







Stevenage Cycle Strategy
April 2018

Stevenage
BOROUGH COUNCIL

Contents

EXECUTIVE SUMMARY

The Stevenage Cycle Strategy Action Plan is to form part of the Mobility Strategy (December 2016). The Infrastructure Delivery Plan that supports the Local Plan has set aside £3.5m for cycle improvements, behaviour management, and a monitor and manage fund.

The Cycle Strategy Action Plan has been prepared to define behaviour change initiatives and infrastructure improvements that will be required over the Local Plan period to 2031. The strategy is people-focussed and covers all stages of life from early childhood until retirement.

The Cycle Strategy Action Plan aims to restore Stevenage's cycle network to its former status, improving and repairing/rebuilding it where it has been eroded and extending it to reach into the new development areas of the town.

It is essential to understand why people do not use the Stevenage cycleways to the extent one would expect. A study of attitudes will be valuable in understanding this and is essential in order to target behaviour change initiatives. The study will establish what the current barriers are to cycling within Stevenage and what the motivators are to taking up cycling.

An audit has been undertaken to ascertain the skill level required by cyclists to use the routes available within Stevenage. Many routes are routes for all cyclists regardless of ability but some routes require more skill to use them. The cycle skills audit is based on Bikeability Levels but it is not to say that cyclists need to be trained in order to use the Stevenage cycle network, but the Bikeability Levels provide a useful indicator of the proficiency required to use the network safely. Those routes that have been classified as needing greater skill should be reviewed, in consultation with Hertfordshire County Council, to determine what package of measures is required to enable cyclists of all ability to use the routes.

In addition to the skills audit, an audit of the existing cycle network has been undertaken to establish the performance of the cycling infrastructure in Stevenage. The assessment has been based on the Transport for London Cycle Level of Service (CLoS) Assessment. This focuses on the 'rideability' and experience of the cycling and helps to identify any issues, frame objectives and quantify benefits arising from potential improvements.

CLoS is based on the six design outcomes of:

- Safety;
- Directness;
- Coherence;
- Comfort;
- Attractiveness; and
- Adaptability.

Based on the audit of the existing network coupled with the Cycle Skills Network Audit, a set of infrastructure improvements are proposed, which are categorised as follows:

- Upgrade of Cycleway network;
- Missing Cycleway Links; and
- Wayfinding.

The Strategy addresses cycling throughout the life cycle. People will have different requirements of the cycle network and different responses to interventions depending on their current status, ability and environmental influences. Addressing the needs of each age group, social group and mobility purpose, and planning for the most vulnerable, will ensure that the cycle network is fit for all and that behaviour change interventions are effective for everyone.

Initiatives for improving cycling to school are categorised as follows:

- Safe Routes to School;
- Bike Ownership;
- Bike Training;
- Bike Storage;
- Smart Cycling; and
- School and College Engagement.

Initiatives for improving cycling to the workplace are categorised as follows:

- Bike Ownership;
- Cycle Training;
- Bike Maintenance;
- Bike Storage and Cycle Facilities;

- Electric Bikes; and
- Engagement with Workplaces.

Initiatives for improving cycling within the town centre are categorised as follows:

- Cycle Ban;
- Town Centre Cycle Parking;
- Integration with Public Transport;
- Cycle Hire Scheme; and
- Cycle Security.

The Stevenage Borough Local Plan sets out the anticipated growth in Stevenage in housing and jobs to 2031. New developments need to be designed with active travel as the highest priority and the Cycle Strategy Action Plan summarises the design principles that will need to be followed for new developments within Stevenage.

The Cycle Strategy Action Plan sets out updated minimum cycle parking standards for new developments within Stevenage Borough, which take account of the objectives of the strategy to provide an uplift in cycling within the town.

Developments will be likely to require a Travel Plan to be implemented from first occupation and the Travel Plan will need to include strong behaviour change programmes from the outset to capitalise on this receptiveness to consider new ways of travelling, including cycling.

The Cycle Strategy Action Plan includes an Implementation Plan, which summarises what the main targets are during the first three years of the adoption of the strategy.

1 INTRODUCTION

Cycle Strategy Context

1.1 The Stevenage Cycle Strategy Action Plan forms part of the Mobility Strategy (December 2016).

1.2 The Mobility Strategy is to support a mode shift over time from car driver to more space efficient, socially inclusive and less polluting forms of Mobility, and not simply to supply extra road capacity for the benefit of car borne commuters in peak periods. It recognises that cyclists and pedestrians are an indicator of a successful town or city: build and provide for them and you will have a sustainable, healthy and vibrant place where people want to live and work.

1.3 Stevenage has some of the very best high capacity active travel (i.e. walk and cycle) networks in the country. The town was built for the bike and its Dutch style cycle network, although currently tired, can be nothing short of excellent. It can deliver sustainable mobility at a pedestrian, and hence community interaction, scale. The Infrastructure Delivery Plan (IDP) that supports the Local Plan has set aside £3.5m for cycle improvements, behaviour management, and a monitor and manage fund.

1.4 This Cycle Strategy Action Plan has been prepared to define behaviour change initiatives and infrastructure improvements that will be required over the Local Plan period to 2031. The strategy is people-focussed and covers all stages of life from early childhood until retirement. It considers the needs for all, including users of non-standard, specialist or adapted cycles.

1.5 There are underlying processes that drive people's mobility choices which are much more than just a combination of type of journey, length, duration, timing and cost. There are psychological drivers that include environment, social networks, personal values and beliefs that influence whether or not people will choose to cycle. Recent work by the EU-funded MIND-Sets project (www.mind-sets.eu) has led the way in understanding how all these factors combine to determine what we do in practice. By drawing on a number of different fields, including psychology and behavioural economics, this strategy is designed to not just make provision for a world-class cycle infrastructure, but also to ensure that it is used by residents of Stevenage of all ages and from all backgrounds and abilities.

1.6 Stakeholder involvement and engagement in the process of developing this strategy is key to understanding the drivers that will determine uptake of cycling by the various groups of people in Stevenage. This strategy is therefore dynamic and evolving and is designed to prompt contributions and comment from relevant stakeholder groups from the cycling, environment and planning groups, to residents' associations, schools and colleges, employers and the wider community with an interest in placemaking.

1.7 The Stevenage Cycle Strategy Action Plan is evidence of the commitment that exists to cycling, both as a means of transport and as a leisure pursuit and will play a significant part in guiding future initiatives. Through its vision of seeking to create a safe and user-friendly environment for cyclists of all ages and experience, it aims to maximise the number of people who cycle, thereby improving health and fitness, and to maintain and build on the remarkable network that has been inherited.

Policy Context

1.8 In April 2017 the Department for Transport (DfT) published the Cycling and Walking Investment Strategy. The Strategy sets out the aim to double cycling activity by 2025 and each year reduce the rate of cyclists killed or seriously injured on English roads as well as reverse the decline in walking that we have seen over the last few years. For that to happen, the Strategy's ambition is for cycling and walking to be the natural choice for shorter journeys in every urban and rural community in England.

1.9 The Walking and Cycling Investment Strategy sets out potential funding sources, a variety of initiatives and an Action Plan for delivering the objectives. The Stevenage Cycle Strategy is well aligned with the Investment Strategy and Stevenage Borough Council, through the implementation of the Cycle Strategy Action Plan, will continue to seek government funding for the investment in Cycling and keep abreast of new initiatives as they are launched.

1.10 In addition to the DfT Investment Strategy, Highways England published a Cycling Strategy in January 2016 to support its aim to invest £100 million on cycling by 2021. Providing more attractive, safe, accessible and integrated cycling facilities will encourage cycling participation and remove some local motor vehicle journeys from the Strategic Road Network.

1.11 In 2016 Highways England also published Cycle Traffic and the Strategic Road Network Interim Advice Note (IAN) 195/16; the IAN ensures that the needs of cyclists are accommodated in all future schemes and that infrastructure facilitates the convenient and safe movement of cyclists along or across the strategic road network.

1.12 The Stevenage Cycle Strategy is consistent with the emerging 'Hertfordshire Transport Vision.' Stevenage is named as a 'Sustainable Travel Town' in the draft Vision document, where a Sustainable Travel Town focuses on reducing the need to travel overall and increasing the proportion of journeys made by sustainable modes (on foot, by bicycle, by public transport, or via schemes such as cycle hire and car clubs). The initiatives include walking, cycling and shared mobility infrastructure and enhancements, together with behaviour change schemes.

1.13 The Vision expects a step change in uptake of sustainable modes. It also advises that it is likely that some highway capacity would need to be reallocated for use by pedestrians, cyclists and bus users.

1.14 It states the benefits such as a reduction in private vehicle use for shorter trips within the towns, enhanced public realm in the town centres, and increased proportion of trips made on foot, by bicycle or by public transport, with associated benefits to public health and air quality.

1.15 The Hertfordshire Local Transport Plan (LTP3) 2011 – 2031 sets out a 20 year vision and strategy for developing transport in the county, providing the framework for transport's economic and social development. The initiatives set out in the Stevenage Cycle Strategy are well aligned with the LTP3). For example:

- Exercise is recognised as essential for health and modes of transport such as walking and cycling offer the opportunity for healthy exercise.
- Across the county 'building new roads' has fallen to last place behind 'providing better walking and cycling access to schools' and 'improving pedestrian and cycling facilities' across the whole county.
- Hertfordshire requires new developments to include sustainable infrastructure including cycle and pedestrian routes, which should be funded by the developer.
- Cycling routes should be linked to those existing in towns to encourage cycling to work and for leisure journeys. Links to schools are particularly important.

1.16 Hertfordshire County Council published its Active Travel Strategy in 2013, which sets out how the County Council and its partners will identify, deliver and promote interventions to increase the numbers of people walking and cycling in Hertfordshire. The Strategy is a daughter document of Hertfordshire's Local Transport Plan (LTP3).

1.17 A list of possible interventions is identified within the Active Travel Strategy to help deliver the strategy by overcoming barriers to walking and cycling. These interventions are considered by the Council and its partners to achieve and maintain the necessary behavioural change, encouraging and empowering more residents to walk and cycle for shorter journeys, instead of driving or when making new trips.

1.18 The interventions are numerous, however key interventions include: traffic calming; speed limits; reallocation of road space; implementation of road user hierarchies; use of Intelligent Transport Systems; pedestrian crossings; footway maintenance; designing out crime; improved signage; urban realm improvements; cycle hire/purchase schemes and personalised travel planning and promotion[1,2].

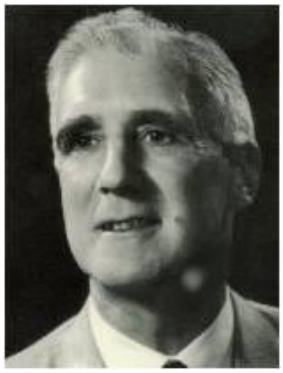
[1] Stevenage Cultural Strategy 2018
[2] Draft Healthy Stevenage Strategy 2018-2022

1.19 The Stevenage Cultural Strategy 2018 sets out a ten year Arts and Heritage Strategy for Stevenage. This includes to plan and deliver a major public art programme and trail, enhancing the town centre and Old Town public realm, parks and open spaces, and the extensive network of cycle paths in the Borough.

1.20 The draft Healthy Stevenage Strategy 2018-2022 sets out strategic priorities including; to reduce obesity rates among children and adults; increase physical activity rates among children and adults by targeting the most inactive; support adults and children to achieve good mental health and well-being; provide high quality housing and developments in line with demand and population growth considering health and well-being through design; and regenerate Stevenage Town Centre creating more employment opportunities, providing an enhanced leisure and cultural offer and public spaces that facilitate health and well-being.

A Town Built for the Bike

1.21 Stevenage has a fascinating history. Stevenage was the first of the new towns to be designated under the New Towns Act 1946. The highway network was planned by Eric Claxton (pictured[3]), a utility cyclist, who had a vision to create a Dutch style network of cycleways, completely segregated from roads. Construction of the cycleway network was started in 1955 and was built at the same time as the primary road network.



1.22 By the mid-1970s the comprehensive cycle track system developed in Stevenage comprised over 40km of segregated cycle tracks with adjacent footpaths. The cycle tracks were built alongside major roads and covered much of the town. Primary routes linked residential areas and employment and shopping areas with branches to provide access to the countryside and places of recreation. The Stevenage network was designed primarily for cycles, but an early decision was taken to permit the then low performance powered two-wheelers, up to 50cc, to also use the system.

1.23 The vast majority of the infrastructure built by Claxton is still present today. However, the network has suffered from lack of maintenance and is in need of upgrading. In addition, where the town has been expanded since the 1980s in places like Great Ashby, the cycle network has not been extended to the same standard as the original

[3] http://www.roadswerenotbuiltforcars.com/stevenage/

network and these ‘missing links’ need to be addressed. Still today Eric’s legacy is felt and members of the community still work and campaign tirelessly for better and safer facilities in the town.

Scope

Geographical Scope

1.24 The geographical scope of the strategy is the borough boundary. A plan of the existing cycle network is included at **Appendix A** and shows the extent of the cycleways and on-road provision within the town. It is this area that has been audited as part of the development of the strategy.

The Life Cycle

1.25 Cycling is something for all people of all ages and ability, but somewhere along the road that gets forgotten. It is a relatively low cost, low impact form of physical activity that provides a wide range of health benefits for all people and can be continued through life.

1.26 The focus of this strategy is therefore to cover all stages of life from early childhood until retirement. The cycling life cycle starts with making cycling an important part of life in early childhood and keeps it habitual for the entire lifespan.

VISION AND OBJECTIVES[4]

[4] Town Plan 1955

2 VISION AND OBJECTIVES

2.1 Cycling offers a solution to economic, social, environmental and health issues. It is an accessible, affordable and sustainable activity which enables active travel and healthy recreation. It can transform simple journeys to school or work into uplifting, invigorating experiences. It can have a significant positive impact on an individual's health and fitness.

Vision

2.2 Stevenage's cycle network was widely proclaimed in the 1970s as a shining example of high quality, joined-up cycle infrastructure. Stevenage was built for cycling! The vision for cycling in Stevenage is a community that choose to cycle rather than drive short distances to school, to college, to work and for leisure. The Cycle Strategy Action Plan aims to restore Stevenage's cycle network to its former status, improving and repairing/rebuilding it where it has been eroded and extending it to reach into the new development areas of the town. Most importantly, the strategy should galvanize Stevenage's residents into action to using the cycle network as it was intended to be used.

Cycling Charter

2.3 Local stakeholders, statutory organisations, schools and workplaces will be invited to sign up to a Stevenage Cycling Charter to work jointly and in partnership to promote and facilitate cycling and make it the easy choice for everyone. The Charter will also identify local champions for cycling who will inspire and engage with the community.

Objectives

2.4 The strategy aims to make cycling more attractive, visible and socially desirable, changing the car-dependent cultural norm that currently exists in the town. Through a mix of infrastructure improvements and behaviour change interventions at an individual, community, organisational and public policy level, the strategy will underpin a range of actions and interventions that by 2031 will add Stevenage to the list of world-class cycling towns and cities.

2.5 The objectives of the Cycle Strategy are:

- to deliver a high quality, interconnected network for people of all ages and ability to ride bikes;
- to make it easy to travel by bike and park;
- to increase the road and social safety of riding a bike in the town;
- to improve the connections at the beginning and end of journeys;
- to encourage more people to take up riding a bike or ride more frequently; and
- to plan for future growth of Stevenage that includes high quality bike infrastructure.

BENEFITS AND MOTIVATORS TO CYCLE[5]

[5] View of Bedwell shopping centre showing residential flats above the shops. Bicycles are parked in purpose built slots in the pavement, to the right of the picture a young child wheels a tricycle, 1961. Production: photographer: Mr G.L. Blake; Source: Stevenage Museum

3 BENEFITS AND MOTIVATORS TO CYCLING

Benefits of Cycling

Health

- If people in urban England and Wales cycled and walked as much as people do in Copenhagen, the NHS could save around £17 billion within twenty years.[6]
- The health benefits of cycling outweigh the injury risks by between 13:1 and 415:1, according to studies. The figure that is most often quoted - and endorsed by the Government - is 20:1 (life years gained due to the benefits of cycling v the life-years lost through injuries).[7]
- Studies have shown that regular cyclists enjoy the general health of someone approximately 10 years younger.[8]
- Riding half an hour each day reduces the risk of obesity, high blood pressure, high cholesterol and diabetes.[9]
- Riding reduces stress, anxiety and depression.[10]
- Active travel to school can increase concentration by up to four hours.[11]

Environmental

- Cycle trips, unlike trips in motorised vehicles, do not generate air or noise pollution.
- Shifting 10% of short urban trips outside London from car to cycle could save over 100 premature deaths from air pollution related illnesses annually.[12]
- Bicycle riders are up to 5 times less exposed to air pollution than car drivers.[13]
- Vehicles also use more space than bikes and deny it for other purposes (i.e. cycling is circa 7 times more space efficient than vehicular traffic).[14]

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[6] Jarrett, J., Woodcock, J., Griffith, U.K., Chalabi, Z., Edwards, P., Roberts, I. and Haines, A. 2012 Effect of increasing active travel in urban England and Wales on costs to the National Health Service

[7] http://www.cyclehelmets.org/1015.html - Health Benefits of Cycling

[8] http://www.sustrans.org.uk/what-you-can-do/use-your-car-less/health-benefits-walking-and-cycling

[9] Bicycling to Work and Primordial Prevention of Cardiovascular Risk: A Cohort Study Among Swedish Men and Women, Grontved, Koivula, Johansson, Wennberg, Ostergaard, Hallmans, Renstrom, Franks 2016

[10] https://www.psychologytoday.com/blog/minding-the-body/201505/bicycling-can-sharpen-your-thinking-and-improve-your-mood

[11] http://www.sustrans.org.uk/sites/default/files/file_content_type/sustransinfosheet_benefits_activetravel_youngpeople_ web_0.pdf

[12] Woodcock, J., Tainio, M., Cheshire, J., O'Brien, O. and Goodman, A. 2014 Health effects of the London bicycle sharing system: health impact modelling study BMJ. 2014

[13] http://www.cyclingweekly.com/news/latest-news/cyclists-exposed-five-times-less-air-pollution-cars-experiment-suggests-133129

[14] Ticket to the Future: 3 Stops to Sustainable Mobility - UITP, International Association of Public Transport, Brussels 2003

Economic

- The total annual cost of treating obesity is estimated to be £4.2 billion per annum.[15]
- On average, cycle commuting employees take one less sick day p.a. than non-cyclists and save the UK economy almost £83m.[16]
- Traffic congestion costs each house in the UK an average of £1,426 per year (£13 billion per year in total).[17]
- The UK government spends £3.3 million per day in maintaining local roads[18] – bikes require less infrastructure and do much less damage to roads than cars.
- Vehicles spend over 80% of their time parked, so car parking also makes major demands on valuable town centre land that could be developed for other uses. 24 bikes (double stacked) can be parked in the same space as 1 standard car parking space, which reduces infrastructure costs.[19]

Social

- Bike riders contribute to quieter and more attractive neighbourhoods with less traffic and improved safety.
- Bikes boost independence for people who do not drive.
- Bikes promote social, economic, age and ability equity.
- Bikes enable young people to be independent and develop healthy habits.
- The critical mass of more people riding make streets safer and more vibrant for everyone.

Attitudes and Motivators to Cycling

3.1 Eric Claxton built a Dutch style cycle network and expected the usage to match that of a Dutch city. Whilst it was reported that 14% of people cycled during the infancy of the network, now less than 3% of Stevenage residents cycle to work and the percentage of children cycling to school is fewer still.

3.2 It is essential to understand why people do not use the Stevenage cycleways to the extent one would expect. A study of attitudes will be valuable in understanding this and is essential in order to target behaviour change initiatives. The study will

[15] Economic Burden of Obesity, NHS, 2010
[16] http://www.cyclinguk.org/campaigning/views-and-briefings/cycling-and-economy
[17] http://inrix.com/press-releases/traffic-congestion-cost-uk-motorists-more-than-30-billion-in-2016/
[18] https://www.gov.uk/government/news/government-allocates-12-billion-roads-funding-to-councils
[19] Benefits of Investing in Cycling, Dr Rachel Aldred, British Cycling, 2014

establish what the current barriers are to cycling within Stevenage and what the motivators are to taking up cycling.

3.3 Thornton et al produced a report for the Department for Transport in July 2011, "Climate Change and Transport Choices". The report presented findings from a large survey of public attitudes relating to transport.

3.4 In the survey population, 92% had learnt to cycle at some point in their lives and 90% were still physically able to cycle. Just over half of those capable of cycling actually owned or had access to a bike. 12% used a bike at least once a week, and 25% at least once a year. However, use of a bike as a main mode of transport reached only 5%.

3.5 When presented with the statement "it's too dangerous for me to cycle on the roads", nearly two thirds agreed, with only a quarter actively disagreeing. Almost a half of the respondents said that they simply will not cycle on roads. This is a similar trend to that found from other research, with off-road cycle lanes being more popular than those on-road and road safety fears being one of the main reasons for not cycling. However, this is not the case in Stevenage, which is afforded an extensive network of segregated cycleways, so there must be other factors at play that need to be understood.

3.6 Research from the Cycling Cities initiatives shows that the greatest motivators for motorists to convert from driving to cycling are improving health and saving money. The attitudinal survey will need to establish what the key motivators to change mode would be for Stevenage residents.

EXISTING CONTEXT[20]

[20] South-east facing view of the roundabout and cycleways at the junction of Six Hills Way and Monkswood Way, 1957. Production: photographer: Mr G.L. Blake; Source: Stevenage Museum

4 EXISTING CONTEXT

Existing Network

4.1 An audit of the existing cycle network has been undertaken to establish the performance of the cycling infrastructure in Stevenage. The assessment has been based on the Transport for London Cycle Level of Service (CLoS) Assessment. This focuses on the 'rideability' and experience of the cycling and helps to identify any issues, frame objectives and quantify benefits arising from potential improvements.

4.2 CLoS is based on the six design outcomes of:

- Safety;
- Directness;
- Coherence;
- Comfort;
- Attractiveness; and
- Adaptability.

4.3 Each of the above design outcomes are then broken down into various factors. For example, the 'safety' element contains three factors: collision risk, feeling of safety and social safety. Each factor is made up of a number of indicators, which are scored. Certain indicators have a 'critical' score, which describe circumstances that should be a cause for particular concern.

4.4 The assessment of the network is included as **Appendix B** and a summary of the overarching observations are as follows:

Safety

- The cycleway network is segregated, which reduces risk of collision and adds to the feeling of safety. However, priority is given to vehicles where the cycleways cross roads at grade.
- Vehicle speeds are high on the dual carriageways and when vehicles do meet bikes at accesses and roads, there is a general lack of driver awareness of how to behave around cyclists.
- The cycleway infrastructure sometimes ends before cyclists have reached their destination and cyclists are required to share the roads with vehicles. Cyclists were observed to continue their journeys by using the pavements instead of the roads.

- Stevenage allows mopeds to use the segregated cycleways. However, since the cycleways were built mopeds have become much more capable in terms of top speed and acceleration - the equivalent of a 1950s moped today would be an electric assisted bike.
- Despite lighting and generous width, the underpasses could be perceived as a personal safety risk, particularly in the evening. Attitudinal surveys would be required to establish this.
- Some routes are not overlooked, visible from the road and/or have minimal pedestrian and cycle activity for parts of the day. This can lead to the feeling of isolation and fear of personal safety. If more people use the network of cycleways, it will encourage community interaction and active environments at a pedestrian scale and reduce social safety concerns.

Directness

- The directness of the original cycleway system has been undermined by the prohibition of cycling in the town centre, which was permitted when the cycleways were first built.
- The railway line is a potential severance through the town but there are many safe crossings using the segregated cycleways and quieter residential roads. The severance is felt the most at the railway station where cyclists are required to use lifts and traverse long ramps to bridge the railway line.
- There are gaps in the cycle network that require cyclists to detour from their desire line (e.g. lack of cycle facilities on St George's Way, poor quality facilities on London Road between Six Hills Way and Broadhall Way, no facilities on North Road requiring cyclists to detour to Hitchin Road cyclway facilities etc)

Coherence

- Directional signage is provided on the cycleways but is missing or in a bad state of repair in places. The directional signage provides times to key locations such as GSK, Lister Hospital, town centre but at key interchanges the signage is provided above each subway, which then requires cyclists to cycle up to each subway to be able to make a decision on which direction to go in.
- Unlike the roads which they follow, the cycleways are not named, adding to the feeling that it is a hidden network. The roads are not often visible from the cycleways, which can lead to the cyclists feeling disorientated at key decision points.

- The entry points on and off the cycleways needs to be improved to ensure that cyclists have a smooth transition from segregation to cycling on-road.

Comfort

- The cycleway system has a very high specification that is not seen in modern cycle routes within the UK. The cycle paths are 3.6m wide and run adjacent to a 2.1m wide footpath. Modern shared use paths rarely provide even 3m of width for both pedestrians and cyclists.
- The cycleways suffer from lack of maintenance and the surfacing is in need of upgrade.

Attractiveness

- Some of the cycleways benefit from landscaping on either side and this is well maintained. However, the cycleways would benefit from further design consideration to make the routes more attractive.
- There is minimal street clutter on the cycleways but road signs do form an obstruction on some links.

Adaptability

- The cycleways would cater for an increase in demand from existing residents of Stevenage and new development as the Local Plan comes forward.

Current Travel Behaviour

- **Stevenage residents cycle to work less than the Hertfordshire average.** 2.8% of Stevenage residents cycle to work compared with 4.2% across Hertfordshire.[21]

- **Stevenage has more people without access to a car compared to the Hertfordshire average.** Stevenage has one of the lowest level of car ownership in Hertfordshire.[22] 23% of households in Stevenage do not own a car and 44% of households only have 1 car.

- **Stevenage has a similar level of bike ownership to the Hertfordshire average.** 50% of residents in Stevenage own a bike (43% of women and 56% of

[21] 2011 Census travel to work
[22] Hertfordshire Traffic and Transport Data Report 2015

men).[23] This is similar to the Hertfordshire average of 51% and above the national average of 42%.[24]

- **Stevenage has a lower proportion of residents with a full driving licence compared to the Hertfordshire average.** Only 57% of 18-24 year olds in Stevenage have a full driving licence, compared with 73% across Hertfordshire. Even when taking into account all ages, less people in Stevenage hold a full driving licence compared to the Hertfordshire average (i.e. 70% of females in Stevenage compared to 83% across Hertfordshire and 86% of males in Stevenage compared with 89% across Hertfordshire).[25]

- **The daily trip distance is much shorter in Stevenage compared to the Hertfordshire average.** In Stevenage, the largest proportion of trips for all purposes are less than 10 minutes long (33%). 74% of all trips are under 30 minutes long.[26]

- **Stevenage residents travel shorter distances to work compared to the Hertfordshire average.** 48% of work trips from Stevenage are less than 5 miles, which is significantly higher than the Hertfordshire average of 31%. This shows that Stevenage residents travel shorter distances to work than the county average.[27]

- **A similar level of Stevenage residents use the car to travel to work as the Hertfordshire average.** 64% of Stevenage residents drive to work compared to the Hertfordshire average of 63%.[28]

- **The vast majority of shopping trips are internal in Stevenage.** 80% of all shopping trips made by Stevenage residents are internal to Stevenage.[29]

- **More Stevenage residents travel to educational facilities by car.** Less people in Stevenage use the bus (6%) and bike (0%) to school compared to the Hertfordshire average (bus 9% and cycle 3%). As a result, more students travel

[23] Hertfordshire Household Survey 2015 – Stevenage Borough Profile
[24] National Travel Survey table 0608
[25] Hertfordshire Household Survey 2015 – Stevenage Borough Profile
[26] Hertfordshire Household Survey 2015 – Stevenage Borough Profile
[27] Hertfordshire Household Survey 2015 – Stevenage Borough Profile
[28] 2011 Census travel to work data
[29] Hertfordshire Household Survey 2015 – Stevenage Borough Profile

by car to educational facilities (45%) compared to the Hertfordshire average (40%).[30]

- **Stevenage has a higher proportion than Hertfordshire of people whose day to day activities are limited.** Census[31] identifies that 6.2% of Hertfordshire's residents have their day-to-day activities limited a lot which is below the 8.3% average for England. Within Hertfordshire, Stevenage has the highest proportion at 7.1%, albeit this is still below the national average.

[30] Hertfordshire Household Survey 2015 – Stevenage Borough Profile
[31] Census Table QS303EW

CYCLE SKILLS AUDIT[32]

[32] Six boys from St Columba's College, St Albans, supervised in their last training session on a Stevenage cycleway for the international Coupe Scolaire, 1968. Production: LondonCryer & Marchant; Source: Stevenage Museum

5 CYCLE SKILLS NETWORK AUDIT

5.1 Cycle routes should instead be thought of as 'routes for cyclists' and it is important to consider which type of cyclists the routes cater for. An audit has been undertaken to ascertain the skill level required by cyclists to use the routes available within Stevenage. Many routes are routes for all cyclists regardless of ability but some routes require more skill to use them.

5.2 The Cycle Skills Network Audit (CSNA) is a survey of an area's roads and cycle paths to assess the ability needed to cycle on them in relative safety. The CSNA has been used to assess the suitability of the cycle network within Stevenage in terms of the Bikeability standards for cycle training. These are classified using a system based on the three core levels of the National Standard for Cycle Training (Bikeability). The CSNA is based on Bikeability Levels but it is not to say that cyclists need to be trained in order to use the Stevenage cycle network, but that the Bikeability Levels provide a useful indicator of the proficiency required to use the network safely.

Table 5.1: Bikeability Levels

Bikeability Level	Type of Cyclist	Environment	Skills
1	Beginner	New riders learn to control and master their bikes in a traffic free environment	• prepare yourself and your bike for cycling • get on and off your bike without help • start off, pedal and stop with control • pedal along, use gears and avoid objects • look all around and behind, and control the bike • share space with pedestrians and other cyclists
2	Introduction to Riding on the Road	Takes place on local streets with cyclists learning how to deal with traffic on quieter roads	• prepare for on-road cycling • start and finish an on-road journey • recognise typical hazards • let others know what you are about to do • know where to ride on the road • pass parked vehicles and side roads • turn left and right into and out of roads
3	Advanced	Equips cyclists with skills for more challenging roads and traffic	• prepare for a journey • understand advanced road positioning • pass queuing traffic • perceive and deal with hazards

		situations – busier streets, queuing traffic, complex junctions	• understand driver blind spots • react to hazardous road surfaces • negotiate complex junctions and busier streets

5.3 For the CSNA these levels have been redefined to provide 5 classification, with Levels 2 and 3 sub-divided into two categories:

- **Level 1:** Traffic-free off-carriageway routes where cycling is permitted, plus streets with extremely low levels of calmed traffic (i.e. below 20mph).
- **Level 2:** Roads that cyclists who have achieved Bikeability Level 2 can cycle on with ease and carry out all manoeuvres (e.g. quieter residential roads with low traffic volumes and speeds). Segregated cycle routes which require a degree of attention equivalent to a Level 2 road (e.g. cycle routes on shared-use footways crossing frequent side roads or private accesses).
- **Level 2+**: Roads that cyclists who have achieved Bikeability Level 2 can cycle on with a degree of attention (e.g. distributor residential streets, active frontages, parked cars, number of side roads, mini-roundabouts).
- **Level 3** Roads that cyclists who have achieved Bikeability Level 3 can cycle on and carry out all manoeuvres (e.g. complex junctions, higher speed routes).
- **Level 3+**: Roads where the level of risk is so high that it is a barrier to even the most experienced cyclists.

5.4 The CSNA comprises a colour-coded “Level of Service” plan of the network showing clearly which areas are currently the most conducive to cycling in terms of ability and where the main barriers are to cycling.

5.5 **Figure 5.1** illustrates the CSNA for the Stevenage cycle network.

5.6 The CSNA audit demonstrates that the Stevenage cycle network is highly accessible to cyclists of all abilities. The majority of the segregated cycleway network is Level 1. There are elements of the segregated cycleway network that are Level 2 as a result of the number of vehicle accesses along the route which prioritise vehicles over cyclists.

5.7 Many of the residential streets are Level 2. However, some of the residential roads act as distributor roads within the area and therefore have higher volumes of traffic, are used by buses and have a number of aspects that make it more complex for cyclists to cycle along (e.g. side roads, parked cars etc). Speeds are limited at 30mph on these roads.

5.8 Roads that have been classified as Level 2+ are:

- Clovelly Way (local distributor road and bus route)
- Great Ashby Way and eastern part of Martins Way (local distributor road and bus route)
- Canterbury Way, Pilgrims Way (local distributor road and bus route)
- Ripon Road (access road with parked cars and bus route)
- Bedwell Crescent (local distributor road with parked cars and bus route)
- Gunnels Wood Road (cycleway gives way to numerous vehicular accesses)
- Chells Way (local distributor road with parked cars in laybys, numerous junctions and bus route)
- Valley Way (local distributor road with parked cars and bus route)
- Broadwater Crescent (local distributor road with parked cars, numerous junctions and bus route)
- Hertford Road (local distributor road, bus route)

5.9 Roads or routes that have been classified as Level 3 are as follows:

- London Road between Six Hills Way and Broadhall Way – high volume of turning traffic, including HGVs, with inconsistent and narrow cycle facilities on and off the road.
- St George's Way – lack of segregated cycle facilities and crossing facilities on a dual carriageway road.
- North Road – high volume of turning traffic with no on or off road cycle facilities.
- High Street – reversing vehicles and lack of cycle facilities.
- Old Knebworth Lane – this forms part of National Cycle Route 12 but is a narrow country road with the national speed limit (60mph).
- Gresley Way (between Martins Way and Six Hills Way) – 40mph, no cycle facilities, local distributor road.
- B197 Stevenage Road – national speed limit road with narrow on-road cycle lane on each side of the carriageway.

5.10 The following routes are classified as 3+:

- Junction 7 of A1(M) – no cycle provision and need for cyclists to navigate a motorway junction with high speed vehicles, including HGVs.
- Junction 8 of A1(M) – narrow cycle lanes and need for cyclists to cross on and off slips of the motorway junction.

5.11 As part of the implementation of the Cycle Strategy, those routes that have been classified as 2+, 3 or 3+ should be reviewed, in consultation with Hertfordshire County Council, to determine what package of measures is required to enable cyclists of all ability to use the routes.

INFRASTRUCTURE IMPROVEMENTS[33]

[33] Six Hills Way cycle track looking north towards Towers Road and showing pedestrians and cyclists, 1965. Production: Studio Libra; Source: Stevenage Museum

6 INFRASTRUCTURE IMPROVEMENTS

6.1 Based on the audit of the existing network coupled with the Cycle Skills Network Audit, a set of infrastructure improvements are proposed. These have been categorised as follows:

- Upgrade of Cycleway network
- Missing Cycleway Links
- Wayfinding

Upgrade of Cycleway Network

6.2 The audit of the Cycleway network highlighted a number of areas that were in need of improvement.

Surfacing

6.3 The surfacing of the Cycleway network needs upgrading along the entire network. In addition, the surface layer also required upgrading as this has faded in many places.

6.4 Practicalities such as cost, consideration of future maintenance and availability of materials will have a significant bearing on decisions about the upgrade of the network surfacing. However, it is essential to remember that, from the perspective of the user, the ride quality and reliability of the surface are the most important construction considerations. The ride quality of the Cycleway network should be at least as good as that of the adjacent road.

6.5 In addition to the Cycleway network, the surfacing of bridleways within Stevenage should be reviewed and improved where required.

6.6 A consistent standard of Cycleway markings is required, as described in TSRGD and the Traffic Signs Manual, chapter 5.

6.7 In terms of ongoing maintenance, the quality, comfort and popularity of the Cycleway network will depend on the surface continuing to be of consistently high quality. A maintenance regime will be required to ensure that defects are picked up and acted on as soon as possible.

6.8 In addition to maintain the surface, the cleanliness of the surface will have to be overseen. Glass and sharp objects can cause punctures and other damage to

cyclists. It is important to make sure, where possible, the surface is well kept to avoid such issues.

6.9 As part of the maintenance regime, vegetation will need to be regularly cut back to ensure the full Cycleway width is useable.

6.10 Over time, all of the existing Cycleway network should be resurfaced but priorities for resurfacing are:

- Gunnels Wood Road, given the employment catchment in this area and the substandard provision in terms of surfacing and priority to cyclists over vehicles at accesses
- Martins Way;
- Lytton Way Cycleway, which provides access to the railway station;
- Broadhall Way; and
- Monkswood Way.

6.11 As part of the resurfacing strategy, distinction should be made between which side of the Cycleway cyclists should use and which side pedestrians should use as in some cases this is currently unclear and is not adhered to, which causes conflicts between cyclists and pedestrians.

Lighting

6.12 Dedicated lighting of the Cycleway network is provided in certain parts but sometimes instead of dedicated lighting for the Cycleway, lighting of the route is relied on from the carriageway lighting. Where dedicated lighting has been provided, there is poor spread of light from the new lights.

6.13 The benefits of lighting the Cycleway network are:

- Discourage crime and increase a sense of personal security;
- Improve cyclist's navigation along the route;
- Identify other cyclists and pedestrians potentially walking within the Cycleway;
- Detect potential hazards.

6.14 As part of the Cycle Strategy, appropriate lighting will be installed at regular intervals along the cycle routes. The Sustrans Technical Note on Lighting of Cycle Paths (March 2012), which is included as **Appendix C**, is a useful reference point.

Upgrade of Subways

6.15 Subways and the approaches to them can be intimidating, particularly at night, if they are not carefully designed and provided with appropriate street lighting.

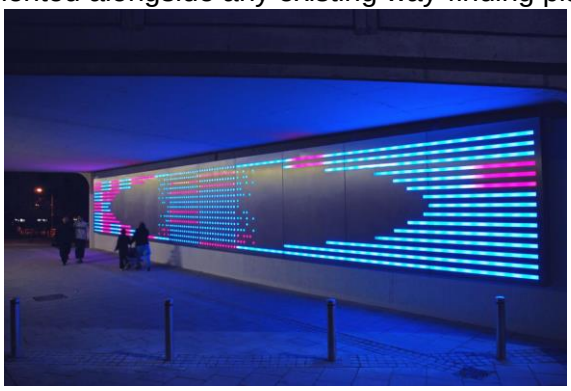
6.16 The subways in Stevenage were purposefully designed to be wide so as to provide good forward visibility. The sightline through the underpasses provide the user with enough information about what is ahead to encourage them to move or continue further. Lighting is currently provided within the subways too although it does not give off very powerful light. There is also little graffiti, considering the propensity for it to occur in underpasses.

6.17 Despite this, there may still be a perception that the underpasses act as a barrier to potential users and further work could be undertaken to make them more attractive and reduce any personal safety concerns. Milton Keynes recently upgraded the lighting in a number of their underpasses, which achieved stronger illumination than the current lighting, generated a significant operational cost saving for the Council and helped the Council reduce their carbon footprint. The photos below[34] show before and after images of an underpass in Milton Keynes.

[34] http://arklighting.co/2014/03/milton-keynes-underpass-invest-to-save-project/

6.18 Innovative lighting can also be used to activate underpasses and make them more attractive, such as this example in Barking, London[35]. This can also add to the wayfinding strategy by making the underpasses key reference points. The innovative lighting could include messages from the Town Centres and Regeneration departments of Stevenage Borough Council.

6.19 As part of the Cycle Strategy, the underpasses will undergo a programme of upgrade. This would be implemented alongside any existing way-finding plans being



undertaken by Stevenage Borough Council.

Priority to Cyclists over Motorists

6.20 The Cycleway network was designed to be segregated from motorised traffic and, on the whole, this is achieved. However, there are a number of locations on the Cycleway network where vehicular accesses cross over the Cycleways and at these points vehicles currently have priority over bikes.

[35] http://publicartonline.org.uk/casestudies/regeneration/barking/factsheet.php.html

6.21 This was observed at the following parts of the Cycleway network:

- Hitchin Road at the roundabout with Coreys Mill Lane;
- Lytton Way at the junctions with Julian's Road, Bridge Road and Green Street;
- Grace Way at all the minor roads to the east of the road;
- Clovelly Way with Fishers Green;
- Fairlands Way at the junctions with Popple Way, Bedwell Crescent, Chepstow Close, Doncaster Close and Pacatian Way, to the junction with Gresley Way;
- Gunnels Wood Road at accesses between Broadhall Way and Bessemer Drive;
- Six Hills Way Cycleway where the road into and out of the Leisure Park crosses the Cycleway and at accesses between Colestrete and the Chells Way roundabout;
- Monkswood Way Cycleway where the road into and out of Roaring Meg north and south crosses the Cycleway and at Elder Way;
- The Bridleway between Tintern Close in Stevenage and Oakfields Road has a motorcycle barrier; and
- Gresley Way at the junction with Woodcock Road.

6.22 As part of the upgrade of the Cycleway network, an early priority will be to provide priority to cyclists at all points on the cycle network where cyclists interact with general traffic. An example of best practice with how this is achieved is illustrated below.

6.23 Any improvements to cycle priority over vehicles that are brought forward will need to be considered on a case-by-case basis in consultation with Hertfordshire County

Council has highway authority. In situations where it is proposed, a road safety audit will be undertaken.

Mopeds on the Cycleway Network

6.24 Stevenage has always permitted mopeds to use the segregated cycleways. However, since the cycleways were built mopeds have become much more capable in terms of top speed and acceleration and this policy should be reviewed either in terms of a either a speed restriction or a ban (i.e. mopeds to use the highway only and not the cycleways).

6.25 In addition, barriers installed to prevent motorcycles and mopeds from using bridleways and cycle routes within Stevenage should be reviewed in consultation with Hertfordshire County Council as these can act as barriers to cycling, often requiring cyclists to dismount to pass through them (an example is the bridleway between Tintern Close in Stevenage and Oakfields Road in Knebworth).

Missing Links and Extensions to the Network

6.26 There are a number of links that are either missing from the Cycleway network or should be upgraded to form part of the Cycleway network to provide a seamless journey for cyclists:

- North Road continuing south along High Street;
- Lytton Way between High Street and Fairlands Way;

- Martins Way between the former Dixons site at Wedgwood Way and Gresley Way;
- Gresley Way between Martins Way and Six Hills Way;
- Fairlands Way between Emporors Head pub and Gresley Way;
- St George's Way;
- Clovelly Way between Symonds Green Road and Rutherford Close;
- Between the Fishers Green Lane track at Gorleston Close through to Ingleside Drive;
- London Road between Six Hills Way and Broadhall Way;
- Route through Tesco car park;
- Great Ashby Way northbound;
- Hertford Road between The Roebuck Hotel and Ashdown Road;
- Monkswood Way between London Road and Broadhall Way; and
- Broadhall Way between Monkswood Way and Valley Way, and between Shephall Way and Glenwood Close.

Wayfinding

6.27 The wayfinding system for the Stevenage cycle network (cycleway and on-road routes) is in need of a comprehensive review and update.

6.28 Wayfinding is an information system that guide people through a physical environment and enhances their understanding and experience of the space. Wayfinding systems combine signage, maps, symbols, colours and other communications. In addition, they integrate mobile apps, digital displays and other wireless technologies. [36]

6.29 As part of the Cycle Strategy a comprehensive wayfinding strategy will be developed and implemented that will include a wide-ranging package of wayfinding measures to navigate cyclists through the network.

[36] Image: http://aspect.net.au/?p=3640

6.30 Core principles of effective wayfinding include:

- Adopt principles of ‘progressive disclosure’ (i.e. selective supply of information when and where cyclists need it);
- Break information into manageable chunks to help mental mapping;
- Locate signs based on desire lines and cycle flows with maximum visibility at key decision points and gateways;
- Signs should include major local destinations for orientation;
- Information on signs should be concise, clear, consistent and unambiguous;
- Landscaping and lighting can be used to support wayfinding.

6.31 Types of wayfinding include:

- Navigation Totems: wider area maps providing information on cycle routes. The maps should include cycle times to key destinations.
- Fingerposts: To be used between totems to assist with decisions at simple junctions where a change of direction or route confirmation is required.
- Bollards: Bollards[37] providing directional information to be used in place of fingerpost, where space is limited or in environmentally sensitive areas to keep in-line with the landscaping whilst providing useful information to cyclists.

Reporting Infrastructure Problems

6.32 As part of the Cycle Strategy Stevenage Borough Council, in consultation with Hertfordshire County Council, will review the protocol for people to report problems with the cycle infrastructure and for the problems to be logged, reviewed and responded to.

[37] http://www.wiltshire.gov.uk/walking-cycling-wayfinding-trowbridge-sign-placement-study.pdf






CYCLING THROUGH THE LIFE CYCLE

Contents

1 CYCLING THROUGH THE LIFE CYCLE

1.1 The Cycle Strategy Action Plan addresses cycling throughout the life cycle. People will have different requirements of the cycle network and different responses to interventions depending on their current status, ability and environmental influences. Addressing the needs of each age group, social group and mobility purpose, and planning for the most vulnerable, will ensure that the cycle network is fit for all and that behaviour change interventions are effective for everyone.

1.2 As part of the cycle strategy Stevenage Borough Council would be required to nominate a cycle officer to facilitate the implementation of the strategy, liaise with workplaces, schools and other housing areas to encourage the uptake of cycling

Early Childhood

1.3 Introducing children to cycling from a very young age embeds the good habits of exercise and the thrill of cycling. There are plenty of family options for cycling from child seats to trailers to cargo bikes[1]. In some parts of the UK families are choosing to own a cargo bike rather than a car.

1.4 Children from around 2 years old can learn to balance with a balance bike, which makes the transition to a bike an easy one with minimal assistance from parents. For children, learning to ride a bike is a key rite of passage. It provides independence for a child; they are no longer a passenger, they are in control. The cycle strategy aims to encourage young children to discover cycling and families to cycle together.

1.5 Stevenage's cycleways are ideal for young children and families in that they are largely segregated from traffic and weave their way through the town's patchwork of green spaces. Connections from the main residential areas to these green spaces will be upgraded to ensure that they can be safely accessed without the need to drive.

1.6 Families with young children can be encouraged to cycle more by promoting the health and social benefits of cycling. At an individual level and community, this will

[1] Image: https://i.pinimg.com/originals/4f/09/6a/4f096a8e52343e28302234129 83e6851.jpg

be done through engaging families in nursery settings and through social media sites aimed at young families.

1.7 The cycleways likely to appeal to this audience will be made more engaging and attractive by incorporating simple paint and interactive points of interest such as a nature trail or 'cycling bingo' where children can tick off symbols or pictures as they explore their local parks, thus making the cycleways a leisure activity in themselves rather than a means to access parks and green spaces.

1.8 Marketing collateral, explaining the health benefits of cycling for developing independence, strength and weight management will be distributed through nurseries and GP surgeries, aimed at informing parents how to start cycling, where to buy or borrow bikes and a map of cycling trails aimed at families.

1.9 There are examples in the UK of nurseries having children's bikes and balance bikes within the playground for children to use. This provides a great opportunity for children to practice their skills and get enthusiastic about cycling. It may provide the stimulus for cycling at home.

Primary School

1.10 Children starting primary school is a 'life change' moment for many families. Evidence suggests that behaviour change is more likely to take place when people are undergoing changes in circumstances and reconsidering how they live and travel.

1.11 The EU-funded SWITCH project demonstrated that working with primary schools to encourage new parents (i.e. through new school induction events) to choose to cycle and walk to school at the start of their primary school days can lead to a significant uptake in sustainable modes.

1.12 Improvements will be made to the cycle infrastructure within Stevenage on the routes to schools and colleges to ensure that there are safe routes from door to school.

Secondary School

1.13 Again, the move from primary to secondary school is a key life change that is an opportunity to embed sustainable travel behaviour.

1.14 Primary schools will be assisted with providing transition cycle training for year 6 pupils, so they are prepared for the journey to secondary school. This will involve led rides to let primary pupils explore different routes they could use to cycle to their new

secondary school and in-classroom workshops to support pupils in planning their school journey after moving from primary to secondary school, including options for routes to cycle.

1.15 Other initiatives for secondary schools will include:

- School Cycle Clubs;
- Pool bikes at schools;
- Bikeability training;
- Participation through the school in leisure based cycling activities such as the mini-Etape or short distance cycle races; and
- Links with local bike shops for cycle maintenance, including in-school workshop sessions.

Workplace

1.16 Stevenage has a high level of internalisation of jobs, with many local residents taking up available jobs in Stevenage. Therefore, commuting distances are short for many residents. A high proportion of all trips, not just commuter trips, are less than 5 miles. This provides a real opportunity to encourage people out of their cars and onto the cycle network using bikes and electric bikes.

1.17 The Cycle Strategy Action Plan targets key employment nodes within Stevenage such as Gunnels Wood, GSK, Lister Hospital and the town centre to provide a package of measures to facilitate employees to cycle to and from work.

Recreational Cycling

1.18 Many of the target groups set out in this strategy relate to stage of life and also the final destination (i.e. school, college, workplace). There is also recreational cycling, where cycling itself is the travel objective.

1.19 Travellers consider different factors when selecting their preferred mode of transport for a leisure or commuting trip. For work trips, convenience is paramount, while for leisure travel, relaxation, a sense of freedom and 'no stress' are as important as convenience.[2]

[2] Anable, J. & Gatersleben, B. (2005) All work and no play? The role of instrumental and affective factors in work and leisure journeys by different travel modes, Transportation Research Part A: Policy and Practice 39

1.20 Leisure cycling has an important role to play in fostering or preserving the 'cycling habit' and increasing the enjoyment of cycling, and in doing so, might initiate cycling for other purposes. People who cycle for utility purposes claim to be have been influenced by their previous experience of leisure cycling.[3]

Active Ageing and Cycling

1.21 Instead of focusing on anti-ageing, the new focus is on 'active ageing', which is the process of *"optimising opportunities for health, participation and security in order to enhance quality of life as people age*."

1.22 One of the major challenges facing the growing population of older adults is a decline in mobility. Encouraging older people to engage in active travel such as cycling or walking has health benefits and reduces isolation. Physical activity among older people has been linked to better cognitive performance, reductions in morbidity and mortality and increased mental wellbeing[4].

1.23 Only 8% of men over 65 and 3% of women over 65 ever cycle[5]. This is low compared to rates of older people cycling in other European countries. In Germany 12% of journeys made by people over 65 are made on a bike and in Holland people over 65 make 24% of their trips by bike[6]. This implies that the problem is not that older people cannot cycle, but that the current cycle infrastructure and initiatives in the UK do not encourage them to do so.

1.24 Electric bikes are an option for older people who want to continue or take up cycling in later life. These can be pedalled like a normal bike, or the cyclist can power it through the small electric motor.

[3] Gardner, G. (1998) Transport Implications of leisure cycling, TRL report 347 and Sustrans (2011) Exploring the Pathways to Everyday Cycling in Adulthood: the effect of cycling activity as a child and/or the effect of positive leisure cycling experiences

[4] Kirk-Sanchez, N. et al. (2014). Physical exercise and cognitive performance in the elderly: current perspectives. Clinical Interventions in Aging.
Holme, I. and Anderssen, S. (2015) Increases in physical activity is as important as smoking cessation for reduction in total mortality in elderly men: 12 years of follow-up of the Oslo II study. British Journal of Sports Medicine.
Gunnell, K. et al. (2014). Goal contents, motivation, psychological need satisfaction, well-being and physical activity: A test of self-determination theory over 6 months. Psychology of Sport and Exercise

[5] The Active People Survey (2012-13) conducted by Sport England

[6] Buehler, R., Pucher, J., Merom, D., & Bauman, A. (2011). Active travel in Germany and the U.S.: Contributions of daily walking and cycling to physical activity

CYCLE TO SCHOOL AND COLLEGE[7]

[7] Three boys perform a cycling proficiency test at Heathcote School. Christopher Pitches, John Spicer and John West inspect a bicycle as part of the Stevenage Road Safety Committee campaign, 1965. Production: Stevenage Gazette; Source: Stevenage Museum

2 CYCLE TO SCHOOL AND COLLEGE

Location of Schools and Colleges

2.1 **Figure 8.1** shows the location of the primary and secondary schools within Stevenage.

Safe Routes to School

2.2 The Strategy proposes a number of ways to make cycling to school safer for children.

Identifying School Specific Issues

2.3 The local authorities will work with schools to identify particular issues with the cycle routes to each school or college. This will involve meeting with a group of representatives from the school (e.g. pupils, parents, teachers etc) to discuss cycling and which particular infrastructure presents a barrier to cycling to the school. An implementation plan will then be drawn up for each school identifying the infrastructure improvements proposed.

Mapping of Safe Routes

2.4 Detailed maps of the cycle network highlighting key, safe routes to school from the catchment area will be shared with every primary and secondary school and distributed to new and existing parents either digitally or in print.

2.5 The maps and information will also contain tips on how to cycle safely, where to buy or borrow bikes, the health benefits of cycling to school and personalised messages of encouragement from every school head.

20mph on Residential Streets

2.6 Hertfordshire County Council reviewed its Speed Management Strategy following government guidelines released in 2013. The revised strategy was developed with the help of the county's constabulary. It introduces zonal rural speed limits and increases the number of roads that could have 20mph speed limits.

2.7 There are many benefits to the introduction of a 20mph speed limit on residential streets in Stevenage. These include:

- providing road conditions that encourage and facilitate the take-up of walking and cycling, with associated health and wellbeing benefits;

- making it safer and easier for pedestrians to cross roads, particularly for children or the elderly;
- reducing the amount of road noise generated in residential areas;
- improving traffic flow, as it flows more smoothly through junctions at lower speeds;
- potentially reducing airborne pollution levels.

2.8 There is strong evidence that 20mph is a much more appropriate speed limit for places where people live than 30 mph. At 20mph the risk of serious injury from collision is much reduced. According to ROSPA, a pedestrian struck at 20mph has a 97% chance of survival; this falls to 80% at 30mph and 50% at 35mph.

2.9 As part of the Cycle Strategy Action Plan, a review of residential streets within Stevenage will be undertaken with Hertfordshire County Council and the local police to reduce the speed limit to 20mph. The aspiration of this Cycle Strategy Action Plan is to reduce as many residential streets as possible to 20mph.

Bike Ownership

2.10 Buying a bike can be an expensive outlay for parents. Having a robust bike that is a good fit and can be adjusted for children growing is important. A bike that is too small or not a right fit for a child can put them off cycling or learning to ride a bike.

2.11 The dedicated cycle officer will work with schools within Stevenage to arrange a ‘cascade bike sale’ where outgrown bikes are sold to other children within the school.

Bike Training

2.12 Hertfordshire County Council run Bikeability cycle training courses within schools throughout the county. The dedicated cycle lead will liaise with Hertfordshire County Council to ascertain the take up of the Bikeability courses within Stevenage schools and work with schools to increase the awareness and take-up of the courses.

Bike Storage

2.13 The cycle officer for schools will assess the bike and scooter storage available at each school within Stevenage and provide advice on appropriate storage requirements in terms of quantity, style, location etc. Cycle storage will consider cycle drop off by parents as well as long stay cycle storage requirements for pupils and staff.

Smart Cycling

2.14 Stevenage Borough Council will investigate and implement the development of a wayfinding app for the Stevenage cycle network. For example, Bike Citizens or Love to Ride both create these and create challenges around them for local communities.

School and College Engagement

2.15 A dedicated cycle officer for schools will work with the local schools to

- Measure baseline pupil walking and cycling activity for home to school and other cycling journeys and carry out follow up surveys at schools each year;
- Assess the facilities provided for cyclists within schools and advise on improvements;
- Deliver cycling promotion activities in schools to increase to number of pupils and staff cycling to school;
- Promote cycling initiatives and local authority services (such as cycle training and school travel plans).
- Provide cycle advice, information and other support to pupils, teachers, parents and governors.

2.16 Examples of measures that would be implemented through the dedicated travel officer for schools, will include the Modeshift STARS programme by primary and secondary schools to monitor existing modes and encourage and reward the uptake of more sustainable modes, especially cycling.

2.17 The travel officer for schools will seek active participation from the school headteachers to sign up to the Stevenage Cycling Charter and help to embed cycling into the school curriculum with activities linking it to PE lessons, geography and local history (especially Stevenage's cycling past) by creating lesson plans incorporating a cycling element.

2.18 Inter-school competitions to achieve the greatest amount of modal shift or to clock up the highest number of miles cycled by school will be implemented using hands up travel surveys in schools and reported through e.g. MODESHIFT STARS or other similar platforms such as Living Streets' Travel Tracker or apps such as Counterpoint (https://counterpointapp.org).

2.19 The measurement and reporting could be incentivised by incorporating it into the curriculum and awarding prizes based on leader boards. The successful

implementation of the Public Health-funded Beat the Street project in Stevenage in 2015 demonstrated the appetite and interest from primary schools in being involved with such schemes.

2.20 Cycling will also be promoted to families at an annual Stevenage 'Cycling Festival', tying into the event held for the first time in 2016 based around 'The Tour' and promoted through schools. Events, media coverage and extensive marketing all aim to create a 'social norm' around cycling, making it more likely to be taken up by non-cyclists. More people cycling also contributes to perceived safety through the 'safety in numbers' concept.

2.21 As part of the Cycling Strategy Action Plan, Stevenage will seek to implement a range of interventions across diverse settings such as schools, colleges and workplaces, that will inspire, motivate and reward existing and new cyclists. There are a number of app and web based individual and group challenges that would appeal to different audiences that can be bought off-the-shelf or customised for Stevenage.

CYCLE TO WORK[8]

[8] Cyclists using the cycle track alongside Six Hills Way. A pedestrian is walking on accompanying footpath, 1958. Production: photographer: Mr G.L. Blake; Source: Stevenage Museum

3 CYCLE TO WORK

Key Employment Destinations

3.1 Nearly 80% of the employment land in Stevenage is located within Gunnels Wood, with the remaining employment space largely distributed between Pin Green, the Town Centre and the Old Town.

Gunnels Wood

3.2 The Gunnels Wood employment area lies between the A1(M) and the East Coast Main Line railway. The area was originally planned as part of the New Town to provide employment for residents. Since the 1950s it has become the largest employment area in Hertfordshire and is now a sub-regional employment centre containing up to 350 companies, which employ almost 19,000 people.

3.3 At the southern end of Gunnels Wood Road is the GlaxoSmithKline (GSK) UK Research and Development facility. In 2012, the Stevenage Bioscience Catalyst opened on the GSK campus to bring together academia, industry, the NHS and other players in the UK life sciences sector.

Pin Green

3.4 Pin Green is the second largest employment area in Stevenage after Gunnels Wood. The area is located to the north-east of the town centre and totals 22.7 hectares of a fairly low density mix of uses including small warehousing, light industrial and some offices.

Lister Hospital

3.5 The Lister Hospital, to the north of the town, is the largest employer in the town providing more than 2,700 jobs. Cycle routes are provided along Coreys Mill Lane and Hitchin Road connecting to the hospital site, although improvements are required to these routes.

Town Centre and Leisure Park

3.6 Within the town centre there are a cluster of office buildings comprising 11.1 hectares. Offices are occupied within the town centre by HSBC retail bank and Stevenage Borough Council and other types of buildings within the town centre include the Police Station, Mecca Bingo, the Magistrates Court, Leisure Centre, Leisure Park, Gordon Craig Theatre, swimming pool and a variety of retail units.

3.7 To the west of the railway line is Stevenage Leisure Park, which includes a number of restaurants as well as a cinema and a bowling alley.

3.8 In addition to the retail offer within the town centre and at the Leisure Park, Stevenage's largest concentration of out-of-centre retail provision is at Roaring Meg Retail Park North, which is off Monkswood Way to the south of the town centre.

Old Town

3.9 Within the Old Town there is a dispersed cluster of office units totalling 7.1 hectares as well as a number of industrial units, including the Stevenage Enterprise Centre.

Bike Ownership

3.10 50% of residents in Stevenage own a bike (43% of women and 56% of men). The Cycle Strategy Action Plan will implement a number of measures to increase cycle ownership and access to bikes to enable more people to cycle to and from work and for work related trips during the working day.

Cycle to Work Scheme

3.11 The Cycle to Work scheme was introduced as a tax exemption in 1999 by the government to 'promote healthier journeys to work and reduce environmental pollution'. Once the company is signed up to the Cycle to Work scheme, the employee chooses a new bike and any cycle accessories worth up to £1,000 and the company buys it for the employee. The employee then pays a monthly salary sacrifice to 'hire' the bike typically over a 12 or 18 month period until the bike is owned by the employee. Employees make savings on their tax contributions; 32% for standard rate tax payers and 42% for higher rate tax payers, and employers make a 13.8% saving on National Insurance Contributions.

Example Employee Savings:

Employee Savings:	Basic Rate Taxpayer @ 20% NI @ 12%	Higher Rate Taxpayer @ 40% NI @ 2%
Value of bicycle voucher	£500	£500
Net Cost to employee*	£340	£290

*Assumes employer's national insurance at 13.8%.

Example Employer Savings:

Employer Savings: Assuming Scheme launched to **400** employees, **10% take-up**, with employees spending an average of £500 each:	
Total value of bicycle vouchers	£20,000
Gross employer NI Savings	£2,760*

**Assumes 13.8% VAT reclaimable in full and employer's national insurance at 12.8%.

3.12 There are already a number of cycle shops within Stevenage that are signed up to the Cycle to Work scheme. In addition, a number of employers already offer this scheme to their employees.

3.13 Stevenage Borough Council is enrolled to the Cycle to Work scheme for its own employees. It will promote it to existing staff and as part of the staff induction process.

3.14 As part of the Stevenage Cycle Strategy Action Plan, Stevenage Borough Council will also work with employers within the town to encourage them to sign up to the Cycle to Work scheme. There are a number of free Cycle to Work third-party facilitator schemes, which can be used by employers and employees to make the process easier. These third-party facilitators also provide promotional material that can be printed and distributed to employees. Such schemes include Smartgo Stevenage (https://www.smartgo.co.uk/stevenage) which has a number of employers throughout Stevenage signed up, including Stevenage Borough Council and Hertfordshire County Council.

Company Pool Bikes

3.15 Setting up a pool bike scheme for employees is an effective way to influence employee travel behaviour. A pool bike scheme is a bank of bikes provided for use by employees in the course of the working day. Pool bikes are kept in a central location and can be booked out by any staff member who is competent at cycling safely. Pool bikes have the following benefits:

- Reduced travel expenses: Save money on taxis and public transport fares
- Increased speed and access: Cycling is often the quickest and most convenient way to travel around. Pool bikes allow employees to go from door to door without having to find parking for a car, or to be stuck in traffic congestion
- Demonstrate a positive commitment to sustainable transport: Helping to improve staff morale and attract new staff.
- Health and fitness improvements

3.16 Stevenage Borough Council already has a pool bike scheme for its employees and has 4 standard bikes and 2 electric bikes available for staff to use.

3.17 As part of the Cycle Strategy Action Plan, SBC will work with larger employers within the town to establish pool bike schemes. SBC will develop a guide for employers to assist with setting up a pool bike scheme which would include the following:

- How to identify the company's pool bike requirements
- Preparation of Health and Safety documents
- Establishing the systems for managing the scheme
- Launching the scheme
- Monitoring the scheme

Cycle Hire Scheme

3.18 Consideration should be given to implementing a cycle hire scheme within Stevenage, whereby bikes are made available for shared use to individuals on a very short-term basis. The aim is often to nurture and encourage the beginnings of a new cycle culture and reduce the barriers to cycling. The scheme could either utilise docking stations (with cycle hubs at key employment nodes, the town centre and transport interchanges) or be dockless (i.e. bike locations found on mobile phone maps and hired with mobile phone apps).

Bike Recycling Schemes

3.19 There are now a number of successful bike recycling schemes operating within the UK that refurbish second hand bikes and sell them at an affordable price to facilitate people cycling.

3.20 The bike recycling schemes tend to operate as social enterprises (i.e. a business or charity with a social or environmental mission). For example, the Wheels Community Youth Project, based in Stevenage, runs a bike recycling scheme for young people who are at risk of offending, and provides practical employable skills that can help them find work.

3.21 The Watford Cycle Hub offers bike repair services, maintenance courses, cycle training and free guided rides. The Cycle Hub also accept unwanted bikes and recycles them and sells affordable reconditioned bikes and bike parts.

3.22 Opportunities without Limits (OWL) charity in South Cambridgeshire runs a successful bike refurbishment project. OWL take donations of bikes from the public, the police and Cambridge railway station and teaches people with learning difficulties the skills to strip down, repair and rebuild bikes. Once fixed, bikes are sold on at affordable prices. OWL also have a bike repairs and servicing facility and sell affordable bike accessories. They have a bike maintenance station at the local hospital and sell bikes as part of the Cambridge freshers fair for students.

3.23 Hub and Spoke in Harlow is another example and offer a range of services including a shop selling refurbished bikes and affordable cycling accessories, a bike repairs and servicing facility, facilitated bike rides around the local Harlow area to familiarise people with cycling with Harlow, cycle training and bike maintenance workshops.

3.24 As part of the Cycle Strategy Action Plan for Stevenage, it is proposed to establish a similar social enterprise to serve the town. There is a need for the social enterprise to include the Gunnels Wood employment hub, and include the following services:

- Refurbished bike sales
- Lunchtime bike maintenance workshops (i.e. learn how to maintain bikes)
- Bike repairs during the working day
- Lunchtime bike training sessions / led bike rides

Cycle Training

3.25 On-bike cycle training is the best way to learn how to cycle safely. There is a wealth of cycle training services available. Cycle trainers are flexible and can meet employees in groups or on a 1-1 basis at their workplace. They can even accompany people on their commute, which is an effective way for beginners to improve their confidence and skills.

3.26 As part of the Cycle Strategy Action Plan, Stevenage Borough Council will partner with an organisation or organisations that will be able to offer employers within the town the following services:

- **Cycle awareness workshops:** for car drivers focusing on the driver's experience of interacting with cyclists and best practice;
- **Cycle training**: training sessions within groups as well as 1:1 riding training. Some organisations use group sessions as part of a team building day.
- **Route planning:** Instructors ride with employees to their workplace, discussing the best route and any cycling/infrastructure issues that may arise along the way.

Bike Maintenance

3.27 As part of the Cycle Strategy, Stevenage Borough Council will partner with an organisation or organisations that will be able to offer employers within the town the following services:

- **After work and early bird maintenance courses:** offered at the workplace as well as maintenance 'masterclasses' covering the essentials such as puncture repair.
- **Dr Bike:** a session where instructors carry out safety checks, basic adjustments and minor repairs on bikes which are brought to them by employees.

Bike Storage and Workplace Cycle Facilities

3.28 Stevenage Borough Council will liaise with workplaces to assess the workplace cycle facilities currently available to staff. This will include an assessment of such things as the cycle parking, storage facilities for cyclists' equipment and change of clothes and showers. Stevenage Borough Council will explore options with workplaces for improving on-site cycle facilities and potential funding sources to make improvements. Increasing the number of employees cycling to work will save on land required for car parking and could be used for other purposes.

Electric Bikes

3.29 Electric bikes, also known as ebikes, are an option for anyone (age of 14 or over), which enables the rider to cycle further and faster than otherwise previously possible, (or to travel at the same speed with less effort).

3.30 The Netherlands, Germany, Denmark, Belgium and France have long embraced ebikes (almost 30% of all new cycles sold in Holland are electric). The uses of ebikes in the UK is starting to increase: ebike sales rose from 5% of the UK bike market in 2015 to 12% in 2016.

3.31 Benefits of ebikes for commuting include:

- **Quicker commuting time:** journeys door-to-door will be quicker because of the extra help from the motor.
- **Less sweat:** ebikes enable the cyclists to wear the same set of clothes they want to wear to work without sweating, reducing the need for a shower and change of clothes.
- **Flexible exercise**: Most e-bikes on the market have different modes. If the cyclist is feeling tired or wanting a relaxed ride they can use more assistance. If the cyclists wants to cycle without the motor or less assistance then this can be turned off or motor assistance reduced.

- **Reduced commuting costs**: A recent survey of 2,000 commuters commissioned by Evans Cycles estimated that by switching from car, bus, tube or train to ebikes, commuters could save an average of £7,791 over five years.

3.32 There are many types of electric bikes available in the market ranging from top performance off-road full suspension bikes to small portable folding bikes, catering for all type of peoples and needs.

Engagement with Workplaces

3.33 Stevenage Borough Council will engage with workplaces within Stevenage through the following ways:

- Establish and maintain records of cycling to workplaces in Stevenage;
- Assess the facilities provided for cyclists within the workplace and advise on improvements;
- Investigate funding opportunities for workplaces seeking to overcome barriers and increase staff cycling and facilitate workplaces applying for funding; and
- Support the preparation, development and delivery of cycling initiatives and training within workplaces.

3.34 Smartgo Stevenage, which is a national scheme providing discounted workplace travel, is currently the lead organisation for business engagement on sustainable travel and is an important ass to be built upon. Smartgo Stevenage is now a business community of 30 employers with 14,000 staff. Available through this resource are:

- Employer and staff engagement;
- Package of cycle discounts (e.g. bikes, shelters, accessories);
- Mapping services for plotting travel survey research; and
- Cycling expertise from team members.

3.35 Smartgo undertakes an annual travel survey of registered employers within Stevenage. The survey results provide a useful insight into attitudes to cycling and required improvements to increase cycling to work.

CYCLING WITHIN THE TOWN CENTRE[9]

[9] View of Market Place looking eastwards from the junction with Queensway. The spire of St George's church can be seen in the distance. Also visible in the photograph are a number of shoppers , canopies over the shops and bicycle parking bollards, 1963. Production: Mr G.L. Blake; Source: Stevenage Museum

4 CYCLING WITHIN THE TOWN CENTRE

Cycling Ban

4.1 The Stevenage cycleway network was designed with cyclists being able to cycle throughout the whole of Stevenage town. During the early use of the Stevenage cycle network, cyclists were able to cycle through the pedestrianised part of the town centre and also park their bike near to their destination within the town centre.

4.2 In 2011 Stevenage Borough Council implemented a ban on cycling within the pedestrianised area of the town centre in order to reduce conflict between pedestrians and cyclists in this area. Cycle dismount signs were installed at the gateways to the pedestrianised part of the town centre and 'No cycling' signs within the pedestrianised area.

4.3 Prohibiting cyclists from routing through the pedestrianised area of Stevenage town centre forms a major barrier to movement by bike, requiring cyclists to detour to other routes. Furthermore, the town centre includes a great many destination points for cyclists and in order to encourage residents to take up cycling, there should be the ability for cyclists to cycle as near to their destination point as practicably possible.

4.4 Frequently, the effect of prohibiting cycling in pedestrian areas is to force cycle users onto longer routes. In many cases, there is adequate capacity in vehicle-free areas to safely cater for all non-motorised users. Research was undertaken by Trevelyan and Morgan (1993) to understand how pedestrians and cyclists interact in shared spaces within England and Wales. The research found that people cycling respond to pedestrian density and modify their speed, dismount, and take other avoiding actions where necessary. Collisions between pedestrians and cyclists were very rarely generated in the areas studied; in fact, only one pedestrian/cyclist collision was noted in fifteen site-years. This is supported by similar findings from German research with initial public reservations being significantly reduced after a year's experience, and

evidence of the adaptation of cycling behaviour, including dismounting, when high densities of pedestrians were present (CROW 1993). There was no evidence that cyclists rode more quickly once legally allowed in pedestrian areas, and pedestrian-cyclist collisions were small in number and not too serious.

4.5 The Dutch CROW 'Design Manual for Bicycle Traffic' suggests that bicycle and pedestrian traffic can be combined if the number of pedestrians, per metre of route width, is below 200 per hour. To take an example, for a ten-metre-wide shopping street, this would amount to 2,000 pedestrians per hour walking past a screenline. Above this level, the CROW manual does not recommend allowing cycling on these streets.

4.6 For pedestrian volumes of less than 100 per hour, per metre of route width, the CROW manual recommends 'full combination' – that is, just allowing cycling on a pedestrianised street, without any delineation. Between 100 and 200 pedestrians per hour, per metre, it recommends a marking out of a cycle route, with or without height difference, depending on pedestrian volume.

4.7 Overall, routes for cycle traffic without the presence of motor traffic can be advantageous where such routes allow for access much closer to the final destination, where they allow for a more direct route to be taken, and where they are designed to be attractive and comfortable for cycling use. The network offered for use by cycle traffic should be fit for purpose based on guiding characteristics of coherence, directness, attractiveness, safety and comfort.

4.8 As part of the Cycle Strategy Action Plan, a review of the cycle ban will be undertaken and pedestrian counts undertaken within the town centre to ascertain the peak pedestrian flows and the most appropriate strategy for pedestrians and cyclists within the town centre.

4.9 It should also be recognised that the town centre is due to be redeveloped over the Local Plan period, which will involve the relocation of the bus station, closure of Lytton Way, consolidation of car parks and new town centre development. As part of the development of the town centre masterplan and future development of the town centre, it will need to be designed with the bike in mind, both allowing cyclists to route through the town centre with ease and reach their final destination.

Town Centre Cycle Parking

4.10 A series of Sheffield stands are provided within Stevenage town centre for cyclists to use. The location of these are shown in **Figure 10.1** below.

Figure 10.1 – Town Centre Cycle Parking Locations

4.11 Currently, there is spare capacity within the town centre cycle parking as a result of the relatively low level of cycling within the town and the cycling ban within the pedestrianised area (i.e. dismount policy), which will act to deter people from cycling within the town centre.

4.12 As part of the Cycle Strategy Action Plan, additional cycle parking will be installed within the town centre. This will be undertaken taking a proactive approach rather than waiting for cycle demand to increase and existing cycle parking to be fully utilised. By providing additional cycle parking within the town centre, it reduces this aspect as a barrier to cycling.

4.13 Major regeneration of Stevenage town centre is planned, and town centre cycle parking will need to be incorporated into these proposals and the Cycle Strategy Action Plan updated accordingly.

Integration with Public Transport

Railway Station

4.14 Cycle parking at the railway station is very well used. There is a mixture of Sheffield stands and two-tier racks. In total, there are 194 cycle parking spaces at the railway station and, at the time of the audit (11am on a weekday in March 2017), the cycle parking spaces were 70% occupied. As part of the Cycle Strategy Action Plan, additional cycle parking spaces will be sought at the railway station.

4.15 Information has been received from the British Transport Police on bike theft at Stevenage railway station up to June 2017 and is summarised in the table below.

Bike Thefts Stevenage Railway Station

Year	Number of reported thefts	Outcome
2015	12	No suspect and investigation closed with no arrest
2016	21	1 suspect charged, 20 investigations closed with no arrest
2017	12	2 suspects charged, 5 investigations closed with no arrest, 5 still under investigation
Total	**65**	

4.16 The charge rate (5%) is extremely low and further consultation is required with the British Transport Police to understand what additional measures could be put in place to facilitate a higher charge rate.

4.17 In addition, it is understood that there is an aspiration for some major employment centres within the town to have secure dedicated cycle parking provided at the railway station for pool bikes for employees. Stevenage Borough Council will facilitate this as part of the implementation of the Cycle Strategy Action Plan.

Bus Interchange

4.18 Cycle parking is provided in the vicinity of the Stevenage bus station. The demand for this cycle parking should be monitored and additional parking provided if it reaches capacity.

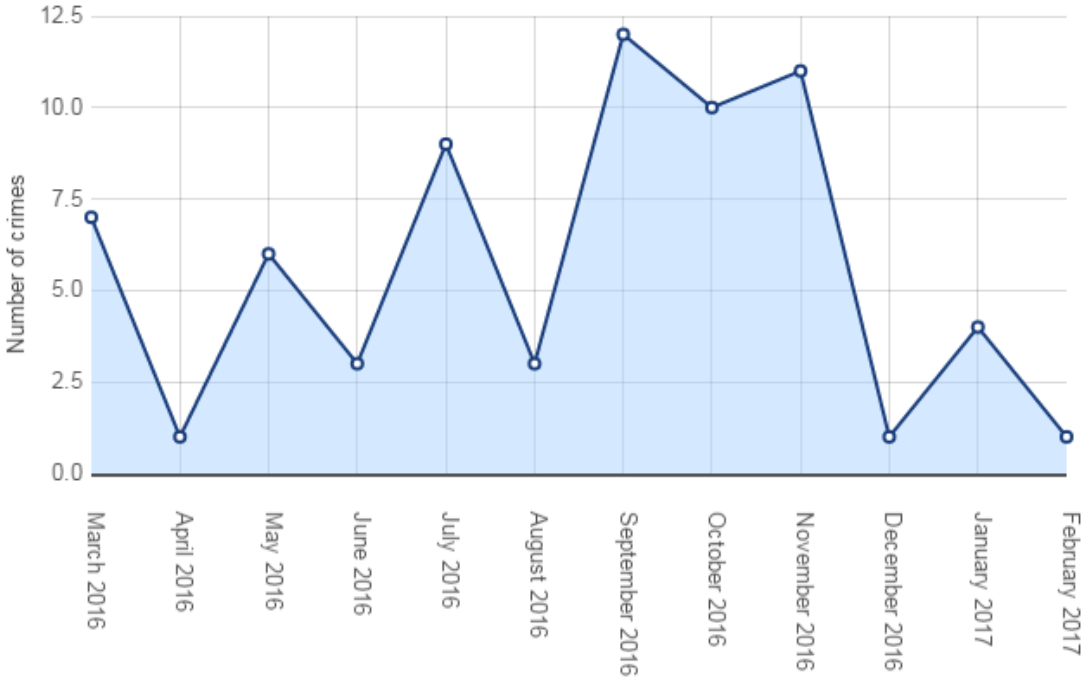
Cycle Hire Scheme

4.19 As set out in Section 9, consideration should be given to implementing a cycle hire scheme within Stevenage, whereby bikes are made available for shared use to individuals on a very short-term basis.

Cycle Security

4.20 According to Hertfordshire Constabulary records, there were 68 bike thefts in Stevenage Central between March 2016 and February 2017. These are illustrated in **Figure 10.2** below.

Figure 10.2 Bicycle Thefts in Stevenage Central (March 2016 – February 2017)

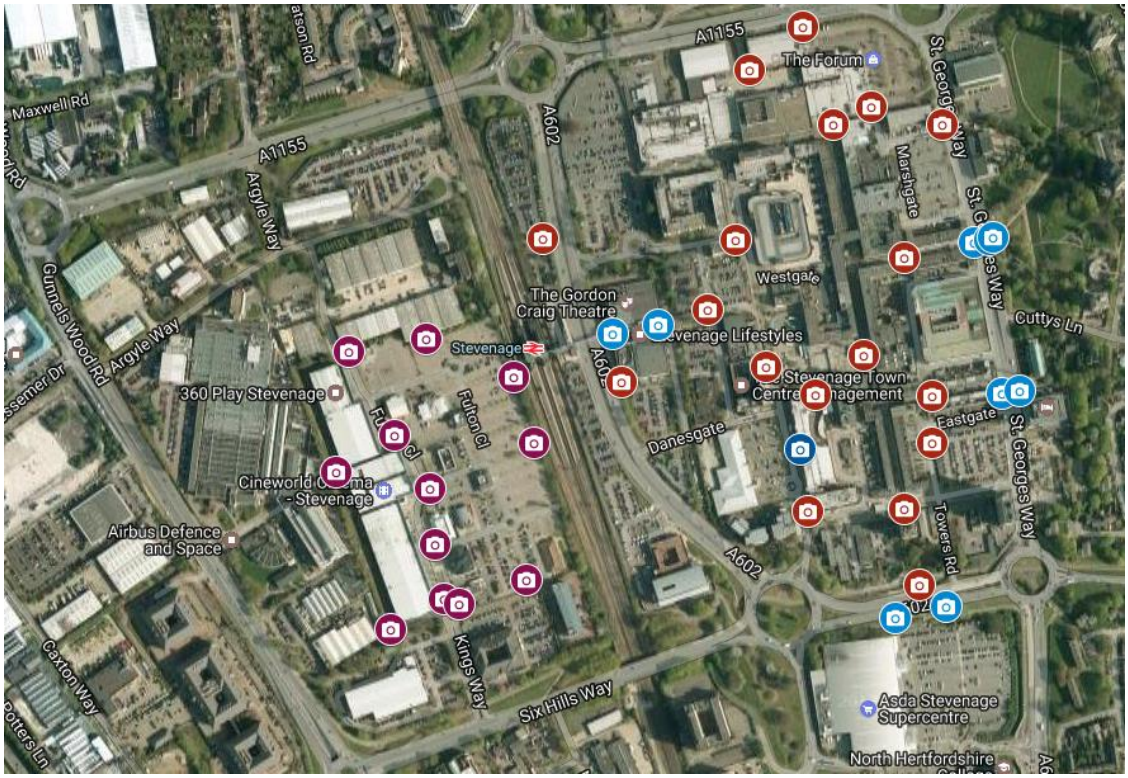


4.21 In addition to this, there were 82 reported cycle thefts in Stevenage North and South during the last year. Therefore, there was a total of 150 cycle thefts in the last year within Stevenage. Cycle theft would appear to have reduced slightly since 2000, when a total of 231 bikes were stolen in Stevenage.

4.22 Theft of cycles is greater in the town centre (i.e. Stevenage Central) than it is in Stevenage North and South. This would suggest that cycle theft is more likely to occur in areas where there is a greater concentration of destinations and consequently bikes.

4.23 CCTV cameras cover the majority of the town centre as shown in **Figure 10.3** below[10]. Cameras shown in blue are those monitoring schools and nurseries and those in red provide footage that can be made available to Stevenage Borough Council.

Figure 10.3 – CCTV within Stevenage Town Centre



4.24 Whilst CCTV cameras are a potential deterrent for cycle theft and are useful in potentially identifying cycle thieves, being proactive rather than reactive and investing in prevention of cycle theft is an effective way of reducing bike crime.

4.25 As part of the Cycle Strategy Action Plan it is proposed to invest in educating cyclists on how to reduce the likelihood of bike theft. This will include education on cycle locks and most effective methods to lock bikes, registering bikes to increase the chance of recovering the bike back if stolen and education on best locations to park bikes (well lit, CCTV, busy).

[10] http://www.hertfordshirecctv.co.uk/public-space-cctv-coverage/

CYCLING FOR NEW HOMES, JOBS AND COMMUNITIES

5 CYCLING FOR NEW HOMES, JOBS AND COMMUNITIES

5.1 This section of the Strategy summarises the expectations for developments coming forward in Stevenage in terms of cycling infrastructure provision, community engagement and promotion of cycling. It is hoped that by following the principles set out in this Strategy it ensures that new developments are well designed for cycle users from the outset.

Cycle Design Guidance

5.2 When designing cycle infrastructure within new developments in Stevenage, regard will be had to the following design guidance, as well as guidance that may in addition be issued from time to time:

- Manual for Streets/Manual for Streets 2, Department for Transport;
- Making Space for Cycling, Cyclenation;
- Handbook for Cycle-friendly Design, Sustrans;
- Roads in Herts;
- London Cycle Design Standards; and
- IAN195/16.

5.3 The guidance contained within these documents provides best practice guidance on the following aspects:

- Creating permeability in street layouts;
- Appropriate cycle infrastructure for local streets;
- Cycle infrastructure on Primary and Secondary streets;
- Designing for cyclists at junctions;
- Cycle crossings; and
- Traffic free routes.

5.4 Whilst the design guidance provides information on the layout and design for cycle parking, the minimum cycle parking standards for Stevenage are set out in this Strategy.

Designing for Cycling

5.5 The Stevenage Borough Local Plan sets out the anticipated growth in Stevenage in housing and jobs to 2031. New developments need to be designed with active travel as the highest priority.

5.6 The type of infrastructure will depend on where the street fits within the street hierarchy of the development. Good cycling infrastructure is not just about creating dedicated cycle routes. Design and quality of the street or place will intuitively influence the way people choose to travel and move within the space.

5.7 For local streets, there are a number of design solutions to create streets for people. Local streets should be designed to be attractive for pedestrians and cyclists to use and provide for them as the first priority. Speeds should be kept low through design. Parking should not detract from the ability of cyclists to cycle safely and easily along the local streets. Street networks should be connected to enable permeability for walking and cycling, allow easy navigation through developments and create more 'alive' streets with community interactive at a pedestrian scale.

5.8 While a well-connected street network helps to dissipate traffic through the development, only a small number of streets are usually connected to the existing highway network, resulting in a greater level of traffic on these primary and secondary roads.

5.9 Streets with a greater level of traffic require cycle user specific infrastructure to create a safe and attractive environment for cyclists. For any new road serving the new development that connects to the existing highway network, the minimum provision for cyclists will be stepped cycle routes (sometimes called hybrid cycle lanes) on each side of the road. These are slightly raised on-road cycle lanes alongside the main

carriageway but below the level of the footway. Further design guidance on these stepped cycle routes is provided in the Making Space for Cycling guidance by Cyclenation.

5.10 On the primary and secondary roads within developments, priority for cycle users at side road junctions will be sought, subject to consultation with Hertfordshire County Council. The stepped cycle tracks provide priority to cyclists over traffic turning into and out of side roads.

5.11 Subject to consultation with Hertfordshire County Council, where segregated cycle tracks are provided rather than stepped cycle routes, cyclists should have priority over side roads. Depending on the level of traffic on the major arm of the junction, the cycle track priority on the minor arm can be with or without a 'set back', allowing drivers to give way to cyclists. The cycle track and footway must not change height across these junctions. Geometry at these junctions should involve forcing drivers to slow as much as possible, and to align them perpendicularly with the track they are crossing. Cycle priority should be made clear, rather than left ambiguous.

5.12 Where stepped cycle routes are provided on roads which buses route along, floating bus stops should be provided. This is where the entire bus stop 'floats' inwards, so that the bus stop kerb is built adjacent to the vehicle lane and the cycle lane routes behind the bus stop. This provides a continuous and safe environment for cyclists and enables buses to continue along the carriageway uninterrupted.

Cycle Parking Standards

5.13 **Table 11.1** summarises the updated minimum cycle parking standards for new developments within Stevenage Borough, which take account of the objectives of this strategy to provide an uplift in cycling within the town.

Table 11.1 – Stevenage Minimum Cycle Parking Standards for New Developments

Land Use			Long Term Minimum cycle parking standard	Short Term Minimum cycle parking standard
A1	Food Retail		From a threshold of 100 sqm: 1 space per 175 sqm	1 space per 150 sqm GFA
	Non-food Retail		From a threshold of 100 sqm: first 1000 sqm: 1 space per 250 sqm thereafter: 1 space per 1000 sqm	1 space per 350 sqm GFA
A2	Finance/professional services		from a threshold of 100 sqm: 1 space per 175 sqm	1 space per 100 sqm GFA
A3-A5	Cafes and restaurants			
	Drinking establishments			
	Takeaways			
B1	Offices		1 space per 150 sqm	1 space per 500 sqm GFA
	Light industry and Research			
B2	General industrial		1 space per 500 sqm	1 space per 1,000 sqm GFA
B8	Storage and distribution			
C1	Hotels		1 space per 20 bedrooms	1 space per 50 bedrooms
	Hostels		1 space per 3 units	
C2	Hospitals		1 space per 5 staff	1 space per 30 staff
	Care homes/ secure accommodation			1 space per 20 bedrooms
	Student accommodation		1 space per 2 bedrooms	1 space per 40 bedrooms
C3-C4	Residential (without garage)	1 bed	1 space per unit	1 space per 40 units
		2 bed	2 spaces per unit	
		3 bed		
		4+ bed		
	Houses in multiple occupation (without garage)		1 space per bedroom	

D1	Nurseries/ primary and secondary schools	1 space per 8 staff + 1 space per 8 students	1 space per 100 students
	Primary Schools and Secondary Schools		
	Universities and Colleges	1 space per 4 staff + 1 space per 20 FTE students	1 space per 7 FTE students
	Health centre and dentist	1 space per 5 staff	1 space per 3 staff
	Public halls/places of assembly (exc D2), community centres, place of worship	1 space per 8 staff	1 space per 100 sqm GFA
	Libraries and misc cultural building		
D2	Cinemas	1 space per 8 staff	1 space per 30 seats
	Swimming pools, racquet sports, ice rinks, sports clubs, gyms	1 space per 8 staff	1 space per 100 sqm
	Ten pin bowling, Indoor bowls	1 space per 10 full time staff	1 space per 3 lanes and 1 space per 25 spectator seats
	Outdoor sports grounds		1 space per 10 players at busiest period
	Golf	5 spaces per 9 holes	
Sui generis	Car showroom, vehicle storage, hire cars, petrol filling station (PFS) etc	as per most relevant other standard	as per most relevant other standard

5.14 The provision of convenient secure cycle parking and related facilities is fundamental to encouraging increased cycling, particularly from single occupancy motorised journeys made over shorter distances on a regular basis.

5.15 The type of cycle parking provision required will vary depending on its use. In public areas cycle parking should be well overlooked to allow for maximum security. For short stay use such as this, Sheffield stands are generally appropriate, as these provide a simple and effective facility.

5.16 For longer stay use, such as for employment premises, covered parking areas should be provided either within the building itself or located in close proximity to the building entrance, to allow for weather and security protection. This can be accommodated through the use of cycle lockers or secure cycle sheds. For employment premises, shower facilities should also be provided in conjunction with these facilities.

5.17 Cycle parking should be provided in prominent areas close to key destinations such as entrances of public buildings, leisure facilities, educational establishments, in town centre areas, at local centres and transport termini. It should be clearly signed from the public highway wherever possible.

5.18 Cycle parking within residential developments should be provided within garages or sheltered stores depending on the type and scale of the development. Cycle parking for dwellings should not involve having to pass through the dwelling to access it.

5.19 Communal cycle parking for apartment blocks should be within the block. If not possible and the cycle parking should be provided within the public realm located within a lockable structure.

5.20 Cycle parking needs to take into account all user needs, so as not to exclude or disadvantage riders of certain types of cycle. This includes people who use handcycles, tricycles, tandems and models adapted to suit the rider's specific needs, as well as cargo cycles.

5.21 Larger cycles can be accommodated where tubular stands are used, in or outside of a building, shelter, cage or compound, provided they have step-free access and sufficiently wide door openings.

Travel Planning

5.22 Research shows that travel habits can be countered via certain interventions when a person is experiencing a life-changing event (i.e. new home, new job). Travel habits are strong in the environment where they are initially developed because certain cues in that environment activate the habits automatically. When people change their environment, those cues are absent and, for a certain time, the automatic nature of the travel behaviour is weakened. This change in environment is the time when people are more receptive to considering alternative ways of travelling.

5.23 Developments will be likely to require a Travel Plan to be implemented from first occupation and the Travel Plan will need to include strong behaviour change programmes from the outset to capitalise on this receptiveness to consider new ways of travelling. It is at this point that promotion of the active travel network and encouragement to 'give it a go' will be most effective before habits are formed.

5.24 Residential developments of 50 units or more will be expected to provide, as a minimum, the following measures as part of the Travel Plan:

- Welcome pack for new residents providing information on active travel and public transport and vouchers to be spent on bikes, cycle accessories or public transport.
- Bike training for residents, including facilitated cycle rides
- Bike maintenance workshops
- Secure and covered bike parking within flats and houses and at community uses and schools within the development
- Behaviour influencing programme of measures

5.25 Employment developments (B1 more than 1500sqm GFA, B2 more than 2,500sqm GFA and B8 more than 3000sqm GFA) will be expected to provide, as a minimum, the following measures as part of the Travel Plan:

- Facilities for cyclists including secure and covered cycle parking in accordance with the Stevenage Cycle Parking Standards, showers, changing facilities, storage for clothes and bike equipment, bike maintenance kit.
- Induction pack for new staff providing information on active travel and public transport.
- Bike training for employees, including led cycle rides to plan journey to work
- Bike maintenance workshops
- Behaviour change programme of measures
- Car parking management strategy to ensure employees are not automatically allocated a parking space and it is needs tested

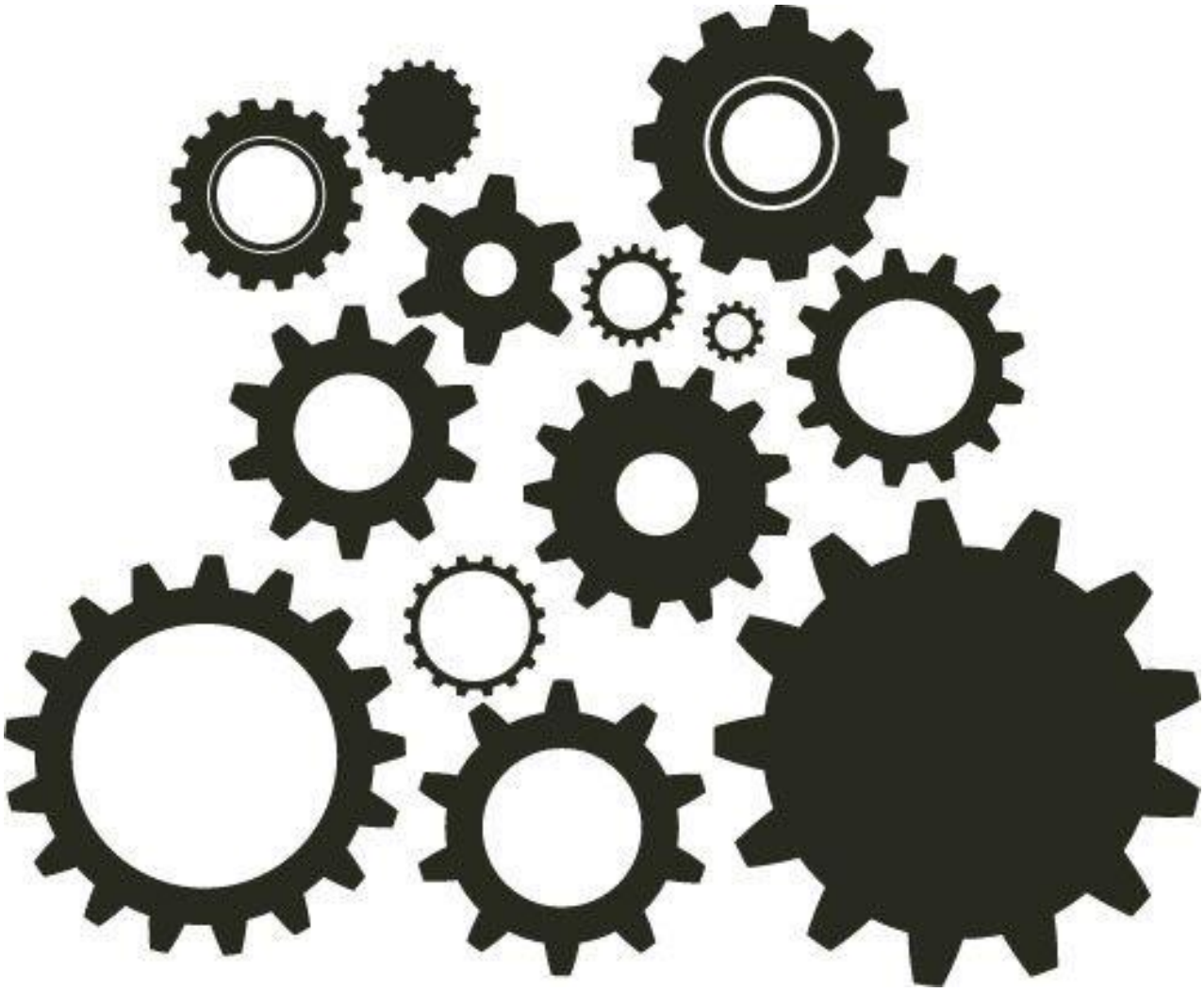
Community Engagement

5.26 Larger development sites coming forward in Stevenage (over 500 units) will be required to provide a 'Community Concierge' officer on the site from first occupation. This person would be the social and travel concierge for the development and will be the vital link between local groups within the development to help create a sustainable community. This will include implementing the Travel Plan, being the point of contact for travel queries and information for residents, co-ordinating community and travel events within the sites, being a champion for cycling and being the main contact with the local authorities.

Off-site Cycle Improvements

5.27 As part of the Transport Assessments for sites within Stevenage Borough and on the edge of Stevenage but in neighbouring authorities, Hertfordshire County Council as

highway authority will need to agree appropriate off-site transport improvements, including cycle infrastructure. Where Hertfordshire County Council require improvements to the cycle network within Stevenage, they will be secured via S106 contributions, which will be distributed to the highway authority to implement the improvements. Stevenage Borough Council will liaise with Hertfordshire County Council during the planning process of sites within the borough and sites adjoining Stevenage but in neighbouring boroughs to ensure that appropriate infrastructure improvements are secured.



IMPLEMENTATION PLAN[11]

[11] www.clip4art.com

6 IMPLEMENTATION PLAN

6.1 This section summarises what the main targets are during the first three years of the adoption of this Cycle Strategy Action Plan. With the funding landscape changing regularly and new sources of revenue and areas of investment being identified, this will inevitably mean that we will need to make changes as we proceed. The objectives contained within this implementation plan are designed to be specific, measurable, achievable and delivered within a particular time frame.

Table 12.1 – Cycle Strategy Implementation Plan

Objective	Impact
Create an implementation plan for cycle network improvements and maintenance (including signage and wayfinding).	A world-class cycling infrastructure for Stevenage that is connected, convivial and safe to use and, together with behaviour change interventions, will lead to cycling around Stevenage becoming irresistible.
Develop links with local cycle user groups and create a Stevenage-wide stakeholder group	Ensure user involvement in decisions affecting cyclists
Benchmark existing cycle network usage and develop a methodology for measuring cycling uptake across the population	The health and environmental impact of investment in cycling can be quantified and used to lever additional funding from health, transport and community sources
Increase cycle ownership and/or access, in particular amongst the inactive, disabled, families and older people	Helping to bridge the gap between avid, sporting cyclists and utility cycling and cycling for pleasure or to improve and maintain health of people with a range of medical conditions. Helping people to find the right bike for them. Encourage the 'Wheels for All' initiative in Stevenage which will give people with a disability access to a quality cycling experience. Reduce social isolation.
Implement cycle training in schools and confidence cycling courses in workplaces and communities. Educate drivers through campaigns and signage to look out and make way for cyclists	This will help to challenge the myths around cycling being unsafe or only for fit, able-bodied individuals. It will also help to reduce the risk of cycling accidents and improve driver behaviour where the cycle network interacts with the roads.
Develop a marketing and promotion plan for cycling in Stevenage	This will tap into Stevenage's 'shared history' of its cycling heritage and will change the social norm around cycling to make it attractive and desirable and remind/raise awareness of Stevenage's cycle infrastructure resource. It will motivate and incentivise people to return to or take up cycling.
Appoint a dedicated cycling officer, working closely with user groups and local stakeholders to	Better links with the community, workplaces, schools and health and transport bodies/organisations. Implementation of the

lobby for increased investment in cycling in the town	marketing and promotion plan and increased investment in cycling
Increase the provision of secure and accessible cycle parking across the town, including e-bike charging points	Address the concerns many people have about safe storage of bikes and make cycles more visible around Stevenage, acting as a 'nudge' to encourage others to cycle. Provision of cycle storage in the town centre will help to reinforce the lifting of the cycle ban in that area.
Discussions with rail and bus companies about the potential of improving bike/rail and bike/bus door to door journeys.	Reduce congestion around key transport interchanges and promote integrated sustainable travel.
Training for planners and designers in developing cycle schemes and proposals in accordance with best practice	Future-proofing Stevenage's cycling network and cycling culture and ensuring that new developments are seamlessly connected to the existing network.
Require developments to undertake an audit of the surrounding cycle network and provide high quality connections into and improvements to the existing network.	This will ensure that all developments are properly connected into the Stevenage Cycling Network.
Write a Stevenage Cycle Charter	

APPENDIX A

APPENDIX B

APPENDIX C