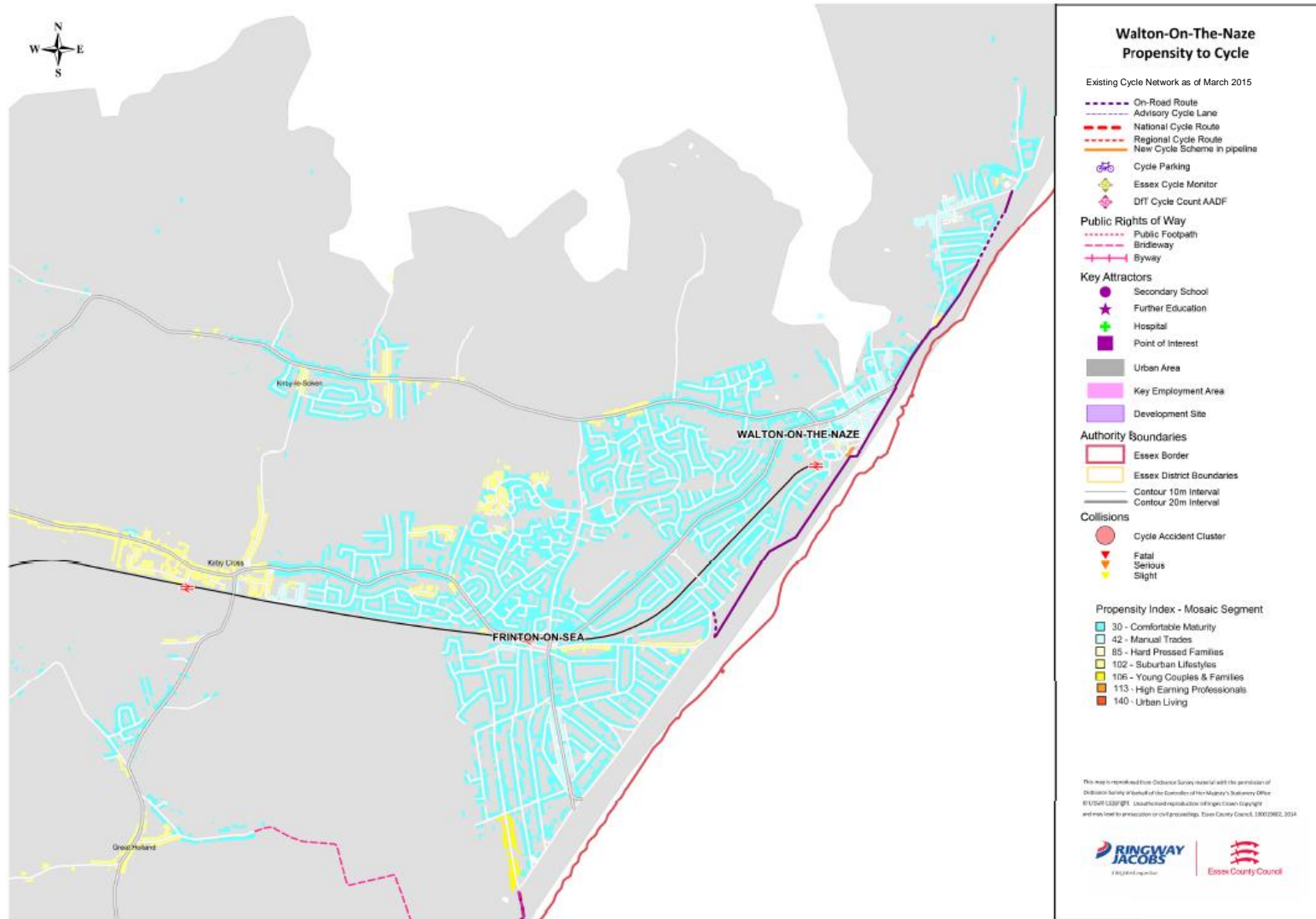
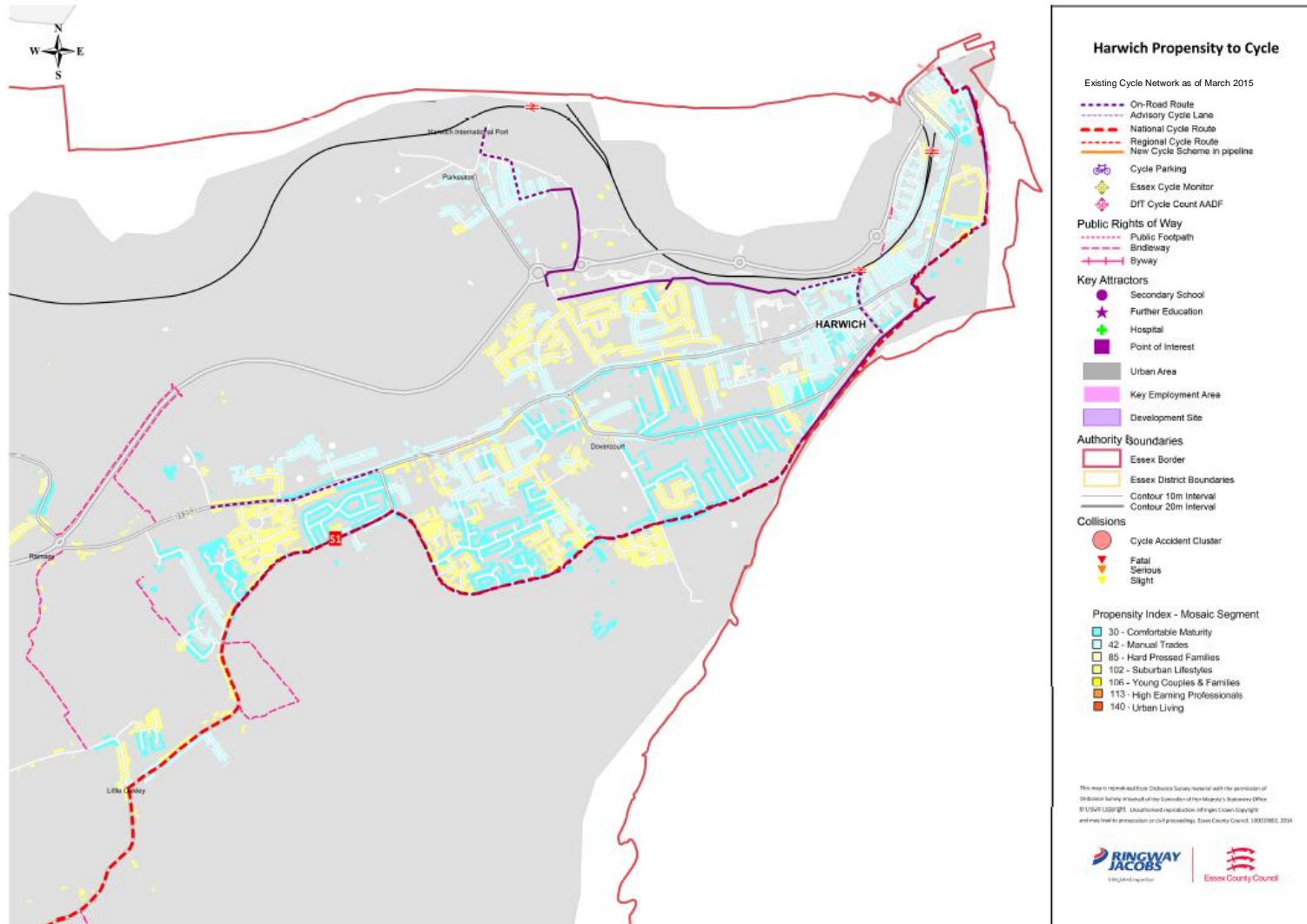


Figure 5.12 MOSAIC Analysis – Propensity to Cycle in Harwich



5.7 Cycling Potential Summary

5.7.1 Clacton

Excluding the existing route on the seafront and isolated pockets to the north and west, Clacton lacks dedicated cycling infrastructure, and therefore the potential to create new routes and improve connectivity is high, particularly on the wide and largely residential streets seen in western, northern and eastern areas.

This is reinforced by the knowledge that the majority of commuter journeys taken are less than 5km, the majority of which originate in northern and eastern areas, with their destinations shared between the town centre in the south, and the Gorse Lane Industrial Estate in the north-east. In addition, the proposed Rouses Farm development in the west will require cycle linkages to key locations within Clacton. Potentially, routes 6 and 10 could link into this development providing cycle connections eastwards into Clacton.

For this reason, providing improved cycle routes and marketing targeted towards people residing in these locations could provide the biggest gains in terms of mode shift towards cycling in Clacton. In addition, cycle access to the sea front for leisure, town centre and key cycle corridors should be established.

Figure 5.13 shows desire lines of new cycle links in the town.

5.7.2 Walton and Frinton

Excluding the existing disconnected cycle route on the seafront, Frinton and Walton lack dedicated cycling infrastructure, despite benefiting from having wide roads and high internal commuter flows by car and to rail stations. Therefore the potential to create new routes and improve connectivity is high.

This is reinforced by the knowledge that a considerable amount of commuter journeys taken are less than 5km, the majority of which originate in northern and western areas, with popular destinations being areas of employment within Walton, the town centre and the rail stations, and the Gorse Lane Industrial Estate in the north-east. Because of this, providing improved cycle routes and marketing targeted towards car drivers residing in those locations could provide the biggest gains in terms of mode shift towards cycling in Frinton and Walton. In addition, cycle access to the sea front for leisure, town centre and new development in the north east (Martello Camp) should be established.

Figure 5.14 shows desire lines of new cycle links in the town.

5.7.3 Harwich

Cycling commuting levels in Harwich are the highest seen in the district, although the same is true for journeys to work by car. Despite this, the potential for cycling is high, especially when considering the existing levels, the area's flat terrain, and the relatively short distances between destinations.

With the majority of car journeys being less than 5km, many of which originate in western and central areas, with their focus on the town centre in the east, and the International Port in the north, there is merit in focusing on the provision of more direct cycle routes between these areas and residential areas. Also marketing targeted towards car drivers residing in those locations could provide the biggest gains in terms of mode shift towards cycling in Harwich.

Owing to Harwich town centre in the north east having very narrow roads, it is hard to recommend any potential improvements to the north-eastern arm of Harwich.

Figure 5.15 shows desire lines of new cycle links in the town.

Figure 5.13 Key Desire Lines in Clacton

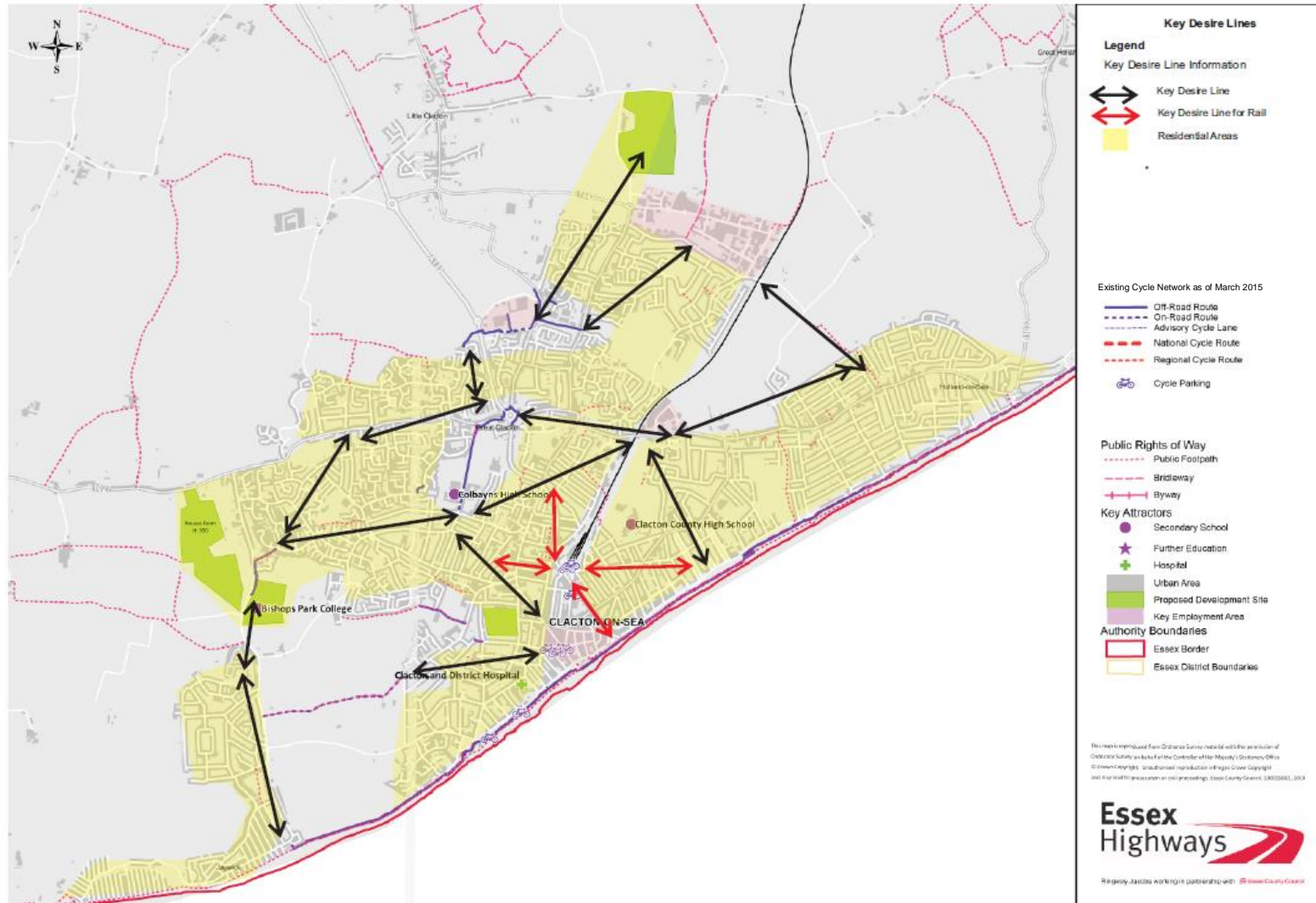


Figure 5.14 Key Desire Lines in Frinton

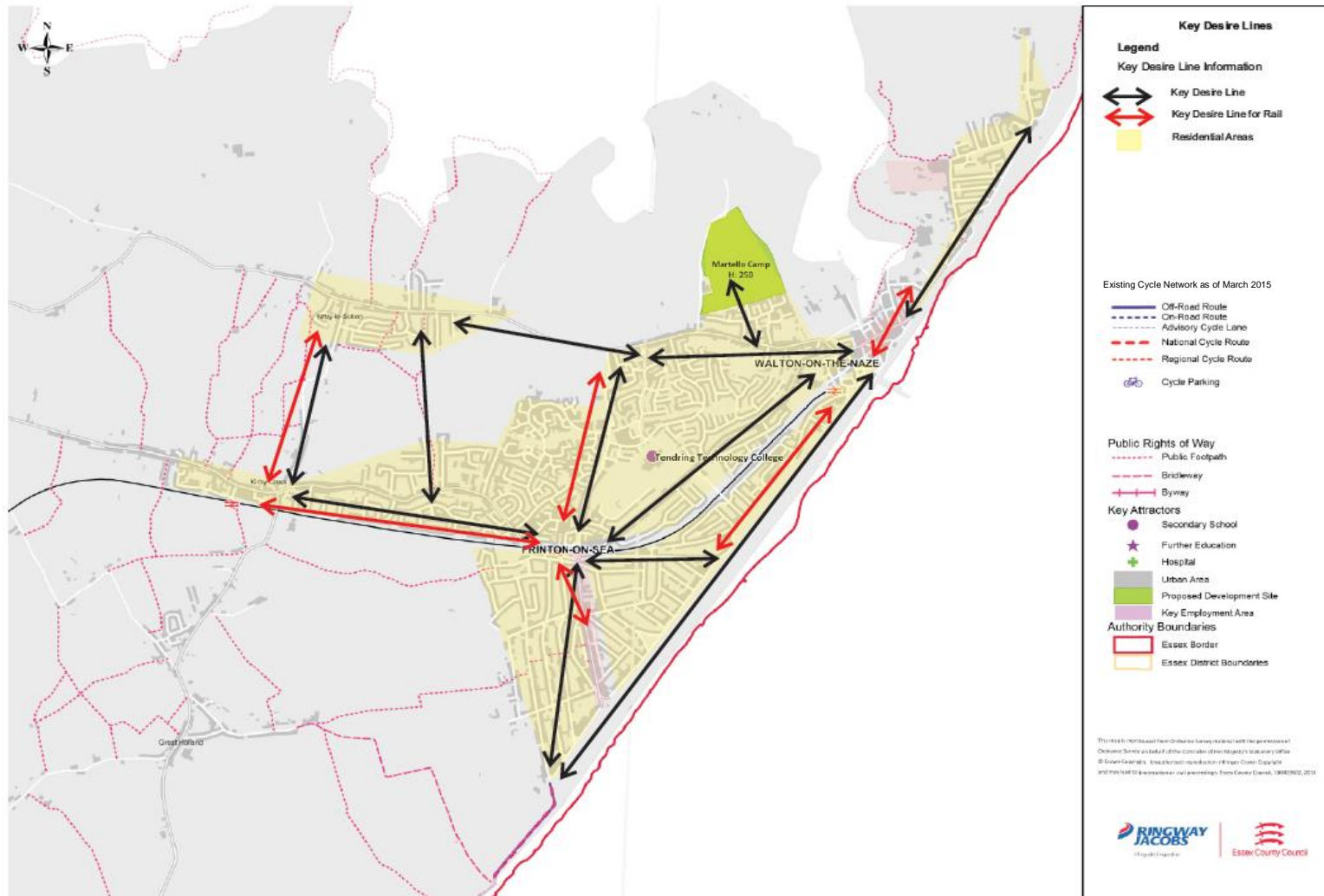
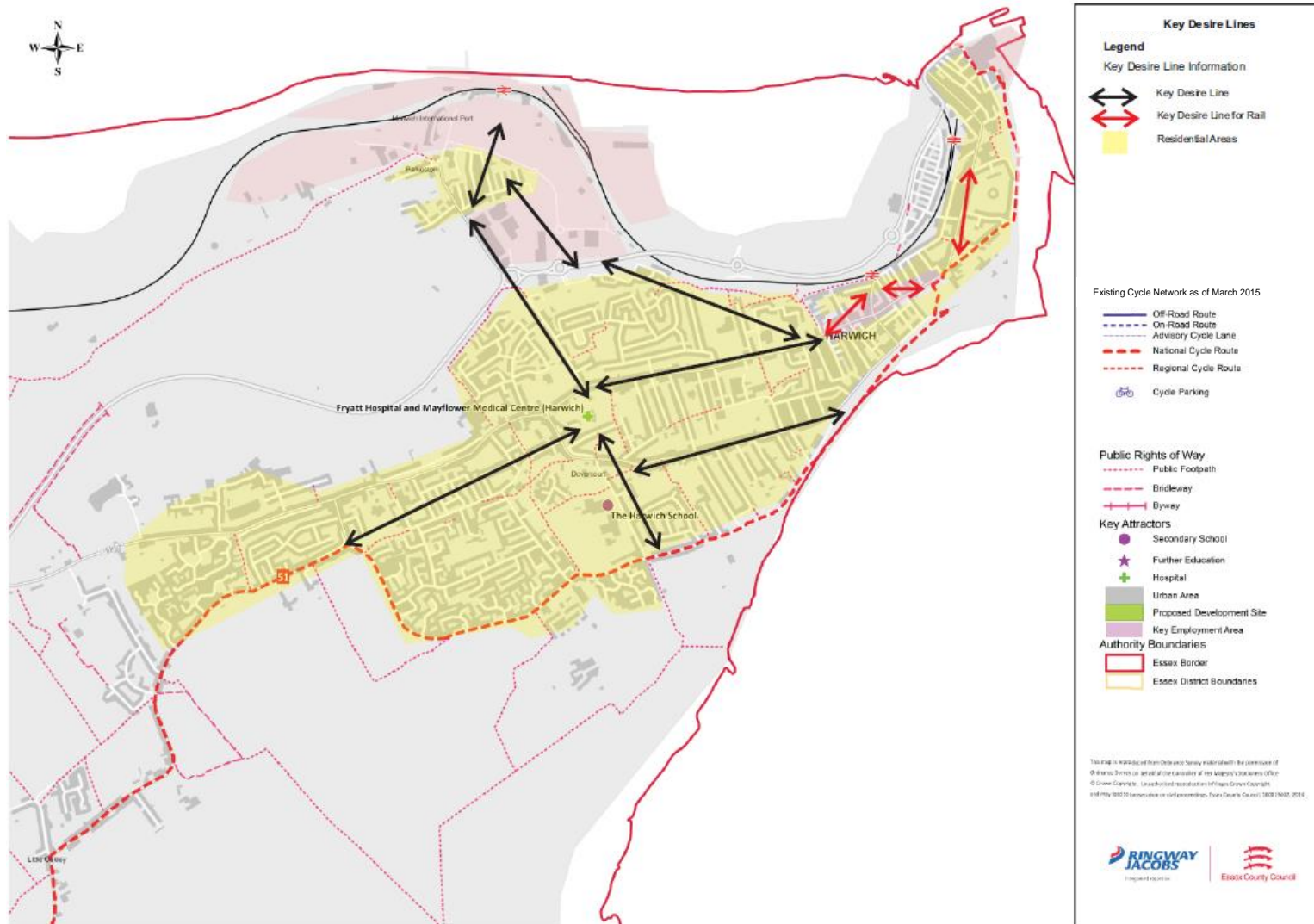


Figure 5.15 Key Desire Lines in Harwich



6 Potential Infrastructure Improvements

6.1 Background

In order to remove barriers to cycling and provide suitable infrastructure, it is essential that all new developments in the District have good quality, cycle-friendly routes to key services, railway stations and areas of employment. To this end, all potential developments associated with the Tendring Local Plan should contribute towards creating a wider network of cycle-friendly routes with provision along key corridors and desire lines.

A coordinated approach should be taken, whereby development planning and highway scheme delivery in Tendring is linked with infrastructure provision, complemented by soft measures that promote cycling as part of a range of alternatives to single-occupancy car travel.

This CAP is identifying a network of strategic cycle routes, as well as identifying, within this, specific Flagship Routes. These Flagship Routes for the District of Tendring are described later in this report, in Section 8.

6.2 Potential cycle routes

Potential new cycle routes have been identified to help create a step-change in cycling conditions across the District. These might include signed routes (with journey times and surface markings), networks of interconnected cycle routes on quiet residential streets, filtered permeability (e.g. convenient cut-throughs and contraflows) and, where appropriate, 2nd generation cycling infrastructure, such as Dutch, Danish or light segregation. Infrastructure improvements have been considered for the three urban areas of Clacton-On-Sea, Frinton-On-Sea and Harwich.

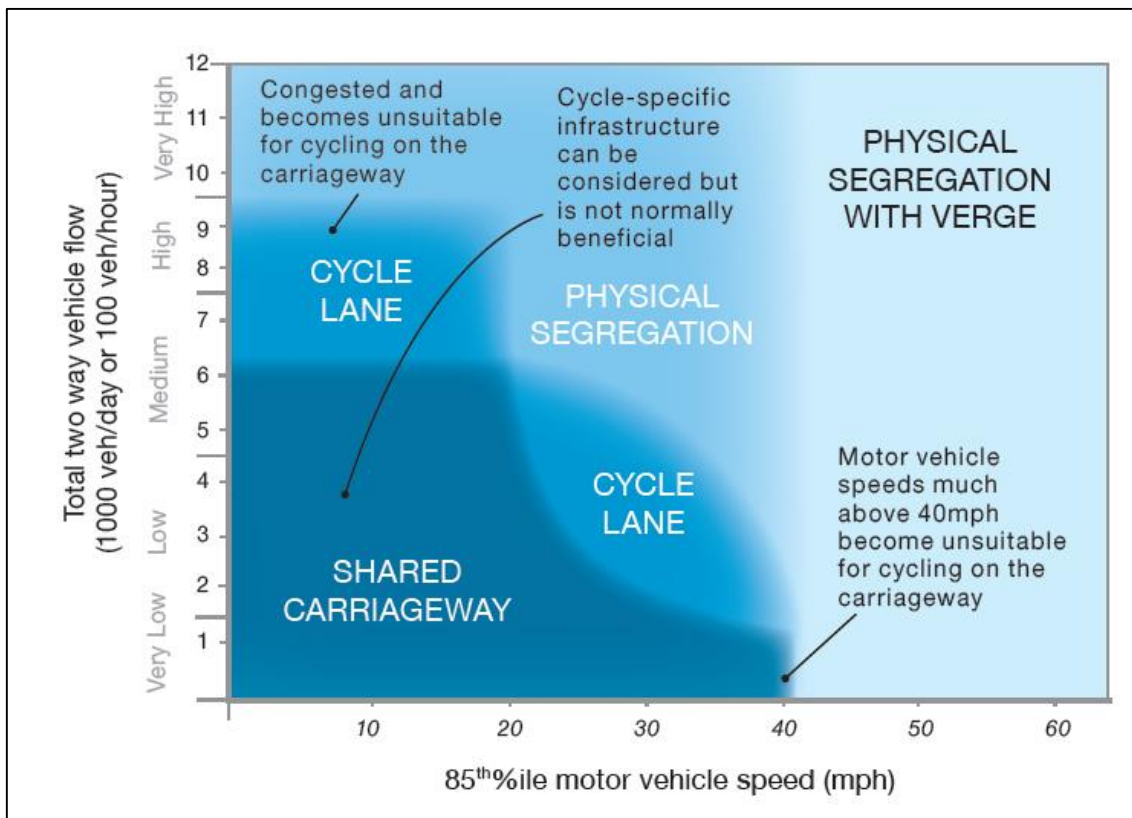
6.3 Methodology Statement

The potential routes have not, at this stage, been subject to detailed scheme design or feasibility, they are the result of an initial scoping study which is recommending a strategic network. In some instances, the Sustrans Design Manual has been used to inform provision, particularly with regard to the acceptable provision related to traffic speed and volume conditions in specific locations.

Where traffic volume and speed data is available, the potential schemes have been subjected to Sustrans design principles, which recommend the type of scheme that should be considered under those conditions (Figure 6.1). Traffic

volume and speed may influence the decision on the need to segregate cyclists from other traffic. For example, where low speeds and traffic volumes are evident, there is no need to segregate cycle and other traffic and a shared carriageway is acceptable. As traffic speeds and volumes increase, cycle lanes are found to be more desirable, until the threshold is reached whereby physical segregation is required. Beyond this point, where 85 percentile traffic speeds exceed 40mph, and/ or volumes exceed 9500 vehicles/ day (or 950 vehicles/ hour), conditions become unsuitable for cycling on the carriageway and physical segregation with a verge is necessary. Where traffic volume and speed data are not currently available, it may be necessary to undertake a traffic survey to determine the provision that is required.

Figure 6.1 Sustrans Segregation and traffic flow³



In some locations, it has been noted that cycle-friendly crossings will be required. In most instances, further work and traffic surveys will be required to enable the exact type of crossing provision to be determined.

³ Sustrans Design Manual. Handbook for cycle-friendly design, Sustrans, April 2014

*There are some examples where footway/ footpath conversions to shared use have been identified. The conversion of footpaths and footways to permit bicycle use is not regarded as a general or area-wide remedy, but has been confined to specific links and locations. It is recommended that where footpaths conversion and/ or footway conversion to shared use is considered then further studies are undertaken to demonstrate that alternative options have been discounted and that clear benefits can be derived. In such situations, it is vital that the benefits to the cyclist are balanced against the increased risk and inconvenience to pedestrians.

ECC aims to limit the use of footway conversion/ shared use paths and Engineers and Designers should first consider alternative options.

A full list of recommended schemes can be found in Table 7.1, Table 7.2 and Table 7.3. The locations of these routes are shown in Figure 6.2, Figure 6.3 and Figure 6.4, below.

6.4 Construction Design and Management (CDM)

The potential new cycle routes identified in this CAP all require further feasibility assessment before they can be finalised or confirmed. In some cases, the alignment of the routes may need to be amended to ensure that the safest scheme design, in terms of operation, construction design and management, is identified. In some cases, a route might need to be deleted entirely, if it is determined that CDM risks cannot be reasonably mitigated through early design stages.

Some of the potential routes are alongside or cross features such as high speed roads, water courses or railway lines and may either require a new structure or widening of an existing structure in order to be implemented. It is recognised that these features raise the potential for significant risk (and indeed cost) during construction and operational management and they will need to be given particular consideration during the feasibility assessment.

Figure 6.2 Existing and potential cycle routes in Clacton-On-Sea

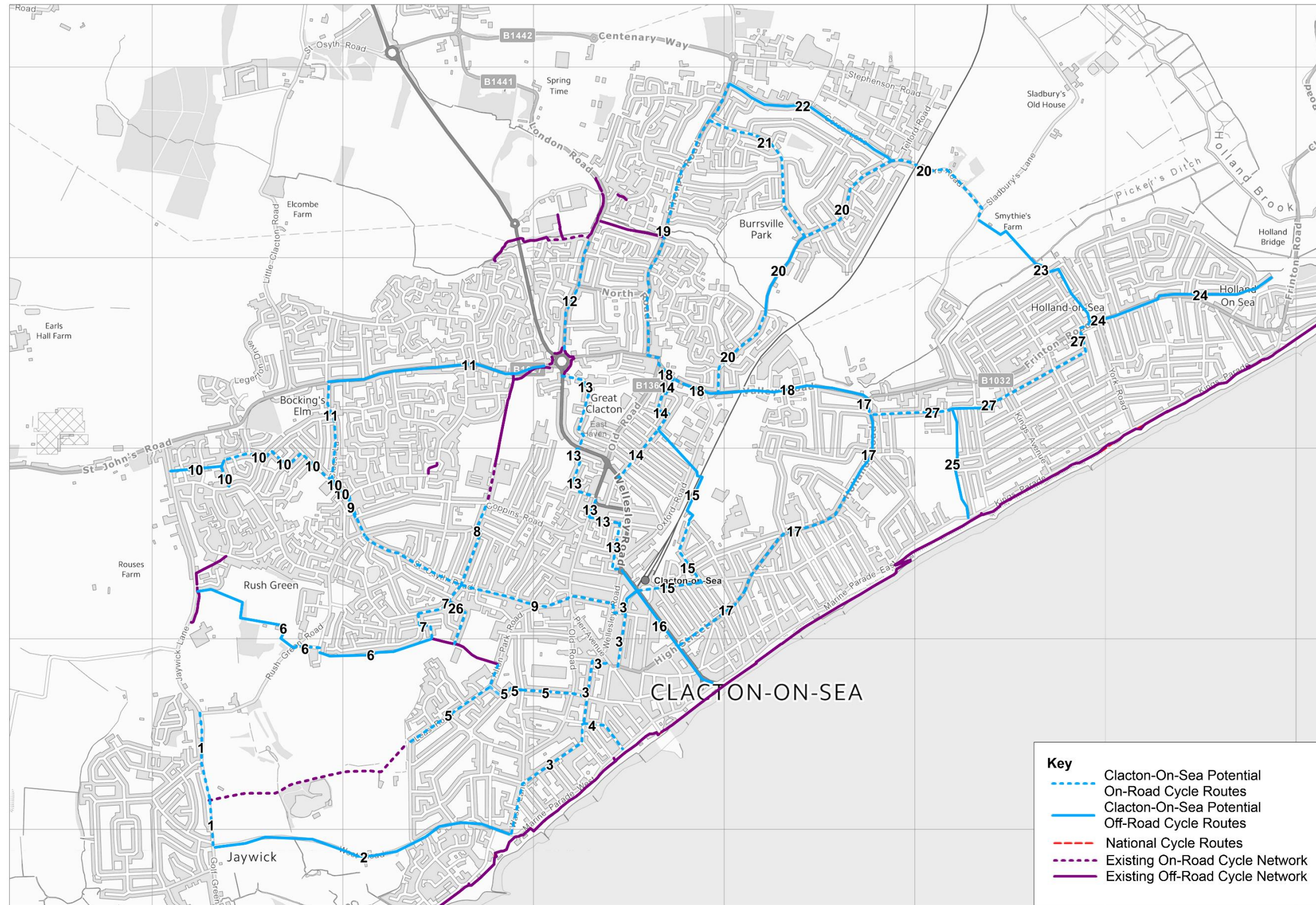


Figure 6.3 Existing and potential cycle routes in Frinton-On-Sea

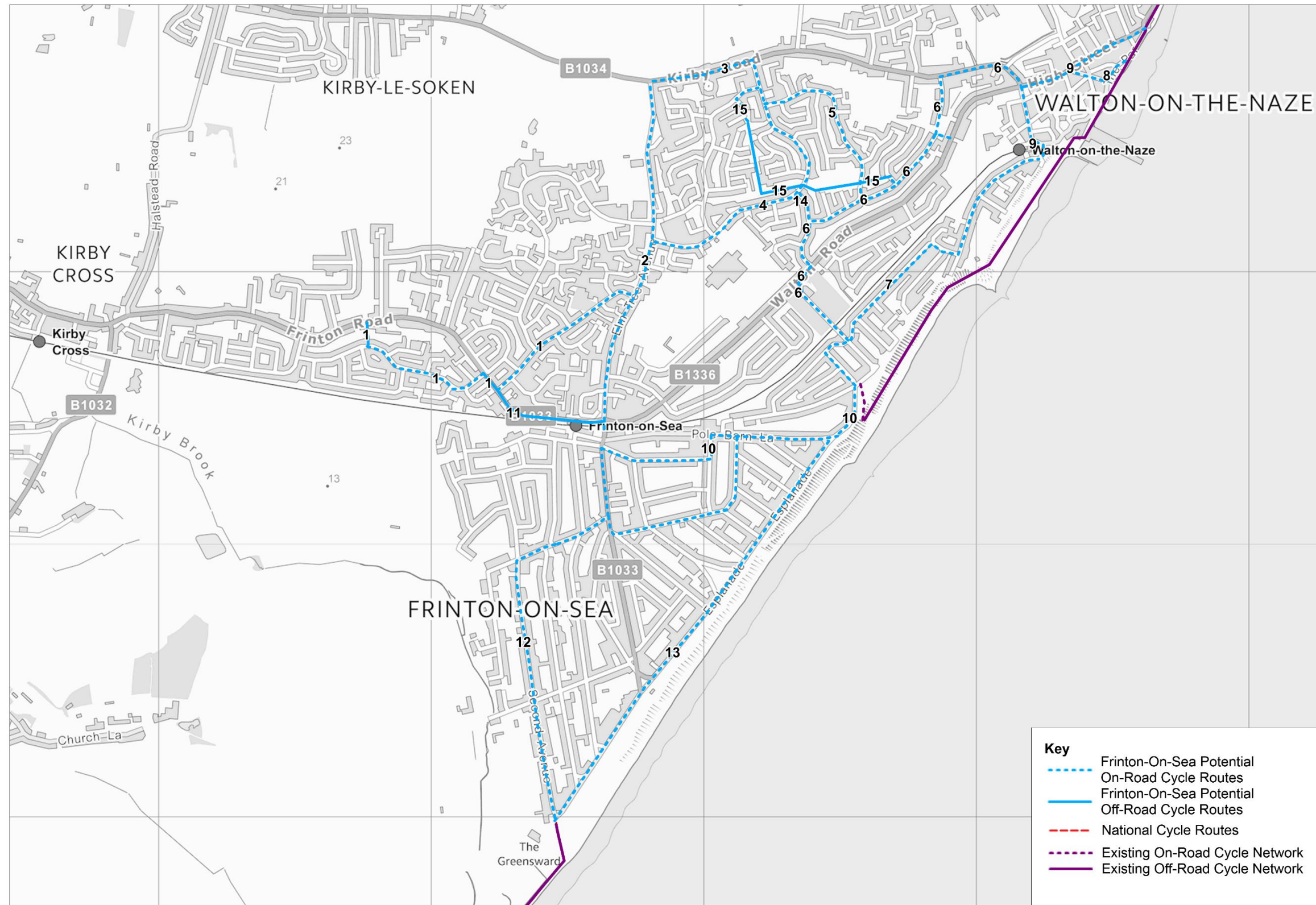
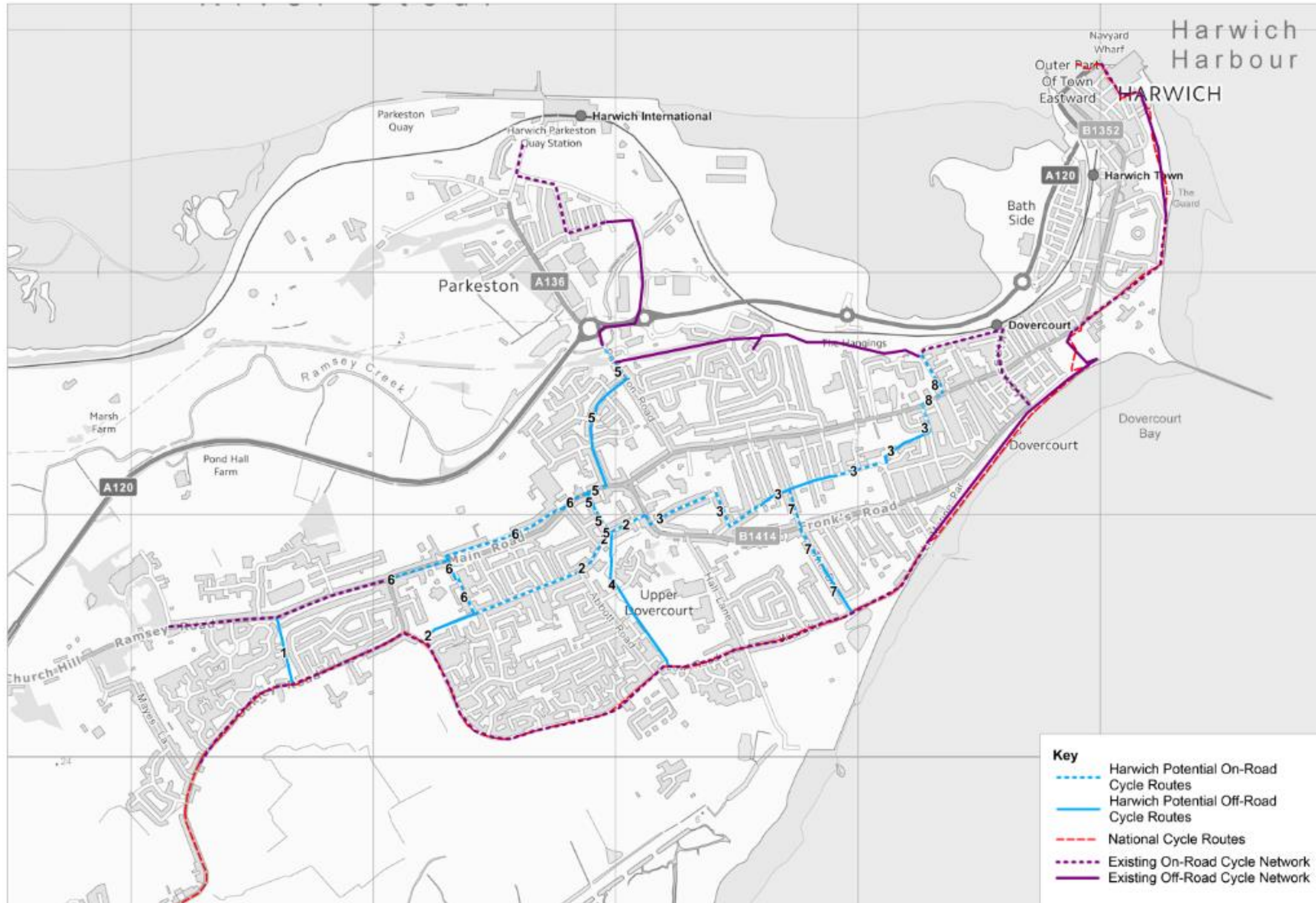


Figure 6.4 Existing and potential cycle routes in Harwich



7 Prioritisation and Costings of Potential Schemes

7.1 Prioritising Schemes

The potential schemes have been prioritised according to four criteria of their design:

- Deliverability;
- Directness;
- Extension of existing network; and
- Key attractors.

A score of high, medium or low has been given for each potential scheme against each of the prioritisation elements. It was then possible to determine the overall prioritisation score for each scheme (again, scoring each potential scheme as high, medium or low).

7.2 Deliverability

The deliverability of a scheme has been assessed according to land ownership issues, which will determine how easy the scheme will be to deliver:

- H: High being a scheme that lies wholly within the highway boundary, straightforward to deliver, with no land ownership issues.
- M: Medium being any route that requires conversion of Public Rights of Way (PROW); and
- L: Low being any scheme which is likely to encounter private land ownership issues, or requires a singular large expense, such as a bridge.

7.3 Directness

The directness of the route is considered in terms of where it is proposed to provide access to, for instance a town centre or a railway station:

- H: High being a scheme that provides direct access, using as short a distance as reasonably possible, or could provide a real improvement on the corresponding car journey time;
- M: Medium being a link route, providing access to the main radial cycle route(s);
- L: Low being indirect routes, which are routed along relatively longer distances.

7.4 Extension of existing network

The extent to which a potential route extends the existing network is considered against this criteria:

- H: High being a route which extends, or fills a gap in, the existing network;
- L: Low being a route which is isolated and/ or unlinked to the existing network.

It should be noted that in some urban areas, for example Frinton, there is little or no existing network to connect to, so most of the potential schemes will achieve a low score in this case.

7.5 Key attractors

Under this criteria, the number of key attractors that a route connects is considered. Key attractors include town centres, other urban areas, railway stations, secondary schools/ education facilities, employment (including hospitals), and leisure destinations (parks, sports centres, etc.). The scoring is undertaken as follows:

- H: High being a route which connects to three attractors;
- M: Medium being a route which connects to two of these attractors; and
- L: Low being a route which connects to none (or just a leisure destination) of these attractors.

Within this criteria, town centres and railway stations are considered to be the most important attractors, so if a route connects to both it is likely to score high rather than medium. On the converse, leisure destinations are considered less important, so may attract a lower score.

7.6 Overall prioritisation

Once a score has been obtained for each of the four criteria (Deliverability, Directness, Extension of Existing Network and Key Attractors), its overall prioritisation can be determined, giving an overall score of low (L), medium (M) or high (H). As a general rule, the most frequent score obtained across the four criteria will be the resulting overall score. Where there are an equal number of different scores, there may be some element of subjective judgement used to decide the overall result.

The resulting prioritisation for each of the potential schemes is shown in Table 7.1, Table 7.2 and Table 7.3.

7.7 Estimated costs of potential schemes

As with the prioritisation, the costs of the potential schemes are rated on a low (L), medium (M), high (H) and exceptionally High (H+) scale. The cost estimates relate to the following broad ranges:

- L: Low being less than £100,000;
- M: Medium being within the range £100,000 to £500,000;
- H: High being within the range £500,000 to £1,000,000; and
- H+: Exceptionally High being more than £1,000,000.

The outline costs are indicative of a feasibility proposal stage costing, prior to detailed surveys being undertaken for design and construction. Costs exclude the following:

- VAT (costs are exclusive of VAT);
- Inflation beyond 2015 or significant changes to markets;
- Land costs, legal fees, Highways consultation;
- Construction on contaminated land;
- Diversion of services;
- Landscaping; and
- Access roads for construction.

Realistic unit costs have been derived for each of the elements that are identified in the potential schemes and they have been applied to a length of route where appropriate and as a series of elements to enable the overall cost of each scheme to be built up. The resulting estimated cost for each scheme is included in Table 7.1, Table 7.2 and Table 7.3.

Table 7.1 Costs and Prioritisation of Potential Clacton-On-Sea Cycle Schemes

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
Clacton-On-Sea					
1	Jaywick Lane J/W Rush Green Road to J/W West Road	Potential for traffic calming and cycle lane provision.	Consider reduction in speed limit and/ or traffic calming, along with provision of (mandatory) cycle lane. Existing off-road cycle route along Alton Park Lane is unsigned, so implementing some signing in this location (leading to Leas Road) would be beneficial. Between Leas Road and West Road, on-road advisory route could be considered if there are traffic calming measures, to reduce speeds to 30mph.	L	M
2	West Road J/W Jaywick Lane to J/W Wash Lane	Potential for segregated route after verge removal.	New off road, footway conversion* to shared use along West Road, between Jaywick Lane and Wash Lane. Provides a connection with potential route 1 at Jaywick Lane. On road cycle route could be provided if vehicle speeds could be reduced to 30mph.	M	H
3	Wash Lane J/W West Road/ Freeland Road/ Tower Road/ Ellis Road. Rosemary Road West J/W Ellis Road/ Hayes Road	Potential for on-road routes on predominantly quiet residential streets and on wide roads.	New N-S on road quietway cycle route along Hayes Road, Skelmersdale Road, Thoroughgood Road, Northbourne Road. These are relatively quiet residential streets. Toucan crossing to link Rosemary Road (west) to Hayes Road would be beneficial. Signing required. Improved surfacing and lighting on Northbourne Road would be beneficial.	M	L
4	Beatrice Road/ Edith Road	Potential for signed on-road route linking route to seafront	Short section of new on road quietway cycle route along Beatrice Road and Esith Road, providing a link between potential route 3 and seafront/ NCN 51. Signing required.	L	L
5	Leas Road. Alton Park Road to West Avenue J/W Old Road	Links to existing marked off road cycle route section from Belnheim Road to Park Road, and onto West Avenue joining to Scheme 3.	New SW-NE cycle route between Alton Park Road and Cherry Tree Avenue. New on-road quietway along Leas Road and Alton Park Lane to connect with existing cycle route. Sustrans recommends shared carriageway. Additional signed quietway route on Link Road and Blenheim Road surface on Alton Park Lane should be improved. Signage and lighting to be installed across route, respecting the rural nature sections of the route. Guard railing to be removed at entrance to off road sections.	M	L
6	Jaywick Lane - Stanley Road	Potential segregated off-road route using recreation ground and existing PROW	New cycle track from Jaywick Lane to Burmann Close through the recreation ground, on-road on Rush Green Road, The Green, Plane View Close and footpath* conversion along PROW 13. Potential land ownership issues with route through the recreation ground, and potential width issues with footpath further study required.	M	H
7	Coopers Lane/Stanley Road/ Burmann Close	Potential for on-road route on quiet residential roads	Signed quietway along Stanley Road from junction with St Osyth Road to Stanley Road, Greenford Road and Burmann Close to join Scheme 6.	M	L
8	Carrs Road/ Coppins Road J/W Carrs Road to J/W Pathfields Road	Potential for on-route route on residential routes. Links to existing on road and off road route along Pathfields Road and connects to potential routes 7 and 10.	New signed on road quietway along Carrs Road, Wargrave Road and Coppins Road, between Pathfields Road and St Osyth Road. Signing required.	M	L
9	Cloes Lane J/W Hadleigh Road to J/W Coppins Road. St Osyth Road J/W Coppins Road to J/W Carrs Road		New N-S off-road cycle route on the northbound side of Cloes Lane (footway conversion* to shared use with grass verge removal), between Ruaton Drive and Douglas Road (joins with Scheme 10), with southbound advisory cycle lane provided with removal of central hatching. Cloes Lane is 7m wide, with additional 2m footways on either side, plus wide verges. Route continues N-S as advisory cycle route, and E-W as an advisory cycle route along St Osyth Road, which is generally a minimum of 7m wide, with footways on either side. New on road advisory cycle lanes along Cloes Lane from scheme 10. Potential to reallocate footway/ wide verges if additional roadspace is required. On-road advisory cycle lanes along St Osyth's Road, Old Road and Meredith Road. Safe right turns need to be considered for cyclists entering Meredith Road from Old Road. Parking issues on Meredith Road must also be considered in design for cyclists. On road advisory cycle lanes continue along Wellesley Road, Alexandra Road and Hayes Road. For cyclists travelling west, a safe right turn from Hayes Road into Alexandra Road should be considered. A cycle friendly crossing of the A133 to create convenient and safe access to Clacton-on-Sea railway station must also be considered, potentially converting existing crossing to a toucan. St Osyth's Road, between Lake Walk and Jameson Walk has been identified as a section of road with	M	L

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
			high cycle flows. This must be considered in the design of the potential scheme to ensure high cycle demand is safely and satisfactorily provided for. Signing is required.		
10	PROW from Jaywick Lane/ Cavendish Drive/ Flatford Drive/ Holbrook Close/ Hadleigh Road to J/W Ruaton Drive		New signed cycle route utilising footpath* from Jaywick Lane (will require conversion of existing footpath to a cycle track), along Cavendish Drive, Flatford Drive, Aldeburgh Close, Holbrook Close, and Hadleigh Road as on-road signed quietways. Suitable transition between quietway and on road advisory cycle lanes along Cloes Lane to Ruaton Drive and Scheme 9. Potential Highway Boundary issue between Jaywick Lane and Sudbourne Avenue.	M	M
11	St John's Road J/W London Road to J/W Cloes Lane. Cloes Lane J/W St John's Road to J/W Hadleigh Road		Sustrans guidance recommends physical segregation along St Johns Road and cycle lane/ physical segregation along Cloes Lane. Further study required –to create suitable route.	M	M
12	London Road J/W Raycliffe Avenue - J/W St John's Road	Potential for off-road route after verge removal, or for additional carriageway space	New on road advisory cycle lane along London Road between Raycliffe Avenue and St John's Road. Connects to existing off road cycle network on London Road, and adjacent to Raycliffe Avenue.	H	L
13	Elmden Court/ Knox Road/ Groom Park/ St Anns Road. Old Road J/W St Anns Road to J/W Cambridge Road. Cambridge Road		New on/ off road cycle route (quietway) utilising existing footpaths, Elmden Court, Knox Road, PROW 48, PROW 35, Groom Park, St Anns Road, Old Road, Cambridge Road and PROW 20. Route follows remote footway between Knox Road and A133. Suitability of footpaths will need to be assessed - widening, resurfacing, removal of guard railing and lighting may be required, with signing required throughout. Potential land ownership issues on tracks through private land. Old Road is relatively wide, so would facilitate a short, cycle lane (11m long). It is currently one way northbound, so a contraflow would be necessary along this length to enable two way cycling. Removal of central hatching would create some additional width on Old Road. The A133 between St John's Road and Old Road has been identified as a section of road with high cycle demand. This scheme (13) would provide an effective alternative route for some or all of this demand. Similarly, the section of Old Road between Cambridge Road and Crossfield Road currently experiences high levels of cycle demand, some or all of which could transfer to this alternative route.	M	M
14	PROW from Old Road to Windmill Park/ Berkeley Road.		Potential for on road route (quietway) on quiet residential roads of Windmill Park and Berkeley Road. Linking to PROW 33. Sustrans recommends shared carriageway.	M	L
15	Cotswold Road/Northbourne Road. Skelmersdale Road/ Carnarvon Road		New signed cycle route between Old Road and Northbourne Road, utilising existing footpaths and PROW and on-road quietways. Signing required throughout. Travelling north from Northbourne Road, route utilises existing footpath* (PROW 23) which follows a route adjacent to railway lines, crosses rail lines via a footbridge and continues to link to Berkeley Road. Use of PROW links Windmill Park, Cotswold Road-Northbourne Road. Signage required and enhancement may be needed. Enhance footbridge over rail line at Northbourne Road to increase access for cyclists. Signed on road section on quiet northbourne road. Surface improvements necessary. Skelmersdae Road to Carnarvon Road wide road so potential for short cycle lane. Links to potential Scheme 3. Potential land ownership issues.	M	M
16	A133 Wellesley Road J/W Cambridge Road & A133 Carnarvon Road to J/W Marine Parade East	Potential for signed and marked on-road route.	New on road signed and marked cycle lane, along A133, between Wellesley Road (junction with Cambridge Road) and the A133 at its junction with Marine Parade East. Carriageway width is 9m, so potential for carriageway reallocation to provide mandatory cycle lanes.	H	L
17	Holland Road J/W Deanhill Avenue - High Street J/W Carnarvon Road		New on road advisory cycle lanes along B1032 (Holland Road) between High Street and Valley Road. Potential for off-road segregated route on section between Southcliff Park and Deanhill Avenue, after verge removal (footway conversion*). Skelmersdale Road junction requires enhancement or Toucan crossing. The section of Holland Road, between Walton Road and Skelmersdale Road has been identified as having high cycle demand. This high level of use should be considered in the design of the potential scheme. Sustrans guidance recommends a cycle lane.	M	M

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
18	B1027 Valley Road J/W B1032 Holland Road - Old Road	Potential for segregated route after verge removal	Sustrans guidance recommends physical segregation along Valley Road. Further study required to create suitable route.	M	M
19	Thorpe Road J/W Gorse Lane - J/W North Road	Potential for signed and marked on-road route	New on road advisory cycle lane along Thorpe Lane, between Gorse Lane and North Road. Signed and marked on road. Carriageway is 5.5m wide with 2m footways on either side (advisory cycle lane)	M	L
20	Burrs Road: J/W Gorse Lane - Burrs Road J/W Valley Road. Burrs Road: J/W Chilburn Road - J/W Westridge Road. Burrs Road: J/W Westridge Road - J/W Valley Road		New cycle route along Burrs Road, between Sladbury's Lane and Valley Road. Between Sladbury's Lane and Chilburn Road, route will be on road quietway, marked and signed. At the Chilburn Road/ Burrs Lane junction, enhancement may be necessary to improve safety for cyclists exiting Chilburn Road. Between Chilburn Road and Westridge Road, potential for a segregated off road cycle track utilising the recreation ground bordering Burrs Road. Between Westridge Road and Valley Road, potential for on road advisory cycle lane.	M	M
21	Lymington Avenue/ Chilburn Road		New signed on road quietway along Lymington Avenue and Chilburn Road, linking residential area to potential network (routes 20 and 21). Signing required.	M	L
22	Gorse Lane		New E-W on road cycle route along Gorse Lane as an advisory cycle route. Sustrans recommends a shared carriageway/ cycle lane.	M	L
23	Existing PROW between Sladbury's Lane and Frinton Road		Conversion of existing footpath* (PROW 27) between Sladbury's Lane and Frinton Road to provide shared use off road cycle track. Route would need to be marked and signed. Surface enhancement and lighting should be considered. Potential land ownership issue, and potential new bridge. Removal of the prohibition of cycling required.	L	M
24	Frinton Road/ Aylesbury Drive	Potential for segregated route after verge removal	Sustrans recommends cycle lane/ physical segregation along Frinton Road – initial assessment suggests cycle lanes a viable option – further study required.. Signed quietway along Aylesbury Drive.	M	L
25	Seafield Gardens - Kings Parade via off-road PROW		New off road cycle track along existing footpath* (PROW 26), from Kings Parade to Seafield's Gardens. Potentially, could use adjacent recreation ground to provide a route if PROW unsuitable. PROW must be assessed for suitability. Signing and lighting required.	M	M
26	Windsor Avenue		New on road quietway along Windsor Avenue. Signing required. Connects potential route 7 with existing cycle network.	M	L
27	Preston Road/ Deanhill Avenue		New signed on road cycle route (quietway) along Preston Road and Deanhill Avenue (quiet residential streets), connected by off road section utilising footpath (PROW 39). Potential land ownership issues as footpath needs to be widened.	L	M

Table 7.2 Costs and Prioritisation of Potential Frinton-On-Sea Cycle Schemes

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
Frinton-On-Sea					
1	Labernum Crescent and Frietuna Road		New off road link, between Frinton Road and Labernum Crescent, utilising existing footpath*. Footpath is wide and lit, although surfacing may need to be widened. New signed and marked on road quietway on Labernum Crescent and Frietuna Road. Potential to extend route westwards along Frinton Road, following verge removal to provide a short E-W off road shared use route (footway conversion*) between the footpath and Willow Avenue. Provide new toucan crossing of Frinton Road, west of Willow Avenue. Sign and mark new on road quietway N-S along Willow Ave and Buckfast Avenue to provide access into proposed development site. Additional potential to extend quietway E-W along Laburnum Cres and Bemerton Gardens, linking to Frinton Road.	M	M
2	Elm Tree Avenue		New N-S on road quietway along Elm Tree Avenue. Carriageway is 7m wide. Some wide verges could be reallocated to give additional width in places. Sustrans recommends shared carriageway.	M	L
3	Kirby Road J/W ElmTree Avenue/ RochfoRoad Way and RochfoRoad Way J/W Kirby Road	One of main routes into town and road is relatively wide at this point	New signed on road section of cycle route (advisory cycle lane) along Kirby Road (7.5m width), between Elm Tree Avenue and Rochford Way. Connects to potential routes 2 and 4.	M	L
4	Rochford Way J/W Norwood Way and/or Clays Road J/W Rochford Way and Butchers Lane		Signed on road cycle routes (quietways) running parallel to each other and connecting to potential route 15 at Butchers Lane. Potential route follows Rochford Way from its junction with Norwood Way and/ or Clays Road from its junction with Rochford Way and along Butchers Lane (existing short off road remote footway section at end of Butchers Lane, may need resurfacing). Signing required	M	L
5	Clays Road		New on road cycle route (quietway) along Clays Road. Signing required.	M	L
6	Norwood Way J/W Walton Road to Clays Road J/W Butchers Lane. Butchers Lane to Kirby Road J/W High Street. Link from Walton Road east to High Street.		Widen and resurface Central Avenue and sign and mark advisory cycle lane. Advisory cycle lane on Walton Road from Central Avenue to Norwood Way. Potential to convert the slip road on north eastern side of road to cycle lane. This requires further detailed study to determine feasibility (unknown current use). New on road cycle route (quietway) along Norwood Way, Clays Road and Butchers Lane between Walton Road and Kirby Road. Additional on road cycle lane (advisory) along Kirby Lane, linking to High Street. Signing required and marking on Kirby Road.	M	L
7	Church Road. Rainham Way/ Woodbury Way		New on road quietway along Rainham Way, Woodberry Way and Church Road. Signing required.	M	L
8	Old Pier St/The Parade		New on road advisory cycle lane along Old Pier Street and The Parade. Signing and marking required.	M	L
9	High Street, Walton		Signed quietway along Woodberry Way from Southcliff, along the Parade and Church Road. New on road quietway along High Street, between The Parade and Kirby Road. High Street is currently one way eastbound, from its junction with Old Pier Street/ The Parade. Introduce a contraflow for people who cycle west/east.	H	L
10	Wilton Wood Road/ Greenway/ Pole Barn Lane		Signed and marked on road route (quietways) along residential roads of Wilton Wood Road, Greenway, St Mary's Road and Pole Barn Lane, providing link between seafront and Frinton-on-Sea station. Covert existing zebra crossing to Tiger, to facilitate safe cycle crossings of Connaught Avenue.	M	L
11	Frinton Road J/W Frietuna Road to J/W Elm Tree Avenue		Signed and widened footway conversion* to shared use on B1033 Frinton Road from Frietuna Road to Elm Tree Avenue roundabout. Roundabout crossings should be considered to enable safe crossing for cyclists at junctions. Sustrans recommends physical segregation.	M	M
12	Fourth Avenue/ Upper Fourth Avenue	Potential for signed and marked on-road route	Signed and marked quietway route from Frinton's Esplanade, along Second Avenue, Ashlyn's Road and Fourth Avenue. At this point the route utilises Connaught Avenue for a short distance, so safe right turns for cyclists need to be considered at Fourth Avenue and Queen's Road where they meet Connaught Avenue. The quietway route continues along Queen's Road and Hadleigh Road until Pole Barn Lane and potential scheme 10	M	L
13	Esplanade	Potential for on-road route along sea-front.	Signed and marked advisory cycle lane along the sea front (Esplanade) from Second Avenue to Pole Barn Lane along NCN150	H	L
14	Norwood Way J/W Rochford Way to J/W Clays Road		Signed quietway along Norwood Way from Rochford Way to Clays Road.	L	L

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
15	Garden Road, Pulpitfield Close. Existing footpath running parallel to Butchers Lane/ Butchers Lane/ Walton Way		Predominantly off-road route on existing footpaths through parks. Signed cycle track along existing footpaths from Chamberlain Avenue to Pulpitfield Close through the parks (westwards and northwards). Suitable uncontrolled crossing points for cyclists on Clays Road and Rochford Way. Route continues with signed on-road provision along Pulpitfield Close and Garden Road (Quietways) to Rochford Way.	L	M

Table 7.3 Costs and Prioritisation of Potential Harwich Cycle Schemes

Route ID	Route Name	Opportunity	Potential Solution – subject to Feasibility Study	Overall Prioritisation	Est. cost
Harwich					
1	Footway between Ramsey Road and Oakley Road. Near to J/W with Beryl Road	Potential for conversion of existing footway to allow for cycle use	Conversion of existing footpath* (PROW 169_29) to a signed, shared use cycle track. Providing a direct north-south link from B1313 Oakley Rd to B1252 Ramsey Rd.	M	M
2	Footpath linking Low Road/ Long Meadows. Long Meadows/Deane's Close	Alternative quieter parallel route to Main Road section. Potential for signed off-road route utilising existing footway	. Signed conversion of existing footpath* (PROW 169_47) to shared use cycle track, from Low Road to Long Meadows. Potential width and Highway Boundary issues, therefore require further study (definitive statement states 2m wide). Lighting already in place. Route continues on signed quietway along Long Meadows and Deanes Close, connected by small off-road conversion of existing footpath to shared use cycle track.	M	M
3	Grange Road/ Elizabeth Road/ Manor Lane. Manor Lane/ Old Vicarage. Old Vicarage/ Langley Close/ Portland Avenue	Route to avoid busier roads. Potential for signed and lit off-road route along existing footpaths.	Suitable crossing should be considered of B1313 Fronk's Rd near Deane's Close. Signed quietway route along Grange Rd, Elizabeth Rd, and Manor Lane. Route continues on signed conversion of existing footpath* to shared use cycle track along PROW 169_13 to Old Vicarage Rd, and signed quietway along Old Vicarage Rd, and onto a signed conversion of existing footpath* to shared use cycle track along PROW 169_10 to Portland Avenue. Potential width and Highway Boundary issues especially at 163_10/Old Vicarage Rd junction. Route continues along Portland Avenue (quietway) to the B1352 High Street.	M	M
4	Halfacre Lane (Wick Lane to Allfields). Allfields to Main Road		Signed and lit north-south cycle track along existing footpath* (PROW 169_26) from Blacksmith's Lane south to Low Road. Potential width issues require further study. Route crosses Allfields, and adjustments to kerb at crossing point should be considered. Route also runs along western boundary of The Harwich School. Potential issues at Blacksmiths Lane as may be school access road.	M	M
5	Main Road/ Clarke's Road/ Parkeston Road		Signed cycle track along existing footpath* (PROW 169_27) from junction with PROW 169_22 within the park north to B1352 Main Rd. Potential issues at Blacksmiths lane as may be school access road. New suitable cycle crossing should be introduced to allow safe crossing of Main Rd (tiger). Advisory cycle lanes on the B1352 Main Rd from PROW 169_27 to Clarke's Rd. Route continues along Clarke's Rd as signed quietway. Consider removal of parking spaces near junction with Main Rd (50m) to increase space for cyclists near junction. Route to continue as advisory cycle lane to join to existing off-road cycle route at the A136 roundabout. Consideration of suitable transition from advisory cycle lane to the off-road cycle route.	M	M
6	Chase Lane. The Green (J/W Chase Lane - J/W Laurel Avenue)		Signed quietway on Chase Lane from Long Meadows to the footpath PROW 79_32. Signed footpath conversion to shared use* along PROW 79_32 to B1352 Main Rd. Surface improvements required for cyclists. Footpath is school and residential access therefore potential issue. New crossing point should be considered across the B1352 Main Rd from Chase Lane to The Green (tiger). Signed quietway along The Green (parallel to Main Road) to transition into advisory cycle lane on Main Road to Blacksmith's Lane to join Scheme 5. Traffic speed reduction measures on Main Road would allow cycle lane to be provided and meet Sustrans best practice. Additionally, advisory cycle lane should be provided on Main Road from PROW 79_32 to Oakley Road to join existing on-road cycle provision. Enhancements to roundabout at Oakley Road for cyclists should be considered.	M	M
7	The Drive/ Highfield Avenue		Signed north-south link from Lower Marine Parade to PROW 169_13 (Scheme 3). Potential for signed footway conversion* to shared use on The Drive from Lower Marine Rd to St Josephs Primary School. Signed on-road provision along the rest of the Rd to B1414 Fronk's Rd. Continuation of route along Highfield Avenue to Scheme 3.	M	L
8	B1352/Patrick's Lane		Advisory cycle lane on B1352 Main Road from Portland Avenue to Patrick's Lane (remove central hatching). To continue along signed quietway on Patrick's Lane to Station Lane towards Dovercourt Station.	M	L

8 Flagship Routes

8.1 Introduction

A Flagship Cycle Route is a key corridor providing safer, faster and more direct access to one or more key attractors (town centres, employment sites, education establishments, transport hubs, visitor attractions and existing/proposed developments). The routes will be on high demand corridors, be able to meet demand (both existing and potential), encourage a focus on innovation/design best practice and will include continental standard facilities, where appropriate.

It is hoped that a county-wide suite of Flagship Routes will be a focus for future funding, high quality infrastructure, design best practice and innovation.

8.2 Potential East/West Flagship Route Section (FR1)

It is proposed that a potential Flagship route for Tendring is created along the sunshine coast. An East/West Flagship route can be created by upgrading the existing cycling network that runs along the seafront in Clacton-on-Sea, from Holland-on-Sea in the North East to Jaywick in the South West. Particular focus will be required with regards to legal status of existing provision, segregated vs unsegregated and the most suitable route (upper or lower promenade). The route continues along a N-S spur, which directly connects the seafront to the High Street and Clacton station area using Carnarvon Road.

Potential conflicts between peak tourist season traffic, pedestrians and cyclists must be given careful consideration in the design of the Flagship route to ensure that all users can be accommodated safely. In some sections, cycling at high season along the Promenade is not permitted, which may mean that a more suitable route along the upper promenade could be considered.

There is future potential to extend the route further north-east along the sunshine coast, to Frinton-on-Sea and Walton-on-the-Naze to further encourage cycling in the district.

This key spine route could benefit from upgraded provision and can be supplemented by improved connections to the town centre, the station and various residential areas. The potential Flagship Routes are shown in Figure 8.1 and Figure 8.2.

Harwich Flagship Route (FR2)

A further Flagship Route should be considered in Harwich. This potential North-South route would link the residential areas, the town centre and NCN 51 to the

International Port. This would provide a useful connection to the employment opportunities at the Port with the surrounding residential areas. The key spine route links into other potential E-W routes providing onward connections to other residential areas, as well as the existing cycle route to Dovercourt. International visitors to the town disembarking at the port often do so on bicycles, so the provision of high quality cycle links in this location would be beneficial.

Prioritisation of Flagship Routes

The Flagship Routes have been considered against the four prioritisation criteria, as per the other potential schemes:

- Deliverability;
- Directness;
- Extension of existing network; and
- Key attractors.

Prioritisation of FR1: East/ West Sunshine Coast

This assessment found that this route would be relatively easy to deliver as it lies wholly within the highway boundary, is very direct and connects the existing network. In addition, it links to the potential network, identified in this CAP, in many locations. It has the potential to provide a long distance leisure route which links the towns of Frinton, Walton and Clacton along their seafronts with onward links to town centres, railway stations, employment and residential areas. As such, this route (FR1) would overall achieve a high prioritisation.

Prioritisation of FR2: Harwich and the International Port

This assessment found that the potential scheme lies wholly with the highway boundary and would therefore be easy to deliver. It is direct and connects to the existing and potential network. It provides useful links between most of the key attractors in the town. As such, this route (FR2), would overall achieve a high prioritisation.

Figure 8.1: Potential Flagship Routes for Clacton-On-Sea

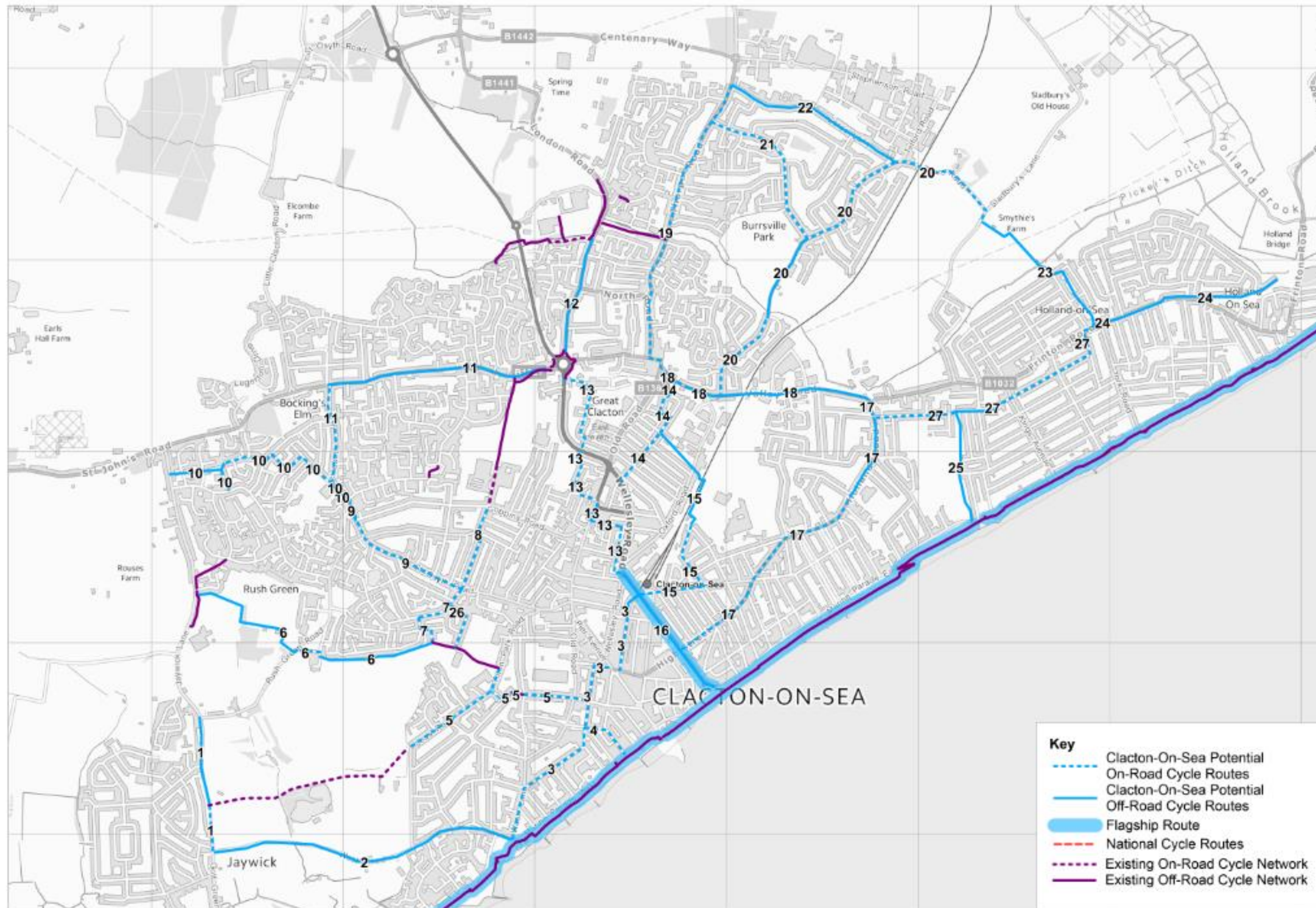
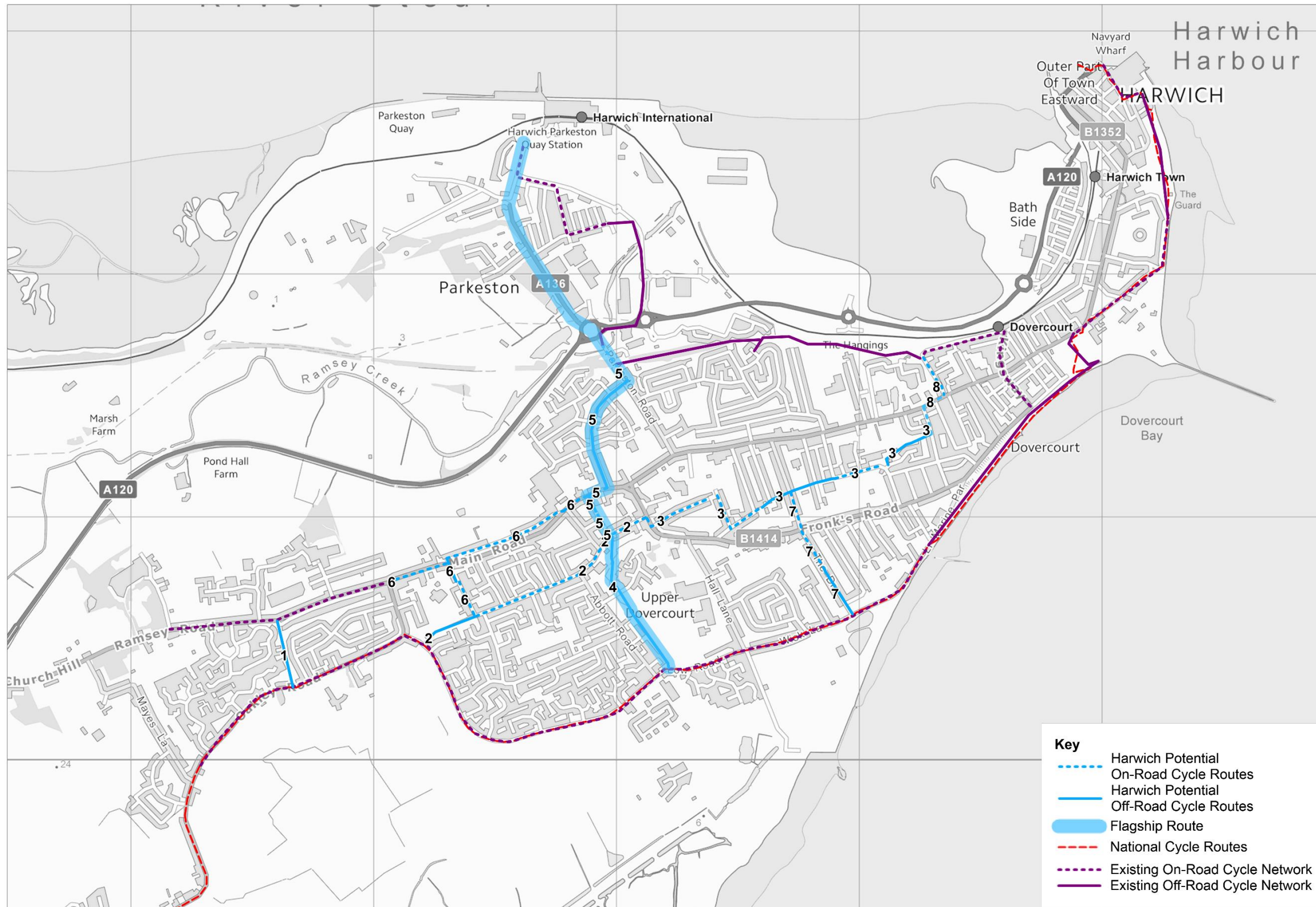


Figure 8.2: Potential Flagship Route for Harwich



9 Smarter Travel Measures

9.1 Introduction

To ensure the potential for cycling is fully realised, new infrastructure must be accompanied by targeted promotion and events.

If funding were to become available, local promotion of cycling should be increased to convince residents that cycling is a normal and accessible activity for all as well as highlighting the health benefits of cycling.

In addition, cycling has the potential to alleviate congestion by persuading people to replace a local car journey by cycling. This could include workplace travel planning in the town centres within the District.

9.2 Marketing and promotion

The Essex Cycling Strategy sets out a number of overarching themes for marketing and promoting cycling which are as follows:

9.2.1 Cycle Essex

ECC are committed to running high profile campaigns under the “Cycle Essex” umbrella which aim to change the image of cycling in Essex, break down perceptual barriers, communicate a safety message and tie in with existing organisations such as Active Essex.

9.2.2 High profile events

Essex has been successful in attracting high profile cycling events to the County that have been well attended by the public, such as hosting Stage 3 of the 2014 Tour de France. ECC would like people to continue to support these events but also give cycling a try through further mass event, car free days in town centres and bike festivals. Tendring has hosted the Women’s Tour (2015) and this year (2017) see the district hosting a time trial stage of the Tour of Britain.

9.2.3 Support for local initiatives

ECC recognise that local initiatives are particularly effective at engaging with people on a personal level. Therefore they aim to empower Boroughs / Districts to promote cycling locally, support community providers / charities, support cycling clubs and ensuring that secondary schools, large employers, large council offices and major hospitals have up to date travel plans.

9.2.4 Cycling Maps

Cycling maps (digital and on paper) aid in navigation and are an effective marketing tool for raising the profile of cycling. If the maps are legible, well designed and effectively disseminated, they can be the nudge that is needed to motivate the 'near market' to start making some trips by bike.

In addition, in order to maximise the benefits of cycling maps, future cycling maps for Tendring should be designed with the following principles in mind:

- The maps should be prepared under the same design guidelines as the promotion of 'Cycle Essex'. This will help to raise their profile and visibility;
- Information included in the maps should correspond with the signage by the roadside;
- Include more information about local points of interest. This might encourage leisure cycling, local tourism and increase patronage to local attractions; and
- Widely distribute the maps (if more than one) in a bundle and on as many online and physical outlets as possible.

Furthermore, there are official and unofficial routes available through mobile phone apps, social media and specialised websites such as *mapmyride.com* which allows people to track their routes whilst cycling and share them on these platforms.

For example, there is some interest in cycling at a community level in Basildon, as demonstrated by the website *mapmyride.com* displaying more than 1400 routes in the local area by its users (more than 500 in Clacton, more than 600 in Harwich, more than 300 in Frinton-on-Sea and more than 70 in Walton-on-the-Naze).

9.3 Potential Local Considerations

Local considerations, improvements and factors that may have an effect on encouraging cycling in Tendring District include:

- Once a more established cycle network is in place a cycle map should be produced of the Tendring District urban area, including the access to leisure routes
- A programme of targeted workplace travel planning should be implemented with a focus on cycling where network has been provided;
- Cycle access – promoting access to bicycles through the cycle to work scheme, cycle hire, provision of subsidised bikes;

- National Bike Week events to include a commuter challenge where people using different modes make the same journey in the morning peak – would normally show the advantageousness of cycle travel in the peak time) and a cycle commuter’s breakfast where free refreshments are laid on at a central location for all those who arrive by bike;
- Initiatives have been held within Tendring, which promote cycling as a leisure activity. These have included creating Clacton-On-Sea and Harwich as the focal points for the Cycle Tendring scheme, an initiative introduced by Tendring District Council. In addition, a number of routes of varying lengths and difficulties have been introduced which originate in both Clacton and Harwich;
- Further charitable events are organised by the national cycling charity, CTC which runs numerous training courses and supervised rides from the town, designed to raise awareness of cycling and improve cycling skills and safety; and
- Cycling in Frinton and Walton does not appear to be as prominent as in Clacton and Harwich, perhaps due to its proximity to the former. The annual Tour de Tendring does not enter Frinton or Walton. However, a number of routes recommended as part of the Cycle Tendring scheme do traverse both Frinton and Walton.

10 Delivery and Funding

10.1 Delivery

The recent Infrastructure Act (February 2015) places a commitment on the Government to produce a Cycling and Walking Investment Strategy. The strategy would specify the objectives to be achieved and the financial resources available. This new bill shows a change in the government's thinking and a clear commitment to providing for cycling as well as accepting responsibility for targets and funding.

The Department for Transport's Cycling Delivery Plan (October 2014) refers to a new national cycling target, to double the number of cycling stages (trips) nationally over a 10 year period. This new target will be adopted by Essex as part of this strategy.

The Government has also set a target of achieving an annual cycling spend of £10 to £20 per head of the population. In Essex this would equate to approximately £17million to £34million per year spent on cycling.

A step change in the provision of cycling infrastructure and promotion will require an increase in funding over and above the current level of funding for cycling in Essex. Essex County has committed to:

- Ensuring a consistent level of revenue and capital funding to support the delivery of this strategy;
- Increasing the level of funding in Essex from its current level of £2 - £3 per head of population to £10 per head of population by 2025;
- Increasing the utilisation and prioritisation of other funding sources such as developer contributions and central Government grants/allocations; and
- Developing a clear and cohesive methodology for the allocation of cycle funding across Essex Districts.

This will ensure that new proposals are not frustrated by a lack of funding and designers and promoters are set free to develop measures that will lead to a consistent growth in cycling numbers, frequency and safety.

10.2 Funding Options

There are a range of funding sources available for the potential schemes identified in the Cycling Action Plans which are as follows:

- Local Highways Panels (LHPs);
- South East Local Enterprise Partnership (SELEP) funding;
- DfT Access Fund;
- Local Growth Funds (LGFs); and
- Section 106 (S106) monies.

10.3 Funding for Tendring

The delivery of the potential schemes, soft measures and smarter travel measures will require additional funding and so for this Cycling Action Plan to be successful, it is imperative that funding is provided and sustained over a number of years.

ECC Local Highway Panels are a source of capital funding for local highway schemes, and are an appropriate way for new cycle infrastructure to be funded.

Planning contributions from new developments are an important source of finance and can either provide funding towards new or improved cycle infrastructure in Tendring District or, if in the vicinity, actually construct schemes as part of the development.

Current UK Government spending is £2.50 per person per year; the aim is to increase this to at least £10 per person per year by 2020/2021. Essex will also aim to spend £10 per person per year, with an initial increase to £5 by 2017.

The Government has a £6 billion Local Growth Fund for cycling and walking and wishes to reduce the administrative budget Local Authorities have to use in bidding for funding.

Other sources of funding also become available from time to time such as from the DfT. Therefore it is important that there are schemes readily available to be put forward for funding, should such opportunities arise.

In addition to the above, other possible funding options include:

- As part of road safety schemes;
- As part of health and safety schemes;
- Sustrans;
- Local growth funds;
- Network Rail and/or rail operating companies;
- Active Essex / Essex Health;
- SELEP Local Growth Funds for local sustainable transport programme;
- European Union funding (e.g. European Regional Development Fund and Rural Development Programme); and
- Acquire and investigate corporate sponsorship opportunities for any high profile public schemes/events.

11 Key Recommendations

In order to create an environment where cycling is normal for the residents of Tendring, existing barriers to cycling should be removed and a series of cycle routes provided with the aim of creating a connected cycle network over time. Cycling infrastructure should provide for both key utility journeys and encourage leisure cycling.

Analysis was undertaken to assess existing travel patterns, not only for cyclists but rail and car commuters as well. Alongside this, the propensity to cycle was also analysed to assess whether there were similarities between those that commute by other methods of travel and the areas where there is a high propensity to cycle.

The existing cycle network in Tendring should be further developed and the following key recommendations can be made for cycle enhancements:

- A review of existing route signage and lighting;
- Improve maintenance of existing routes (it is an aim of the Essex Cycle Strategy to prioritise more frequent and improved maintenance of the cycle network);
- Enhancement of East-West routes along the sunshine coast, connecting the seafront between Jaywick and Clacton, as per the potential Flagship route, to a high level of design standards;
- Enhancement of connections to Harwich International Port, provided to a high level of design standards, as per the Flagship Route;
- Develop additional Flagship Routes through Feasibility Studies to Detailed Design;
- Promote and market Flagship Routes with 'Cycle Superhighway' style branding and disseminating techniques;
- Further cycle parking at the railway stations should focus on encouraging demand for commuter trips;
- Provide new infrastructure on key roads with cycle-friendly topography but no existing facilities:
- Update the existing cycle map every two years taking on board new innovation in cycle-map design, and promote it and disseminate it widely through a range of channels and outlets;
- Develop a more direct east-west route through all major towns, providing access between residential areas, the town centres and key rail stations;
- Provision of north-south utility cycle routes in all major towns to connect residential and employment areas (Harwich in particular), the sea front and

the potential east / west cycle routes, as per the potential Harwich Flagship Route (FR2);

To ensure the potential for cycling is fully realised, new infrastructure must be accompanied by high profile and targeted promotion of cycling to ensure the full cycling potential is realised in Tendring, particularly in urban areas. This should include the promotion of leisure cycling and seeking to secure continuing involvement and organisation of high profile events such as Stages of the Women's Tour of Britain, and Tour de Tendring.