Local Cycling and Walking Infrastructure Plan 2019

LCWIP

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1 Determining Scope

1.1 What is an LCWIP?

1.1.1 In 2017 the Government published its first Cycling and Walking Investment Strategy, which sets out their ambition to make walking and cycling the natural choices for shorter journeys or as part of a longer journey. This Strategy supports the transformation of local areas; change which will tackle congestion, change which will extend opportunity to improve physical and mental health, and change which will support local economies.

1.1.2 Local Cycling and Walking Infrastructure Plans (LCWIPs) are identified in the Government's Strategy as a new tool to identify strategic cycling and walking improvements at the local level. They enable a long-term approach to developing local cycling and walking networks, ideally over a 10 year period.

1.1.3 The key outputs from an LCWIP, as established in the Technical Guidance are:

- A network plan for walking and cycling identifying preferred routes and core zones for further development
- A report setting out the underlying analysis carried out and narrative supporting the identified improvements and network
- A prioritised programme of infrastructure improvements for future investment

1.1.4 To be successful, it is vital that LCWIPs are part of an integrated response to creating better places, safer streets and more reliable journeys. LCWIPs should clearly link to other strategic transport planning documents, such as Local Transport Plans, and be compatible with other local transport priorities that tackle congestion and unlock growth. Where conflicting priorities are identified, these should be discussed at the earliest opportunity.

1.1.5 For Hertfordshire, the most recent Local Transport Plan (LTP4) was adopted in August 2018. This document provides the long-term strategy setting out how Hertfordshire's transport network needs to adapt in order to accommodate an additional 175,000 residents in the period to 2031. It provides a framework for all future transport planning decisions and investments over the Local Plan period (2011 – 2031). The Local Transport Plan can be seen as a transition from the previous transport strategy that was largely car based to a more balanced approach which caters for all forms of transport and seeks to encourage a switch from the private car to sustainable transport (walking, cycling and passenger transport) wherever possible. Comprehensive packages of improvements for walking, cycling and passenger transport, combined with activity to encourage more sustainable travel behaviour are proposed for Stevenage, and many of the potential packages of measures will be set out in the emerging Growth & Transport Plan for the north Hertfordshire area.

1.1.6 Preparing LCWIPs should also help authorities to consider the impact of planning applications and other proposed land use changes on existing and planned cycling and walking infrastructure, and to identify sites that are well served, or capable of being well served, by cycling and walking routes. The existence of a LCWIP should assist developers in the preparation of Travel Plans, Transport Assessments and Statements.

1.2 Objectives

1.2.1 The Stevenage LCWIP ("The Plan") brings together existing evidence on potential improvements to the walking and cycling networks within Stevenage, and provides a consistent methodology to prioritise interventions aimed at:

- Improving the cycling network to reduce the propensity to travel by private vehicle and increase active travel, by walking and cycling;
- Identifying and prioritising walking opportunities to increase the number of walking trips to local destinations;
- Ensuring that new development complements and connects to the existing and planned walking and cycling network; and
- Helping Stevenage to bid for funding to make improvements to the network.

1.3 Geographical extent

1.3.1 Stevenage Borough is a small local authority area, which covers the single town of Stevenage. The town is located around 30 miles north of central London, in the north of the county of Hertfordshire. It is connected to junctions 7 and 8 of the A1(M) and the A602, which provide strategic connections across the county and beyond. Stevenage is surrounded by the districts of North and East Hertfordshire. Beyond the Borough Boundary is open countryside and villages such as Aston, Little Wymondley, Graveley, Walkern and Knebworth, with the nearest towns being Hitchin and Letchworth to the North and Welwyn Garden City to the south.

1.3.2 Stevenage covers an area of approximately 27km2, spanning just less than 9km north to south and around 5.5km east to west. LCWIP guidance suggests that cycling has the potential to replace trips made by other modes up to 10km. As such, this LCWIP covers the whole of the Stevenage Borough Council local authority area. Walking distances are generally shorter, with the guidance suggesting up to 2km. Therefore a Core Walking Zone has been considered for the purposes of this Plan, which is discussed further in section 4.1.5.

1.3.3 Stevenage is forecast to grow over the next 20 years, both in terms of population, and its geographical extent. The Stevenage Borough Local Plan allocates sites to deliver at least 7,600 homes, alongside new employment land, with new developments planned to the North, West and South East of the town. The urban area of Stevenage already extends beyond the Borough Boundary in some areas, and further development is also proposed on land adjacent to Stevenage in the local authority areas of North Hertfordshire (emerging Local Plan) and East Hertfordshire (adopted Local Plan). The LCWIP takes into account all of these growth areas, with the aim of integrating these into Stevenage's existing cycling and walking network.

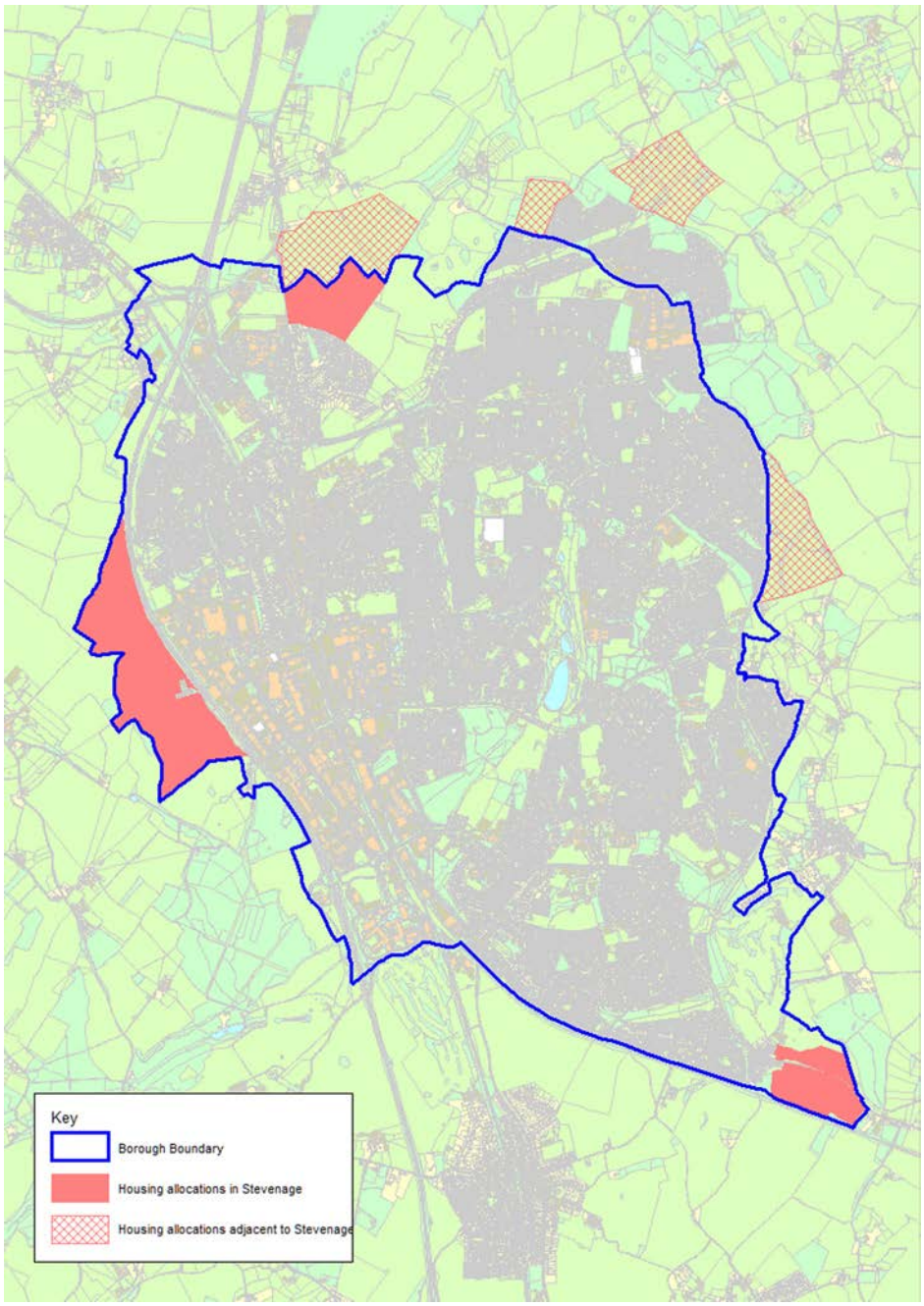


Figure 1 Extent of the LCWIP

1.4 Governance and delivery

1.4.1 Preparation of this LCWIP has been led by Stevenage Borough Council, and supported by Hertfordshire County Council. Support was also provided by transport consultancy WSP following a successful bid for support from Department for Transport's (DFT's) pilot LCWIP fund.

1.4.2 To manage the project, a Project Team was identified consisting of Stevenage Borough Council planning officers and engineers and Hertfordshire County Council officers. Both adjacent authorities of North and East Hertfordshire were also included as delivery partners, due to their planning responsibility for the growth areas abounding Stevenage. The Assistant Director of Planning and Regulation was identified as the Senior Responsible Owner of the LCWIP.

1.4.3 A Project Board was established, with the overall responsibility of ensuring the plan integrates with wider authority objectives and strategies. This comprised of the following members:

- Planning Policy Manager
- SBC Portfolio Holder for Economy, Enterprise and Transport
- SBC Portfolio Holder for Planning
- Stevenage CTC Group Secretary (and SBC local ward councillor)

1.4.4 A meeting to introduce the LCWIP to the Project Board was held at an early stage in the process (7 August 2018), where initial discussions were useful in providing an overview of concerns relating to the network and the priorities, particularly in terms of integrating new communities. Engagement with stakeholders was ongoing throughout the process, as well as in previous studies that have been used to inform this Plan.

1.4.5 In particular, due to the more limited information available on walking within the town, a local steering group was set up to discuss the walking routes and interventions with interested residents and local employees. This group was made up of 7 individuals, who each offered their views.

1.4.6 The LCWIP is relatively high level. It is anticipated that the interventions identified in it will require further, more detailed investigation to be carried out before they can be delivered. Some are also likely to require external funding, for which bids will be sought in due course. It is anticipated that the interventions will largely be delivered by the HCC Highways and SBC Engineers teams.

1.4.7 In line with other transport plans, it is envisaged that the LCWIP will need to be reviewed and updated approximately every four to five years to reflect progress made with implementation. The LCWIP should also be updated if there are significant changes in local circumstances, such as the publication of new policies or strategies, major new development sites, or new sources of funding.

2 Gathering Information

2.0.1 An LCWIP should be based on data showing the number of existing and potential trips that could feasibly be made on foot or by bicycle if conditions were improved. To inform the preparation of the LCWIP, a broad range of information was gathered including the following:

- Information on the existing transport network;
- Information on existing travel patterns;
- The Propensity to Cycle Tool;
- Key outcomes of existing plans and studies;
- Perception of existing facilities; and
- The identification of trip generators – both existing and planned.

2.1 The existing transport network

2.1.1 As a New Town, created after the Second World War, Stevenage was built to include principles of sustainable and self-contained travel, including a pedestrian town centre, a segregated cycle network, and neighbourhood centres offering local facilities and services for communities within walking distance of their homes.

2.1.2 Stevenage is well served by road and rail, with the A1(M) forming part of the western boundary of the authority, and fast services to London, Peterborough, Cambridge, and destinations further north via the Thameslink and LNER services. There are also local services via the mainline and Hertford loop connecting Stevenage with towns such as Hitchin, Letchworth, Welwyn, Hertford, and north London.

2.1.3 East-West routes are generally not as strong, but there are bus services linking Stevenage with other nearby towns and villages.

2.1.4 The cycle network in Stevenage is established, and comprehensive. It was installed as part of the development of the New Town, and offers a segregated, direct, network around the town. However, whilst the network is extensive, there are some gaps in provision. This is largely as a result of the decline in cycling seen once cars became more popular, as emphasis shifted away from providing cycling facilities and some areas of the town were developed without adequate cycleway provision.

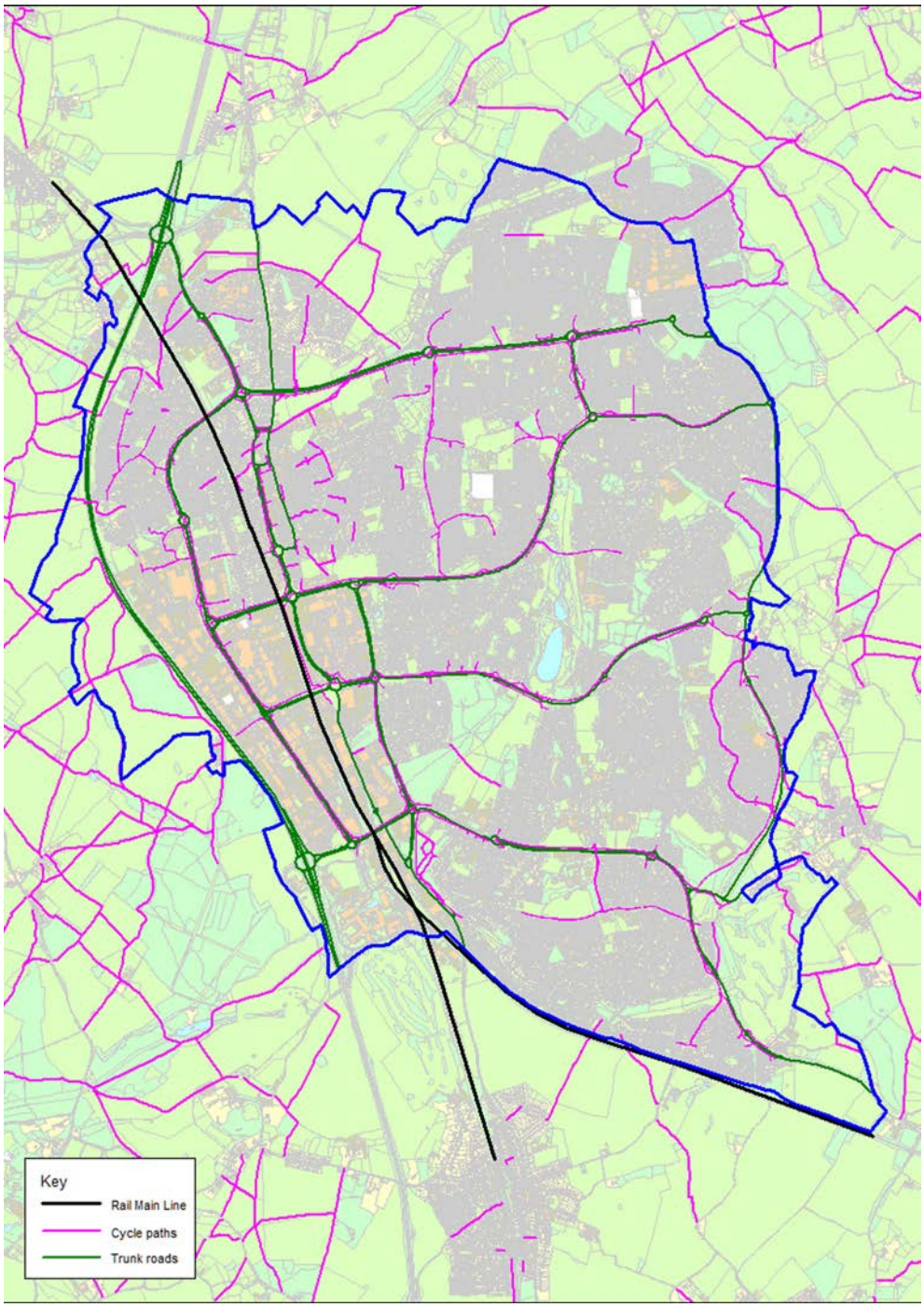


Figure 2 Key roads, rail and cycle routes

2.1.5 Stevenage also has an extensive network of walking infrastructure, including dedicated walking routes alongside main and local roads, as well as walking trails around the town. The town centre was the first pedestrian-only centre in the UK.

2.2 Existing travel patterns

2.2.1 According to the latest available data, the mode split by bike (for travelling to work only) in Stevenage is around 3%, and walking is 10%. This is comparable with other similar sized settlements in Hertfordshire such as Welwyn and Hitchin.

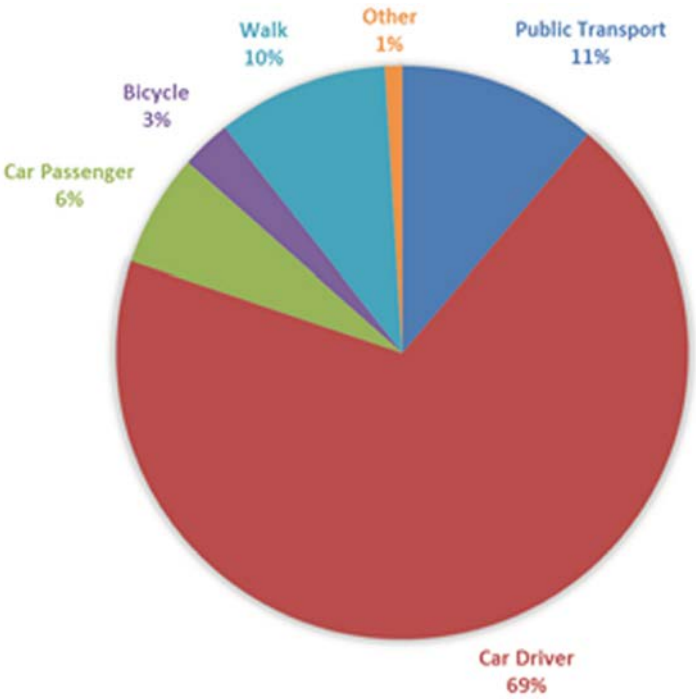


Figure 3 Mode of Travel to Work for people working in Stevenage (2011 Census)

2.2.2 For journey to work trips under 3 miles in length, the cycle and walking mode share is higher, but over half of all journey to work trips are still being made by private car. With Stevenage's extensive cycle network it should be possible to make walking and cycling the dominant mode split for journeys of this length.

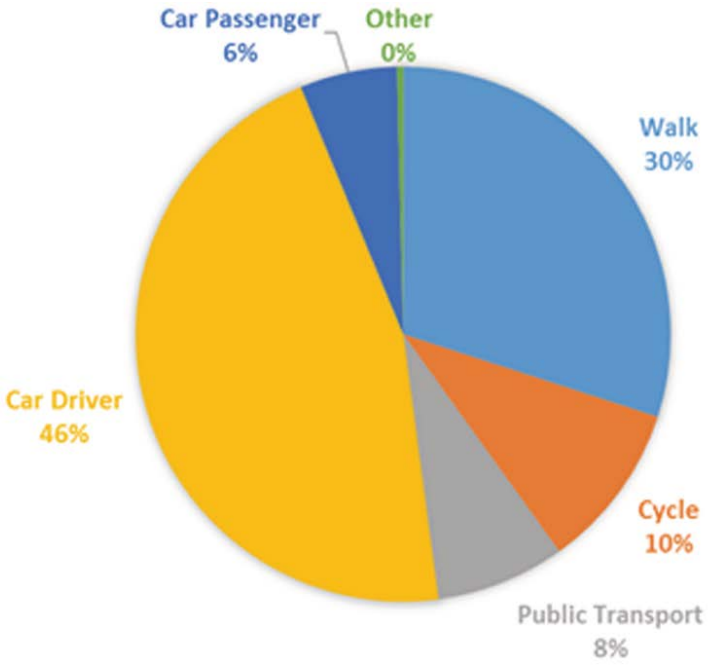


Figure 4 Mode of Travel for Jounrney to Work Trips under 3 miles (2011 Census)

2.2.3 Before the rise of the motor car for everyday use, mid-1970's surveys showed that over 4,000 cycles were used for daily journeys to work or school (Stevenage Cycle Strategy, 2002). It is interesting to note that no problems with capacity were encountered, even along the most popular routes, which were known to carry peak rates equivalent to 1,100 cyclists per hour. Since this

time, the network has largely remained unchanged, but the popularity of cycling has decreased significantly. The availability of the private car, when married to relatively cheap car parking and a well-functioning road network, means that car use is often the preferred choice.

2.3 Propensity to Cycle Tool

2.3.1 The Department for Transport (DfT)'s Propensity to Cycle tool (PCT) identifies where current trips by bike are being made and illustrates different visons of the future based around various scenarios of change that can be applied.

2.3.2 The map from the PCT below shows how cycling mode split varies spatially across Stevenage at present. Cycling levels are between 2-4%, with slightly higher mode split in areas nearer the town centre. Fig 2.5 illustrates that the proportion of people cycling in Stevenage is higher than outside Stevenage. This is likely to be due to a combination of the extensive cycle network, but also the fact that Stevenage is a relatively small town, thus providing easier cycling distances within the town.

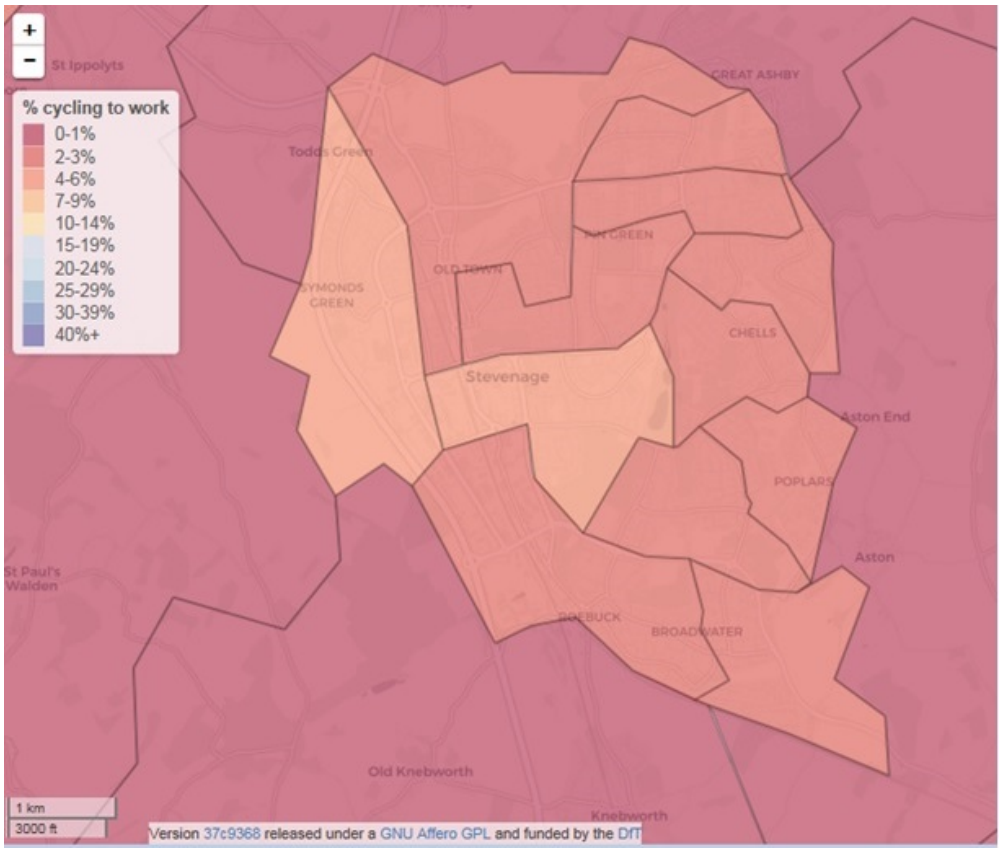


Figure 5 Current cycling mode share in Stevenage (www.pct.bike)

2.3.3 The Government's target aims to see nationwide cycling mode split increase to 5-7%. The map below shows how, based on current cycling trends, this national increase would manifest itself in Stevenage.

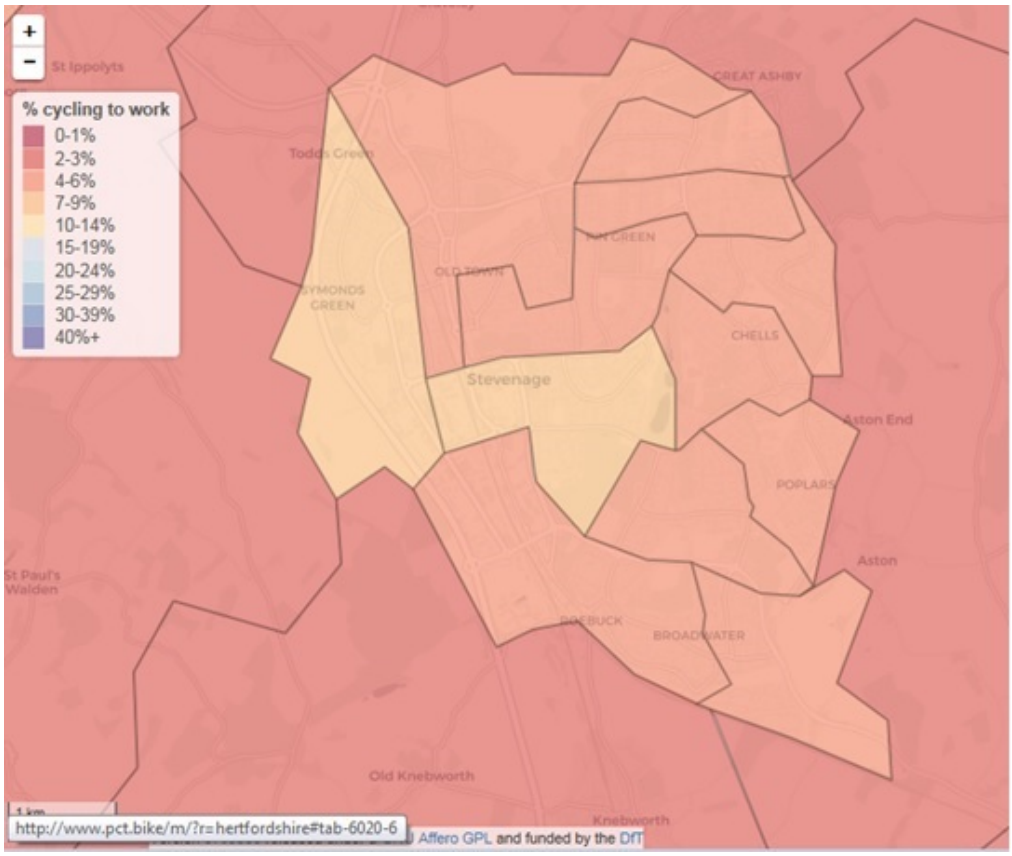


Figure 6 Potential cycling mode share based on Government target (www.pct.bike)

2.3.4 We can see that the local cycling rate, based on the Government's target for cycling being met nationally, sits at 4-7%. This is the level of cycling mode share Stevenage would need to achieve to make its contribution to meeting the national cycling target. It is lower than the national average because participation rates for cycling in Stevenage are currently lower than the national average.

2.3.5 These current and forecast mode splits do not reflect the extensive existing cycle infrastructure in Stevenage, or SBC & HCC's aspirations to increase mode share of sustainable transport. To achieve (and potentially exceed) Government target cycling participation levels, there is a need for interventions in the network to boost cycle use.

2.3.6 With the TfL "go Dutch" model applied to the same data, the proportion of Stevenage's journeys to work by bike rises to 17-21%. This assumes that the approach to use of bicycles for travel to work trips in Stevenage would mirror those of residents of the Netherlands.

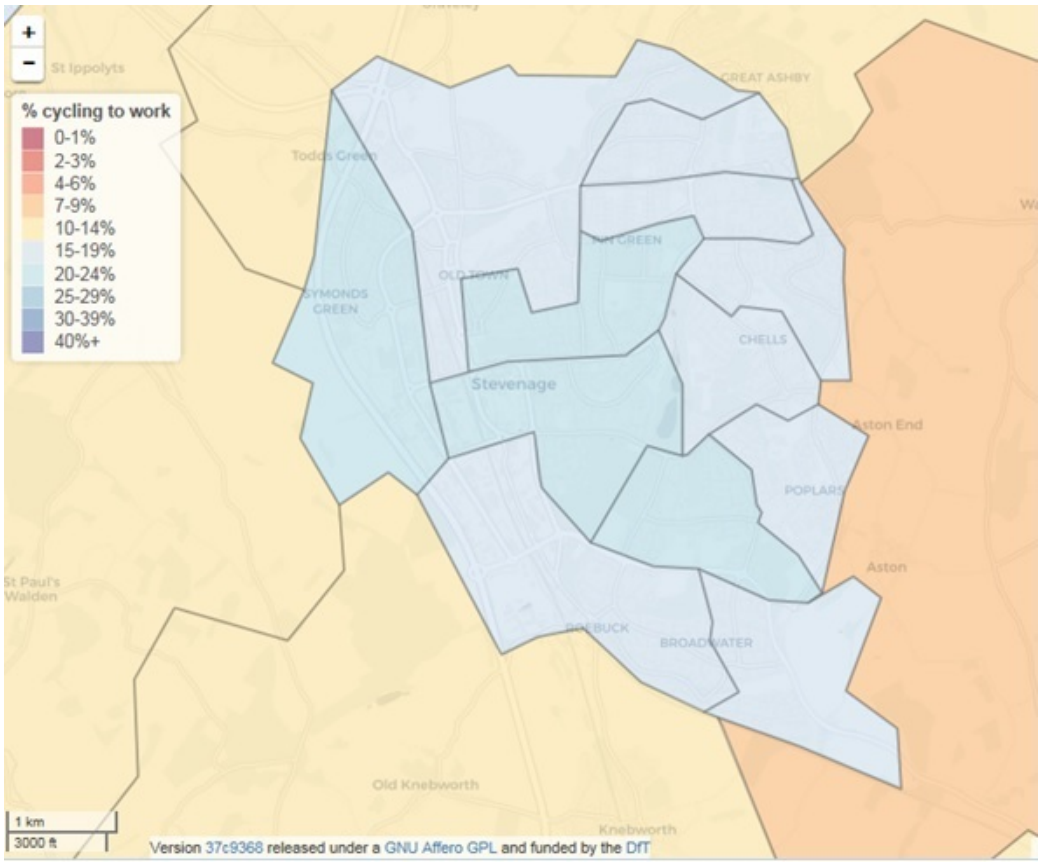


Figure 7 Potential cycling mode share based on "Go-Dutch" scenario (www.pct.bike)

2.3.7 Stevenage's cycle network is similar to that of many Dutch cities, but mode split is demonstrably different. This implies that there is a need to proactively shift behavioural patterns to increase the number of users on Stevenage's cycle network, as well as improving and maintaining the cycling infrastructure.

2.4 Existing plans and studies

2.4.1 There are a number of plans and studies in existence already that relate to walking and cycling within the Borough, some of which set out potential interventions that have been identified. The LCWIP represents an opportunity to draw these together in a consolidated and consistent format, and prioritise the interventions.

HCC Urban Transport Plan for Stevenage (2013)

2.4.2 The Urban Transport Plan (UTP) for Stevenage was produced in partnership with Stevenage and North Herts Councils to support the 3rd edition of the Local Transport Plan. Cycling projects are identified in the UTP, including estimates of cost, with the expectation that they will be delivered over a 20 year period to 2033. While this plan will be superseded by the emerging Growth & Transport Plan, it includes a number of walking and cycling schemes that will be considered in this report. The projects are detailed further in the appendices to this report.

Bedwell Report (2016)

2.4.3 This report reviewed the existing cycle facilities in the Bedwell ward (central Stevenage) to improve knowledge on safety, infrastructure / continuity, and maintenance requirements of this section of Stevenage's cycle network. Types of issues identified are:

- Safety issues;
    - Lack of tactile paving at points where pedestrians are required to cross the path of another user (cycleway/moped or carriageway)
    - Lack of route lighting
- Infrastructure issues;
    - Lack of cycle signage
    - Lack of cycle markings to highlight the cycle facility, such as cycle symbols and give way markings
    - Lack of hazard paving to highlight change of use (i.e. from segregated to shared use)
    - Lack of continuity with types of bollards/ signage
    - Incorrect size of signage
- Maintenance issues;
    - Poor surface conditions
    - Faded cycle give way markings
    - Poor state of signage and posts in need of replacement
    - Grass verge overgrowth along the edges of the facilities
    - Trees overhanging the facilities and creating low points for cyclists

2.4.4 The report identifies 70 sections / junctions of the cycleway network in which improvements are proposed and costed. Whilst it provides recommendations on how to improve the condition of a section of the cycleway network, the improvements generally relate to surfacing, signage, and junctions, rather than the introduction of new infrastructure to increase capacity. The findings are incorporated into the potential improvements to the cycle network.

SBC Mobility Strategy (2016)

2.4.5 The Mobility Strategy was produced to support the Examination in Public of the Stevenage Borough Local Plan. It draws upon data collected in the Hertfordshire 2015 Household Survey, showing that 22% of journeys to work in Hertfordshire are within 3 miles and over half (52%) of these journeys are made by car.

2.4.6 The Mobility Strategy proposes a range of schemes to promote active travel patterns, including:

- Encouraging the shift towards active transport through the creation of an active travel / car differential whereby it is more attractive to cycle for short journeys than drive;
- Upgrading of the existing cycle network, which has suffered from a historic lack of investment;
- Addressing missing links in the network and changes to priority where cycleways meet the highway in order to create continuous routes;
- Ensuring that the former active travel Wayfinding Strategy that was developed, but not implemented, will be reviewed and updated where necessary;
- Reviewing the existing cycle parking available to the public within Stevenage will be undertaken;

- Undertaking cycle training, including for those of an early age, will help to broaden horizons and provide confidence;
- Proposing the creation of a Cycle Strategy / Action Plan.

Stevenage Cycling Strategy Action Plan (2018)

2.4.7 The Stevenage Cycling Strategy Action Plan was 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.

2.4.8 It identifies that whilst Stevenage is in an envious position of having a segregated cycle network, there are varied bikeability levels that would be required to use the different parts of the network, meaning not all users will be confident using all parts of the network. Routes that have been classified as needing greater skill should be reviewed, in consultation with HCC, to determine what package of measures is required to enable cyclists of all ability to use the routes.

2.4.9 A Cycle Level of Service (CLoS) audit of the existing cycle network was carried out, identifying and prioritising a set of potential infrastructure improvements, including upgrades of the Cycleway network, missing Cycleway Links, and improvements to wayfinding. These are incorporated into the current “long list” of infrastructure improvements in the appendices.

2.4.10 New cycle parking standards are proposed, which will be incorporated within an update to the Parking Standards SPD. Initiatives to improve cycling to school, cycling to work and improving cycling within the town centre are also proposed.

Stevenage Cycleway Inspection (Jan 2018)

2.4.11 A tour of cycleways within the Borough was carried out on 16 January by Cllr Jim Brown, and 2 officers from HCC. Although a full review of the cycle network was not possible within the time available, a list of issues and potential improvements was identified. These are listed as a part of Appendix A.

SBC Infrastructure Delivery Plan (2017)

2.4.12 The Infrastructure Delivery Plan (IDP) sets out the infrastructure required to support growth over the Local Plan period (2011-2031). This document includes timeframes, cost estimates and an indication of the delivery body responsible for each project. It is anticipated that the outputs from the LCWIP will be incorporated into the Infrastructure Delivery Plan as an update, once complete.

Conclusion

2.4.13 The evidence studies completed so far have identified over 50 potential improvements to the cycling network, and 20 improvements to the walking network. These improvements have been considered when assessing the cycle and walking network and are reflected in the interventions identified. The LCWIP should be used as an opportunity to consolidate, and weigh the relative costs and benefits of each of these interventions to establish a prioritised list of improvements. Appendix A provides further detail on any specific interventions recommended within these existing studies and how they have been incorporated into the LCWIP - aligning them with LCWIP intervention references, where appropriate.

2.5 Perception of existing facilities

2.5.1 Perceptions of the existing facilities have been explored during the preparation of some of the existing studies and plans identified in the previous section. Meetings have also taken place with a range of stakeholders to identify their views. The results of these findings are summarised below.

The Cycle Network

2.5.2 Conversations with the project steering group, as well as a review of existing research has identified the following perceived characteristics of the Stevenage Cycle network:

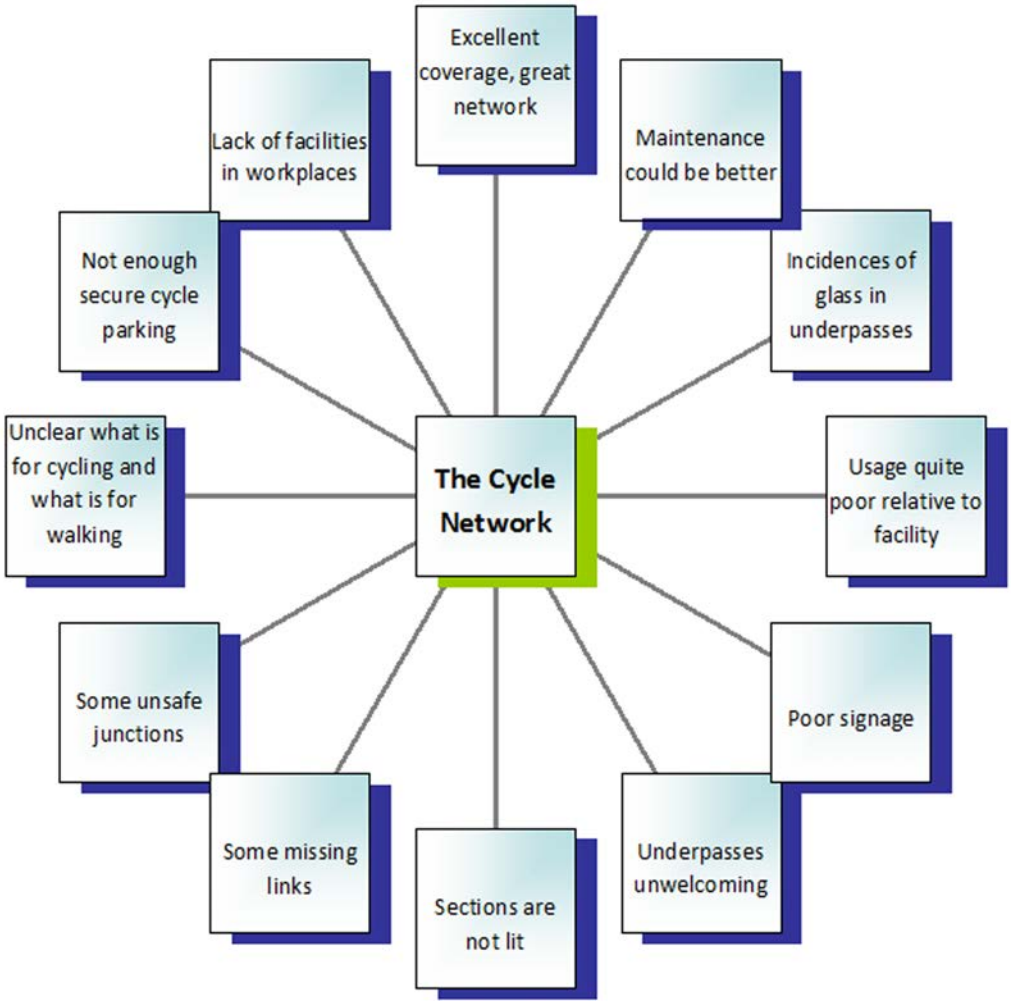


Figure 8 Perceptions of the cycle network

The walking network

2.5.3 Conversations with the project steering group, and a review of existing research has identified that the Stevenage Walking network exhibits the following characteristics:

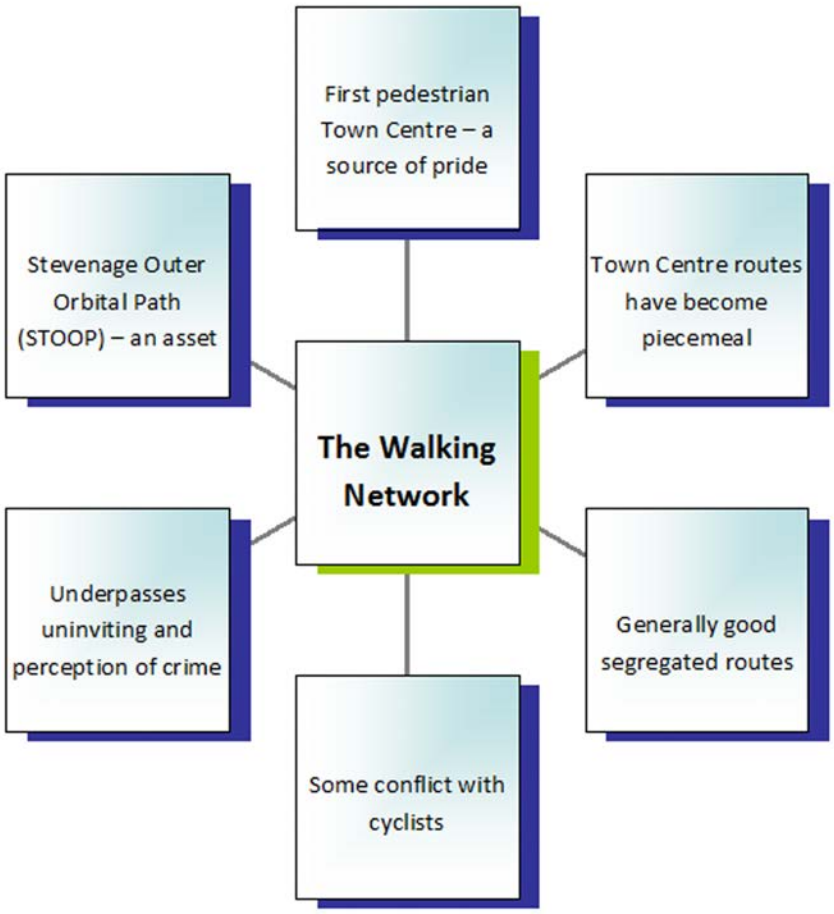


Figure 9 Perceptions of the walking network

2.6 Significant trip generators

2.6.1 In order to understand where interventions will make a difference to improving cycling participation rates, it is important to understand where people are, and will in the future, make trips from and to. This has been informed using two data sources:

- Origins & Destinations analysis
- PCT destinations

Origin and Destination Analysis

2.6.2 In accordance with LCWIP guidance and good practice, a variety of datasets have been sourced and used to inform the evidence base from which to develop the cycling and walking network. These have been used to identify key origin and destination sites (for example neighbourhoods are origins – where people are generally travelling from, and Stevenage Central and Gunnels Wood are destinations – where people might travel too), in order to understand both the various existing and future travel demand patterns for the study area.

2.6.3 It is worth understanding that Stevenage is relatively unique within the UK in that it already has a well-established network of cycling and walking paths, and that most people making trips between the origins and destinations identified in this chapter will use these as opposed to the road network, as they offer a route comparable in distance to the road network, and are often fully segregated.

2.6.4 Figure 10 shows Strava data for Stevenage. The red lines, marking the most used routes, clearly show that riders are favouring the use of Stevenage's existing cycle network to move around the town. However, this is not to say that other routes should not be explored in this, or future iterations of the LCWIP.

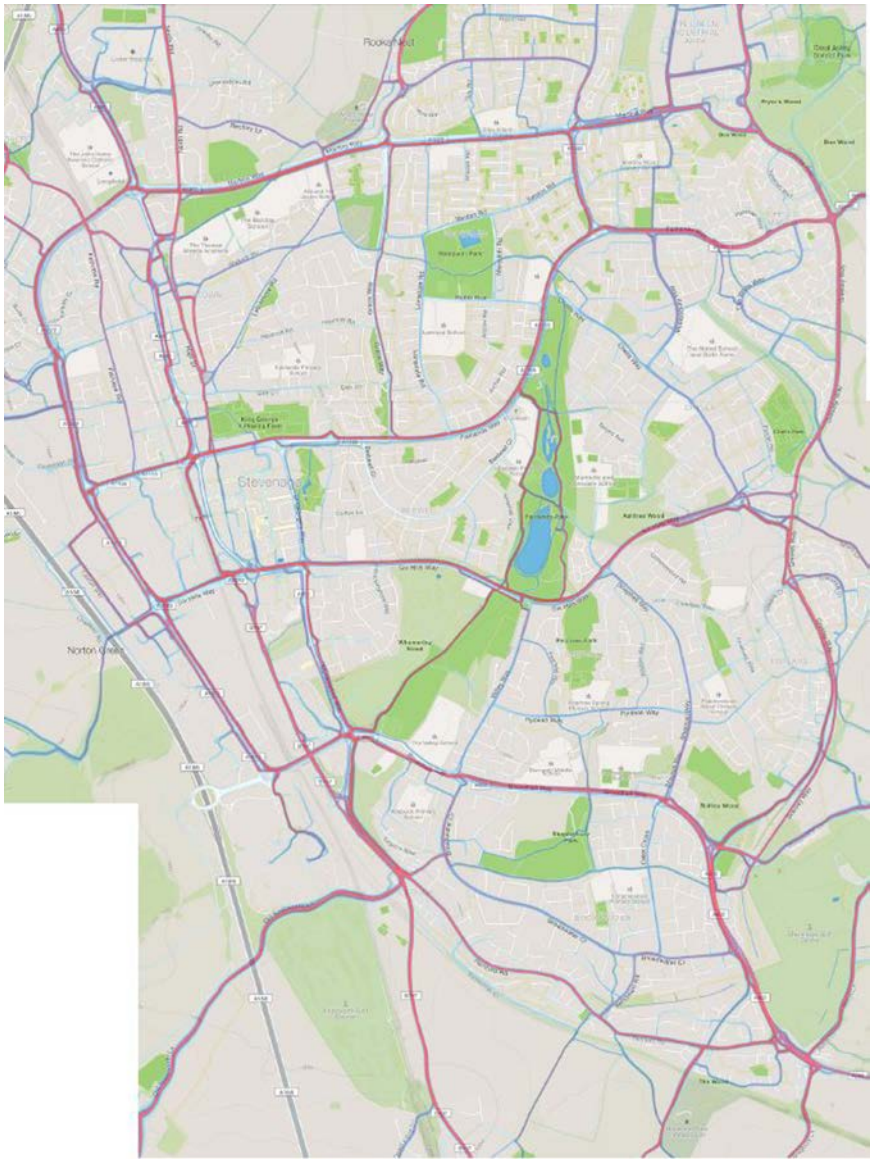


Figure 10 Aggrevated Strava user data for Stevenage

Destination Analysis

2.6.5 The following existing destinations, identified on the map on the following page, are considered to be of particular importance to Stevenage's commuting patterns as significant trip generators:

- Stevenage Central
- Gunnels Wood Employment Area
- Lister Hospital
- Neighbourhood Centres
- Secondary Schools
- Pin Green Employment Area

- Stevenage Rail and Bus Stations
- Old Town High Street

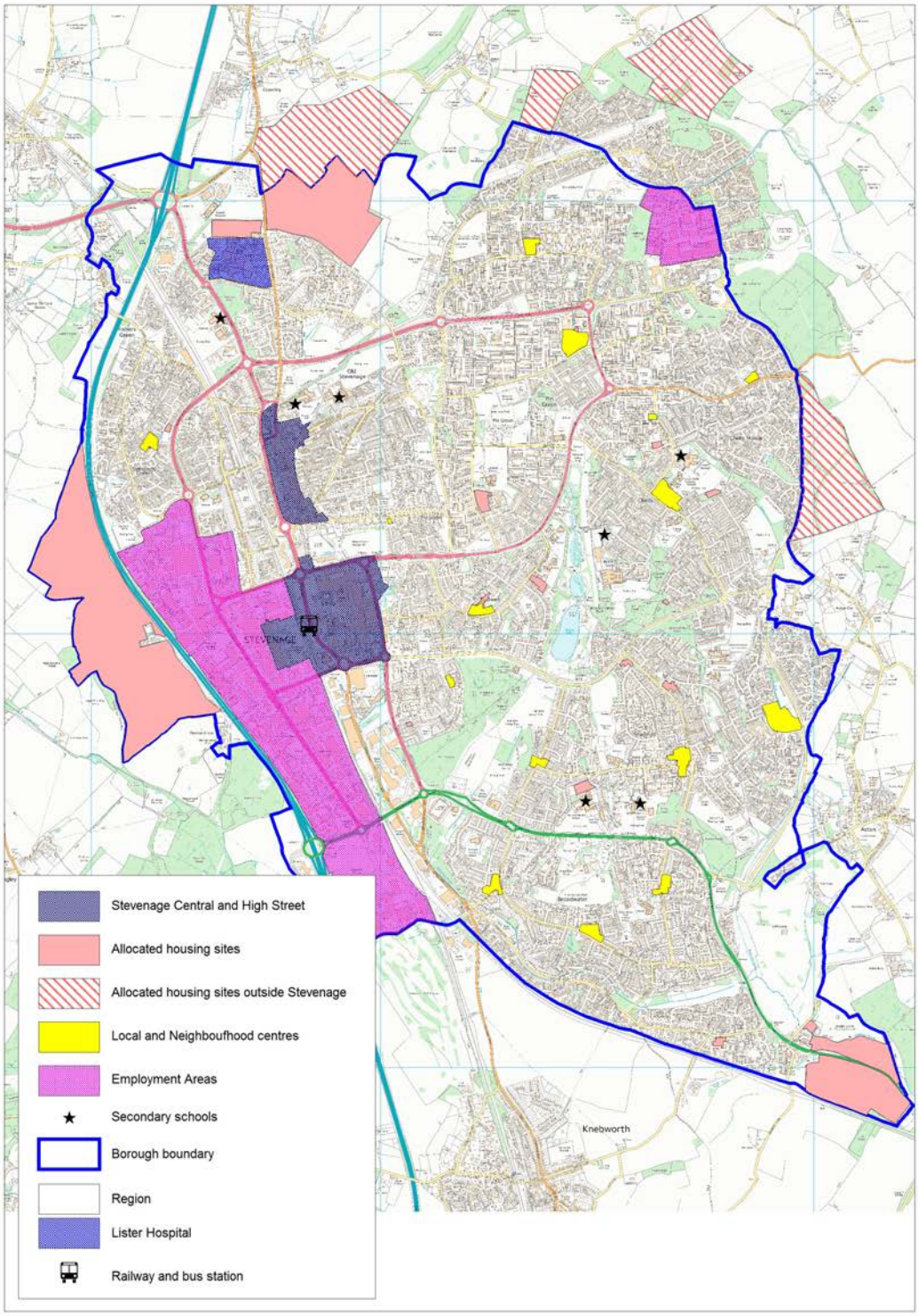


Figure 11

2.6.6 Gunnels Wood, between the A1(M) and the town centre, is by far the largest employment area in Stevenage. It accommodates a range of businesses, from small and medium organisations, through to some very large employers including GlaxoSmithKline (GSK) and MBDA. Around 19,000 employees work within the Gunnels Wood Employment Area for approximately 300 different businesses and it is set to intensify as part of the Local Plan proposals.

2.6.7 The Lister Hospital is the largest single employer in Stevenage and, along with the Town Centre, Old Town High Street, and Pin Green Employment Area, offer important destinations within the town.

2.6.8 Neighbourhood Centres and schools are smaller attractors of trips, but still relevant in creating non-radial complementary transport patterns around the town.

Origins Analysis

2.6.9 In terms of trip origins, as the data models journey to work trips, the main source of journeys is people's homes. Thus these can be considered to cover all of Stevenage's residential areas. The Local Plan allocates sites for new large-scale residential development to be delivered on the edges of the town and as part of a wider regeneration of the town centre. These will become journey origins once they are developed and so have been included within the study to ensure their links to destinations are effectively considered. All potential housing allocations, as well as the existing origins from existing homes are shown in Figure 12 on the following page.

2.6.10 When combined, Figure 13 shows the overall likely set of trip origins and destinations.

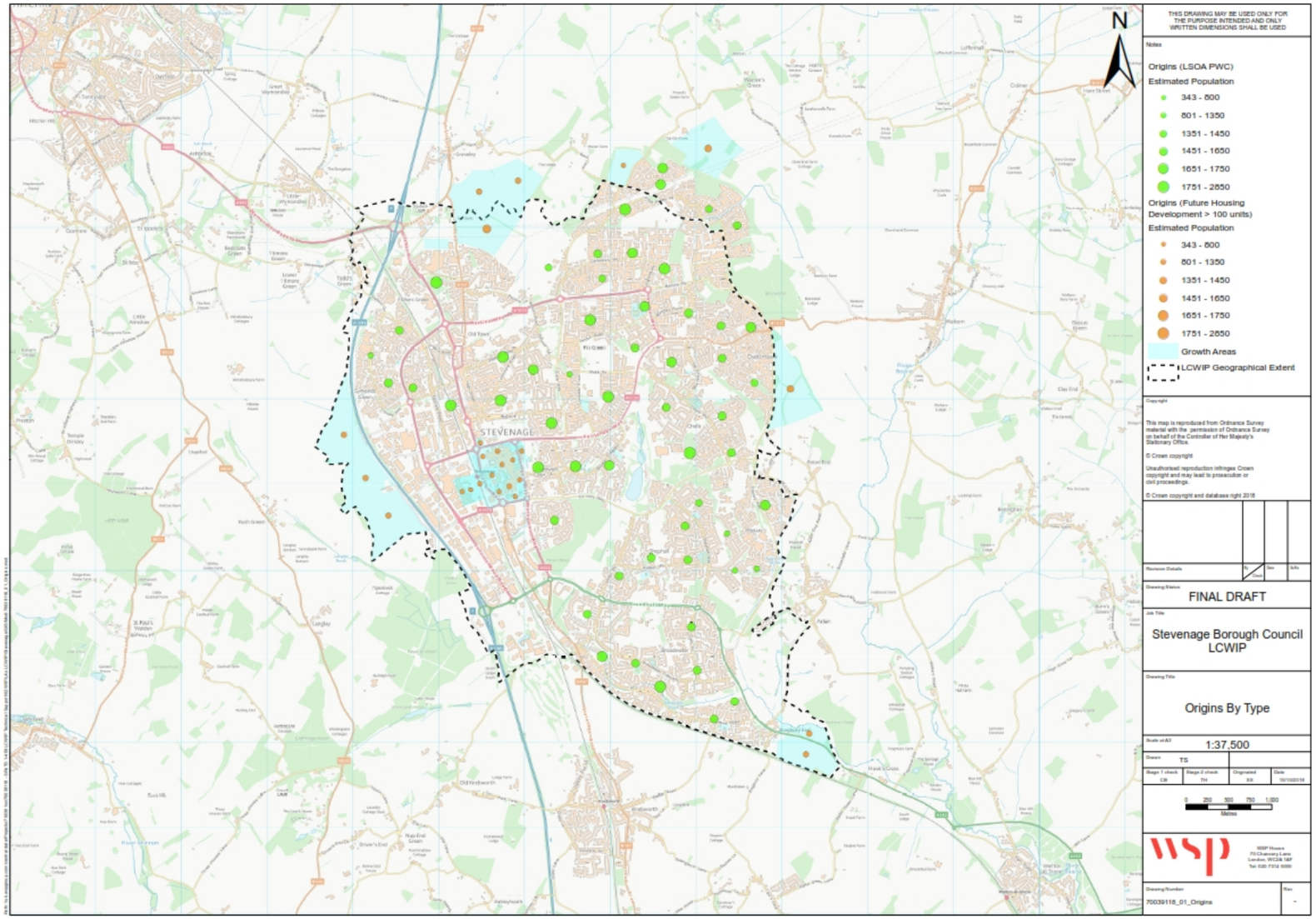


Figure 12 Stevenage's trip origins by type

2.6.11 This map displays the distribution of the origin points within the Borough boundary and immediate areas. The origins are represented by the LSOA Population Weighted Centroids and the future developments considered within the analysis are those over 100 units in size.

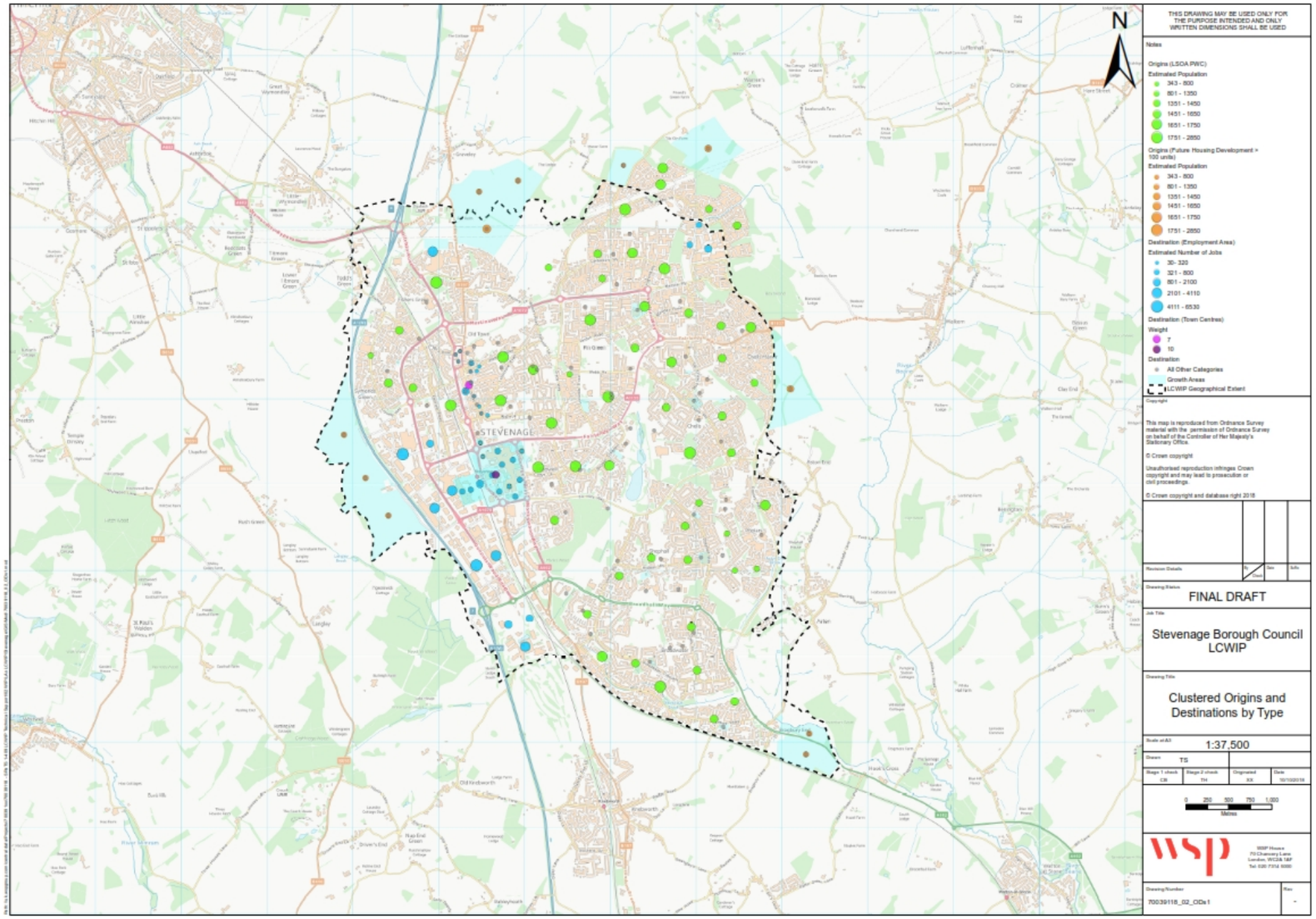


Figure 13 Stevenage's origins and destinations by type

2.6.12 This map shows the origins and destinations located within the study area. The origins are represented as a single group and weighted based on their estimated population that has been informed by ONS 2016 estimates. Destinations were identified and given a weight based on their type. Key employment areas were weighted based on an estimated number of jobs, whilst for the central retail areas (High Street and Stevenage Central) weighting was based on the number of attractors (e.g shops).

PCT destinations analysis

2.6.13 Using the 2011 Census Journey to Work data, DfT's Propensity to Cycle Tool (PCT) has been used to assist with mapping of desire lines for cycle trips. Not surprisingly, the routes are between residential areas (including Great Ashby, which is outside of the Borough boundary to the north east, but forms a part of the urban area) and key destinations of Stevenage Town Centre, Gunnels Wood Employment Area, the Lister Hosipital and the Old Town High Street. While a useful indicator, the PCT tool only records journeys to work, not other trips such as leisure and retail. It is also based on Census data, which is now 7 years old.

2.6.14 The PCT is able to show how "connected" any two zones are, based on the number of trips moving between them in the morning peak. These patterns are then ranked, and by selecting only the highest ranking routes, we can identify commuting patterns within Stevenage.

2.6.15 When looking at the top 30 trips, the town centre, rail and bus stations can be seen to combine to form a key destination in Stevenage. The redevelopment of the town centre to bring new homes, jobs and retail floorspace will increase the number of trips drawn to, as well as originating from this central area, over the coming years.

2.6.16 Additional draws can be identified to the South and West of the town centre; around the Gunnels Wood Employment Area. There is a node to the north of the town centre, which includes both the Lister Hospital and the Old Town High Street.

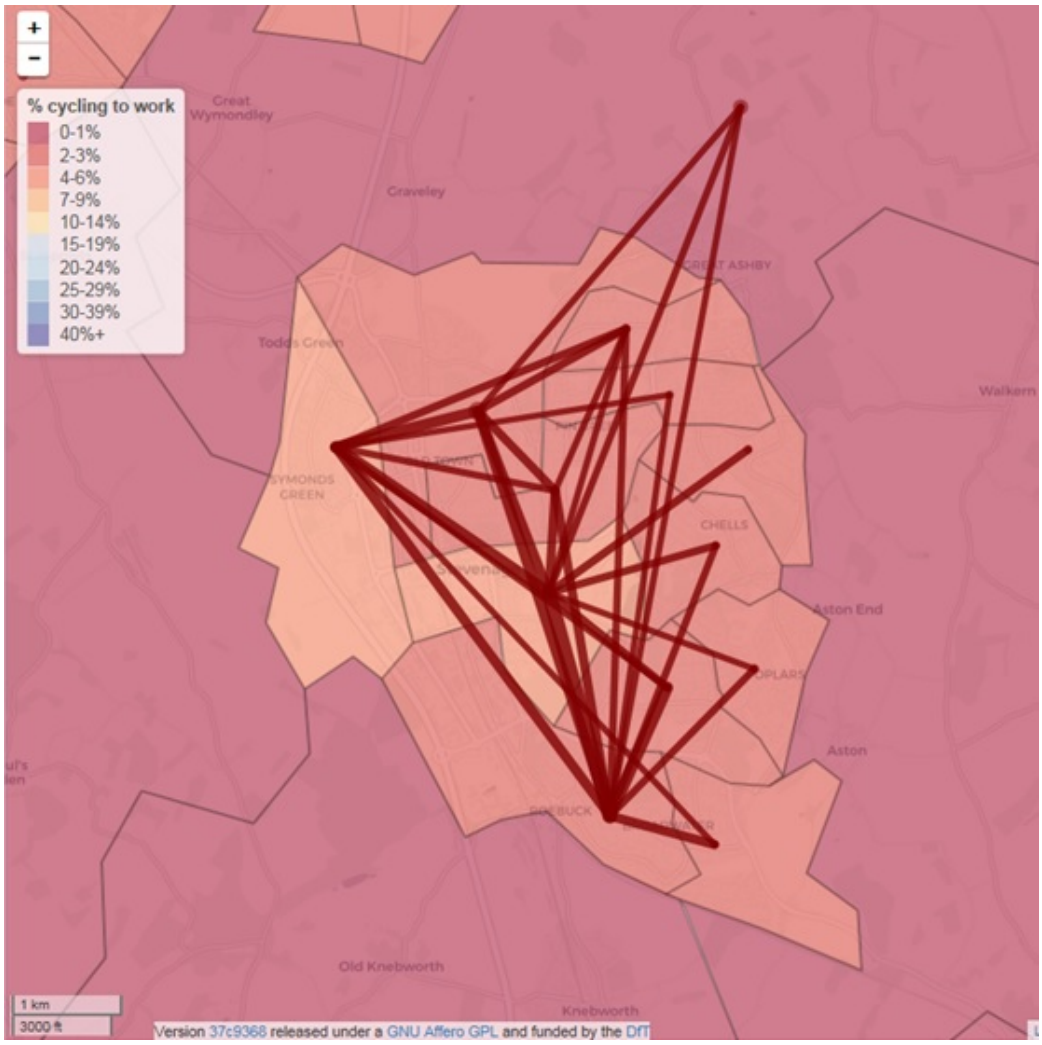


Figure 14 Top 30 straight line routes (pct.com/bike)

3 Network Planning for Cycling

3.1 Desire and trend lines

3.1.1 Using the origins and destinations detailed in Stage 2, Desire Lines can be identified between all origins and destinations, as shown in Figure 15. By adding the PCT analysis, a pattern of potential cycling routes can be identified. Figure 16 shows the top 25 route outputs from this analysis.

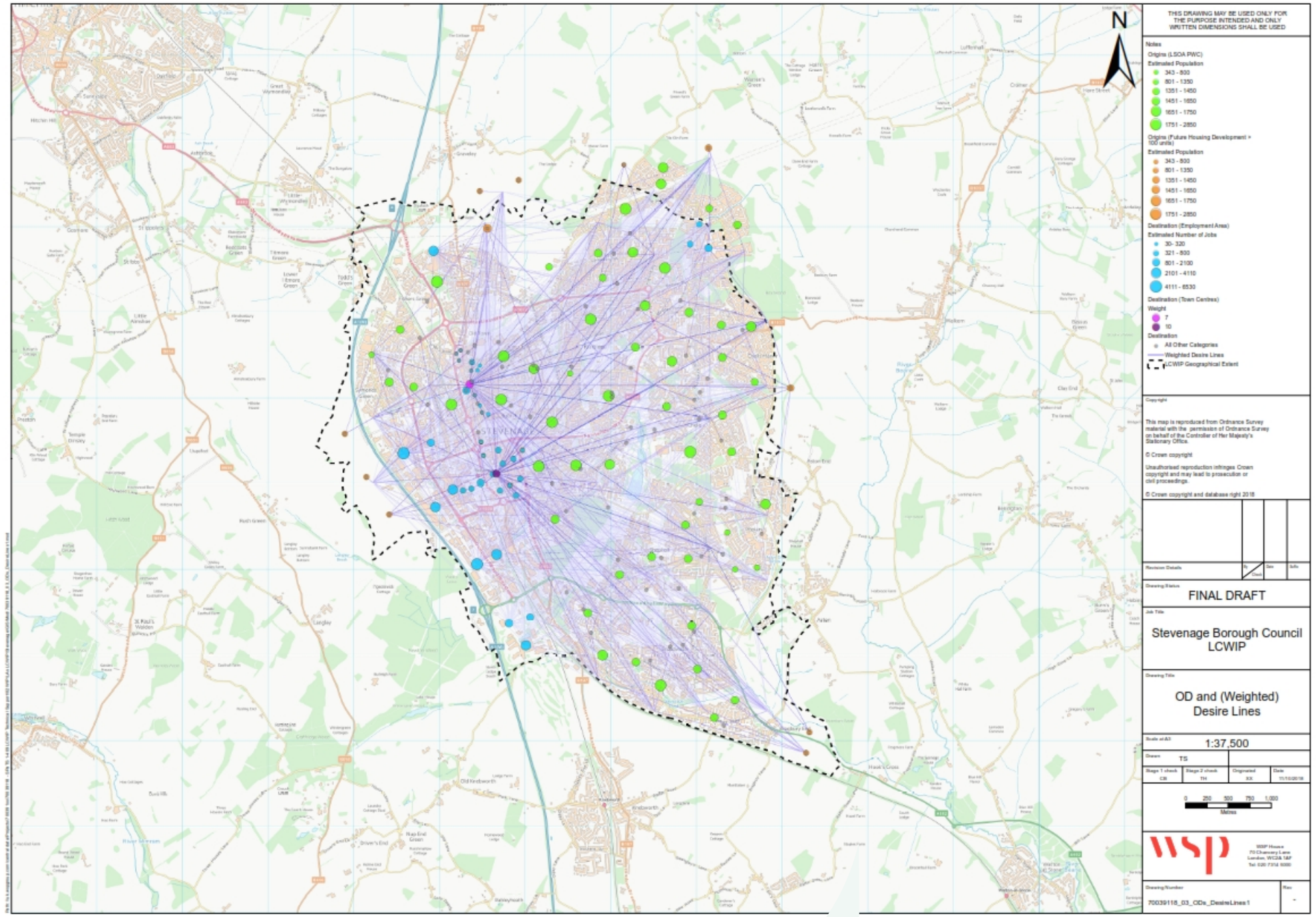


Figure 15 Origin and weigh[illegible]tion desire lines

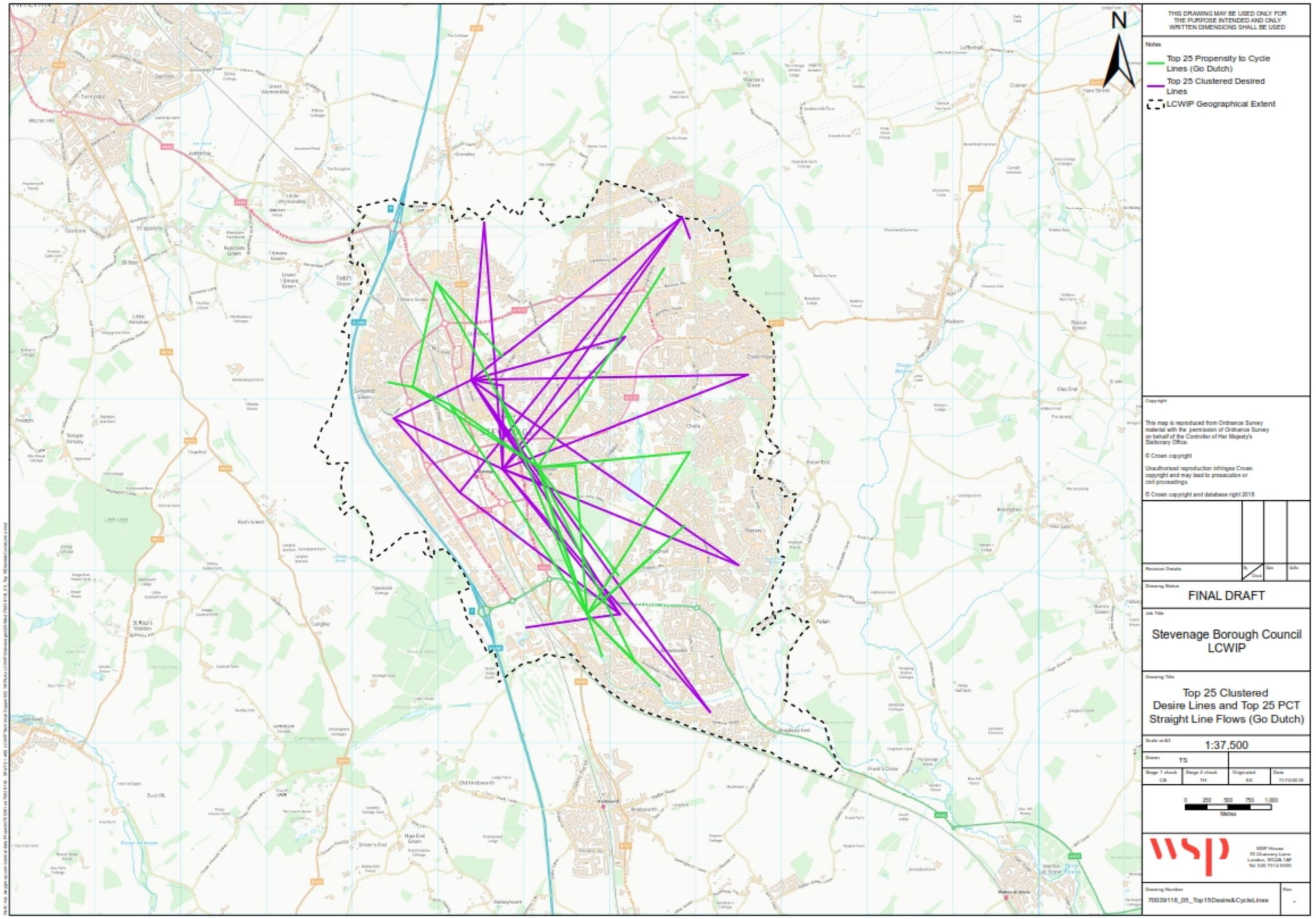


Figure 16 Top 25 clustered desire lines

3.1.2 Whilst the data produced for origins and destination show the most direct routes, Stevenage is in a unique position in that it already has a comprehensive cycle network and so it would not necessarily be appropriate or cost effective to create new cycleway routes where they already exist and already offer similar routes to those identified. Most people making trips between the origins and destinations identified in this chapter will use the existing cycle routes, as they offer a route comparable in distance to that provided on the road, and are often fully segregated – so offer safety advantages.

3.1.3 There is not considered to be value in redesigning any of the fundamentals of the network, due to the significant costs involved in doing so. Instead the focus should be on looking at the key routes on the existing network, ensuring that the new settlements on the edge of the town are connected to the network, identifying any missing links, and identifying opportunities to upgrade parts of the network. Whilst not completely in line with the methodology set out in the LCWIP Technical Guidance, bearing in mind the above and the limited resource available to deliver the plan, this was an approach agreed by the Project Team and Project Board.

3.1.4 It is also important to consider new development planned in and around the town that will become origins and destinations in the future, and the opportunities this provides in terms of making new growth sustainable from the outset.

3.1.5 To this end, a number of “key routes” have been identified which:

- Are based on the existing cycle network;
- Link the new growth areas to the existing network; and
- Are generally consistent with the desire lines identified above.

3.1.6 Figure 17 illustrates the key routes selected (yellow) and the growth areas (pink), which are based around the top 25 desire lines (purple and green).

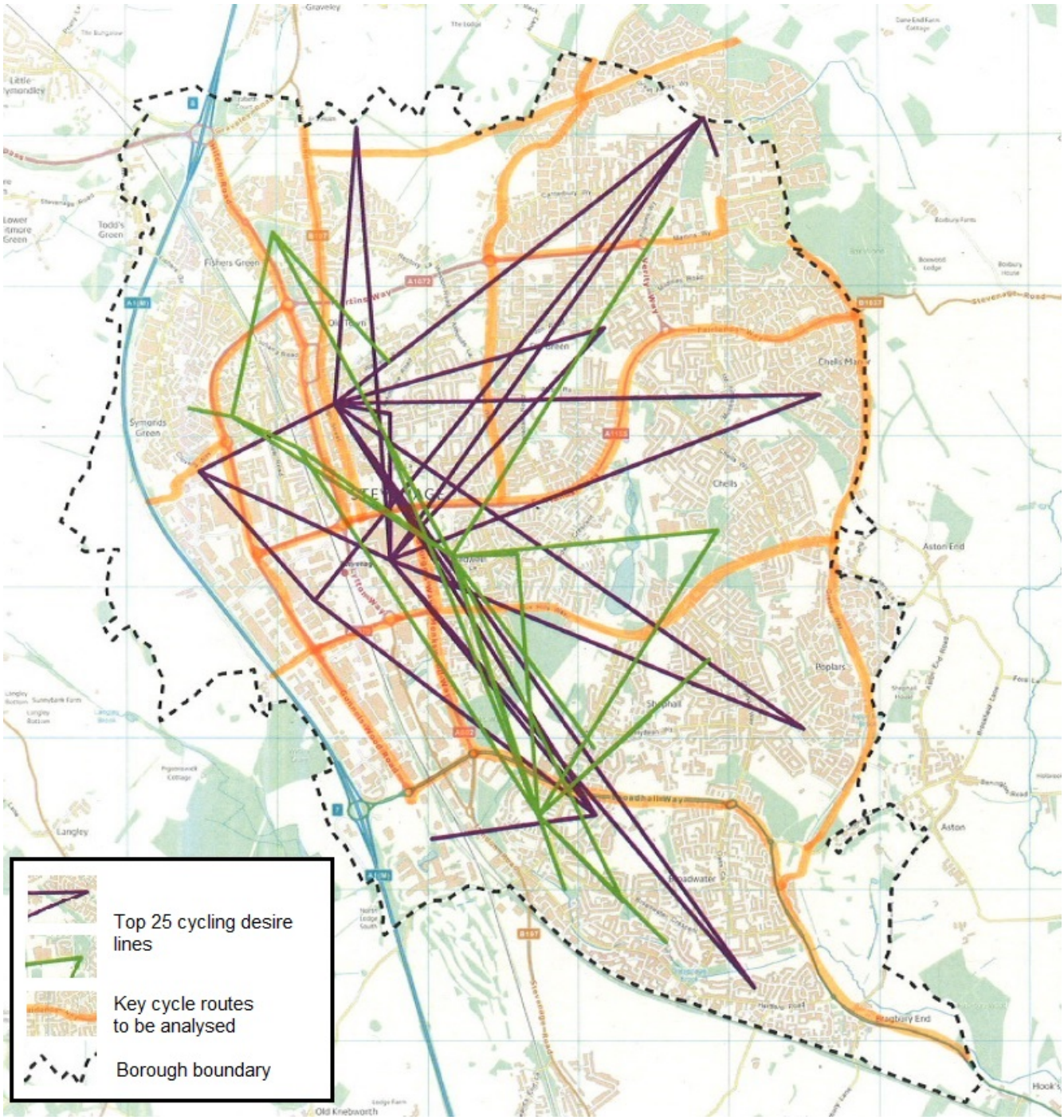


Figure 17 Desire lines overlaid with existing cycle network routes

3.1.7 In many cases, whilst the origins are clustered at the centre of residential areas, bearing in mind the scope of this LCWIP is limited and can only look at a small number of routes, we have not prioritised the smaller residential streets (which generally do not present a significant barrier to cycling due to low traffic levels), and have looked instead at the more major connections that can provide access from multiple residential areas to the key destinations.

3.1.8 One example of this is in Chells Manor, where the desire line origin (purple) is shown to be in the centre of the Chells Manor residential area, and then follows east-west routes into Stevenage Central, as illustrated below.

Figure 18 Chells Manor example

3.1.9 Taking into account a growth area slightly further east and the desire to look at routes that could have the most benefit for more residents, two routes have been identified, one north and one south of the origin point, that provide existing cycle routes into the central area, running along the established road network, but still provide that key east-west link.

3.1.10 It is acknowledged that this approach does not deal with the smaller routes, that link the residential areas to the cycleways. This LCWIP only deals with the major cycleways, due to its limited scope, but these links should be explored in more detail in further iterations of the LCWIP.

3.2 Cycle routes to be analysed

3.2.1 From the analysis of trip origins and destinations above, it is clear that the desire lines are focussed on the assets surrounding the central area of Stevenage (town centre, Old town High Street, Gunnels Wood), with a radial connection to the growth areas and existing neighbourhoods.

3.2.2 It is considered that by integrating future growth, as well as existing patterns of cycling trips, the following desire lines should be the focus of investigation in this Plan. These “routes” are both radial connections into central Stevenage, but also cover the majority of the cycle network.

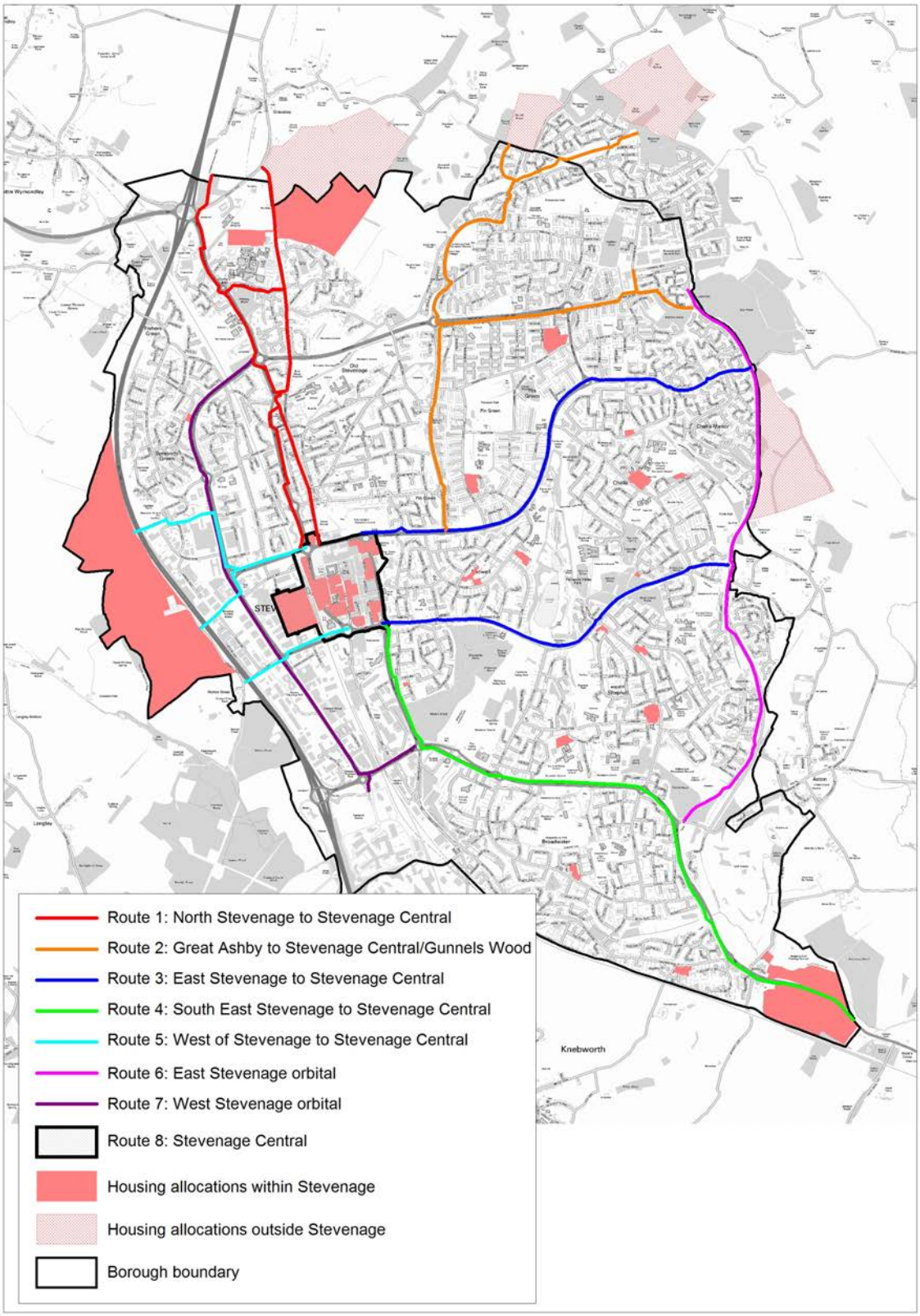


Figure 19 Cycle routes to be analysed

3.2.3 The routes identified for analysis within this LCWIP cover the 'key routes' of the formal cycle network that were developed around the original New Town Plan, as well as routes to and from the town's planned growth areas at the edges of the urban settlement.

3.2.4 The routes selected for inclusion were discussed with the project board and HCC and agreed to be the most appropriate key routes for assessment.

3.2.5 It is acknowledged that there are a range of further cycling routes within Stevenage. This LCWIP is limited in scope to ensuring that the key nodes and growth areas in Stevenage are connected to the main cycleway network. There will be potential for more routes to be analysed using the tools in this study in supplementary LCWIPs in the future.

3.3 Potential Interventions

3.3.1 The Routes identified in Figure 19 have been analysed using the LCWIP Route Selection Tool (RST). The RST analyses the strengths and weaknesses of a specified route, by assigning scores for cycling, ranging from 5, being the highest, to 0, being the lowest, based on the following factors, all of which are conducive to a positive cycling experience:

- Directness – measured by comparing the length of the overall cycle route to the shortest motor vehicle route.
- Gradient – assessed by comparing the maximum gradient in each section of route with the length at which it is climbed.
- Safety – assessed by looking at motor speed and volume (if present) and the degree of separation between cyclists and general traffic
- Connectivity – based on the number of points at which a route can be joined.
- Comfort – the space allocated for cycling and the quality of the surface material.
- Number of “Critical Junctions” – defined as a junction that has characteristics that are hazardous for cyclists e.g. high traffic volumes, lack of priority/segregation, crossing high speed on-off slip roads or large roundabouts.

3.3.2 Resolutions to the issues identified through analysis of the routes provide a set of potential infrastructure improvements for the cycle network in Stevenage. These will, if implemented, increase the route scores, and thus the overall quality of the network.

3.3.3 Each of the routes was assessed by cycling their length and observing the current situation. This was undertaken by the project manager, mostly accompanied by one of the Project Board Members.

3.3.4 The assessment included measuring the width of the existing routes, recording the surface, and looking for opportunities for improvement. The number and location of “critical junctions” was identified, where cycle priority is interrupted and/or the cyclist is at risk. This includes roundabouts.

3.3.5 Where deficiencies were identified, these resulted in lower than perfect scores on the RST, and a potential improvement was proposed. The routes were then re-scored, with the intervention, to understand how they would benefit the route. These assessments have been used to inform the prioritisation of schemes detailed later in this LCWIP.

3.3.6 The analysis of each route is a technical process. As such, the following sections identify a summary of the assessment for each route, including the issues identified along the route and the opportunities for improvements identified.

3.3.7 It is important to note that, whilst these interventions might offer the best solutions to encourage walking and cycling, they have not been assessed in detail in terms of achievability and suitability. Detailed design and technical feasibility studies would be required for signific

schemes, such as remodeling a junction or implementing a new cycleway, prior to these options being taken forward. This would allow full costs to be determined, competing priorities to be considered, safety audits to be undertaken, and standards to be complied with. Any new design/any associated off-site highway infrastructure will have to undergo appropriate scrutiny that promotes highway. At this stage the interventions are initial concepts, to enable priority to be given to potential schemes, so that feasibility work can be prioritised.

3.4 Route 1 – North Stevenage to Stevenage Central

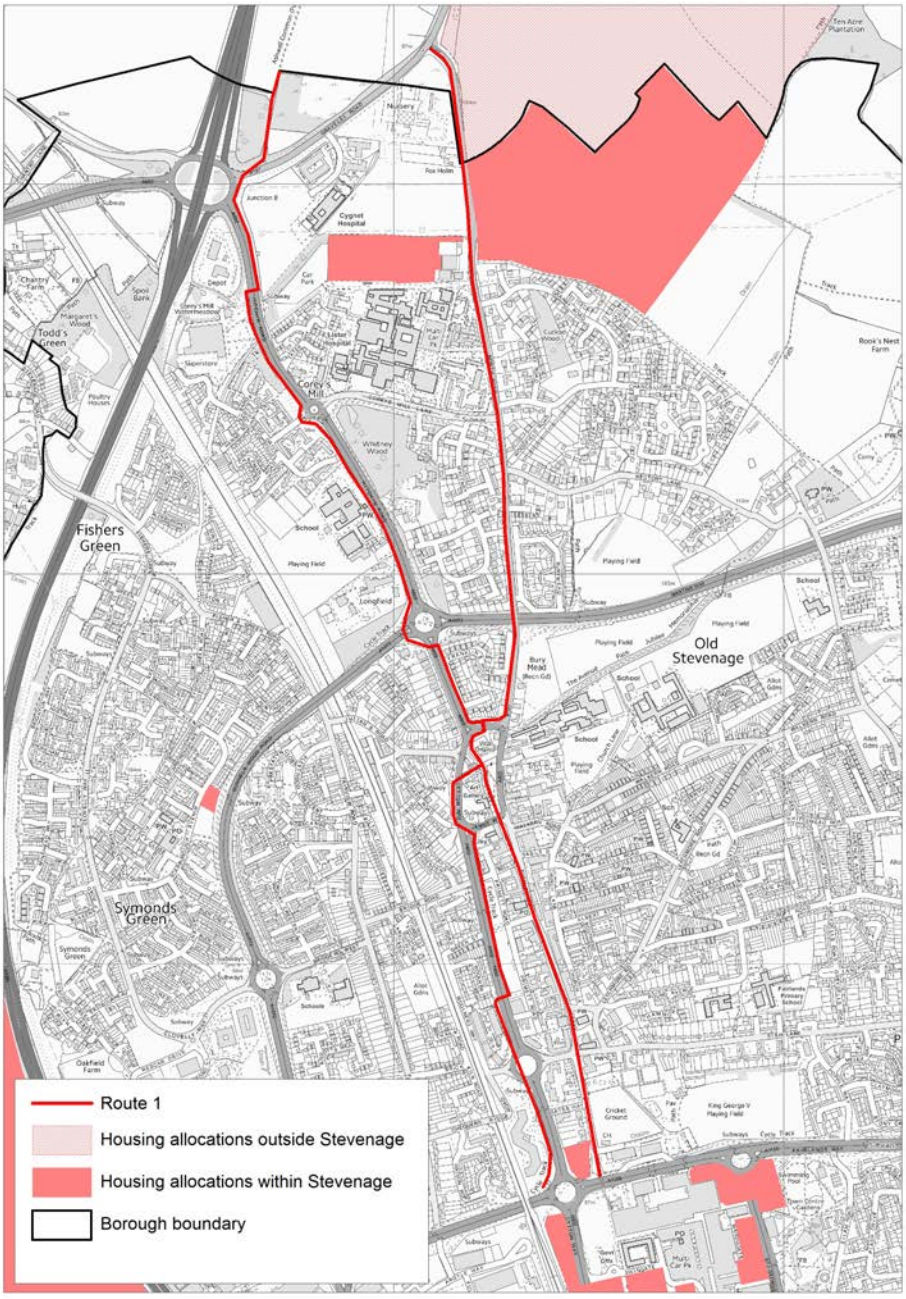


Figure 20 Route 1

Overview

3.4.1 The north of Stevenage area contains a number of destinations identified in Section 2 of this plan, including a large new housing allocation (800 homes), an employment allocation (20,000m^2 floorspace) and a new supermarket, as well as providing a link to nearby towns, such as Hitchin and Letchworth via the A1(M) roundabout.

3.4.2 When assessing the route options from the north of the Borough to Stevenage Central, it became clear that there were two direct, near parallel, routes:

- Route 1a: From the proposed North Stevenage development via North Road/High Street
- Route 1b: From the A1(M) roundabout (so linking to villages to the north of the Borough) via A602/Lytton Way

3.4.3 Both routes can be used to access the Lister Hospital, and the High Street, which are two significant attractors of journeys in Stevenage. The two routes identified offer very different experiences. The A602 has a segregated cycle route along it, which connects well into the town centre. Whilst North Road has very limited provision for cyclists at present, involves a number of busy junctions and is not currently wide enough to accommodate a cycle lane. Both are heavily trafficked, particularly at peak times.

3.4.4 The reason two routes have been explored is explained in more detail below, but relates to the potential costs and difficulties in terms of feasibility, of an appropriate solution for the northern part of Route 1a. Both routes overlap towards the centre (at the Old Town gyratory), providing two alternative and both well-used options to reach the central area from the north. As such, it was considered appropriate to explore both.

Potential Improvements

3.4.5 As the most direct route from large new growth areas (both within and outside the Borough), it is desirable to examine the options for making North road (Route 1a) a route which can accommodate cycling safely and efficiently.

3.4.6 The following interventions were identified:

Route 1a			
RST Criterion	**Issue/Opportunity**	**Opportunity for Improvement**	**Improvement ref**
Connectivity	Will require connection to/from new growth onto existing cycle network	New junction North Road/North of Stevenage housing allocation	1.1
Safety	Limited cycling infrastructure on North Road. New development provides opportunity to improve route.	New segregated Cycleway on North Road from Graveley Way to Coreys Mill Ln, and lighting improvement	1.2
		New segregated Cycleway on North Road from Coreys Mill Ln to Martins Way	1.3
		New segregated Cycleway on North Road from Martins Way to High Street,	1.4

Route 1a			
RST Criterion	**Issue/Opportunity**	**Opportunity for Improvement**	**Improvement ref**
		including shared cycle/pedestrian space outside Thomas Alleyne School	
Critical junctions	North Road/Bury Mead junction – potential conflicts with cars and pedestrians.	Improve North Road/ Martins Way (north side) junction via Burymead by introducing tactiles and signage.	1.5
	North Road/Martins Way – the cycle route starts/finishes at North Road with no signage, tactiles to identify the end of the route. Potential conflicts with cars and pedestrians.	Improve junction Martins Way (south side) slip/North Road by resurfacing with tactiles, signage to acknowledge end of route and pedestrian priority.	1.6
	Cycle way ends and merges onto North Road at junction north of High Street	Improve junction through use of tactiles, signage, pedestrian prioritisation.	1.7
Safety	Navigating the High Street in the Old Town. Issues include conflicts with vehicles (parked and moving traffic) and no segregated routes.	Introduction of 20mph zone and shared cycle-road infrastructure to High Street	1.8

Table 1

3.4.7 These improvements include delivery of a stand-alone route along the majority of North Road/High Street. This is the maximum-intervention solution and it is acknowledged that this would be large-scale and very costly. As such, alternative solutions have also been looked at.

3.4.8 As the parallel route along the A602 (Route 1b) already benefits from a segregated cycle route, options were explored for using this as an alternative route from the new growth areas towards the town centre. Whilst this would be less direct, it may ultimately become the only viable option. These routes are already linked by a connection provided by Corey's Mill Lane, which offers a much safer, segregated route onwards into the town centre, which does not significantly affect directness due to the short distance of the connection.

3.4.9 As such, this connection was assessed and the following interventions identified:

Connection between Route 1a and Route 1b			
RST Criterion	**Issue/Opportunity**	**Opportunity for Improvement**	**Improvement ref**
Safety	Cycleway along Corey's Mill Lane ends before junction with North Road, with no clear route for onward travel. Potential for conflict with pedestrians.	Improve signage. Extend cycleway markings to road junction to avoid conflict with pedestrians.	1.9
Safety	Cycleway is largely separate from the road. Junction crossing at The Old Walled Garden	Cycle priority needed at junction. Resurfacing required along some parts of cycleway	1.10

Table 2

3.4.10 Route 1b provides the most direct route from villages to the north of Stevenage into the town centre and is entirely segregated from the road network. The following interventions were identified:

Route 1b			
RST Criterion	**Issue/Opportunity**	**Opportunity for Improvement**	**Improvement ref**
Comfort	Section of route between A1(M) roundabout and Corey's Mill Lane is narrow	Increase width of segregated route.	1.11
Critical junctions	Vehicle priority at junction - Roundabout/Ingleside Drive	Improve junction through use of tactiles, signage, cycleway prioritisation.	1.12
	Vehicular priority at exit from John Henry Newman School	Improve junction through use of tactiles, signage, cycleway prioritisation.	1.13

Route 1b			
RST Criterion	**Issue/Opportunity**	**Opportunity for Improvement**	**Improvement ref**
	Vehicular priority at entrance 2 to John Henry Newman School	Improve junction through use of tactiles, signage, cycleway prioritisation.	1.14
	Vehicular priority at entrance 1 to John Henry Newman School	Improve junction through use of tactiles, signage, cycleway prioritisation.	1.15
	Vehicular priority at exit from fire station	Improve junction through use of tactiles, signage, cycleway prioritisation.	1.16
Safety	Cycleway is forced to join small residential road - Franklins Road for a few hundred yards until it rejoins cycleway	Improve transition with use of tactiles, signage and dedicated cycleway priority	1.17

Table 3

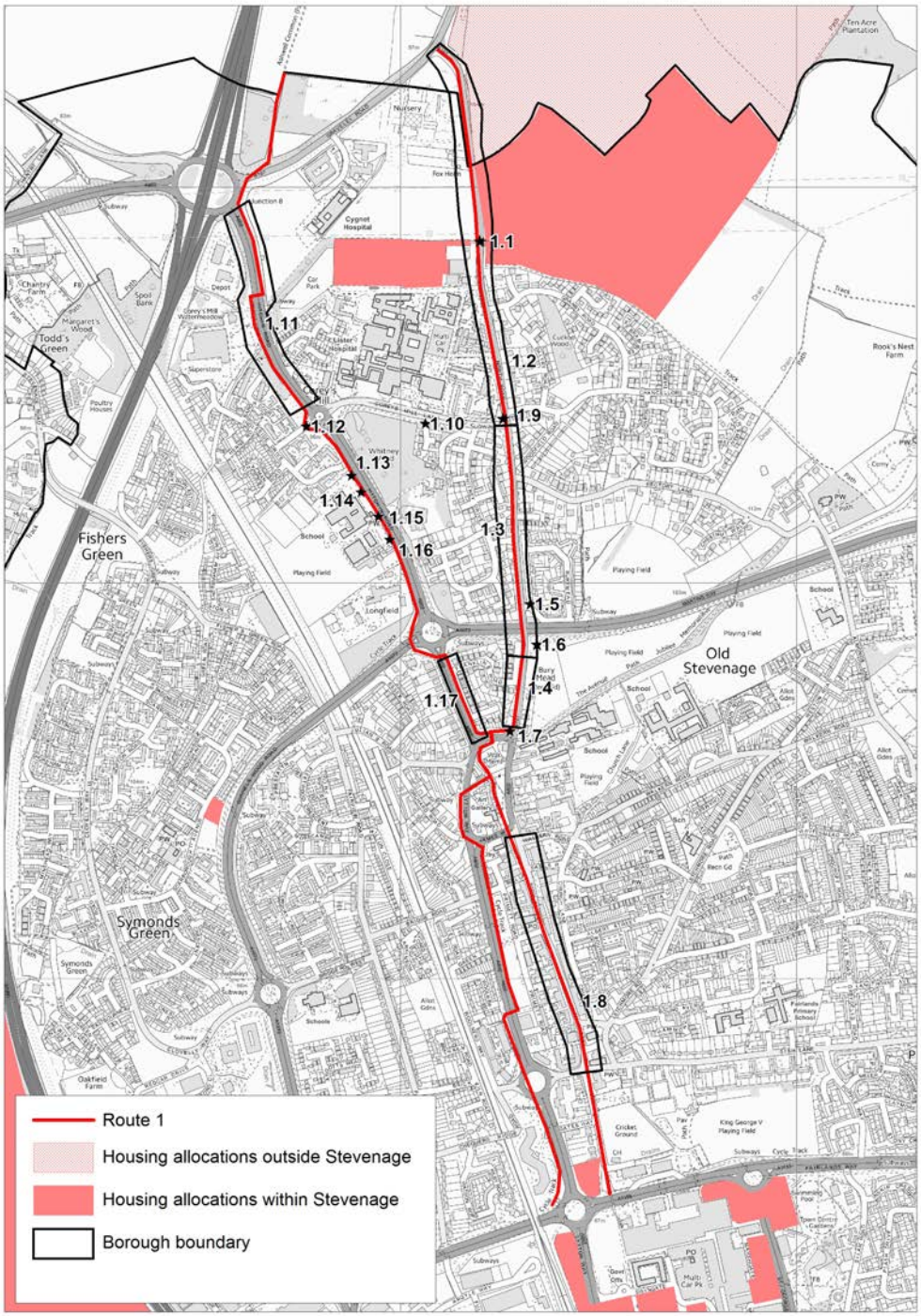


Figure 21 Route 1 interventions

3.5 Route 2 – Great Ashby to Stevenage Central/Gunnels Wood

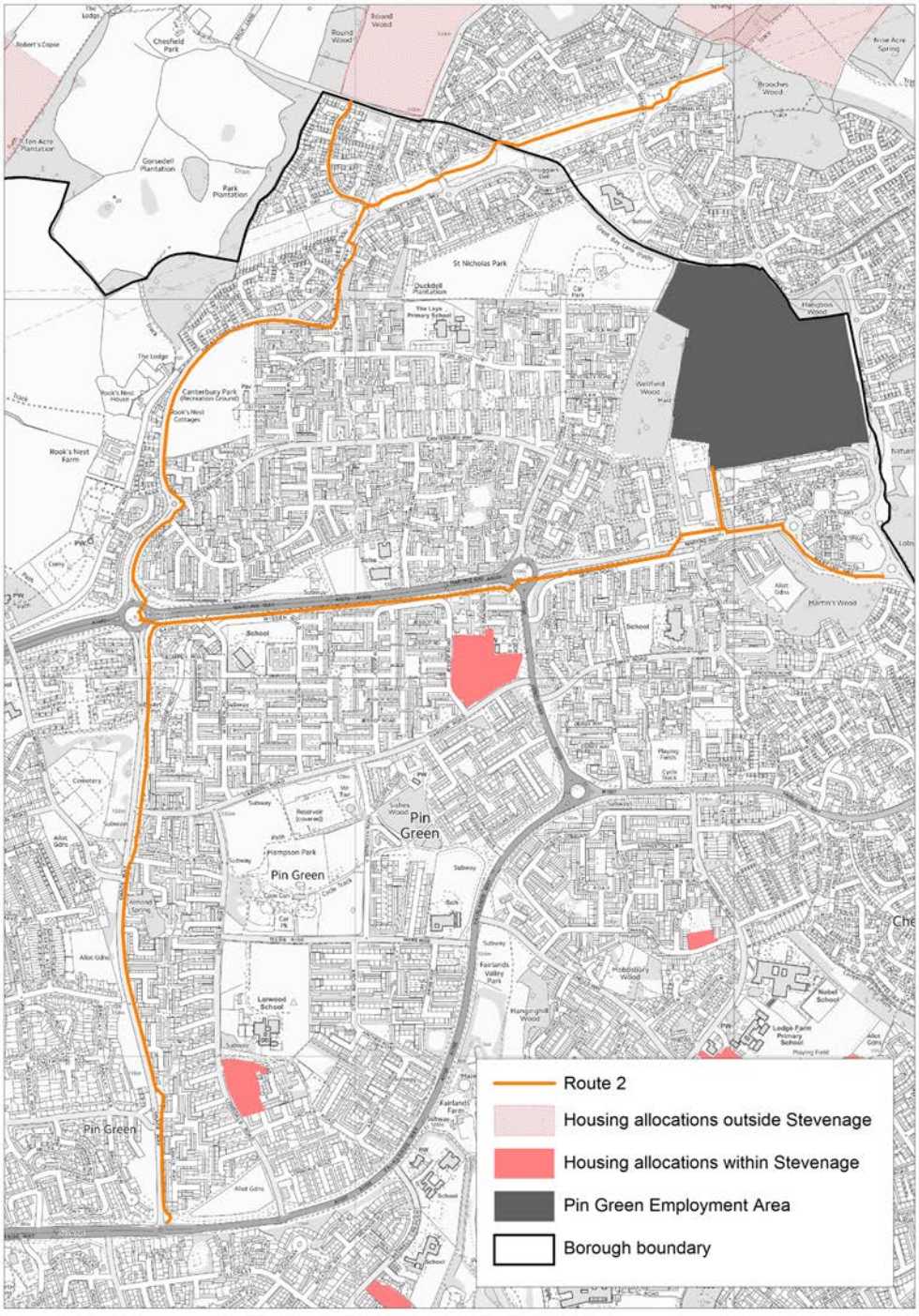


Figure 22 Route 2

Overview

3.5.1 Route 2 connects the north east of the town to the town centre. There are two key origins / destinations within this area; two new housing allocations within north Hertfordshire and Pin Green Employment Area. This means there are two direct routes towards the town centre:

- Route 2a: From the proposed housing allocations in Great Ashby to the town centre.
- Route 2b: From Pin Green Employment Area to the town centre.

3.5.2 Both of these routes meet at Grace Way, which offers the ongoing north/south link to Fairlands Way (assessed as Route 3a within this study), which continues the journey east/west into the town centre.

Potential Improvements

3.5.3 The potential interventions identified to improve these routes are summarised in the table below:

Route 2			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
Connectivity	Connections required into both new growth areas	Connection into land north of Back Lane to Orwell Close	2.1
		Connection into land north west of Merrick Close	2.2
		Extend existing cycle route underneath electricity pylons towards growth area	2.3
Comfort Safety	Existing cycle path under the electricity pylons is narrow and could have safety concerns.	Widen existing cycle route beneath the electricity pylons and improve lighting and passive surveillance	2.4
Critical junctions	Cycleway crosses Great Ashby Way, busy road	Addition of zebra crossing or cycleway priority	2.4b
Comfort	Existing cycle path is narrow between Old Bourne Way and St David's Close along Weston Road	Widen Weston Road link	2.5
Safety Comfort	Existing connection is on-road (Great Ashby Way), with high traffic volumes	New segregated cycle route along Great Ashby Way, potentially within the adjacent park area.	2.6
Safety Comfort	No dedicated cycle route along Wedgewood Way to	Creation of segregated route along Wedgewood Way	2.7

Route 2			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
	access employment uses. Existing road has medium traffic levels.		
Critical junctions	Lack of cycleway and cycle priority at junction of Martins Way/ Wedgwood Way	Introduce cycle priority at junction	2.8
Safety Comfort	Lack of lighting/passive surveillance along Grace way (from Martins Way to Fairlands Way)	Improve lighting, passive surveillance	2.9
Critical junctions	Lack of cycle priority at junctions along Grace Way	Introduce cycle priority at all junctions	2.10-2.15
Connectivity	Missing connection between Martins Way between the former Dixons site at Wedgwood Way and Gresley Way south	Connect Martins Way to Gresley Way	2.16
Critical junctions	Cyclists are forced to cross Martins Way at roundabout as there is no dedicated cycleway	Improve junction to give cycle priority, and better signage	2.17

Table 4

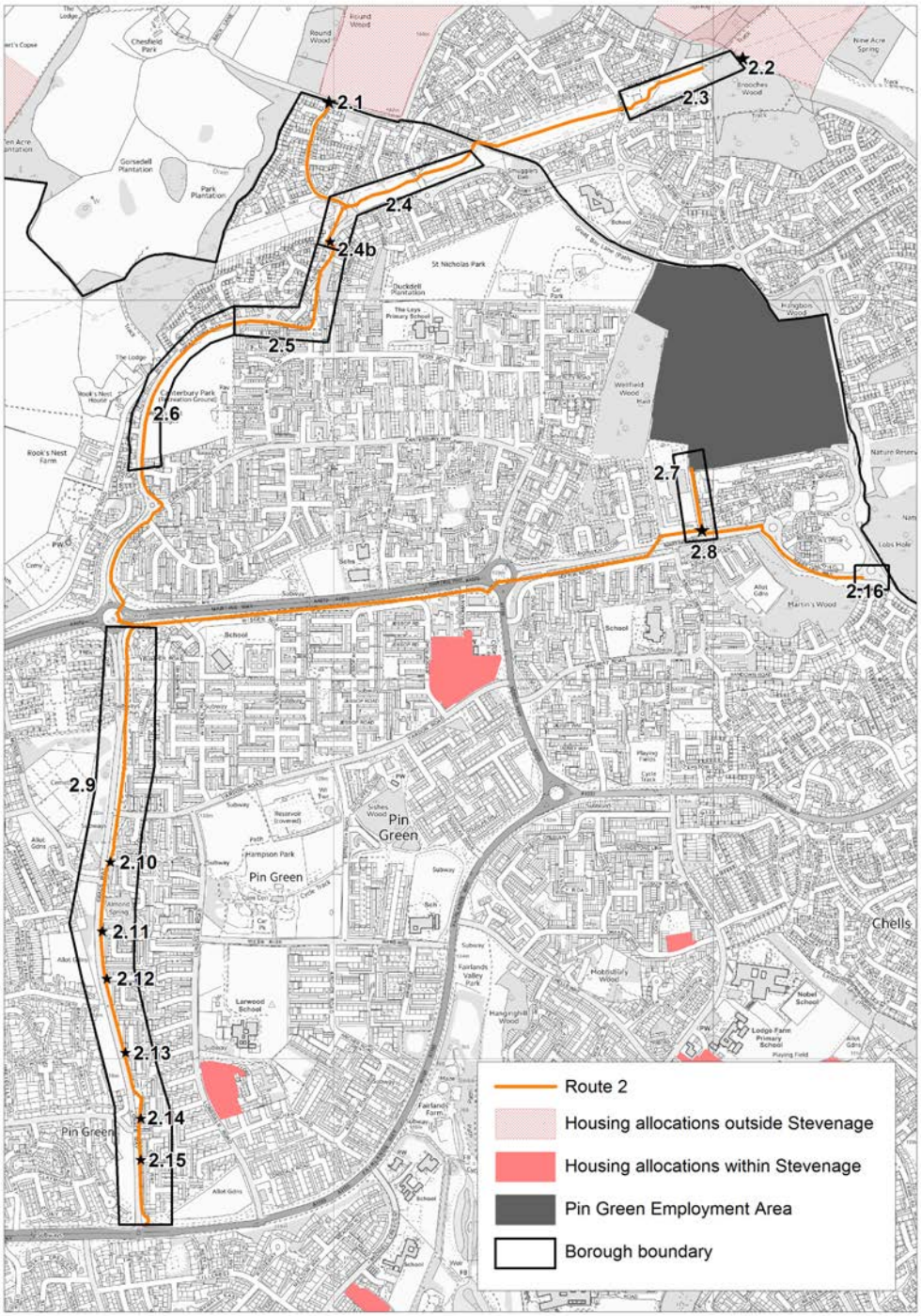


Figure 23 Route 2 interventions

3.6 Route 3 – East of Stevenage to Stevenage Central

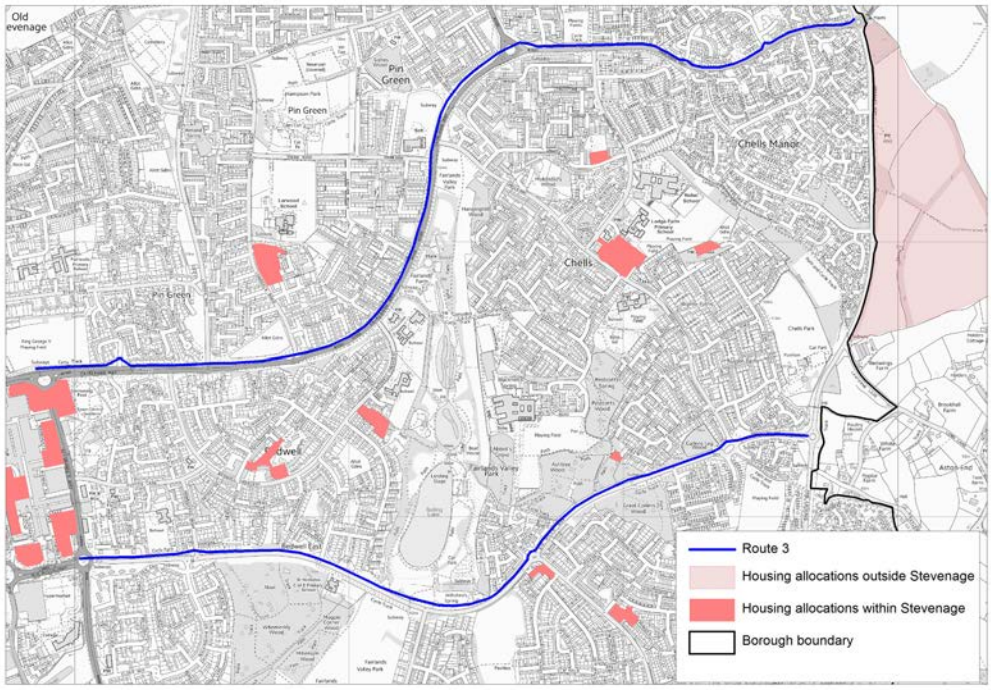


Figure 24 Route 3

Overview

3.6.1 Stevenage has two key East-West routes that connect the eastern boundary of the town (Gresley Way) to the town centre, both of which run across the centre of the Borough. These are Fairlands Way to the north and Six Hills Way slightly further south. The East Herts District Plan allocates a site to the east of Gresley Way for 600 new homes by 2023. The site is Greenfield, and is directly adjacent to Stevenage. Thus its residents are likely to use the facilities and public transport connections of the town.

3.6.2 As such, it will be crucial that connections are provided into the walking and cycling network to ensure these modes of travel are encouraged as much as possible.

Potential Improvements

3.6.3 Both of these routes benefit from segregated cycleways alongside the road network, which provides direct and easily navigated connections.

3.6.4 The potential interventions identified to improve these routes are summarised in the table below:

Route 3a			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
Connectivity	Opportunity to connect the allocated East of Stevenage development site into the existing cycle network	Extend cycleway along Fairlands Way from Emperors Head to Gresley Way/Fairlands Way roundabout	3.1
		Cycle priority at Fairlands Way/Gresley Way roundabout	3.2
Critical junctions	Lack of cycle priority at junctions along Fairlands Way. Popple Way junction is dangerous. Currently cyclists forced to cross the road. Cars parked on both sides, so drivers and cyclists are unsighted. Remaining junctions do not offer cycle priority.	Improve junction at Popple Way. Add double yellow lines to restrict parking and make junction a cycle priority, if possible.	3.3
		Cycle priority at junction with Chepstow Close.	3.4
		Cycle priority at junction with Doncaster Close.	3.5
		Cycle priority at junction with Pacatian Way (1)	3.6
		Cycle priority at junction with Pacatian Way (2)	3.7

Table 5

Route 3b			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
Critical junctions	Segregated cycleway ends before you reach Gresley Way. Alternative routes from Six Hills Way onto Gresley Way do not	Extend existing cycleway from Six Hills Way/Chells Way roundabout to Six Hills Way/Gresley Way roundabout.	3.8

Route 3b			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
	offer the most direct connections. The northern bridleway links to a bridge that connects to fields at Lanterns Lane, rather than to Gresley Way itself.		
Comfort	Drainage issue at Monkswood Way/Six Hills Way underpass	Address drainage issues	3.9
Critical junctions	Lack of cycle priority on at-grade junction along Six Hills Way cycle route	Prioritisation for cyclists crossing Brittain Way	3.10
Connectivity	No access for cyclists across junction	Cycle priority at Chells Way/Six Hills Way roundabout	3.11
Critical junctions	Lack of cycle priority on at-grade junction along Six Hills Way cycle route	Prioritisation for cyclists crossing lane to Fairlands Valley car park	3.12

Table 6

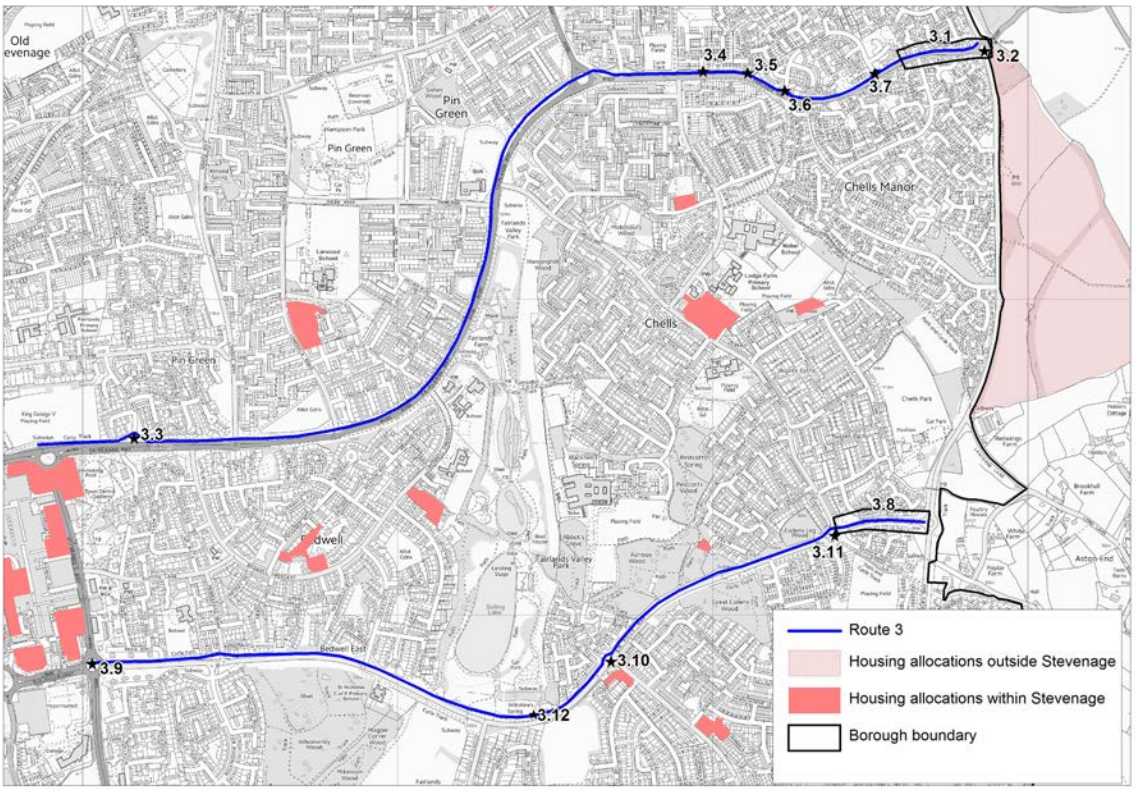


Figure 25 Route 3 interventions

3.7 Route 4 – South East Stevenage to Stevenage Central

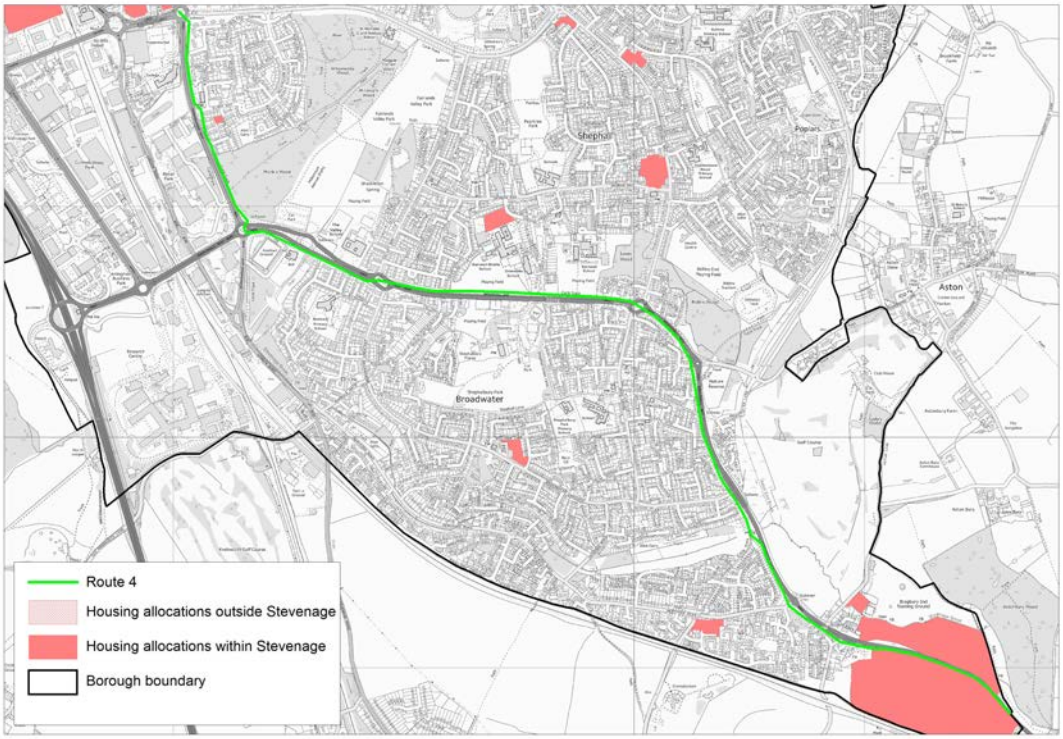


Figure 26 Route 4

Overview

3.7.1 This route links the town centre with the south of the town and follows the A602, which is a major road connecting Stevenage to other nearby towns and villages to the north and south. Route 4 provides access to the out-of-centre retail parks, the football stadium and existing residential areas, as well as a scheme recently granted planning permission for new homes at Kenilworth Close.

3.7.2 In addition to this, the land at the southern tip of the route, at the south east border of the Borough, is allocated for the development of approximately 550 new homes. The site is split into two sections, one north and one south of the A602.

3.7.3 There is a segregated cycle track along most of this route, running alongside the A602. The route would need to be extended to serve the new development and ensure it is sustainable. The other missing link is along St George's Way, at the very north of the route. Improvements here could tie in with the wider town centre regeneration scheme that is currently underway.

Potential Improvements

Route 4			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
Connectivity Safety	Connection into new housing site	Extension of segregated route from Bragbury Lane into the South East Stevenage development	4.1
		Cycling priority junction accessing development both north and south	4.2
	Missed connections to and from Gresley Way. Existing route, which meets the A602 to the north of the road, does not connect to the cycleway, which runs south of the A602, in either direction.	Create a new connection by widening existing footpath to shared route North of A602 from Shephall Way roundabout to Glenwood Close	4.3
		Create a new connection by widening existing footpath to shared route North of A602 from Gresley Way to Goddard End.	4.3b
Connectivity	Lack of access to The Valley School from town centre.	Extend cycleway north of A602 from Monkswood Way roundabout to The Valley School. The route would need to be segregated from the car park and have priority over vehicular traffic at both junctions with A602.	4.4
Comfort	Conflict between pedestrians and cyclists around Dawlish Close.	Switch the cycleway and footway between Broadwater Crescent and Dawlish Close so	4.5

Route 4			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
	Existing cycleway through the woods is narrow.	that the footway goes through the woods, with the cycling route being adjacent to the road. This would allow a wider route for cyclists. Improvement to lighting required.	
critical junctions	Segregated cycleway from town centre ends at Elder Way. Poor Junction at Elder Way/ Jennings Close (shared route)	Prioritise cycling at Elder Way/ Jennings Close junction – may require realignment of cycle route to enable easier access onto road network (Jennings Avenue)	4.6
Connectivity	No cycle access to Roaring Meg Retail Park south (Monkswood Way)	Improve access to Roaring Meg Retail Park south (Monkswood Way)	4.7

Table 7

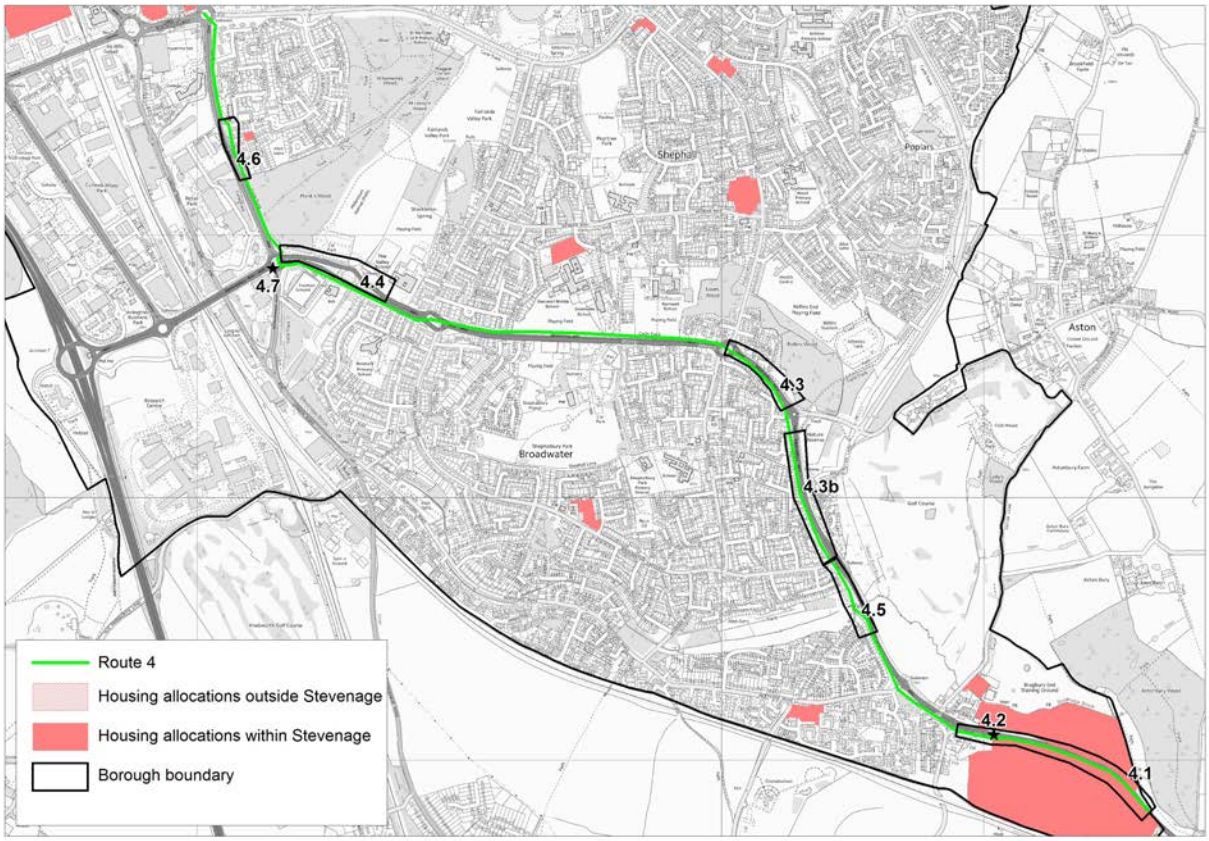


Figure 27 Route 4 interventions

3.8 Route 5 – West of Stevenage to Stevenage Central

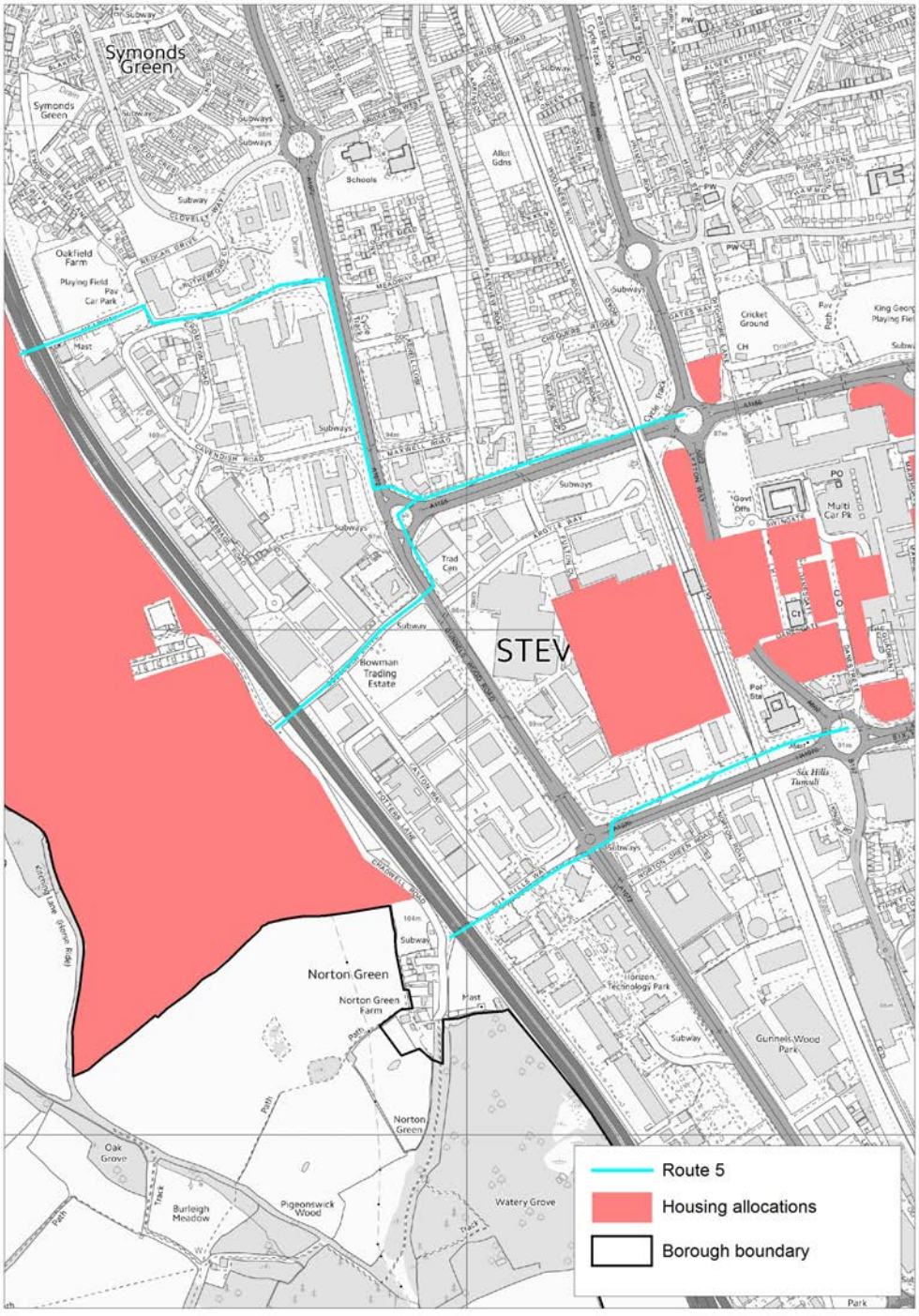


Figure 28 Route 5

Overview

3.8.1 Route 5 is concerned with providing east west links between the town centre and Gunnels Wood Employment Area, and beyond this under the A1(M), where new development is planned.

3.8.2 Land to the west of the A1(M) within the Borough is allocated within the emerging Local Plan for around 1,350 homes, 10,000m2 employment floorspace and a new neighbourhood centre.

3.8.3 While only a short distance from the town centre, the A1(M) and the railway line/station create barriers to access between this site and facilities within the town. There are three existing connections beneath the A1(M), Meadway, Bessemer Drive and Potters Lane foot tunnel, two of which will serve the proposed development site in terms of vehicular access (Meadway and Bessemer Drive). These routes will require improvement in order to enable sufficient capacity for all modes of transport to serve such a scheme.

3.8.4 Two of these routes link to Fairlands Way and the other to Six Hills Way, to gain access over the railway line. Gunnels Wood Road (Route 7 within this study) links these connections north-south, providing alternative options in terms of accessing the town centre and Employment Area from Stevenage West:

- 5a. Meadway and Bessemer Drive to town centre (via Gunnels Wood Road and Fairlands Way)
- 5b. Potters Lane foot tunnel to town centre (via Six Hills Way)

Potential Improvements

Route 5a			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
Connectivity Safety	A1(M) acts as a barrier West of Stevenage housing allocation and the town centre. Current access routes require improvement to serve all modes of transport.	Improved connection via Meadway – new segregated cycleway required as part of new access arrangements.	5.1
		Improved connection via Bessemer Drive – new segregated cycleway required as part of new access arrangements.	5.2
Comfort	Meadway surfacing not suitable for cycling on historic lane	Resurfacing of Meadway historic lane	5.3
Safety	Lack of passive surveillance at Bessemer Drive underpass	Bessemer Drive underpass improvements	5.5
Comfort	Argyle Way underpass susceptible to flooding	Address drainage issues with Argyle Way underpass	5.6
Note: There is no intervention 5.4			

Table 8

Route 5b			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
Safety Connectivity	Connection into the West of Stevenage housing allocation A1(M) acts as a barrier between West of Stevenage and the town	New connection via Potters Lane foot tunnel	5.7
		Improve the areas immediately around Potters Lane foot tunnel. Widen route, add signage.	5.8
Safety	Opportunity to make this segregated route more attractive to users	Improve signage and lighting	5.9

Table 9

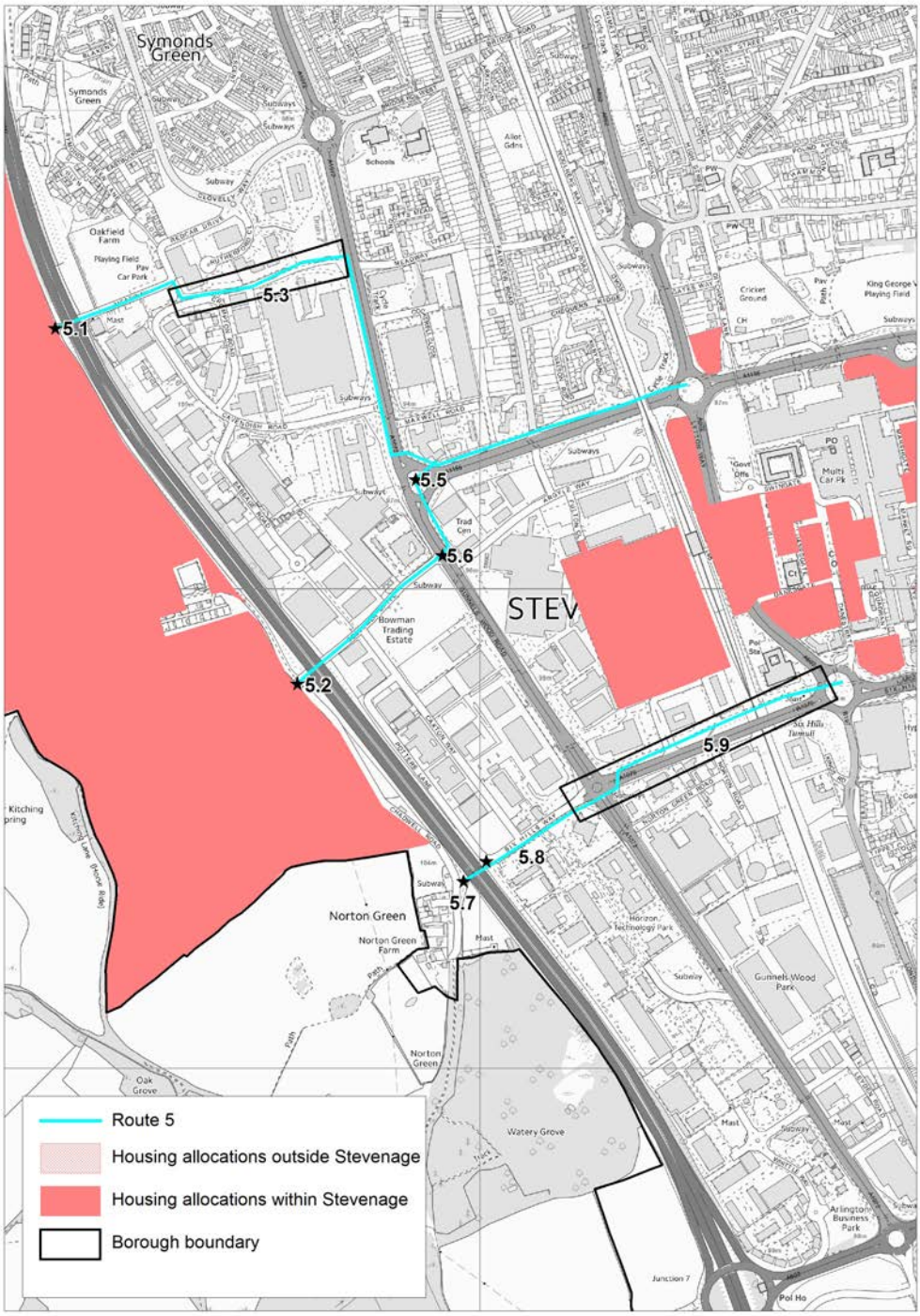


Figure 29 Route 5 interventions

3.9 Route 6 – East Stevenage Orbital

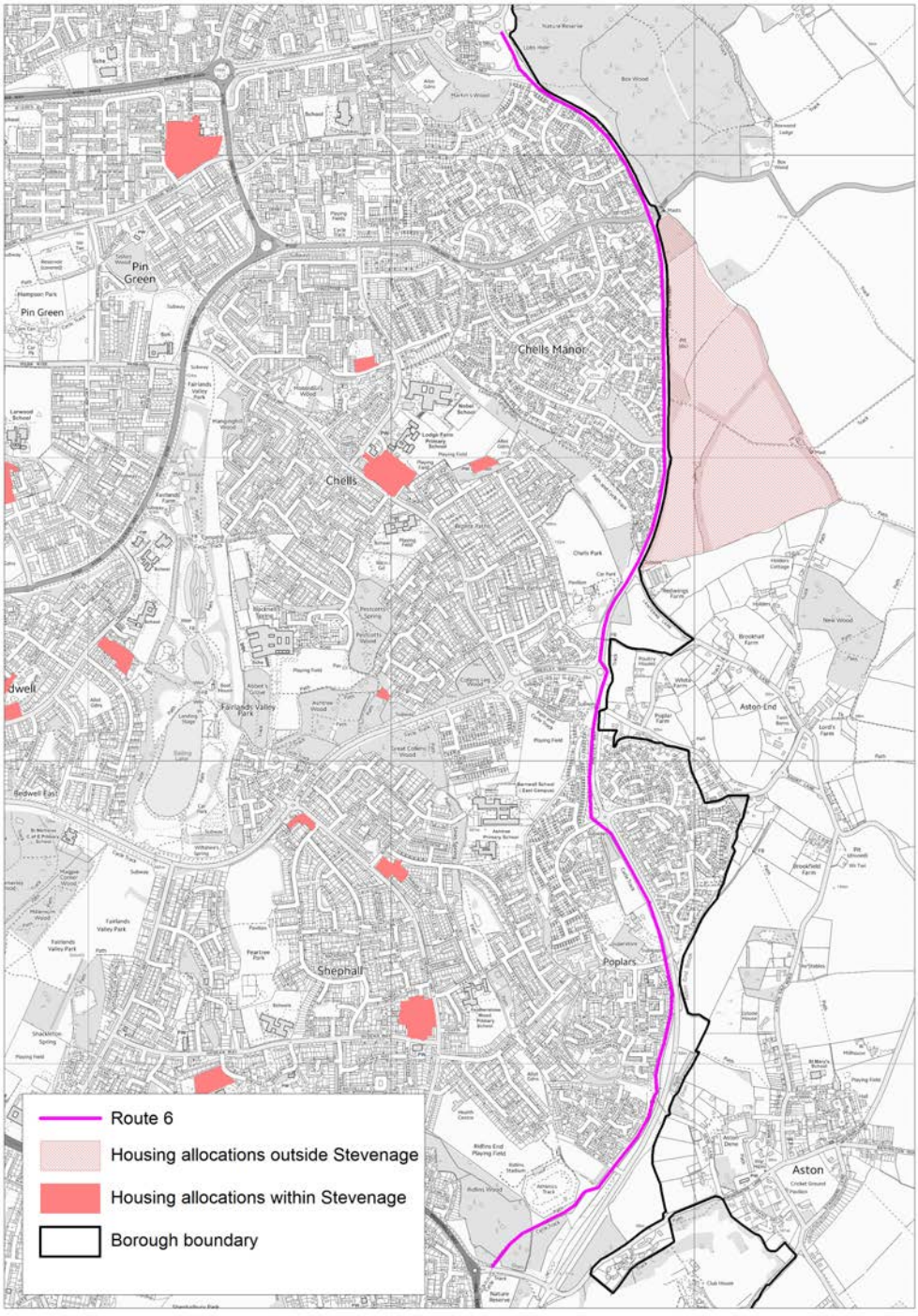


Figure 30 Route 6

Overview

3.9.1 Gresley Way largely marks the eastern boundary of Stevenage Borough. It is a 40mph road, with a mixture of very good quality segregated cycle routes in the south, and a slim shared (with pedestrian) route in the north.

3.9.2 This route currently links the Pin Green Employment Area with the south of the town and whilst it does not appear in the network analysis as a key route at the moment, it is directly adjacent to the proposed East of Stevenage development of 600 homes, as allocated in the East Herts District Plan. As such, it is likely to become a more commonly used route in the future, which is why it is being assessed in this LCWIP.

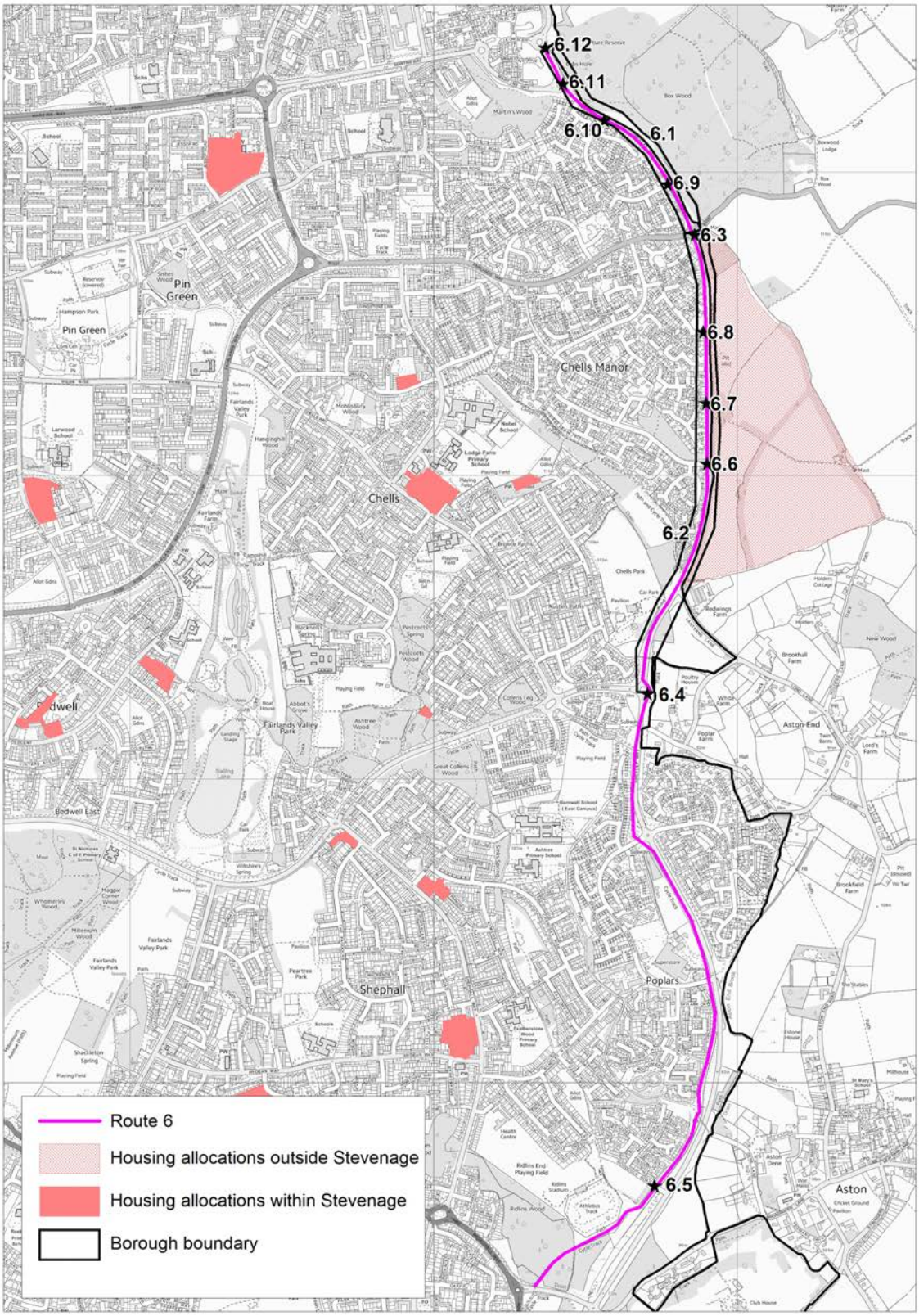
3.9.3 Route 3 links the East of Stevenage development to the town centre (via Six Hills Way and Fairlands Way), but another key link is to the north east of the town, including Pin Green Employment Area, and to the south of the town, to the A602 and beyond to nearby towns and villages, which Gresley Way provides.

Potential Improvements

Route 6			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
Comfort	Route is narrow, shared cycle and pedestrian route in the northern stretch	Expand the footpath from approximately 1.9m to 3.5m north of Six Hills Way	6.1
Connectivity	No orbital route around the Six Hills Way junction	Improve connection north-south through the East of Stevenage site, including upgrade of existing unsurfaced bridleway	6.2
Connectivity	Opportunity to link into East of Stevenage site and existing residential area west of the route	Create new connection from Fairlands Way into East of Stevenage	6.3
		Create new connection from Six Hills Way/ Barham Road into East of Stevenage development	6.4
Safety Critical junctions	Lack of cycle priority on Gresley way	Cycling prioritisation at the junction between Gresley Way and Woodcock Road	6.5
		Cycling prioritisation at the junction between Gresley Way and the White Way (1)	6.6

Route 6			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
		Cycling prioritisation at the junction between Gresley Way and Chalkdown	6.7
		Cycling prioritisation at the junction between Gresley Way and Uplands	6.8
		Cycling prioritisation at the junction between Gresley Way and Valerian Way (1)	6.9
		Cycling prioritisation at the junction between Gresley Way and Valerian Way (2)	6.10
		Cycling prioritisation at the junction between Gresley Way and Martins Way	6.11
		Cycling prioritisation at the junction between Gresley Way and Great Ashby Way	6.12

Table 10



Picture 1 Route 6 interventions

3.10 Route 7 – West Stevenage Orbital

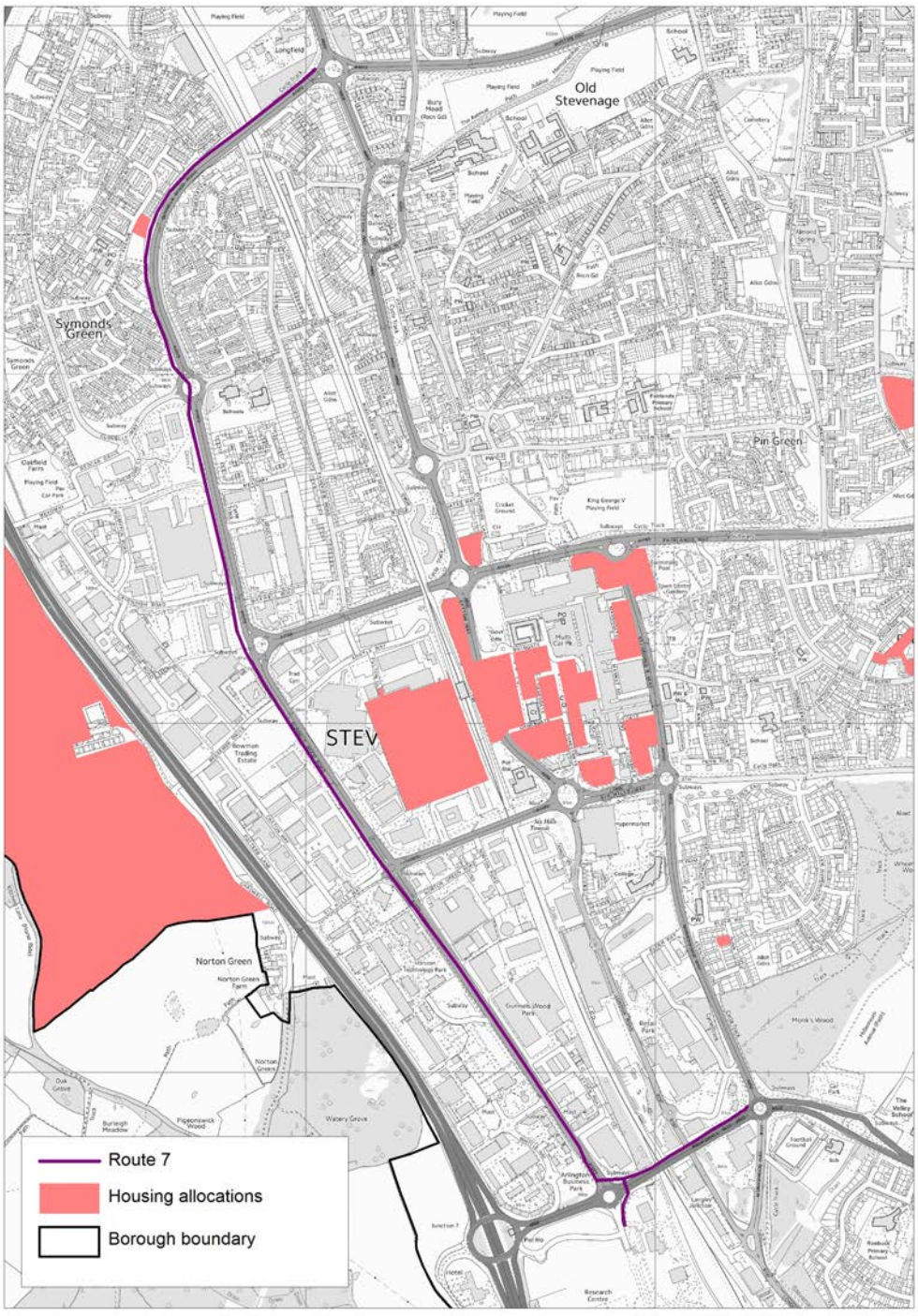


Figure 31 Route 7

Overview

3.10.1 Route 7 runs along Gunnels Wood Road from its junction with the A602 to the north and GSK at the south. Gunnels Wood Road serves as a key route linking businesses within the Gunnels Wood Employment Area to the north of Stevenage (via A602), and Lister Hospital.

3.10.2 Gunnels Wood is by far the largest employment area in the town, and serves as a sub-regional employment hub within Hertfordshire. It accommodates many large and international organisations including GSK, Airbus, MBDA and Fujitsu.

3.10.3 Starting from the north, the cycleway is largely well surfaced, wide and separated from the road. Through Gunnels Wood Employment Area, the route is mainly a dedicated cycleway and is removed from the busy road, using underpasses to avoid major junctions. At the southern end, towards Glaxo, there are many smaller roads to cross.

Potential Improvements

Route 7			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
Connectivity	Gunnels Wood Road acts as a barrier to connections from the west of Stevenage development	Optimise connection to link Bessemer drive (west) with Fairlands Way and Argyle Way (east)	7.1
Safety Critical junctions	Interruption of the continuous cycleway network by car access to sites from Gunnels Wood Road, with cars given priority	Reinstate cycle priority at Gunnels Wood Road junction with MBDA (south)	7.2
		Reinstate cycling priority at Gunnels Wood Road junction with access road adjacent to Access Self Storage	7.3
		Reinstate cycling priority at Gunnels Wood Road junction with Whittle Way	7.4
		Reinstate cycling priority at Gunnels Wood Road junction with Gunnels Wood Industrial Estate (north)	7.5
		Reinstate cycling priority at Gunnels Wood Road junction	7.6

Route 7			
RST Criterion	**Issue/Opportunity**	**Opportunity for improvement**	**Ref**
		with Gunnels Wood Industrial Estate (south)	
		Reinstate cycling priority at Gunnels Wood Road junction with Leyden Road (north)	7.7
		Reinstate cycling priority at Gunnels Wood Road junction with access road adjacent to FixAuto	7.8
		Reinstate cycling priority at Gunnels Wood Road junction with Leyden Road (south)	7.9

Table 11

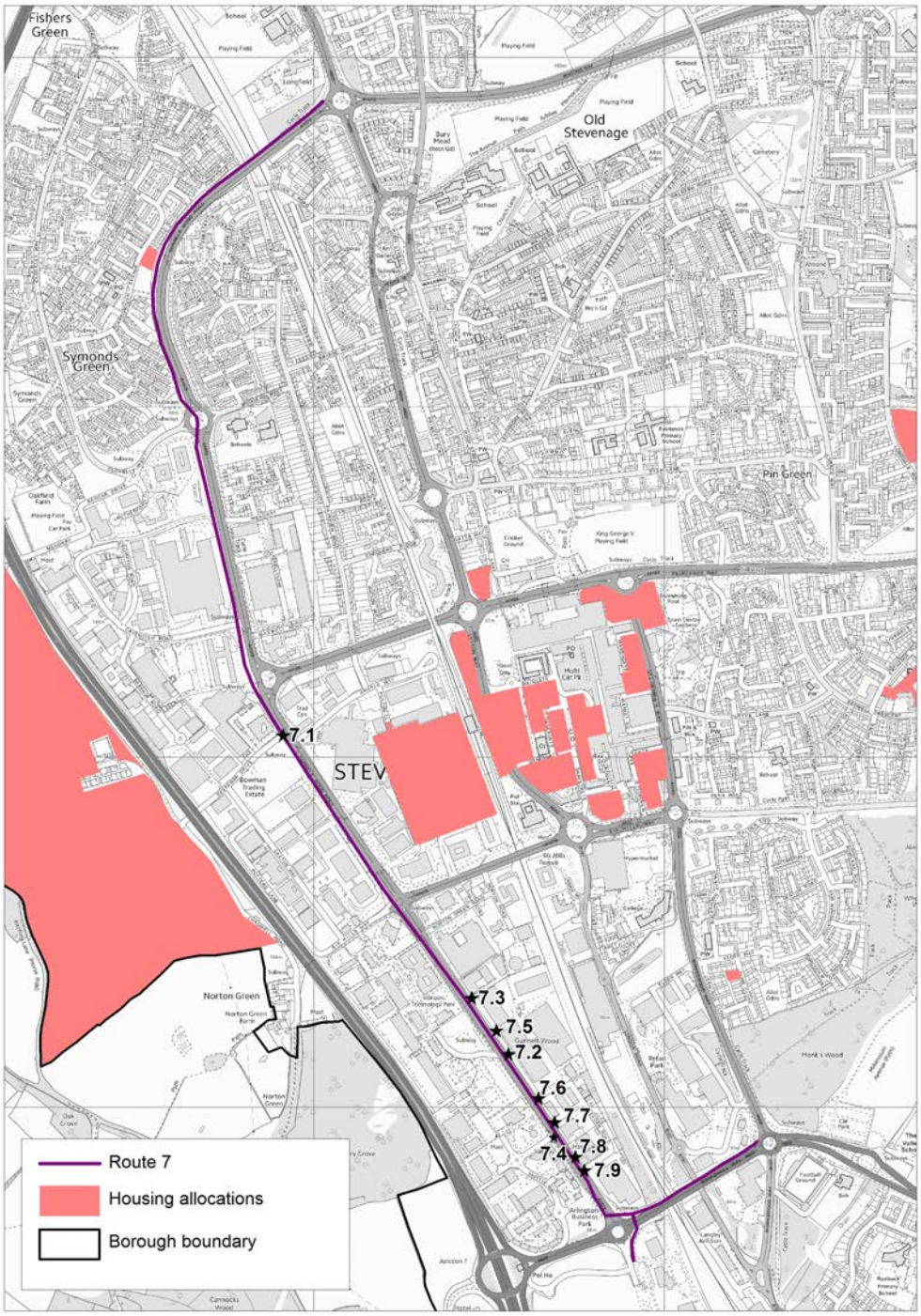


Figure 32 Route 7 interventions

3.11 Route 8 - Stevenage Central Improvements

3.11.1 In addition to the routes identified following the identification of desire lines, because nearly all of the desire lines finished within the central area, and bearing in mind work that is ongoing in relation to the regeneration of Stevenage Central, it was considered it would be beneficial to also include an analysis of the central area and its key cycling access points, which are identified on the map below.

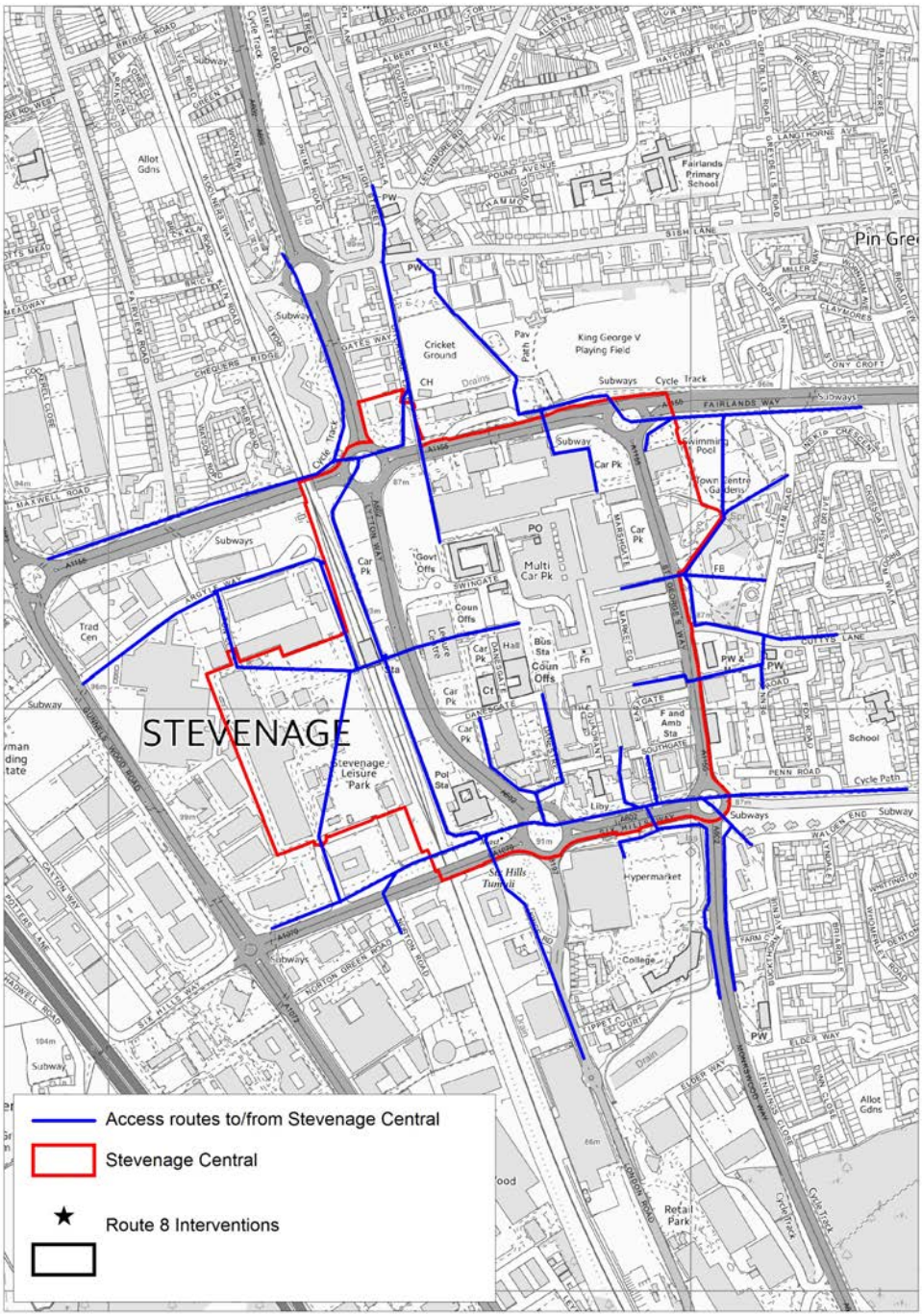


Figure 33 Route 8

Overview

3.11.2 Stevenage Central is at the very heart of the town, with radial routes linking it to the rest of the town, but also a pedestrian area into which cycling is currently prohibited. The majority of the central area was originally designed to accommodate bikes, and was built with significant levels of cycle parking. However, the existing retail area of the town centre is bound by a ring road, which it is recognised creates a barrier to movement on foot and by bicycle.

3.11.3 A number of the routes to and from the town have been blocked by newer large-footprint retail buildings, and access to and through the town centre is now restricted in many ways.

Town Centre Improvements			
RST Criterion	**Issue / opportunity**	**Opportunity for improvement**	**Ref**
Connectivity Safety	Cycle route runs through Tesco car park	Create designated cycle route within this area	8.1
Comfort Safety	Poor access route across Fairlands Way into Town Centre	Improve underpass - increased lighting, better signage, segregated/marked out cycle route	8.2
Connectivity Safety	Orbital Route around the centre has a missing section on St. George's Way	Add segregated cycle route on, or close to St. George's Way	8.3
Connectivity	Lytton Way & Leisure Centre act as a barrier to the town centre from the rail station	Create an at-grade cycle and pedestrian crossing across Lytton Way, and around the Leisure Centre	8.4
Connectivity	Poor link from Fairlands Way/Lytton Way roundabout into town centre – cyclists would either need to continue along Fairlands and use underpass by Pets at Home, or can connect to railway station via segregated route parallel to Lytton Way,	Connection into town centre from Fairlands Way/Lytton Way roundabout? No scheme identified for this improvement. Would require large scale redevelopment of the Tesco site.	8.5

Town Centre Improvements			
RST Criterion	**Issue / opportunity**	**Opportunity for improvement**	**Ref**
	however, this route lacks a connection across Lytton Way.		
Connectivity	No access across St. George's Way from The Forum to the Swimming Centre	Create at-grade crossing	8.6

Table 12

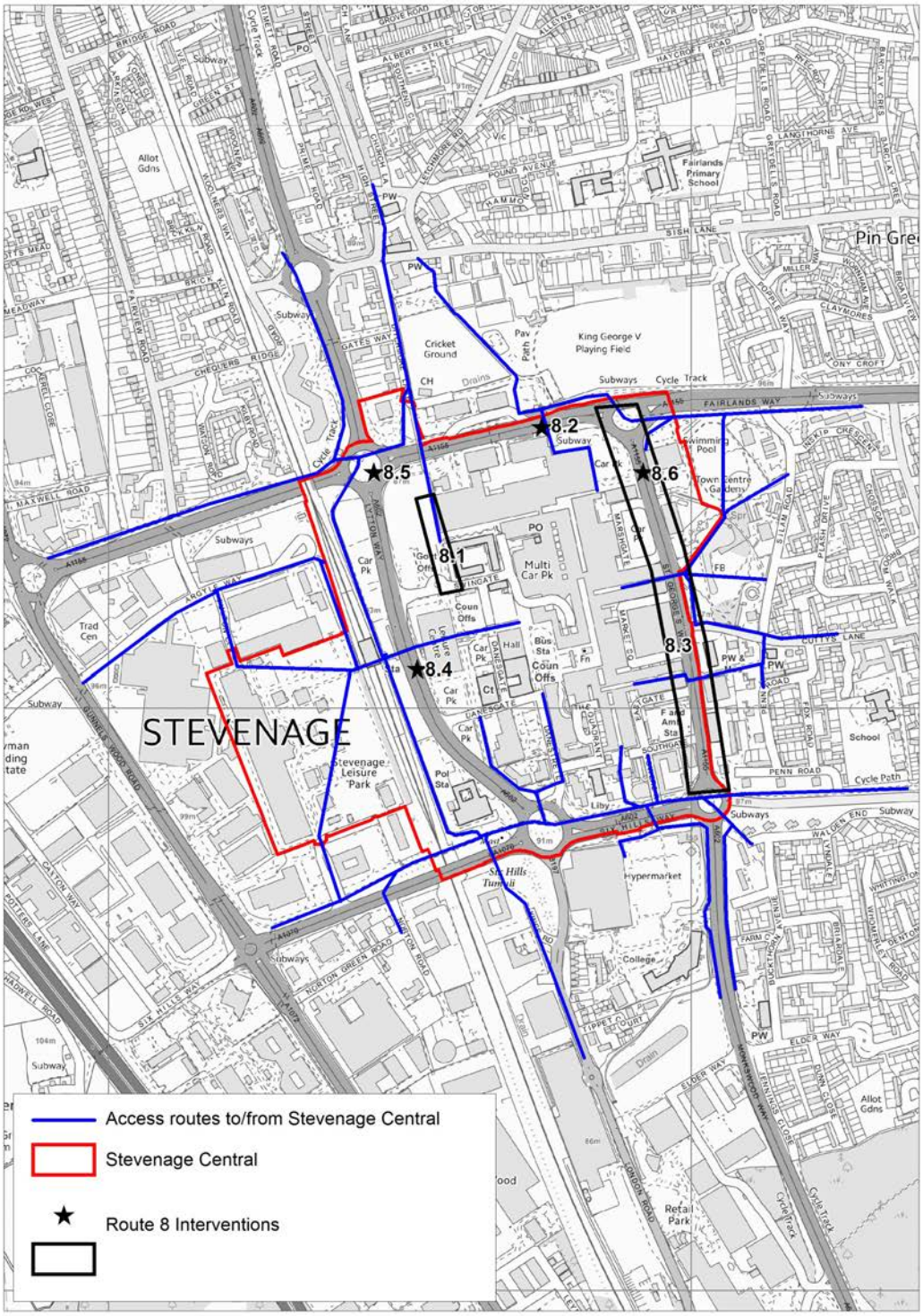


Figure 34 Stevenage Central proposed interventions

3.12 Programme of Cycling Improvements

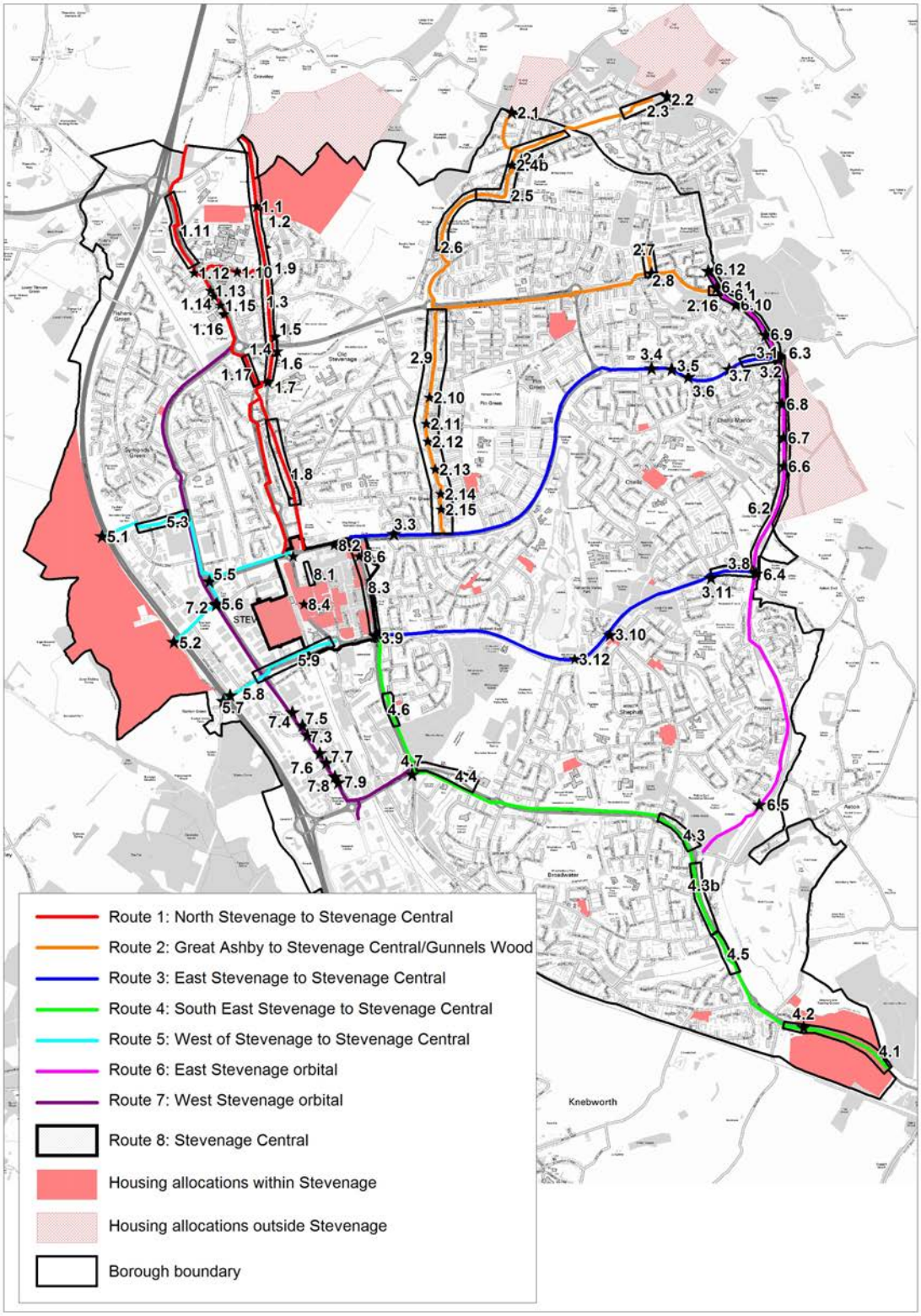


Figure 35 All Interventions

4 Network Planning for Walking

4.1 Stage Summary

4.1.1 This stage investigates current and projected walking patterns in Stevenage, and identifies the positives, negatives, and potential improvements that can be made to walking infrastructure.

4.1.2 There is significantly less evidence around the current state and potential improvements to walking infrastructure in Stevenage than there is for cycling infrastructure. Additionally walking routes are more complex than cycling routes, as nearly every road and cycle track has walking infrastructure attached to it, making the forecasting of route choices more difficult. As such, as part of the LCWIP process, SBC has engaged with relevant stakeholders and audited key routes to identify potential improvements.

4.2 Identifying Key Attractors

4.2.1 The largest attractor of, and creator of walking trips in the town is Stevenage Central. This includes the main retail area of Stevenage, as well as the bus and railway stations, the Arts and Leisure Centre, the Swimming Centre and Stevenage Leisure Park. The central area contains the UK's first pedestrian town centre, and many of these features still exist today.

4.2.2 Schools, Employment Areas, Neighbourhood Centres and the High Street are all additional key attractors in the town for creating and drawing walking trips in Stevenage.

4.2.3 The local steering group, as detailed in Section 1 of this LCWIP, identified a significant issue with trips to and from schools, with congestion at peak times caused by students being dropped off by car, and this causing congestion, parking pressure, and potentially dangerous conditions including clashes between different modal users. There is a perception that "all schools have issues" in this regard and HCC is working with schools to help prepare travel plans which will encourage and enable greater walking rates to schools.

4.2.4 Whilst there are other key attractors in the town, Stevenage Central has been chosen to concentrate on in the first instance. This area is planned to undergo significant redevelopment over the coming 15 years, which will offer many opportunities to improve walking infrastructure. As such, a thorough assessment of walking infrastructure will be particularly useful at this stage. The LCWIP can be extended in the future to cover other attractors, such as the schools and Employment Areas.

4.3 The Core Walking Zone

4.3.1 The Stevenage Central boundary is illustrated in red on the map below and is roughly aligned to a 400m buffer (5 mins walk) from the bus station. This is identified as the Core Walking Zone.

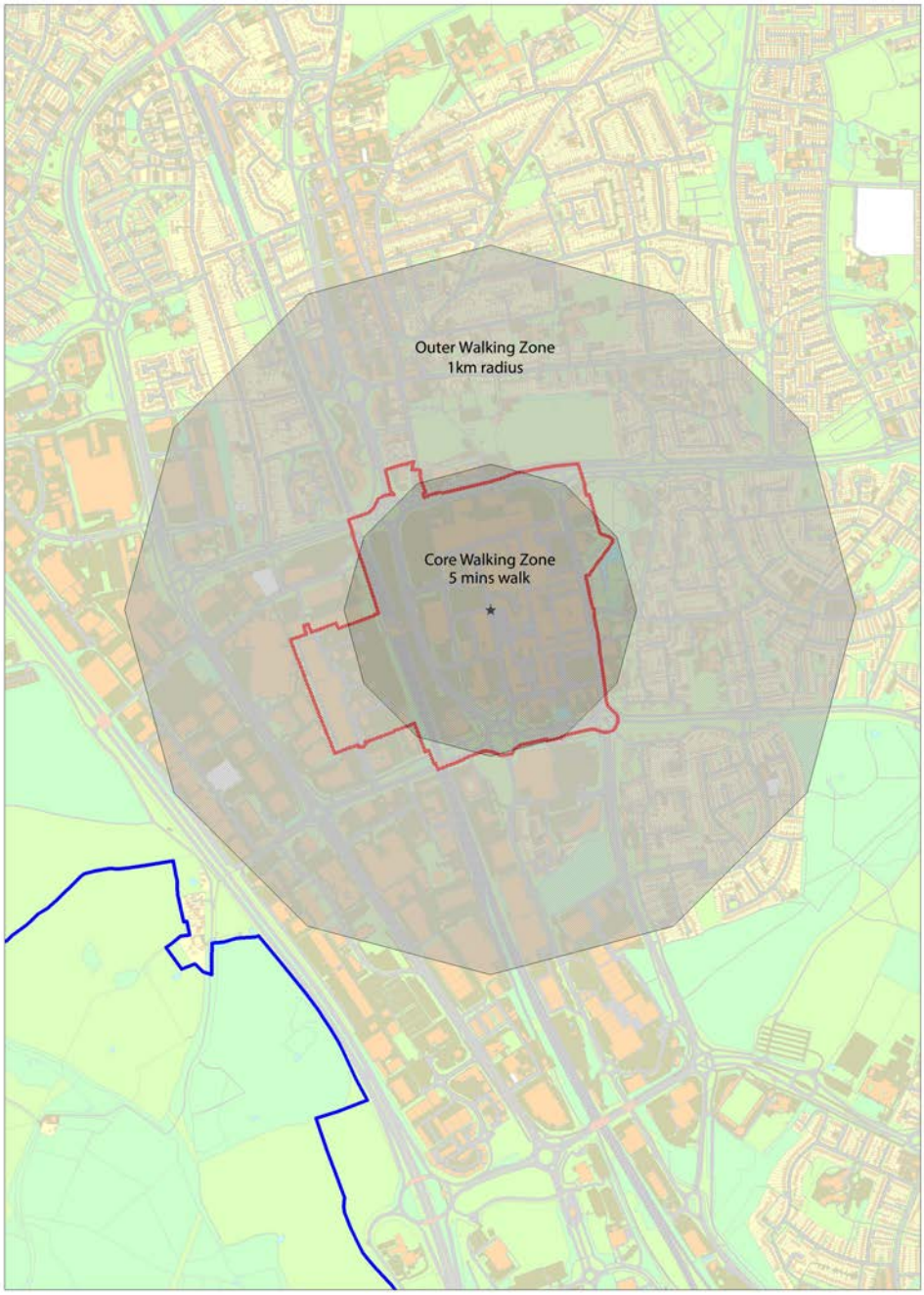


Figure 36 Stevenage Central Core Walking Zone

4.3.2 In terms of accessing the Core Walking Zone, a number of key routes have been identified that feed in from different directions of the town (within the outer walking zone). Some of the routes offer direct links, but others are severed, with funnels directing walkers across barriers at a single location. The key walking routes to and from Stevenage Central are identified below.

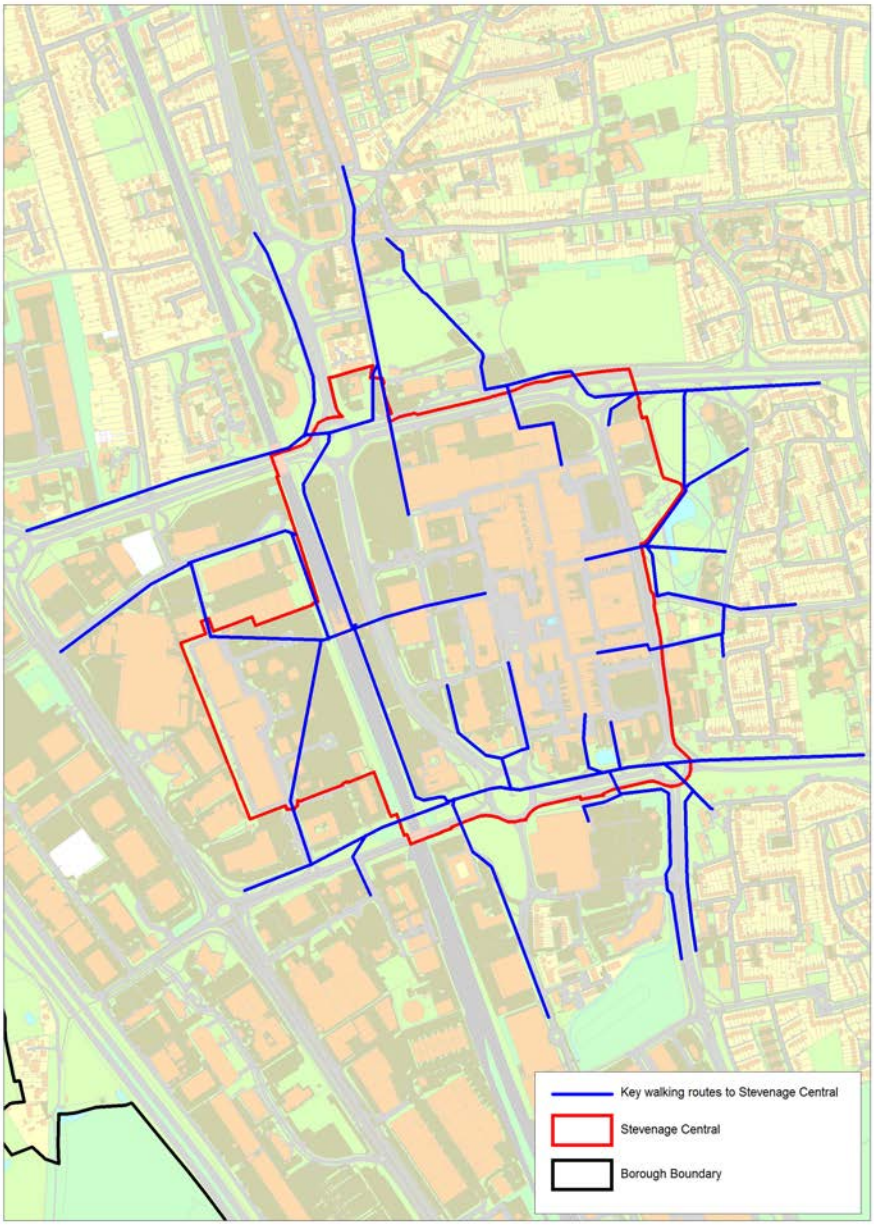


Figure 37 Key walking routes to and from Stevenage Central

4.3.3 In terms of identifying the significant barriers to pedestrians accessing the central area, the following key issues have been recognised by previous work undertaken on permeability (as detailed in Section 2 of this LCWIP) and were confirmed by the steering group:

- The Leisure Park is segregated from the retail area with only one access across Lytton Way and the railway line - which is not at surface level and is not an attractive route
- There is no access from the Swimming Centre into the town centre across St. George's Way.
- Some of the underpasses are of poor quality
- The pedestrian route from the Old Town area goes through Tesco car park
- There is no direct route from the west of Fairlands Way into the town centre

4.4 Key Walking Routes within the Town Centre

4.4.1 Within the Core Waking Zone, the retail area is largely pedestrian, and the principal shopping street (Queensway) is generally busy throughout the day. The Westgate Centre is the main indoor shopping centre, with access onto Queensway and The Forum, supported by its multi-storey car park accessed from Danestrete.

4.4.2 Surface car parking accounts for significant swathes of the central area, with car parks in many locations including Tesco, Matalan, Swingate, The Forum, the railway station, Marshgate, Southgate and Danesgate. Many of these sites will be regenerated as part of the wider Stevenage Central scheme with surface car parking being replaced with multi-story, mixed use development.

4.4.3 Beyond the railway station to the west lies the Leisure Park, which is a large retail park focusing on leisure activities. This is allocated for mixed use redevelopment in the Local Plan, and will present a key opportunity to improve connections to the railway station from the west.

4.4.4 Across St. George's Way to the east of Stevenage Central is the Swimming Centre and Town Centre Gardens. There is a single underpass linking this area with the Town Centre itself at present.

4.4.5 Routes within Stevenage Central can be split into the following categories:

- **Prestige Walking Zones:** Very busy areas of towns and cities, with high public space and street scene contribution.
    - Queensway north
    - Town Square
- **Primary Walking Routes:** Busy urban shopping and business areas, and main pedestrian routes.
    - Queensway south
    - Market Place
    - Park Place
    - The Forum (east to west)
    - Railway Station link
    - Bus Station
- **Secondary Walking Routes:** Medium usage routes through local areas feeding into primary routes, local shopping centres, etc.
    - The Forum (north)
    - Danestrete
    - Fairlands footbridge
    - The Plaza
- **Link Footways:** Linking local access footways through urban areas and busy rural footways

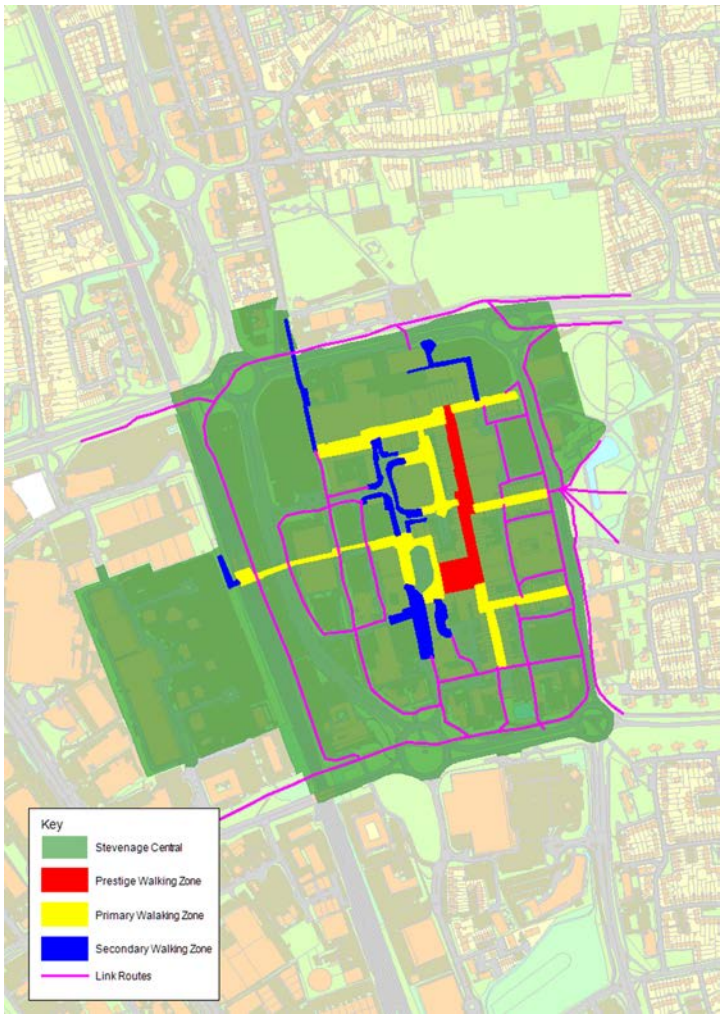


Figure 38 Key walking routes within Stevenage Central

4.5 Identifying Barriers and Funnel Routes: Walking Destinations to be examined

4.5.1 Drawing on the strengths of the core shopping areas, the opportunities presented by the regeneration of Stevenage Central, and the barriers to movement created by the perimeter routes around the retailing area, the following routes were analysed using the Walking Route Analysis Tool:

1. Queensway North (from Town Square to The Forum)
2. The Forum (from TK Maxx to Tesco)
3. East-west link across Lytton Way and the railway line (Leisure Park to retail area)
4. Danestrete (from Tesco to Six Hills Way)
5. Queensway South and Market Place (from the Town Square to Southgate)
6. Old London Road (from Tesco footbridge to Six Hills Way)
7. Park Place
8. Swingate - Danesgate loop
9. Southern perimeter route – Six Hills Way
10. Eastern perimeter route – St George's Way
11. Northern perimeter route – Fairlands Way
12. Western perimeter route – Lytton Way

Figure 39 Key Stevenage Central routes to be assessed

4.6 Walking Routes Audit

4.6.1 All 12 routes were audited on 6-7 December 2018. The results show that the routes are of variable quality, some including significant dedicated walking zones in the Town Centre, but some routes have issues which need to be resolved if we are to encourage increased movement on foot through this area.

4.6.2 Drawing on this analysis, we can see that whilst there are some excellent walking streets in Stevenage Central, there are also opportunities for improvement. These are identified in the following table.

4.7 Potential Improvements

Walking Route	Issue	Potential Improvement	Ref
Route 10 - Eastern perimeter	St George's Way acts as a barrier to pedestrian movement	At-grade crossing at northern end of St George's Way for walking and cycling	10.1
		At-grade crossing at southern end of St George's Way for walking and cycling	10.2
Route 3 - East West link from Leisure Park to retail area	Poor access from the train station east across Lytton Way and west across the Leisure Park (towards Gunnels Wood Employment Area)	New main east-west pedestrian route linking the train station and new bus station, with Queensway; including at-grade crossing on Lytton Way	10.3
		Improve the existing footbridge to provide a covered walkway between the retail area and the train station	10.4
		Improve pedestrian access to the station from the west (via Leisure Park) - segregated route required	10.5
Route 11 - Northern perimeter Route 2 - The Forum	Underpasses perceived as unsafe and create a poor image at gateways to and from Stevenage Central	Improve lighting and visibility in TK Maxx / Fairlands Way underpass (east)	10.6
Route 11 - Northern perimeter		Improve lighting and visibility in TK Maxx / Fairlands Way underpass (west)	10.7
Route 6 - Old London Road Route 9 - Southern perimeter		Improve lighting and visibility in Monkswood Way / Six Hills Way underpass	10.8
Route 9 - Southern perimeter Route 10 - Eastern perimeter		Improve lighting and visibility in Lytton Way / Six Hills Way roundabout underpass	10.9
Route 10 - Eastern perimeter		Improve lighting and visibility in St George's way underpasses	10.10
Route 6 - Old London Road	Lack of direct access between the Old Town and Stevenage Central	Improve access across Fairlands Way through the Tesco site and across	10.11

Walking Route	Issue	Potential Improvement	Ref
		Swingate *(**note**: this intervention is based on Tesco remaining in its current location. If Tesco or its car park were to be redeveloped in the future, the access would be redesigned completely. At the moment, Tesco have no plans to redevelop their site)*	
Routes 9, 10, 11 and 12 - South, East, North and West perimeters	Pedestrian routes around the town centre ring road are perceived as being unsafe	Improve lighting and surfacing of pedestrian routes around the town centre ring road.	10.12
Route 5 - Queensway south and Market Place Route 7 - Park Place	Perceived safety concerns in and around the St. George's Way Multi-Storey car park	Make the indoor market a permanent feature of the walking network	10.13
		Improve access to/from the multi-storey car park (lighting, ASB issues)	10.14
General improvement identified by steering group	Lack of signage around the town centre	New pedestrian wayfinding infrastructure in Stevenage Town Centre	10.15

Table 13

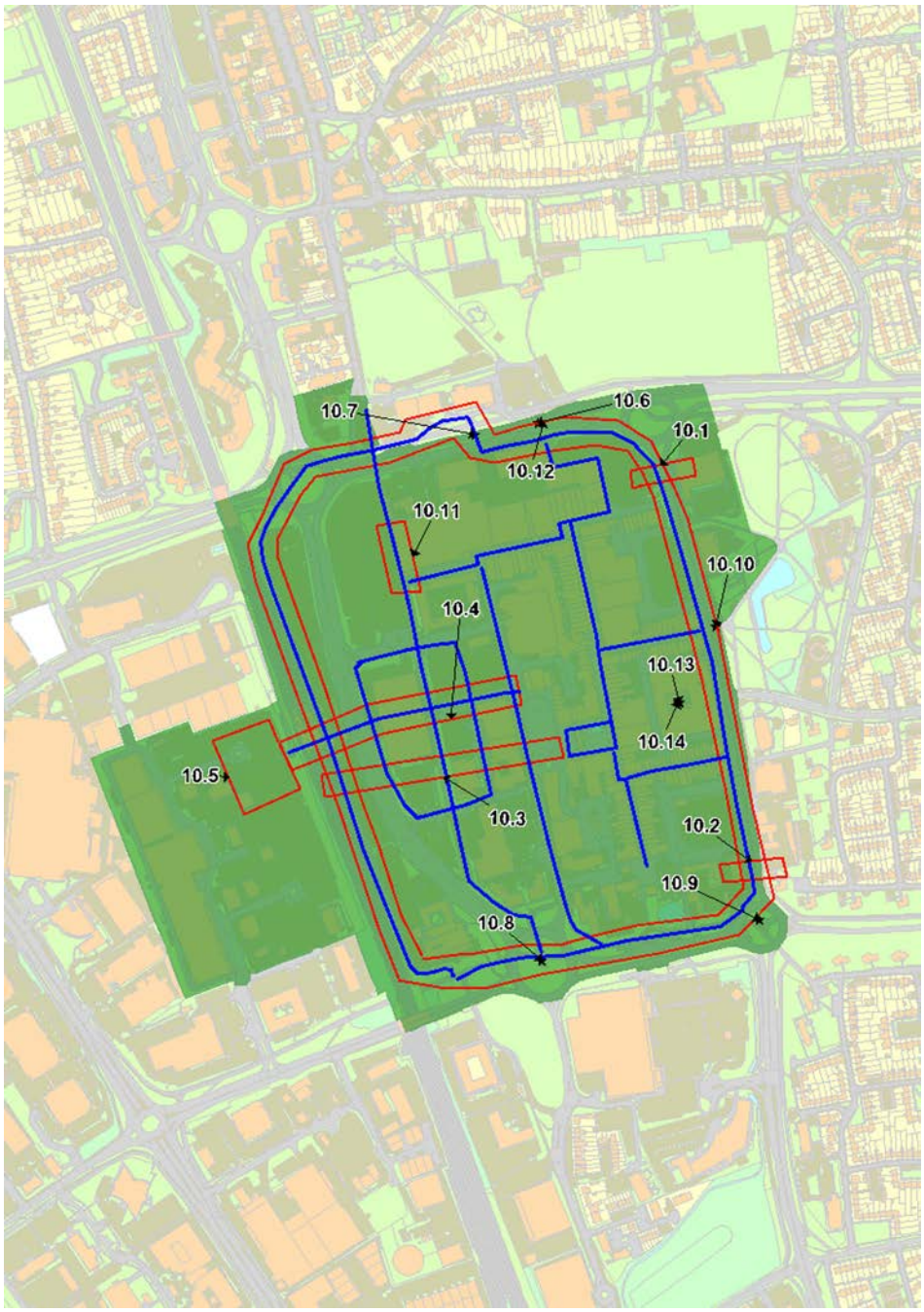


Figure 40 Potential walking improvements

4.7.1 With regards to Routes 1, 5 and 7, discussions held with the steering group and with the County Council have raised concerns in relation the the town centre cycling ban that is currently in place. Clearly a cycling ban does not fit well with objectives to increase cycling, but it can also be argued that the ban enables and encourages people to walk within the town centre more safely. In addition to this, the Council receives a significant amount of complaints about people not adhering to the ban, but the Police have previously advised they have no resources to enforce it.

4.7.2 As such, it is clear that something needs to be done to address the current situation - options could be explored around reducing the area in which cycling is banned, a media campaign to publicise the ban, increased signage, using cycle parking to make the ban more obvious, or even removing the ban completely.

4.7.3 As there are a number of options to be considered here, a separate piece of work has been commissioned to look at this particular issue. As such, no intervention has been identified within this LCWIP.

4.8 Delivery

4.8.1 Many of these improvements have already been considered as a result of the work undertaken so far on the regeneration of Stevenage Central. Major redevelopment is planned for the next 10-15 years, which provides significant opportunity to implement improvements such as these and to comprehensively redesign those parts of the network that are not working effectively for walking (and for cycling). Specific developments that are expected to come forward include:

- Moving the bus station from its current location to Lytton Way to form a transport interchange with the train station
- The downgrading of Lytton Way to reprioritise it as a bus corridor, while enabling pedestrian crossing of Lytton Way at grade.
- Regeneration of the existing bus station site to create new amenity space and mixed use development within the town centre
- Redevelopment of surface car parking to create new mixed use developments
- Creation of a new public sector hub within the town centre, with redevelopment of the existing public buildings.
- The phased development of the designated SG1 area

4.8.2 The assessment and improvements identified within this LCWIP will be key to ensuring schemes proposed are providing the infrastructure required to improve access for pedestrians both within, and to/from, Stevenage Central.

5 Prioritisation of Improvements

This chapter consolidates all of the walking and cycling improvements identified in Chapters 3 & 4, and seeks to identify the priorities for each.

5.1 Assessing the benefits

5.1.1 The methodology set out in the LCWIP technical guidance suggests a prioritisation methodology based on 4 principle areas:

- Effectiveness
- Policy
- Economic
- Deliverability

5.1.2 For Stevenage, a two-stage prioritisation process has been used to identify the relative benefits of each potential improvement. First each improvement has been scored against 12 indicators (3 per topic above), to identify how effective they will be in delivering improvements in walking and cycling in Stevenage. Each indicator can score:

- 0 points - Where the scheme delivers no change against an indicator
- 1 point – Low level of benefit/compliance
- 2 points – Medium level of benefit/compliance
- 3 points – High level of benefit/compliance

5.1.3 The following tables show the criteria against which identified improvements have been assessed against:

Effectiveness		
Forecast increase in walking & cycling trips	0	No change RST Comfort Score
	1	+1-2 RST Comfort Score
	2	+3-4 RST Comfort Score
	3	+5 RST Comfort Score
Population who directly benefit from the intervention	1	Generally one ward
	2	Multiple wards
	3	Whole borough
Improvement in transport safety	0	No change RST Safety Score
	1	+1-2 RST Safety Score or removes critical junction
	2	+3-4 RST Safety Score
	3	+5 RST Safety Score

Table 14

Policy		
Improvements in connectivity (all modes)	0	No change RST Connectivity Score
	1	+1-2 RST Connectivity Score
	2	+3-4 RST Connectivity Score
	3	+5 RST Connectivity Score
Prioritising active travel	0	Makes no benefit
	1	Limited improvement to overall active travel infrastructure
	2	Supports choice to use active travel modes
	3	Maximises opportunities for local residents to use active travel mode
Contribution to supporting new housing	0	None
	1	Supports better access around the overall network
	2	Supports connection but not directly enables connections to new developments
	3	Enables ped/cycle access to new developments

Table 15

Economic		
Contribution to growth and access to jobs in Stevenage	0	Reduced below present
	1	Same as at present
	2	Moderate increase on the present
	3	Significant increase on the present
Costs of maintenance	1	Will require bespoke upkeep, generally in excess of current standards/ practices
	2	Adds to the network, and therefore maintenance

	3	Is a like-for-like or similar replacement on existing highways network.
Potential to attract funding, including private sector	1	Likely would be CIL dependant
	2	Would likely attract funding from a mix of stakeholders
	3	Funding already achieved/ funding source identified (including S106)/ none required

Table 16

Deliverability		
Scheme feasibility	1	Delivery is feasible but difficult
	2	Delivery is feasible
	3	Delivery would be feasible and deliver opportunities for further benefits
Timescales	1	Long term (5+ years)
	2	Medium term (2-5 years)
	3	Short term (0-2 years)
Level of disruption	1	Major disruption for a longer timeframe
	2	Short-term, minor disruption on the network while works carried out
	3	None/ very limited

Table 17

5.1.4 Once this process is complete, each potential improvement has a score out of 36 for the level of benefit they could deliver. This score is then compared directly against the estimated cost of delivering the improvement to produce a high-level cost-benefit ranking.

5.1.5 The projects are then distributed into short (>3 years), medium (3-5 years), and long (5+ years) term projects, with their prioritisation scores and funding mechanisms.

5.2 Cost Profiling

5.2.1 The LCWIP sets out a series of indicative costs for the types of interventions likely to be identified as part of this process. Whilst this provides a good starting point, it is recognised that costs can vary enormously in reality, due to locational factors, site specific characteristics, financi

models etc. As such, a workshop was held where the typologies of improvements were discussed by a range of HCC and SBC officers, to determine how appropriate the cost ranges of the potential improvements set out in the LCWIP guidance were. A number of example schemes were looked at and area specific costs and previous costs for schemes were considered. This workshop recommended the following:

- That the appropriate estimated cost for cycle reprioritisation on a crossing of side road alongside a main road is £150,000. There is not a direct indicative cost in the LCWIP guidance, the closest is that of the addition of a cycle crossing at a major road, which is estimated between £140k-£410k. It was considered that this type of proposed improvement in Stevenage was likely to be at the lower end of the estimate range.
- That a cost of £1,000/m was an appropriate cost estimate for the construction of a new segregated cycle route along both sides of an existing road.
- That £200/m was an appropriate estimate for the expansion of an existing footpath into a shared cycle and footpath.
- That estimating the cost of a major junction was problematic due to the number of variables needing to be estimated. The LCWIP guidance price of £1.58m was agreed as satisfactory.

5.3 Funding

5.3.1 Of the projects identified in this Report, some will be delivered through new developments as part of their design. If this is the case it will be logical that the cost of the improvement will be borne by the developer, either as a design consideration, or through a planning obligation. Off-site improvements, for example upgrades to existing routes will be dependent upon other funding sources such as HCC/DfT funds, or Community Infrastructure Levy funding.

5.3.2 Those projects which do not already have a funding mechanism attached to them need to be appraised in more detail to create the business case for securing funding for their delivery. This should be carried out in line with DfT's procedures for business case development.

5.4 Prioritisation of cycling Improvements

5.4.1 The following tables set out the estimated costs and benefits for each intervention, as assessed using the methodologies identified above.

5.4.2 To note, there are a small number of schemes where the costs are unknown and further work is required to estimate them, or where an appropriate intervention has not been identified. Notes have been provided to explain where cost and/or benefit data is missing.

Ref	Potential Improvement	Brief Description of works	Benefit score	Potential Cost
1.1	New junction North Road/ North of Stevenage Growth Area	New entrance from North of Stevenage development onto North Road, including access across North Road to Lister Close or through Rugby Club site. Assumed as remodelled major junction.	26	**£1,585,000**

1.2	New segregated Cycleway on North Road from Graveley Road to Coreys Mill Lane, and lighting improvement	0.99km new (light) segregated route, predominantly along the eastern side of North Road	22	**£990,000**
1.3	New segregated Cycleway on North Road from Coreys Mill Lane to Martins Way	0.53km new (light) segregated route, predominantly along the eastern side of North Road	22	**£530,000**
1.4	New segregated Cycleway on North Road from Martins Way to High Street, including shared cycle/ pedestrian space outside Thomas Alleyne School	258m new (light) segregated route, predominantly along the eastern side of North Road	21	**£285,000**
1.4		249 m new shared route, predominantly along the eastern side of A602 gyratory	21	**£249,000**
1.5	Improved North Road/ Martins Way (north side) junction via Burymead	266m Resurfaced cycle route (North Road to Burymead underpass)	20	**£43,890**
1.6	Improved junction Martins Way (south side) slip/ North Road	184m Resurfaced cycle route (Burymead underpass to North Road via slip)	20	**£30,360**
1.7	Improved juntion where cycleway merges onto North Road, north of High Street	Improve through use of tactiles, signage and prioritise for pedestrians	26	**£15,000**
1.8	Introduction of 20mph zone and shared cycle-road infrastructure to High Street	700m of 20mph zone, including traffic calming	23	**£8,750**
1.9	Improved North Road/ Coreys Mill Lane Junction	Cycle crossing at major road	18	**£150,000**
1.10	Cycling prioritisation at junction with The Old Walled Garden	Cycle crossing at major road	19	**£150,000**

1.11	Section of cycleway between A1(M) roundabout and Coreys Mill Lane is narrow	Increase width of route (530m)	21	**£87,450**
1.12	Cycling prioritisation at junction- roundabout/Ingleside Drive	Cycle crossing at major road	19	**£150,000**
1.13	Cycling prioritisation at exit from John Henry Newman School	Cycle crossing at major road	19	**£150,000**
1.14	Cycling prioritisation at entrance 2 to John Henry Newman School	Cycle crossing at major road	19	**£150,000**
1.15	Cycling prioritisation at entrance 1 to John Henry Newman School	Cycle crossing at major road	19	**£150,000**
1.16	Cycling prioritisation at exit from Fire Station	Cycle crossing at major road	19	**£150,000**
1.17	Cycleway is forced to join small residential road- Franklins Road for a few hundred yards until it re-joins cycleway	Improve transition with use of tactiles, signage and dedicated cycle priority for 200m	20	**£20,000**

Table 18

Ref	Potential Improvement	Brief Description of works	Benefit score	Potential £Cost
2.1	Connection into land north of Back Lane to Orwell Close - to access new residential development in NHDC	Remodelled major junction piggybacking on other traffic works	26	**£240,000**
2.2	Connection into land north west of Merrick Close - to access new residential development in NHDC	Remodelled major junction piggybacking on other traffic works	25	**£240,000**
2.3	Extend route underneath railway pylon	2-way light segregated cycle route 650m	21	**£175,500**
2.4	Widen cycle route beneath the electricity pylons	Mixed strategic cycle route 497m	20	**£99,400**

2.4b	Create at-grade crossing or cycleway priority across Gt Ashby Way	Cycle crossing at major road	19	**£150,000**
2.5	Improvements to Western Road link	Mixed strategic cycle route 427m	18	**£70,455**
2.6	New segregated cycle path along Gt Ashby Way, through the park	2-way light segregated cycle route 483m	24	**£130,410**
2.7	Improve Wedgewood way for cycling	2-way light segregated cycle route 176m	19	**£176,000**
2.8	Improve Martins Way/ Wedgewood way junction	Cycle crossing at major road	19	**£150,000**
2.9	Improve lighting/passive surveillance along Grace Way (Martins Way to Fairlands Way)	Improve lighting (1600m)	17	**£85,000**
2.10	Grace Way turnoff (1)	Cycle crossing at major road	17	**£150,000**
2.11	Grace Way turnoff (2)	Cycle crossing at major road	17	**£150,000**
2.12	Grace Way turnoff (3)	Cycle crossing at major road	17	**£150,000**
2.13	Grace Way turnoff (4)	Cycle crossing at major road	17	**£150,000**
2.14	Grace Way turnoff (5)	Cycle crossing at major road	17	**£150,000**
2.15	Grace Way turnoff (6)	Cycle crossing at major road	17	**£150,000**

Table 19

Ref	Potential Improvement	Brief Description of works	Benefit score	Potential Cost
3.1	Extend cycleway along Fairlands Way from Emperors Head to Gresley Way/Fairlands Way roundabout	0.27km new (light) segregated route, predominantly along the northern side of Fairlands Way	21	**£270,000**
3.2	Improve access at Fairlands Way/ Gresley Way roundabout	Cycle crossing at major road	27	**£150,000**
3.3	Improve/mitigate junctions at Popple Way	Cycle crossing at major road	16	**£150,000**
3.4	Improve/mitigate junctions at Chepstow Way	Cycle crossing at major road	16	**£150,000**
3.5	Improve/mitigate junctions at Doncaster Way	Cycle crossing at major road	16	**£150,000**
3.6	Improve/mitigate junctions at Pacatian Way (1)	Cycle crossing at major road	16	**£150,000**
3.7	Improve/mitigate junctions at Pacatian Way (2)	Cycle crossing at major road	16	**£150,000**

3.8	Extend existing cycleway from Six Hills Way/Chells Way roundabout to Six Hills Way/Gresley Way roundabout	New 300m segregated route	26	**£30,000**
3.9	Address drainage issues at Six Hills/ Monkswood Way underpass	Address drainage issues	16	**Unknown**
3.10	Cycling prioritisation improvement on Six Hills Way accesses to Brittain Way	Cycle crossing at major road	16	**£150,000**
3.11	Cycling prioritisation at Chells Way/Six Hills Way roundabout	Cycle crossing at major road	16	**£150,000**
3.12	Cycling prioritisation for cyclist crossing lane to Fairlands Valley carpark	Cycle crossing at major road	16	**£150,000**

Table 20

Ref	Potential Improvement	Brief Description of works	Benefit score	Potential Cost
4.1	Extension of segregated route from Bragbury Lane into the South East Stevenage development, potentially along A602 as far as the Three Horseshoes pub.	0.97km new two-way light segregated route	26	**£970,000**
4.2	New junction with A602 at South East of Stevenage growth area	New major junction	28	**£1,585,000**
4.3	New connection by widening existing footpath to shared route North of A602 from Shephall Way roundabout to Glenwood Close	Mixed Strategic cycle route 195m	23	**£39,000**
4.3b	New connection by widening existing footpath to shared route north of A602 from Gresley Way to Goddard End	500m new cycleway	22	**£82,500**
4.4	Extend cycleway to link Monkswood Way roundabout with the football academy and The Valley School.	Mixed Strategic cycle route 305m	21	**£152,500**
4.5	Switch the cycleway and footway between Broadwater Crescent and Dawlish Close so that the walking path goes through	New 2-way light segregated 255m	22	**£255,000**

	the woods, with the cycling route being adjacent to the road.			
4.6	Prioritise cycling at Elder Way/ Buckthorn Ave/ Jennings Ave junction	Assumed a remodelled junction piggybacked onto previous work	21	**£240,000**
4.7	Improve access to the south of Roaring Meg	Cycle crossing at major road	21	**£150,000**

Table 21

Ref	Potential Improvement	Brief Description of works	Benefit score	Potential Cost
5.1	Connection into West of Stevenage site via Meadway	Remodelled major junction (piggybacking on traffic measures)	19	**£240,000**
5.2	Connection into West of Stevenage site via Bessemer Drive	Remodelled major junction (piggybacking on traffic measures)	18	**£240,000**
5.3	Resurfacing of Meadway historic lane	388m newly resurfaced segregated cycle and walking route.	17	**£77,600**
5.5	Bessemer Drive underpass	Lighting improvements (50m)	16	**£8,000**
5.6	Address drainage issues with Argyle Way underpass	Drainage works within the underpass	13	**Unknown - requires further investigation**
5.7	Connection into West of Stevenage site via Six Hills Way underpass/ Chadwell Road	Mixed strategic cycle route 238m	22	**£238,000**
5.8	Improve the areas immediately around Potters Lane	Widen route, add signage	14	**£19,800**
5.9	Improve signage and lighting along Six Hills Way route	600m lighting improvements	26	**£35,000**

Table 22

Ref	Potential Improvement	Brief Description of works	Benefit score	Potential Cost
6.1	Expand the cycleway/footpath from approximately 1.9m to 3.5m north of Six Hills Way	New mixed Strategic Cycle Route 1km	21	**£200,000**
6.2	Improve connection north-south through the East of Stevenage site, including upgrade of existing unsurfaced bridleway.	New light segregated cycleway for 1.5km	26	**£1,500,000**

6.3	Create new connection from Fairlands Way into East of Stevenage development	To be delivered as part of development scheme	19	**Unknown - no ranking required, as will be delivered via the new development**
6.4	Create new connection from Six Hills Way/ Barham Road into East of Stevenage development	To be delivered as part of development scheme	16	
6.5	Cycling prioritisation at the junction between Gresley Way and Woodcock Road.	Cycle crossing at major road	16	**£150,000**
6.6	Cycling prioritisation at the junction between Gresley Way and the White Way (1)	Cycle crossing at major road	16	**£150,000**
6.7	Cycling prioritisation at the junction between Gresley Way and Chalkdown.	Cycle crossing at major road	16	**£150,000**
6.8	Cycling prioritisation at the junction between Gresley Way and Uplands.	Cycle crossing at major road	16	**£150,000**
6.9	Cycling prioritisation at the junction between Gresley Way and Valerian Way (1).	Cycle crossing at major road	16	**£150,000**
6.10	Cycling prioritisation at the junction between Gresley Way and Valerian Way (2).	Cycle crossing at major road	16	**£150,000**
6.11	Cycling prioritisation at the junction between Gresley Way and Martins Way.	Cycle crossing at major road	16	**£150,000**
6.12	Cycling prioritisation at the junction between Gresley Way and Great Ashby Way.	Cycle crossing at major road	16	**£150,000**

Table 23

Ref	Potential Improvement	Brief Description of works	Benefit score	Potential Cost
7.1	Optimise connection to link Bessemer drive (west) with Fairlands Way and Argyle Way (east)	Cycle crossing at major road	17	**£150,000**
7.2	Reinstate cycling priority at Gunnels Wood Road junction with MBDA (S)	Cycle crossing at major road	18	**£150,000**
7.3	Reinstate cycling priority at Gunnels Wood Road junction with Access Self Storage	Cycle crossing at major road	17	**£150,000**
7.4	Reinstate cycling priority at Gunnels Wood Road junction with Whittle Way	Cycle crossing at major road	17	**£150,000**

7.5	Reinstate cycling priority at Gunnels Wood Road junction with Gunnels Wood Industrial Estate (N)	Cycle crossing at major road	17	**£150,000**
7.6	Reinstate cycling priority at Gunnels Wood Road junction with Gunnels Wood Industrial Estate (S)	Cycle crossing at major road	17	**£150,000**
7.7	Reinstate cycling priority at Gunnels Wood Road junction with Leyden Road (N)	Cycle crossing at major road	17	**£150,000**
7.8	Reinstate cycling priority at Gunnels Wood Road junction with FixAuto	Cycle crossing at major road	17	**£150,000**
7.9	Reinstate cycling priority at Gunnels Wood Road junction with Leyden Road (S)	Cycle crossing at major road	17	**£150,000**

Table 24

Ref	Potential Improvement	Brief Description of works	Benefit score	Potential Cost
8.1	Designated cycle route through Tesco Carpark *(**note:** feasibility may be difficult as Tesco own the land)*	Create designated cycle route within this area (160m)	17	**£10,000**
8.2	Poor access route across Fairlands Way into Town Centre	Improve underpass-increased lighting, better signage (30m)	20	**£8,000**
8.3	Orbital route has missing section on St Georges Way	Add segregated cycle route	23	**£657,000**
8.4	Create an at-grade pedestrian and cycle crossing across Lytton Way, and around the Leisure Box	Remodelled major junction (piggybacking on other traffic measures)	20	**£150,000**
8.5	Poor link from Fairlands Way/Lytton Way roundabout into town centre	Connection into town centre from Fairlands Way/Lytton Way roundabout	No solution at present – would require large scale redevelopment of Tesco site	
8.6	Route lacks a connection across St George's Way	Create at-grade crossing	25	**£150,000**

Table 25

Once the costs and benefits had been determined, the schemes were ranked in terms of their priority. The use of cost benefit analysis was investigated as part of this process. However, due to the huge variations in costs - from under £10,000, all the way up to £1.5million, using a cost vs benefit methodology meant in this case meant that all of the lower costs schemes always ended up being high priorities and the more expensive schemes, despite some of them having the most benefit, being ranked very low. As such, it is the total benefit score that has been used to rank the interventions. The cost has been used as a secondary measure, so where the benefit score is the same, the lower cost schemes have been ranked more favourably.

Bearing in mind the purpose of this LCWIP is to enable decision makers to identify which projects to deliver, schemes have been excluded where they are required to access a new development. If these new developments are to come forward, access will need to be provided by the developer to enable them, as such, will not be subject to council funding or prioritisation decisions. The following schemes scored very highly in terms of benefits, but have been excluded for this reason:

Ref	Description	Total benefit Score	Potential Cost
4.2	New junction with A602 at South East of Stevenage growth area	28	£1,585,000
2.1	Connection into land north of Back Lane to Orwell Close - to access new residential development	26	£240,000
1.1	New junction into North of Stevenage Growth Area from North Road	26	£1,585,000
2.2	Connection into land north west of Merrick Close - to access new residential development	25	£240,000

Table 26 Excluded high benefit schemes

This leaves a total of 11 schemes, with a benefit score of 23 or above, that have been ranked as the top priorities in terms of cycling improvements for Stevenage along the identified key routes.

Ref	Description	Total benefit Score	Potential Cost	Rank
3.2	Improve access at Fairlands Way/ Gresley Way roundabout	27	£150,000	1
1.7	Improved juntion where cycleway merges onto North Road, north of High Street	26	£15,000	2
3.8	Extend existing cycleway from Six Hills Way/Chells Way roundabout to Six Hills Way/Gresley Way roundabout	26	£30,000	3
5.9	Improve signage and lighting along Six Hills Way route	26	£35,000	4
4.1	Extension of segregated route from Bragbury Lane into the South East Stevenage development, potentially along A602 as far as the Three Horseshoes pub	26	£970,000	5
6.2	Improve connection north-south on Gresley Way, from Martins Way junction to Six Hills Way junction, including upgrade of existing unsurfaced bridleway	26	£1,500,000	6
8.6	Create at-grade crossing across St George's Way	25	£150,000	7

Ref	Description	Total benefit Score	Potential Cost	Rank
2.6	New segregated cycle path along Gt Ashby Way, through the park	24	£130,410	8
1.8	Introduction of 20mph zone and shared cycle-road infrastructure to High Street	23	£8,750	9
4.3	New connection by widening existing footpath to shared route North of A602 from Shephall Way roundabout to Glenwood Close	23	£39,000	10
8.3	Add segregated cycle route along St Georges Way	23	£657,000	11

Table 27

5.5 Prioritisation of walking Improvements

Ref	Potential Improvement	Brief Description of works	Estimated Cost	Potential Funding Mechanism
10.1	At-grade crossing at northern end of St George's Way for walking and cycling	New pedestrian crossing at northern end of St George's Way	**£150,000**	
10.2	At-grade crossing at southern end of St George's Way for walking and cycling	New pedestrian crossing at southern end of St George's Way	**£150,000**	
10.3	New main east-west pedestrian route linking the transport interchange with Queensway	Downgrading of Lytton Way and implementation of new at-grade crossing from the railway station. In addition, extending this route through redeveloped sites to Queensway.	**£238,000**	Much of this work will be delivered as part of the bus station relocation scheme and SG1. Further downgrading of Lytton Way may require additional funding.

10.4	Improve the footbridge to provide a covered walkway between the leisure centre and the station	Add a roof to the footbridge 120m	**Not Known**	
10.5	Improve pedestrian access to the station from the west (via Leisure Park)	Improved pedestrian route to the station through the redeveloped Leisure Park Site	**£35,000**	S106 Leisure Park site
10.6	Improve lighting and visibility in TK Maxx/ Fairlands Way underpass (east)	New, improved lighting, improvements to the standard of surfacing, introduction where feasible of passive surveillance infrastructure.	**£39,000**	Potential future S106 from Forum redevelopment
10.7	Improve lighting and visibility in TK Maxx/ Fairlands Way underpass (west)	New, improved lighting, improvements to the standard of surfacing, introduction where feasible of passive surveillance infrastructure.	**£39,000**	Potential future S106 from Forum redevelopment
10.8	Improve lighting and visibility in Monkswood/ Six Hills Way underpass	New, improved lighting, improvements to the standard of surfacing, introduction where feasible of passive surveillance infrastructure.	**£39,000**	
10.9	Improve lighting and visibility in Lytton Way/ Six Hills Way roundabout underpass	New, improved lighting, improvements to the standard of surfacing, introduction where feasible of passive surveillance infrastructure.	**£39,000**	
10.10	Improve lighting and visibility in Monkswood Way/ St George's way underpass	New, improved lighting, improvements to the standard of surfacing, introduction where feasible of passive surveillance infrastructure.	**£39,000**	
10.11	Improve access across Fairlands Way through the Tesco site	Mark out cycle path to route between end of footbridge and Brickdale House - to avoid conflict for pedestrians. Add pedestrian priority across Swingate.	**£10,000 (based requirement to also remark some of car park as a result)**	Potential future S106 from Tesco redevelopment
10.12	Improve the pedestrian routes around the town centre	Resurfaced & expanded route 2.3km	**£460,000**	

10.13	Make the indoor market a permanent feature of the walking network. Create new access via retail units	Improve permeability into and around the market, including introducing active frontages facing the market - creating a route through an existing retail store.	**Unknown. Not deliverable by SBC**	External delivery required
10.14	Improve existing access to/from the multi-storey carpark (lighting, ASB issues)	Improve lighting and introduce pedestrian priority crossings from Market Place and Park Place / new access through store.	**£15,000**	
10.15	New Pedestrian wayfinding infrastructure in Stevenage Town Centre	Introduction of a new set of Stevenage wayfinding signage.	**£120,000**	Through Stevenage Central redevelopment

Table 28

5.5.1 In terms of prioritising the walking interventions,

5.5.2 Stevenage Central is currently in the process of being regenerated. All of the potential improvements are consistent with the aspirations of the current town centre regeneration framework. As such there are significant opportunities for implementing improvements on development sites. This will assist significantly with securing funding for improvements, and it is not considered appropriate to prioritise the town centre improvements at the current time.

6 Conclusions and Next Steps

6.1 Conclusions and next steps

6.1.1 This LCWIP identifies 7 of the most used and significant cycling routes within the Borough, which link up some of the most popular origins and destinations across the town. These routes are based on the existing cycle network, to take into account the fact that Stevenage is relatively unique in terms of its existing comprehensive network. A final route is identified within and around Stevenage Central, as the most significant destination within the town and to reflect the large-scale regeneration plans that are currently underway.

6.1.2 Just under 90 potential interventions are identified, which are intended to make these routes more attractive and user-friendly for cyclists.

6.1.3 These interventions have been assessed in terms of their benefits in relation to a variety of factors that could influence whether they should be prioritised. A broad cost has also been attributed to each intervention, to gauge the likely level of costs involved in implementing such a scheme. The interventions have then been ranked in terms of their total benefit score, and then cost as a secondary measure. The full assessment and ranking tables can be found in Appendix B. The top 11 interventions, that are likely to provide the most benefit for the Borough, are highlighted and should be the highest priority in terms of making infrastructure improvements.

6.1.4 In terms of the walking network, the Stevenage Central area has been chosen as the focus for this assessment. Twelve routes were identified within this area, offering access to and from, as well as within Stevenage Central. Fifteen interventions have been identified, that have the potential to make walking more accessible and attractive to users. Many of these improvements have been, or are already being, considered as part of the town centre regeneration proposals.

6.1.5 Using the same methodology as for cycling, each intervention was assessed and was given a total benefit score and a high level cost estimate. These were used to rank the interventions. In this case, as there are only 15 interventions in total, all can be seen to be priorities in terms of delivery and funding options.

6.1.6 For both walking and cycling, it is made clear throughout this plan that this is just the first step towards improving the walking and cycling network. It is intended that the LCWIP will require further action in order to implement it further:

- The interventions identified will require detailed feasibility work to determine whether they are suitable and achievable and to calculate firm cost estimates. The LCWIP prioritisation list can be used to determine which schemes are worked up first
- Preparation of funding bids and/or businesses cases for infrastructure improvements
- The LCWIP can be used to inform the allocation of funding
- The LCWIP can be used to identify potential improvements that we might ask developers to deliver to mitigate a new scheme.

6.1.7 When preparing the business case for a bid for proposed interventions, as appraisal of value for money is likely to be required. Whilst the prioritisation undertaken for this LCWIP provides a very high level estimate of this, a more detailed assessment can be undertaken in the form of a cost-benefit analysis. Officers within the council, as well as HCC officers, have undertaken training in using the recommended Active Mode Appraisal Tool (AMAT), which is a toolkit for appraising

walking and cycling schemes, following guidance from WebTAG unit 5-1 (as recommended by the LCWIP Technical Guidance). In summary, this estimates the costs required to implement a scheme and the increased number of cyclists/walkers per day resulting from it. This method of assessment should be used in the future in assessing schemes that are proposed to be implemented.

Appendices

Local Cycling and Walking Infrastructure Plan 2019

Appendix A Interventions from other plans and strategies

As identified in section 2, a number of studies already undertaken have informed the LCWIP. The lists of interventions/recommendations from each study are identified below.

The 2018 Cycle Action Plan

There is a significant emphasis on improving maintenance in the Cycle Action Plan. It is noted that vegetation and glass are recurring problems, but also that road markings and deteriorating surfaces have come about in recent years as maintenance has been insufficient to keep them in good condition. In addition to addressing maintenance issues, there are a number of actions which the Council can take, which are also not "infrastructure", and therefore not included as potential improvements:

- Bike Recycling Schemes
- Improving riding skills levels within the local population
- Making maintaining bikes easier
- Working with businesses to encourage increased levels of cycling to work
- Encouraging company pool bikes
- Enabling greater uptake of electric bikes
- Removing the Town Centre Cycling Ban
- Encouraging uptake of the cycle to work scheme
- Encouraging higher levels of bike ownership

The following identifies the infrastructure improvements proposed as part of the cycle Strategy and how they have been incorporated into the LCWIP:

Infrastructure improvement	Included in LCWIP?
Resurfacing Resurfacing of the network is recommended, with priority assigned to Gunnels Wood Road, Martins Way, Lytton Way cycleway, Broadhall Way and Monkswood Way	These improvements are considered to be updates that are required due to a historical lack of maintenance, rather than infrastructure. As such they are not included in the Route Analysis.
Lighting It is acknowledged that there are sections of the cycleway network which are not very well lit. This is true for parts of routes, as well as underpasses. Milton Keynes is highlighted as an example where lighting has been replaced with cheaper, brighter, more energy efficient lighting.	Generally, this is a network-wide issue that should be addressed as a separate study seeking how to maximise the utility of the borough's underpasses. Specific issues with lighting, particularly with underpasses, have been identified within the LCWIP, where they were seen as significant concerns.

Infrastructure improvement	Included in LCWIP?
Prioritising cycle journeys This is a key aim of the Cycle Strategy. There are a number of opportunities to improve cycle priority, particularly at junctions where road use is currently prioritised.	Those junctions that are within the scope of this LCWIP have been identified as “Critical Junctions” within the Route Selection Tool, thereby recognising the need to improve cycle priority within the LCWIP methodology. See table below for further details.
Missing links Interventions are identified at several points where the network routes do not connect with each other.	Those potential connections that are within the scope of this LCWIP have been identified as potential new connections in the RST tool, so they have scoring attached, and are identified as opportunities for improvement under the relevant route, except those on routes not addressed through this LCWIP. See table below for further details
Town centre cycle parking There is a need to increase the quantity and quality of cycle parking within the town centre to reduce this as a barrier to people visiting the centre by bike. The Cycle Strategy sets out potential locations for these. There is also an opportunity to make the railway station a cycle destination by improving the services to cyclists here. This should include secure cycle parking, a bike repair area, and showering and changing facilities for those making longer trips.	These issues are not covered within the scope of this LCWIP.

Table 29

Cycle prioritisation issue/ opportunity	Potential Improvement	Ref
Hitchin Road at the roundabout with Coreys Mill Lane;	Cycling prioritisation	1.12
Lytton Way at the junctions with Herts Fire Service & John Henry Newman School	Cycling prioritisation	1.13 - 1.16
Grace Way at all the minor roads to the east of the road;	Cycling prioritisation	2.10 -2.15
Fairlands Way at the junctions with Popple Way, Bedwell Crescent, Chepstow Close, Doncaster Close and Pacatian Way, to the junction with Gresley Way;	Cycling prioritisation	3.3 - 3.7
Monkswood Way Cycleway where the road into and out of Roaring Meg north and south crosses the Cycleway and at Elder Way;	Cycling prioritisation	4.7
Six Hills Way Cycleway where the road into and out of the Leisure Park crosses the Cycleway	Cycling prioritisation	5.9
Gresley Way at the junction with Woodcock Road.	Cycling prioritisation	6.5

Gunnels Wood Road at accesses between Broadhall Way and Bessemer Drive;	Cycling prioritisation	7.3 - 7.9
The Bridleway between Tintern Close in Stevenage and Oakfields Road has a motorcycle barrier	Cycling prioritisation	Not included in this LCWIP
Clovelly Way with Fishers Green;	Cycling prioritisation	

Table 30

Missing link issue/ opportunity	Potential Improvement	Ref
North Road continuing south along High Street;	Add Missing Link	1.8
Lytton Way between High Street and Fairlands Way	Add Missing Link	Not included - a route runs to the west of Lytton Way
Route through Tesco car park	Add Missing Link	8.1
Martins Way between the former Dixons site at Wedgwood Way and Gresley Way	Add Missing Link	2.16
Great Ashby Way northbound	Add Missing Link	2.4 - 2.6
Fairlands Way between Emperors Head pub and Gresley Way	Add Missing Link	3.1
Broadhall Way between Monkswood Way and Valley Way	Add Missing Link	4.4
Broadhall Way between Shephall Way and Glenwood Close	Add Missing Link	4.3
St George's Way	Add Missing Link	8.3
Gresley Way between Martins Way and Six Hills Way	Add Missing Link	6.2
Clovelly Way between Symonds Green Road and Rutherford Close;	Add Missing Link	Not included in this LCWIP
Between the Fishers Green Lane track at Gorleston Close through to Ingleside Drive	Add Missing Link	
London Road between Six Hills Way and Broadhall Way	Add Missing Link	
Hertford Road between The Roebuck Hotel and Ashdown Road	Add Missing Link	
Monkswood Way between London Road and Broadhall Way	Add Missing Link	

Table 31

The 2018 Cycleway Audit

A tour of the cycleway was undertaken by Cllr Jim Brown and two HCC officers on Tuesday 16th January looking at defects and "oddities" along the network. The resulting piece of work is an identification of shortcomings in the existing network. Many of these will fall under *lack of maintenance* rather than *infrastructure*, but the following issues, and related opportunities for improvements to be carried out were incorporated into the analysis of this report.

Issue/ Opportunity	Potential Improvement	Ref
Poor connection between Martins Way & North Rd	Improved North Rd/ Martins Way (north side) junction via Burymead	1.5
Connecting into the Town Centre	Designated cycle route through the Tesco Site	8.1
Fairlands Way between Emperors Head pub and Gresley Way	Add Missing Link	3.1
St George's Way/ Monkswood Way/ Six Hills Way underpass	Drainage improvements	3.9
Popple Way/ Fairlands Way junction	Cycling prioritisation	3.3
Improvements to the Elder Way/ Jennings Close shared route	Cycling prioritisation	4.6
Improved access to Roaring Meg South	New cycling entrance	4.7
There is no cycle (or walking) route from the junction of Gunnels Wood Road and Broadhall Way going to the Novotel and Knebworth House.	Connection via Six Hills Way underpass/ Chadwell Rd	5.7
Argyle Way/ Gunnels Wood Road roundabout	Drainage improvements	7.1
Access to rail station cycle parking from existing north-south route is inadequate.	Increase cycle parking at the station, and improve access from the cycle network	8.4
Cycle parking at the station already very well used.		

Table 32

The Bedwell Report

The Bedwell Report was commissioned by HCC to examine the potential improvements for cycling infrastructure in the Bedwell area of Stevenage. This location was chosen as it covers the most heavily used cycle infrastructure in the borough, including the routes around the town centre, and linking to Gunnels Wood and the rail station. It provides a detailed set of potential improvements split into three themes:

1. Safety
2. Maintenance
3. Infrastructure

The Bedwell Report contains proposals for projects with detailed costings totalling £517,400. The costings are accepted as a true example of the cost of improving the network, and while the study does not cover the whole of the borough, the cost estimates included in the Bedwell Report can be scaled up to estimate the total cost of bringing the network up to the level anticipated by the Report. The Bedwell Report's study area is estimated to contain one third of the whole of the main Stevenage cycle network, and so all costs have been inflated to 2018 prices, then multiplied by three to create an estimate for the whole borough totalling £1,643,370.

	Safety	Maintenance	Infrastructure	Total
Bedwell 2016 prices	£78,130	£218,241	£221,029	£517,400
Bedwell area 2018 prices	£82,719	£231,060	£234,011	£547,790

Whole network estimate, 2018 prices	£248,157	£693,180	£702,033	£1,643,370

Table 33

The Bedwell report does not generally look at larger interventions to create new segregated routes.

The Urban Transport Plan

Project	Project description (2-3 sentences)	Ref
Cycle route - connections to new developments / integration with existing networks	Connections to new developments / integration with existing networks	1.1, 2.1-2.3, 3.1-3.2, 4.1 - 4.2, 5.1-5.3
Cycle route - Gresley Way between Six Hills Way and Fairlands Way including links to Six Hills Way	Provide a direct and coherent cycle route along the eastern boundary of Stevenage, addressing a current gap in the existing network. This segregated route, designed accordingly, will provide a safe facility for cyclists which will improve accessibility across the town, particularly for north-south trips to the Pin Green employment area.	6.1 - 6.8
Cycle route - Fairlands Way to Great Ashby Way	Fairlands Way to Great Ashby Way including link to Martins Way	2.9 - 2.15
Cycle route - St George's Way including two surface level crossings (at grade)	New cycle route along St Georges Way, new at grade crossings to the town centre	8.3, 8.6
Town Centre cycle parking	Provide/improve cycle parking at all entrances to the town centre (7 in all). Cost covers 14 Cambridge Shelters & 56 Sheffield Stands	N/A
Crossing facility on Old Knebworth Lane around the National Cycleway network	Provide a safe means for cyclists to cross Old Knebworth Lane when following National Cycle Route 12 to/from Stevenage.	N/A
Railway Station cycle parking redevelopment	Relocation of the existing cycle parking currently adjacent to the station to the area immediately south of the station, currently being used for car parking.	N/A
Gresley Way cycle route to Martins Way	Provide a link between the proposed Gresley Way cycle route and the existing cycle lanes along Martins Way.	2.16
Cycling "ring" around the leisure centre	Intended to overcome some of the severance issues caused by the leisure centre by providing a purpose built route that allows better north-south movement and removes the need for cyclists to access the leisure centre walkway from the east.	N/A

Cycle route along Mobbsbury Way	This scheme proposes to install a shared use cycleway down the eastern side of Mobbsbury Way as far as the entrance to Nobel School	N/A

Table 34

Appendix B Benefit scoring and cost information for cycling interventions

Ref	Comfort+	Wards	Safety+	Connectivity+	Active Travel	New Homes	Jobs	Maintainance	Funding	Feasibility	Timescale	Disruption	Total benefit Score	Potential Cost	Rank
1.1	3	2		2	3	3	2	2	3	3	2	1	**26**	£1,585,000	
1.2	3	2	3		3	2	2	2	1	1	2	1	**22**	£990,000	**81**
1.3	3	2	2	1	3	2	2	2	1	1	2	1	**22**	£530,000	**78**
1.4a	3	2	2		3	2	2	2	1	1	2	1	**21**	£285,000	**75**
1.4b	3	2			3	2	2	2	1	1	2	3	**21**	£249,000	**71**
1.5		2		1	3	2	2	2	1	3	2	2	**20**	£43,890	**12**
1.6		2		1	3	2	2	2	1	3	2	2	**20**	£30,360	**10**
1.7	3	2	2	1	2	3	3	3	1	2	2	2	**26**	£15,000	**4**
1.8		3	2	1	3	2	3	2	1	2	2	2	**23**	£8,750	**1**
1.9		1	1		2	1	2	3	1	3	2	2	**18**	£150,000	**32**
1.10	1	2	1		2	1	1	3	1	2	2	3	**19**	£150,000	**26**
1.11	3	2	1		2	2	1	3	1	2	2	2	**21**	£87,450	**15**
1.12	1	2	1		2	1	1	3	1	2	2	3	**19**	£150,000	**26**
1.13	1	2	1		2	1	1	3	1	2	2	3	**19**	£150,000	**26**
1.14	1	2	1		2	1	1	3	1	2	2	3	**19**	£450,000	**76**
1.15	1	2	1		2	1	1	3	1	2	2	3	**19**	£450,000	**76**
1.16	1	2	1		2	1	1	3	1	2	2	3	**19**	£150,000	**26**
1.17	2	2	1		2	1	1	3	1	2	2	3	**20**	£20,000	**6**
2.1	3	2		1	3	3	1	3	3	3	2	2	**26**	£240,000	**49**
2.2	2	2		1	3	3	1	3	3	3	2	2	**25**	£240,000	**68**
2.3	3	2	2		3	2	1	2	1	1	1	3	**21**	£175,500	**34**
2.4	1	2			3	2	1	2	2	2	2	3	**20**	£99,400	**17**
2.4b		1	1		2	2	1	3	2	2	3	2	**19**	£150,000	**26**
2.5	1	2			3	2	1	2	1	2	2	2	**18**	£70,455	**14**
2.6	3	2	3		3	2	1	2	1	2	2	3	**24**	£130,410	**19**
2.7		2	1		3	2	3	2	1	1	2	2	**19**	£176,000	**50**
2.8		1	1		2	1	3	3	1	3	2	2	**19**	£150,000	**26**
2.9		2	1		1	1	1	3	1	2	2	3	**17**	£85,000	**18**
2.10		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
2.11		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
2.12		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
2.13		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
2.14		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
2.15		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
3.1	3	2	3	1	3	2		2	1	1	2	1	**21**	£270,000	**73**
3.2	1	2	3	1	3	3	1	3	3	3	2	2	**27**	£150,000	**20**
3.3		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
3.4		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
3.5		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
3.6		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
3.7		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
3.8	3	2	2	2	2	3		2	3	2	3	2	**26**	£30,000	**7**
3.9		2			2	1	1	3	1	2	2	2	**16**	UNKNOWN	
3.10		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
3.11		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
3.12		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
4.1	3	2	2	2	3	3	1	2	2	2	2	2	**26**	£970,000	**80**
4.2	3	2	2	3	3	3	1	2	3	3	2	1	**28**	£1,585,000	
4.3	1	2	1	2	3	2	1	2	1	3	2	3	**23**	£39,000	**11**
4.3b	1	2	1	1	2	2	1	2	2	2	3	3	**22**	£82,500	**13**
4.4	1	2	1	2	2	1	1	2	1	2	3	3	**21**	£152,500	**24**

4.5	1	2	1	1	2	1	1	3	1	3	3	3	**22**	£255,000	**70**
4.6	1	2	1	1	2	1	1	3	1	3	3	2	**21**	£150,000	**22**
4.7	1	2	1	3	2	1	2	2	1	2	2	2	**21**	£150,000	**22**
5.1		1	1	2	2	1	1	3	3	3	1	1	**19**	£240,000	**72**
5.2		1	2		2	1	1	3	3	3	1	1	**18**	£240,000	**74**
5.3		2			3	2	1	2	1	3	1	2	**17**	£77,600	**16**
5.5	2			1	3		1	2	3	1	1	2	**16**	£8,000	**3**
5.6					3		1	3	1	3	2		**13**	UNKNOWN	
5.7	2	2			3	2	1	2	3	3	1	3	**22**	£238,000	**69**
5.8					3		1	3	1	3	1	2	**14**	19800	**9**
5.9	1	2			3	3	3	3	2	3	3	3	**26**	35000	**8**
6.1	2	2		3	3	2		2	1	2	2	2	**21**	£200,000	**67**
6.2	2	2		3	3	2	1	2	3	3	2	3	**26**	£1,500,000	**82**
6.3	2			3		3	1	1	3	3	2	1	**19**	UNKNOWN	
6.4	2			3			1		3	3	2	2	**16**	UNKNOWN	
6.5		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
6.6		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
6.7		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
6.8		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
6.9		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
6.10		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
6.11		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
6.12		1	1		2	1		3	1	3	2	2	**16**	£150,000	**51**
7.1		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
7.2		1	1	1	2	1	1	3	1	3	2	2	**18**	£150,000	**32**
7.3		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
7.4		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
7.5		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
7.6		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
7.7		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
7.8		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
7.9		1	1		2	1	1	3	1	3	2	2	**17**	£150,000	**35**
8.1	1	2			2	2	2	3	1	1	1	2	**17**	10000	**5**
8.2	1	2			2	2	2	3	1	2	2	3	**20**	8000	**2**
8.3	3	2	1	2	2	3	2	1	2	2	2	1	**23**	£657,000	**79**
8.4	1	3	1		2	1	3	3	1	3	2	1	**20**	£150,000	**25**
8.5														N/A	
8.6	2	3	2	3	3	3	3	3	2	3	3	1	**25**	£150,000	**21**

Table 35

Appendix C Benefit scoring and cost information for walking interventions

Ref	Comfort+	Wards	Safety+	Connectivity+	Active Travel	New Homes	Jobs	Maintainance	Funding	Feasibility	Timescale	Disruption	Total benefit Score	Potential Cost	Rank
10.1	2	3	1	0	1	3	3	2	2	2	3	3	25	£150,000	**10**
10.2	2	2	2	2	3	3	2	3	1	2	1	2	25	£150,000	**10**
10.3	2	3	2	3	3	3	3	3	2	3	3	1	31	£238,000	**12**
10.4	1	3	0	0	2	1	1	1	1	1	1	2	14	Unknown	
10.5	3	3	3	1	3	2	3	3	2	3	3	2	31	£35,000	**3**
10.6	1	2	2	0	2	1	1	3	1	2	3	3	21	£39,000	**4**
10.7	1	2	2	0	2	1	1	3	1	2	3	3	21	£39,000	**4**
10.8	1	2	2	0	2	1	1	3	1	2	3	3	21	£39,000	**4**
10.9	1	2	2	0	2	1	1	3	1	2	3	3	21	£39,000	**4**
10.10	1	2	2	0	2	1	1	3	1	2	3	3	21	£39,000	**4**
10.11	1	2	3	0	2	1	1	2	1	1	1	2	17	£10,000	**1**
10.12	3	3	0	0	2	1	1	3	1	2	1	1	18	£460,000	**13**
10.13	3	3	1	2	2	1	1	3	1	1	1	3	22	Unknown - would rely on external delivery	
10.14	1	3	1	0	1	1	1	3	1	2	3	3	20	£15,000	**2**
10.15	2	3	0	0	3	3	3	2	1	2	3	3	25	£120,000	**9**

Table 36

Local Cycling and Walking Infrastructure Plan 2019