Crewe Local Cycling and Walking Infrastructure Plan (LCWIP)

Rev 2

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Cheshire East Council

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Cheshire East Council

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Contents

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1. Introduction

1.1 Our Ambition

Cheshire East Council (CEC) is investing in a programme of work to regenerate Crewe. The focus of the programme includes taking advantage of the arrival of HS2, a once in a lifetime opportunity, with ambitions for enhancement around Crewe Station and a vision to improve the town centre, such as the leisure-led Royal Arcade. As part of these developments, it is fundamental that there is a cohesive and high-quality walking and cycling network in Crewe, which connects different areas of the town and offers a sustainable way to travel.

Our ambition is to achieve a step change in levels of walking and cycling across Cheshire East which will benefit the environment, health and wellbeing, the local economy and communities. Cheshire East Council has committed to delivering local action to tackle the climate change emergency and walking and cycling will play crucial a part in this.

Our new Local Transport Plan 4 puts walking and cycling at the heart of the planning and design of the Borough's streets, communities and green spaces. A key supporting document of the of LTP4 is the Council's Cycling Strategy which aims to 'enable more people to cycle safely, more often and with confidence for everyday and leisure journeys'. A key objective within the Cycling Strategy is to create networks and infrastructure that is safe, attractive, cohesive and direct. We aim to double the number of people cycling in Cheshire East by 2027.

This Local Cycling and Walking Infrastructure Plan (LCWIP) sets out our ambitious plans for a high-quality walking and cycling network for Crewe. Together with the LCWIP already developed for Congleton, Macclesfield and Wilmslow, this Crewe LCWIP will set the standard for how walking and cycling infrastructure should be planned and delivered in our Borough, with schemes aiming for segregated cycling infrastructure or low traffic neighbourhoods where possible. We also intend to build on this LCWIP to plan further infrastructure improvements across the Borough through our LTP4 over the coming years.

1.2 Background

Following the publication of the Cycling and Walking Investment Strategy (CWIS) by the Department for Transport (DfT) in 2017, Local Authorities (LAs) have been encouraged to develop Local Cycling and Walking Infrastructure Plans (LCWIP) to provide a strategic approach to identify walking and cycling improvements which are required at a local level. The strategy states that whilst "the preparation of LCWIPs is non-mandatory, local authorities who have plans will be well placed to make the case for future investment".

LCWIPs are unique compared to previous active travel strategies since they attach equal importance to both walking and cycling. A 40-page guidance document was produced to guide LAs through the process of producing LCWIPs, to ensure plans are evidence based and consider input from local communities and key stakeholders. As such, LCWIPs aim to create a long-term approach to increasing the number of cycling and walking trips, through the identification of preferred routes and to subsequently create a prioritised programme of infrastructure improvements for future investment.

1.3 Report Structure

The following sections of the report are reflective of the structure recommended within the LCWIP guidance, and comprise of:

- Section 2 **Policy Review**: reviews relevant policies for Crewe and the LCWIP;
- Section 3 **Gathering Information**: identifies existing patterns of walking and cycling through a review of existing conditions and identifies barriers to cycling and walking;
- Section 4 **Network Planning for Walking**: identify key trip generators, core walking zones and routes, audit existing provision and determine the types of interventions required;
- Section 5 **Network Planning for Cycling**: identify origin and destination points and cycle flows. Convert flows into a network of routes and determine the types of interventions required;
- Section 6 **Prioritising Improvements**: prioritise improvements to develop a phased programme for future investment; and
- Section 7 **Integration and Application**: integrate outputs into local planning and transport policies, strategies and delivery plans.

2. Policy Review

In developing an LCWIP, it is important that a strong evidence base is created by initially undertaking a thorough review of the existing local policy background. As such, an initial review of relevant planning documents was undertaken to gather an understanding of the baseline conditions and existing walking and cycling infrastructure within the LCWIP study area. The review covers the key strategies and policies which are of relevance to the LCWIP and how this coincides with a wide range of overlapping policies, including public health, environmental sustainability and improving access to life opportunities.

2.1 Cheshire East Council Local Transport Plan 4

The Cheshire East Council Local Transport Plan 4 (2019-2024) outlines the key ambitions for the Borough with the following objectives:

- Supporting growth and economic strength through connectivity;
- Ensuring accessibility to services;
- Protecting and improving our environment;
- Promoting health, wellbeing and physical activity;
- Maintaining and managing our network assets;
- Improving organisational efficiency and effectiveness.

The LTP gives specific support to walking and cycling through the following Actions:

- Action 5.1 – We will seek opportunities to reallocate road space to pedestrians and cycling;
- Action 5.4 – We will work to improve the quality of our footpaths and pavements, including through targeted investment as part of our asset led approach to highway maintenance;
- Action 5.5 – We will connect existing parts of the pedestrian network, close gaps and address safety concerns at identified hotspots;
- Action 5.6 - We will continue to maintain and improve the existing cycling infrastructure and develop a network of strategic high-quality cycle routes connecting the Borough with reference to appropriate Design Guidelines such as LTN02/08 or any subsequent versions[1];
- Action 5.7 – We will support the development of Town Cycling Plans and their integration in the Neighbourhood Plans for all towns and key service centres in the Borough;
- Action 5.8 – We will support the delivery of improved walking and cycling infrastructure as part of the delivery of other major transport schemes;

[1] Current guidance at time of writing - LTN 01/20 Cycle Infrastructure Design

- Action 5.9 – We will seek to ensure that developments are planned in a sustainable way through the inclusion of active travel facilities and linkages;

- Action 5.12 - We will continue to reduce barriers for multimodal active travel and improve the accessibility to and facilities at rail and bus stations for pedestrians and cyclists;

- Action 5.13 - We will facilitate the use of walking and cycling to access leisure destinations and for leisure trips;

- Action 5.14 – We will seek external funding from all sources to support active and sustainable travel interventions.

It is intended that the LCWIP will be a supporting document of the LTP.

2.2 Cheshire East Council Local Plan

The CEC Local Plan was adopted in July 2017 and sets out the Councils plan for sustainable economic growth up to 2030.

In order to deliver this vision for Cheshire East as a whole, the Council has set four strategic priorities:

- Promote economic prosperity by creating conditions for business growth;

- Create sustainable communities where all members are able to contribute and where all the infrastructure required to support the community is provided;

- Protect and enhance environmental quality of the built and natural environment; and

- Reduce the need to travel, manage car use and promote more sustainable modes of transport and improving the road network.

Within the Local Plan, the following policy applies to the transport aspects of a development:

- Policy CO1: Sustainable Travel and Transport; within the Local Plan specifically refers to improving public transport and active travel (walking and cycling) provision.

Further, specific to Crewe, Strategic Location LPS 1, Central Crewe, covers three main areas for development of Crewe: the town centre, Crewe Railway Station and Grand Junction Retail Park. This policy sets out the ambitions for regeneration and development of Crewe across these areas, including ambitions for pedestrian and cyclist links between developments, the station and town centre.

2.3 Cheshire East Cycling Strategy

Cheshire East Council published its Cycling Strategy in March 2017. The vision set out within this strategy is;

‘To enable more people to cycle safer, more often and with confidence for everyday and leisure journeys’.

The objectives of the draft strategy are:

- Objective 1: Create and maintain safe, attractive, cohesive, direct and adaptable networks and infrastructure;

- Objective 2: Ensure cycling is integrated with other transport modes, transport networks, the public realm and new developments;

- Objective 3: Ensure high quality facilities are in place to support people who cycle and that will attract people to live and work in the area;

- Objective 4: Use targeted cycle promotion, education and training;

- Objective 5: integrate and align policies, procedures and practices to encourage cycling; and

- Objective 6: Deliver cycle-friendly infrastructure in partnership with the community, officers and organisations of Cheshire East.

The headline targets included within the strategy include:

  - Cycle Journeys – Double the number of people cycling once per week for any journey purpose in Cheshire East by 2027 from a 2014 baseline (this data is collected from the Active People Survey).

  - Public Perception – Improve public perception of cycling within the district by ensuring that annually measured Cheshire East Council through the Highway Satisfaction scores are improving over time on an upward trajectory.

Further to the above, Cheshire East Council has committed to delivering local action to help tackle the emergency of climate change to reduce the carbon footprint.

Since this plan was developed, the Council has appointed a walking and cycling champion that works to encourage people to adopt more sustainable travel choices such as walking and cycling across the borough. The Council's ambition is for a 'step change' in the uptake of these modes to walk and cycle safely and with confidence.

2.4 Cheshire and Warrington LEP Transport Strategy

The Cheshire and Warrington Local Enterprise Partnership (LEP) published their Draft Sub-Regional Transport Strategy on the 6th April 2018. The Plan outlines the ways in which transport will contribute to achieving the priorities of the Strategic Economic Plan up until 2040.

The Strategy outlines several aims which are of relevance to cycling and walking improvements, with a selection of such aims including:

- Increasing the proportion of trips undertaken by walking and cycling to accommodate demand without contributing to congestion levels;

- Improve facilities and the local environment to support the establishment of healthy and sustainable communities; and

- Actively promoting sustainable travel to work and thereby minimising single occupancy car travel.

The document also outlines the importance of Crewe as a key hub within the Cheshire and Warrington region and that it is important to take advantage of any opportunities that arise as a result of HS2 ensuring that maximum benefit is gained. This includes improvements to local connectivity and promoting access to the station via sustainable modes.

2.5 Public Health Joint Strategic Needs Assessment

A Joint Strategic Needs Assessment identifies health and social care needs for an area and monitors progress and opportunities associated with this to inform decision-making. The Assessment is produced in collaboration with stakeholders, with the aim of this creating a holistic approach.

The Cheshire East Assessment covers various elements including; mental health and employment, air quality, and drug and alcohol misuse. Cycling and walking can have a significant impact on these elements. It has been proven that active travel positively impacts upon public health. Therefore, improving local walking and cycling infrastructure can improve the outputs of the assessment.

2.6 Cheshire East Local Air Quality Strategy

Cheshire East published their Draft Local Air Quality Strategy in July 2018 which aims to provide a strategic framework to deliver local air quality improvements within Cheshire East. Air quality across Cheshire East is generally good. There are a number of AQMAs across the borough, which have all been declared for levels of nitrogen dioxide which relates directly to traffic levels and congestion.

As all of the air quality problems relate to traffic volumes and congestion, it is vital that the Air Quality Strategy is integrated within the LTP as this will assist many of the action plan measures being implemented.

The Air Quality Strategy refers to promoting opportunities for active travel (i.e. walking and cycling) in order to have a positive impact on air quality across the Borough.

2.7 Sustainable Modes of Travel to School Strategy

The Cheshire East Sustainable Modes of Travel to School Strategy (SMOTS) was formally adopted by Cabinet in July 2018 and intends to achieve the following targets:

- Increase the number of schools participating in promotional campaigns (e.g. Walk Once a Week – WOW) to 30 per year;

- Increase the number of schools/colleges with Bronze level accreditation with Modeshift STARS to 20.

If the above targets are achieved, this would contribute to reducing vehicle emissions and thereby improve air quality, improve road safety, and increase the health/wellbeing of staff, students, and parents/carers.

SMOTS is supported by the Safer Routes to School Programme which has an annual budget of £150,000. This can be assigned to schemes which improve safe and sustainable routes to school. Schools with up-to-date School Travel Plans are invited to submit requests for capital funding for walking and cycling infrastructure schemes. Such schemes further encourage active travel to schools.

3. Gathering Information

3.1 Introduction

A review of baseline data across the LCWIP towns using 2011 Census outputs has been undertaken to understand the existing conditions within the LCWIP study area. It is to be noted that since the data is from 2011, this does not account for any changes to the demographics within Crewe from 2011 to date. Nonetheless, this provides a useful baseline to understand travel demand within the three specified towns. The results of the review are displayed visually below followed by a general analysis of the data.

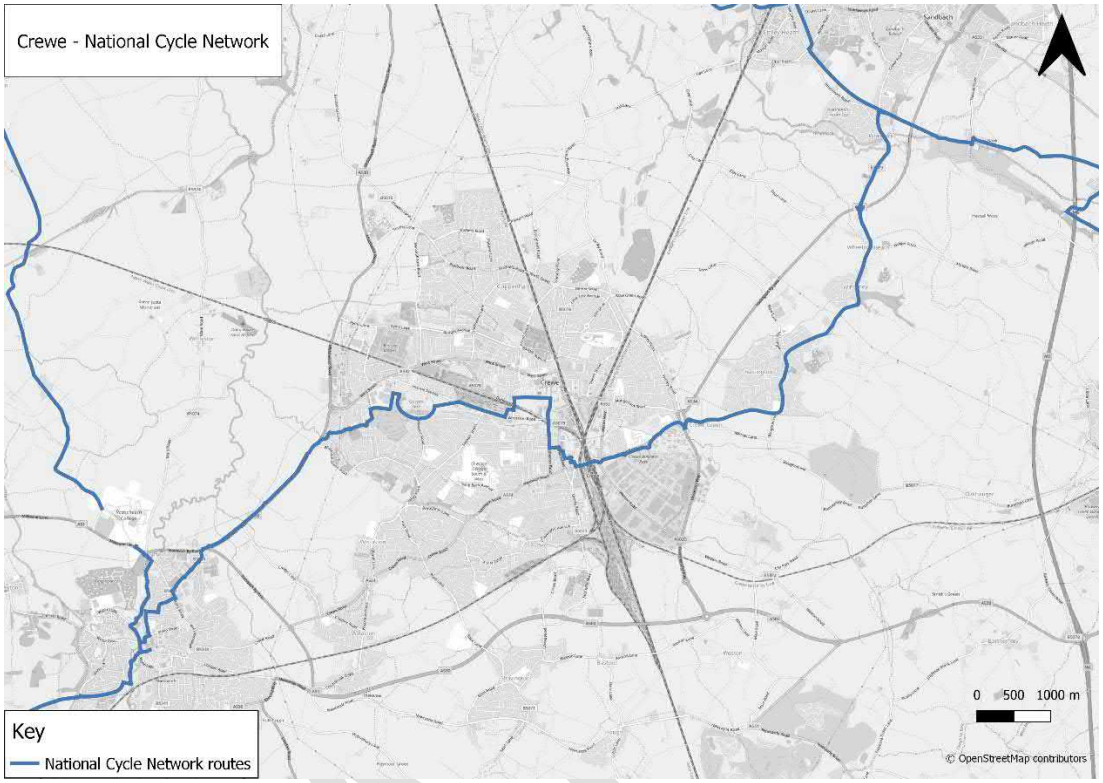
3.2 Data Sources

Data collected or supplied by partners to date includes:

- Local knowledge and aspirations through steering group and stakeholder engagement;
- 2011 Census data including population, workplace population, population density, ethnicity, unemployment levels, travel to work modal share;
- Existing, planned and aspirational cycling routes;
- Location of schools, colleges and universities;
- Location of Air Quality Management Areas;
- Road accident data;
- Topology data;
- Indices of Deprivation data;
- General health data;
- Unemployment geographic information;
- Local Strategies and Plans: Cheshire East Local Plan Strategy, Draft Cheshire East Cycling Strategy, Draft Crewe HS2 Hub Framework & Masterplan;
- Propensity to Cycle Tool, providing cycling, car and total travel to work flows and modal shares for different scenarios.

3.3 Sustrans National Cycle Network

The National Cycle Network (NCN) comprises a range of traffic-free paths and on-road cycling routes throughout the UK.



Crewe benefits from access to National Route 451 via the centre from the town, leading from Nantwich to Sandbach.

Sustrans are currently undertaking a review of their national and regional route networks to assess their suitability as high quality, accessible routes. CEC are working in partnership with Sustrans as part of producing the LCWIP to ensure route improvements are coordinated. The quality of the national and regional routes within the LCWIP area are of a varying nature with opportunities for improvements to be made to enhance accessibility and cycling uptake.

3.4 Travel to Work Data

Travel to work data for journeys in Crewe, Cheshire East, North West England and England are displayed in Table 3-1 below.

Table 3-1 Travel to work data

Travel to work	Crewe	Cheshire East	North West	England
Work from Home	3%	11%	9%	8%
Train	0%	2%	2%	2%
Bus, minibus or coach	4%	2%	9%	9%
Taxi	1%	0.3%	1%	1%

Travel to work	Crewe	Cheshire East	North West	England
Motorcycle, scooter or moped	1%	1%	1%	1%
Driving or passenger in a car or van	67%	71%	58%	66%
Bicycle	6%	3%	2%	2%
On foot	15%	9%	10%	10%
Other method of travel to work	0%	0.4%	0.5%	0.5%

Table 3-1 shows that travel to work via bicycle in Crewe is 3% higher than the Cheshire East average, which suggests that people in Crewe are more likely to cycle to work. However, commuting journeys via car in Crewe are 9% higher than the North West England average and 1% higher than the national average. However, this is still less than the Cheshire East average by 4%. Journeys to work on foot in Crewe are 5% above the national average and 6% above the Cheshire East average.

The following figures illustrate the main travel to work flows (all modes) using origin/destination postcode data to census lower super output areas. The figure shows that the main flows' directions are internal to Crewe, mainly on the East-West corridors, linking central Crewe to Leighton Hospital and Bentley Motors and from residential areas in the north and east of the town.

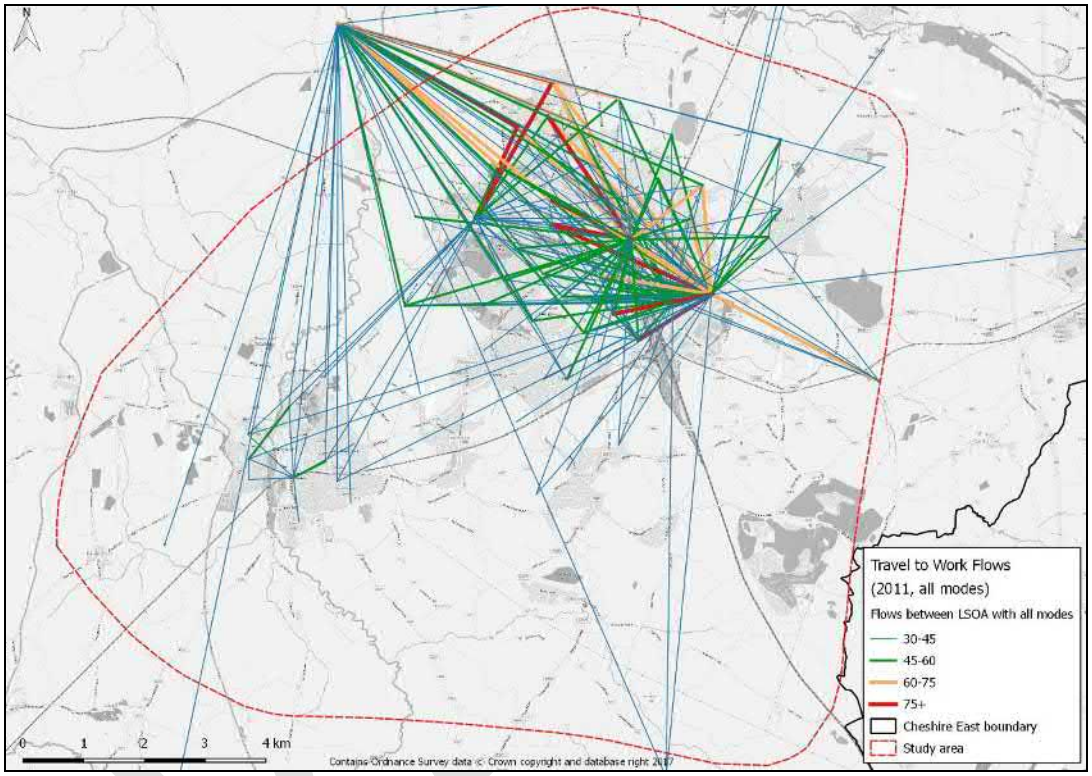


Figure 3-1 Travel to work flows by all modes (LSOA)

The figure below shows the workplace destinations in the study area at a LSOA level. LSOAs with a high number of workplace destinations are located to the east of the town centre and on the north western edge of the study area. These are the locations of major employers in the area including Leighton Hospital and Bentley Motors.

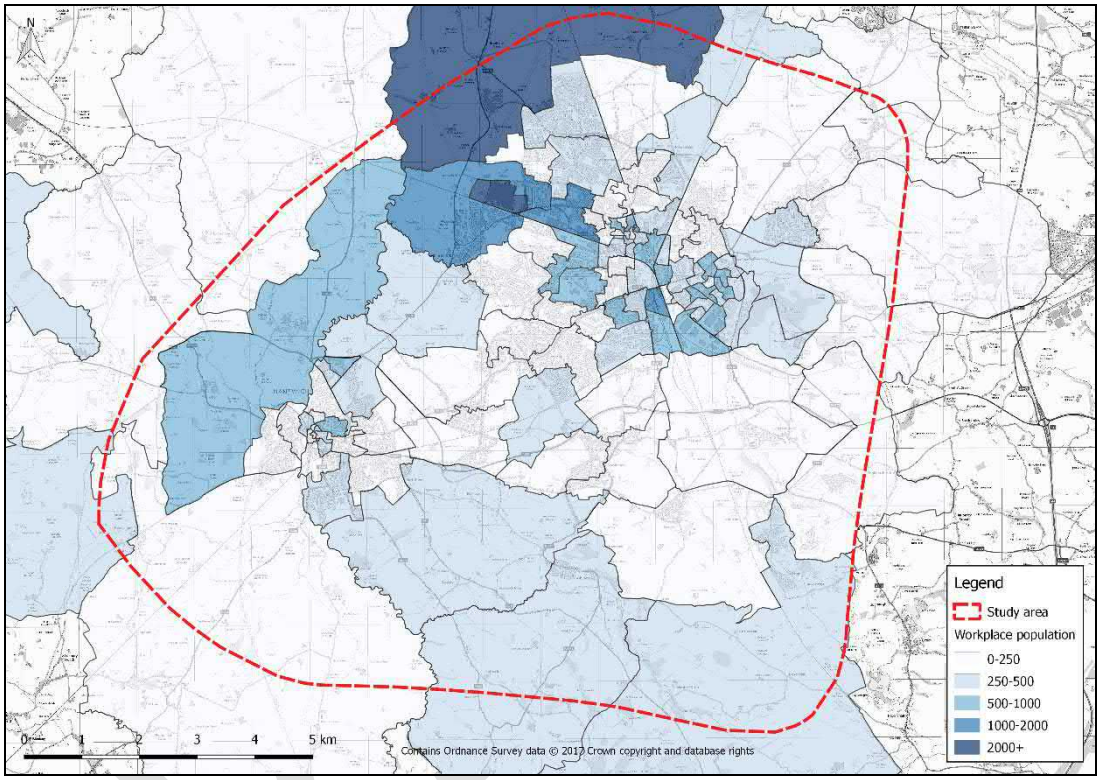


Figure 3-2 Workplace Destinations (LSOA)

The following figure shows travel to work patterns by cycling. Numbers appear low for this census data, likely due to cycling not being peoples' most common mode of transport for everyday of the week. The higher flows are concentrated again in the Crewe area, linking the west and the east of the town to the centre and to the residential areas.

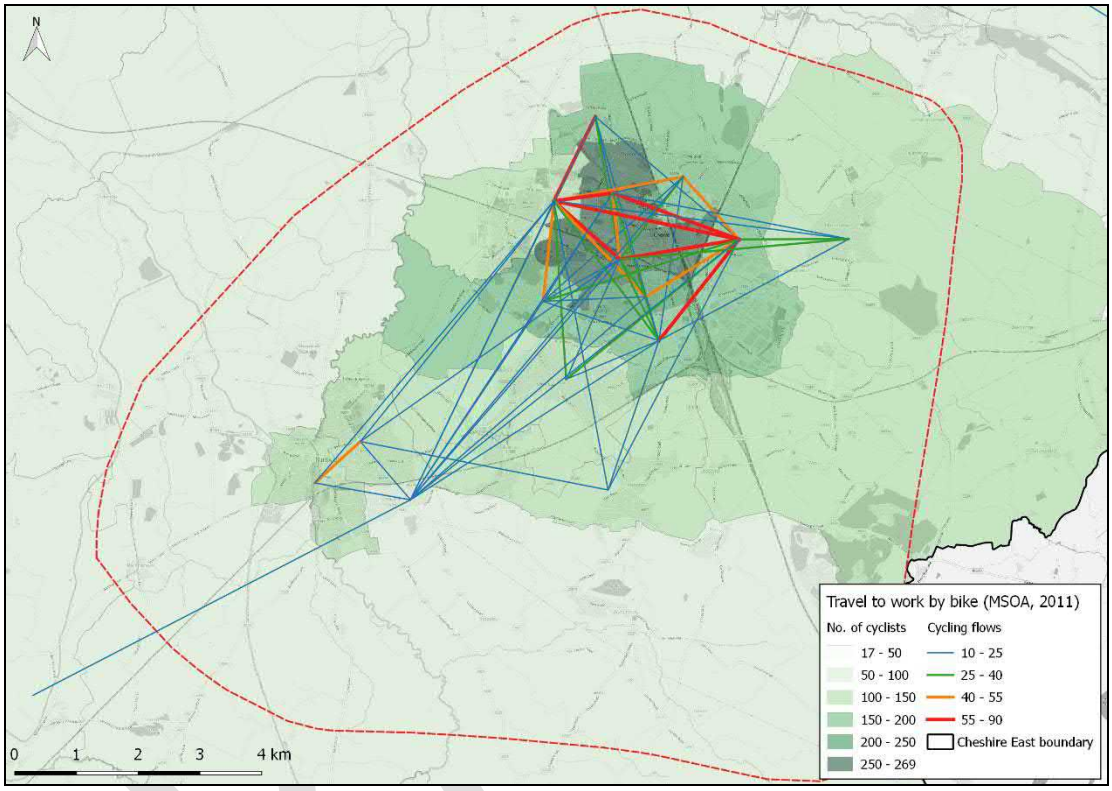


Figure 3-3 Travel to work flows by bicycle (MSOA)

3.5 Distance to work

The LCWIP guidance states that a realistic walking distance is approximately 2.5 km and a realistic cycling distance is 5km. The potential to increase cycling and walking levels in Crewe based upon outputs from the PCT and Census 2011, are outlined in Table 3-2 below.

Table 3-2 Summary Statistics

Criteria	Crewe	
Resident Population	71,722	
Cycling journeys to work (2011 Census)	1,645	
PCT Government Scenario Cycling	300	
PCT estimated increase in cycling (Government Scenario)	174%	
Walking journeys to work (2011 Census)	3,870	15%
Number / % trips under 2km	7,678	30%
Number / % trips under 10km	16,284	64%

The outputs show that there is potential to increase the number of journeys to work undertaken by bicycle by 174% in Crewe, when comparing the outputs from the 2011 Census and the PCT Government scenario. Such a shift would create a significant uptake in cycling across the LCWIP study area. Further, there is potential to increase the number of journeys to work on foot which are under 2km by 7,678 in Crewe.

Census 2011 Travel to Work data was also analysed to identify the number of journeys which could be undertaken on foot or by bicycle, which is displayed in Table 3-3 below.

Table 3-3 Distance travelled to work (Census 2011)

	Less than 10km	10km-less than 30km	30km+	Work mainly at or from home
Crewe	64%	14%	10%	6%

Table 3-3 shows that the 64% of journeys under 10km are undertaken in Crewe. This suggests potential for journeys which are currently completed via car to be undertaken partly or fully on foot or by bicycle.

3.6 Safety

A review of road traffic collisions within the LCWIP study area was undertaken through analysis of STATS19 data source. Collisions are divided based on severity into; slight, serious and fatal, and are visually displayed below.

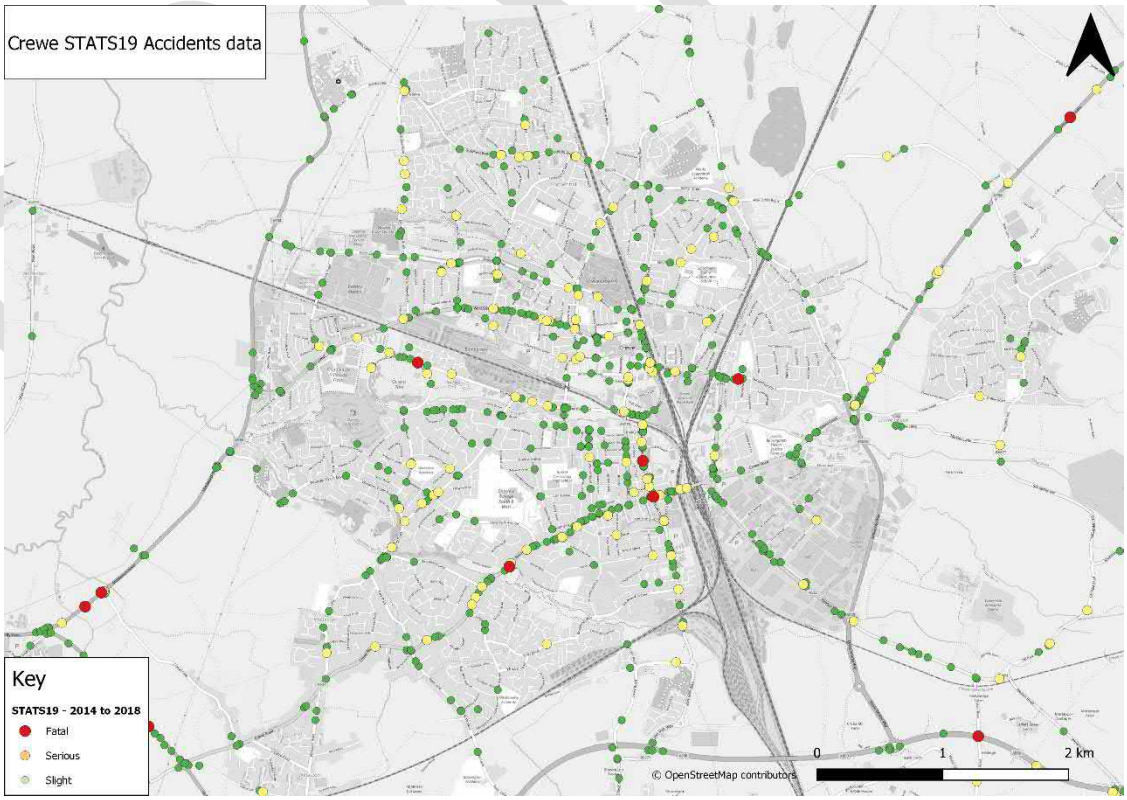


Figure 3-4 Crewe STATS19

Figure 3-4 shows that the majority of collisions recorded in Crewe are of a “slight” severity, with the greatest concentration of collisions focused on the West Street, and A534 Nantwich Road. The majority of collisions occur on the main arterial routes within Crewe.

A safer roads scheme on the A532 corridor was identified by the Department for Transport (DfT) as part of the Safer Roads Fund. This corridor was identified as having an issue with road traffic collisions. To address this issue, two schemes are being brought forward, funded by the Safer Roads Fund, these are:

- Traffic calming scheme on West Street between Broad Street and Dunwoody Way; and
- Implementation of a cycle route on Vernon Way.

Further, a Cycling Collision Assessment was undertaken for the A534 Nantwich Road in 2017. A total of 67 collisions occurred between the 31 January 2012 and 1 February 2017, 32 of these involved cyclists (48%). The report outlines the key issues and suggests remedial measures in relation to this.

It was identified that the A534 Nantwich Road, between Salisbury Avenue and the pedestrian crossing outside Crewe Railway Station features sporadically located cycle parking facilities, poorly maintained advisory carriageway and footway surfacing and markings, and generally absent cycle signage. Outlining that facilities are considered sub-standard. The following remedial measures were proposed for consideration:

- Removal of street clutter;
- Road markings maintenance;
- Road surface improvements;
- Advance Stop Lines;
- Tiger Crossing;
- Advisory cycle lane and accompanying signage;
- Two-way cycle track;
- Keep Clear junction;
- Stepped (hybrid) cycle track; and
- Low-level cycle signals.

3.7 Indices of Multiple Deprivation

The Index of Multiple Deprivation is the official measure of relative deprivation for small areas (or neighbourhoods) in England. It ranks every small area in England from 1 (most deprived area) to 32,844 (least deprived area). The relative deprivation of a small area is commonly described by saying whether it falls among the most deprived 10 per cent or 20 per cent of small areas in England (although there is no definitive cut-off at which an area is described as ‘deprived’).

The data are published by the Department for Communities and Local Government and can be found at the link below:

https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015

The indices of deprivation provide a set of measures of deprivation based on 7 domains of deprivation. These are weighted and combined to produce the index of multiple deprivation (2015). The domains are:

- Income deprivation;
- Employment deprivation;
- Education, skills and training deprivation;
- Health deprivation and disability;
- Crime;
- Barriers to housing and services;
- Living environment deprivation.

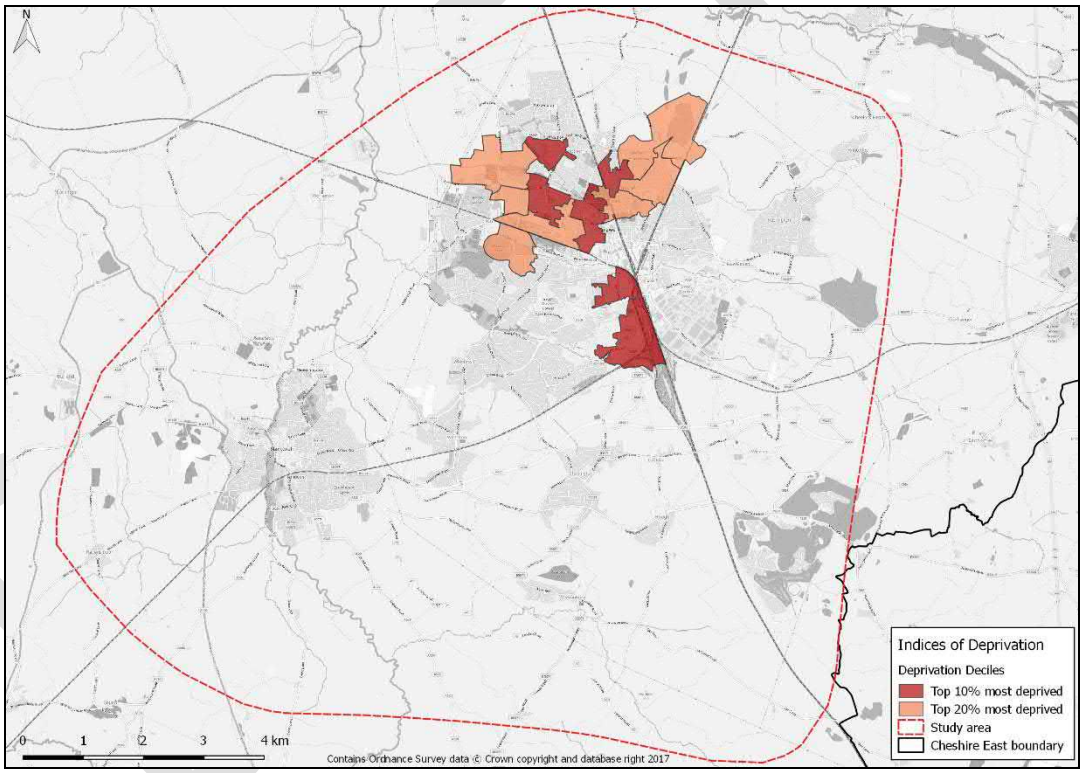


Figure 3-5 Indices of Deprivation Rank

The figure above shows that there are 6 areas that are within the top 10% most deprived nationally and a further 7 areas in the top 20% which are all within the town of Crewe.

Apart from one area covering and extending west and south of Crewe station, all these most deprived areas are located north of Crewe town centre, extending in the form of an arc from North West to North Crewe along the North Wales Coast Line and the Crewe to Manchester Line. Residents of these areas are likely to experience difficulties regarding access to employment, health, leisure and educational opportunities. Likewise, the cost of travel might act more often as barrier to mobility for them while, on average, having less access to a car.

Hence, improving cycling routes in these neighbourhoods will bring additional benefits from residents by improving their access to services and employment and also wider benefits through increased employment and better access for employers.

3.7.1 Health Deprivation and Disability Domain

The Health Deprivation and Disability Domain measures the risk of premature death and the impairment of quality of life through poor physical or mental health. These indicators are weighted to create a domain. These are then ranked, with 1 being the most deprived. Health deciles are formed through creating 10 equal groups of data.

The indicators used are:

- Years of life lost: defined as death before the age of 75 by any cause, based on mortality data 2008-2012;
- Comparative illness and disability ratio: Illness/disability that is work limiting, based on those receiving benefits through ill health;
- Acute morbidity: emergency hospital emissions, based on records;
- Mood and anxiety disorders: based on a combination of hospital data, prescriptions, suicides and health benefits.

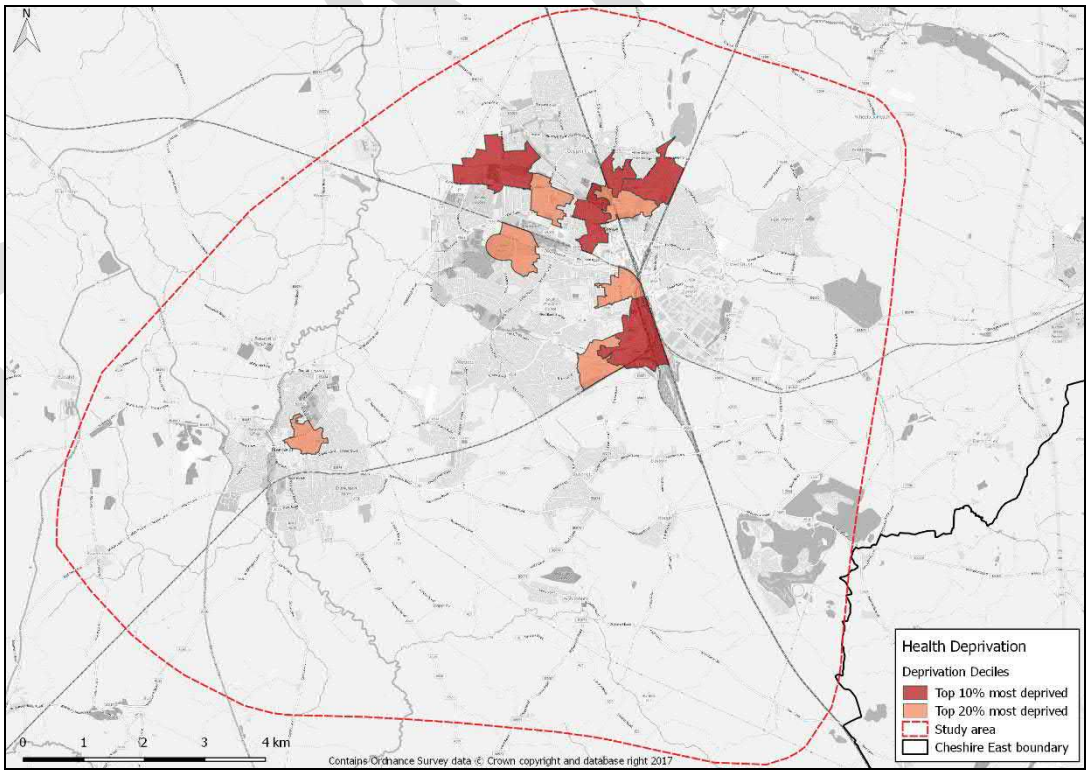


Figure 3-6 Health Deprivation Rank

A total of 5 areas are within the 10% most deprived areas nationally in terms of health, and an additional 6 are within the top 20%. Except for one area north east of Nantwich town centre, all areas are within Crewe and all but one score equally among the top 10% and 20% for overall deprivation. For these LSOA, poor health is an important problem.

Increased physical activity in form of regular cycling is associated with substantial health benefits, and the provision of adequate cycling infrastructure has been repeatedly shown to increase ridership. Hence, improving cycling routes in these health deprived areas has great potential to improve public health. As most health deprived areas are also scoring high on multiple deprivation indices, investments in cycling in these particular areas would likely deliver combined economic, public health and equity benefits.

If the Cheshire East Cycling Strategy aim to 'double the number of cycling stages made each year in Cheshire East by 2027 from a 2014 baseline' is to be achieved, significant increases in these areas suffering from (health) deprivation will be needed.

3.8 Propensity to Cycle Tool

The Propensity to Cycle Tool (PCT) is an open source tool for sustainable transport planning using origin/destination data on travel to work from the 2011 Census. The data reports the number of people travelling by different modes from Middle Super Output Areas (MSOA) by trip lengths and hilliness helping identify those trips that could be undertaken by cycle. Different scenarios are possible using the tool aiming to answer the question at both the strategic and local level of where to prioritise high quality cycling infrastructure of sufficient capacity for a planned growth in cycling.

Different scenarios are presented including the government's draft Cycling Delivery Plan target to double cycling in a decade and the more ambitious 'Go Dutch' scenario, whereby Dutch cycling levels are reached in England to show what the rates of cycling could feasibly look like in different parts of study areas. The scenarios are:

- Government Target: double cycling from current levels by 2025;
- Gender Equity: A scenario where equal numbers of women and men cycled. Currently 75% of cycle commutes are by men in England;
- Go Dutch: If people in England had the same likelihood to cycle for commuter trips as people in the Netherlands;
- E-bikes: Where people consider E-bikes for longer and hillier trips.

Two scenarios are presented using the tool, 'fast' route and 'quiet' route. The tool then compares these scenarios giving information on distance and hilliness. Research during the development of the PCT tool illustrated that propensity to cycle declines as distance and hilliness rises. "As we know that cyclists will preferentially choose quieter routes, this implies that where such routes are longer and / or hillier than busier alternatives, cycling demand will be suppressed" (Rachel Aldred, Professor of Transport at the University of Westminster).

3.8.1 Current Cycling Levels

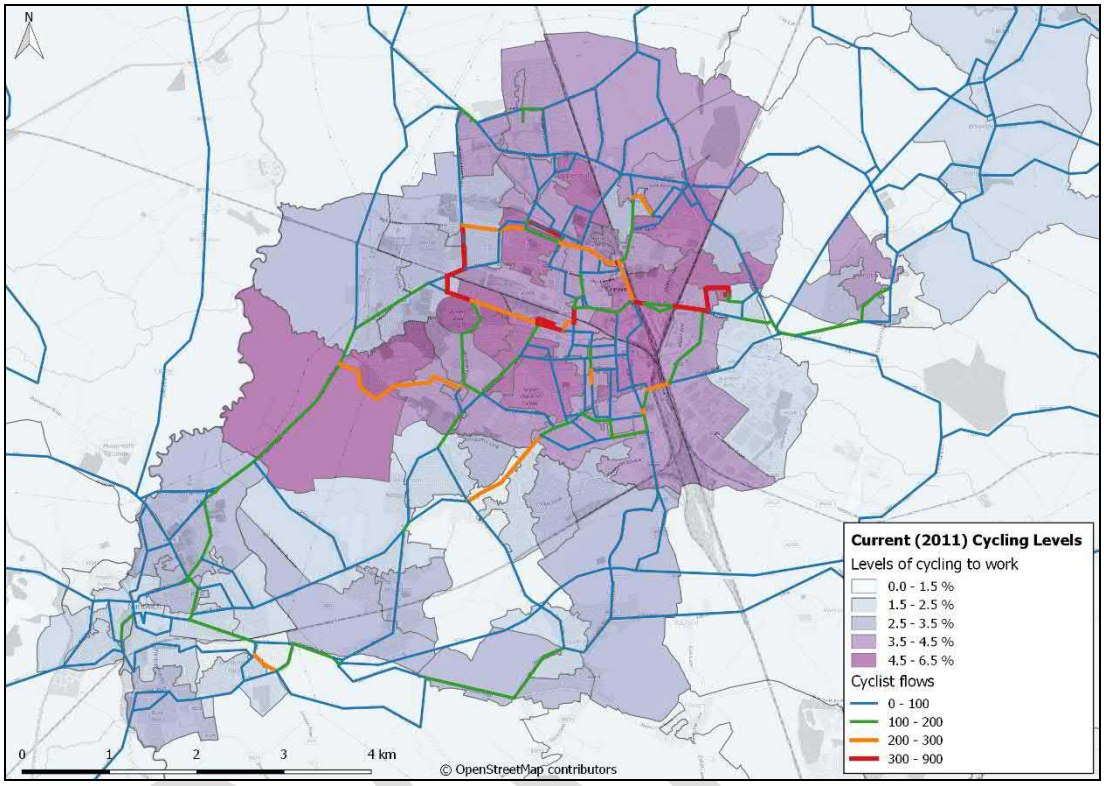


Figure 3-7 PCT: Current Cycling Levels at LSOA level

The highest levels of cycling within the Crewe and Nantwich area are found in the central residential areas of Crewe: North of Crewe station, around Queens Park and Tipkinder Park and Cheshire College - South and West, north and west of the cemetery and in Woolstanwood where more than 4.5% and up to 6.5% of the population cycle to work. Across Cheshire, the average percentage of people cycling to work (based on Census 2011 data) is 3%, barely above the national average of 2%.

The routes with currently the highest flows are along Victoria Ave, Hungerford Rd and Badger Ave, creating a corridor along the east/west direction of the town.

3.8.2 Government Target Scenario

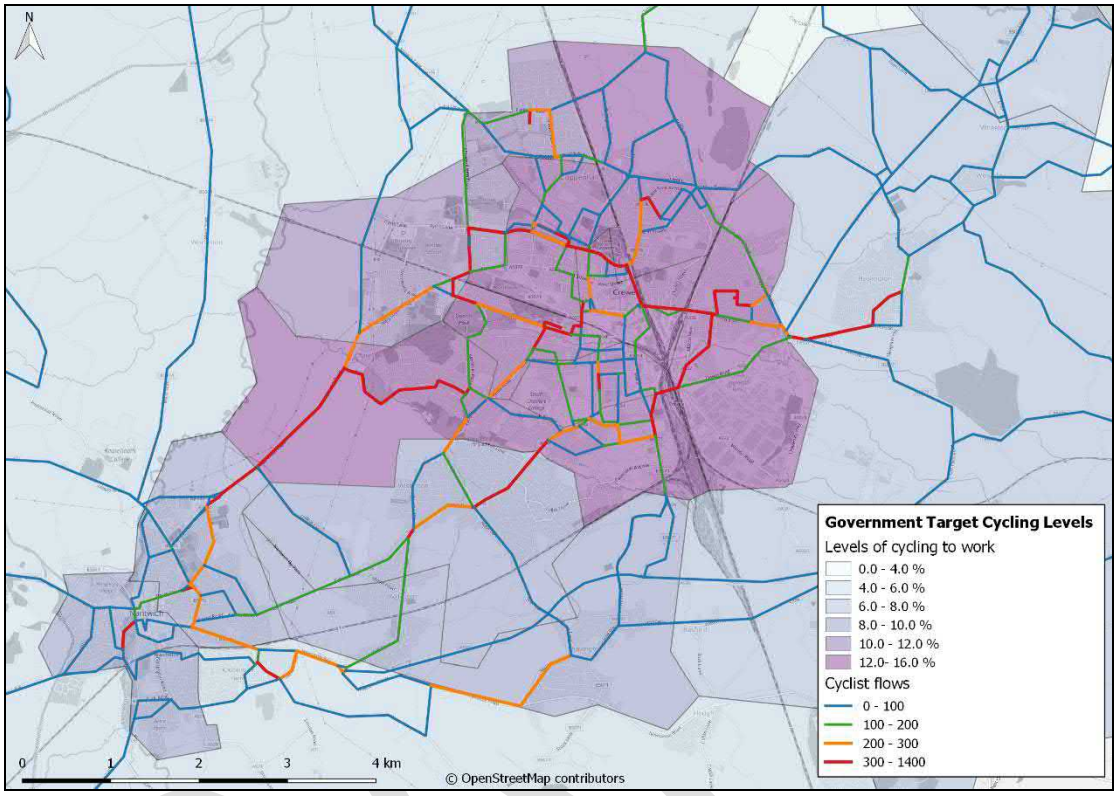


Figure 3-8 PCT Government Target Cycling Rates

In the government scenario, the flows increased in a distributed way. This saw Middlewich Road, Nantwich Road and Crewe Road being added to the routes with highest cyclist flows, exceeding 300 flows per day.

3.8.3 Go Dutch Scenario

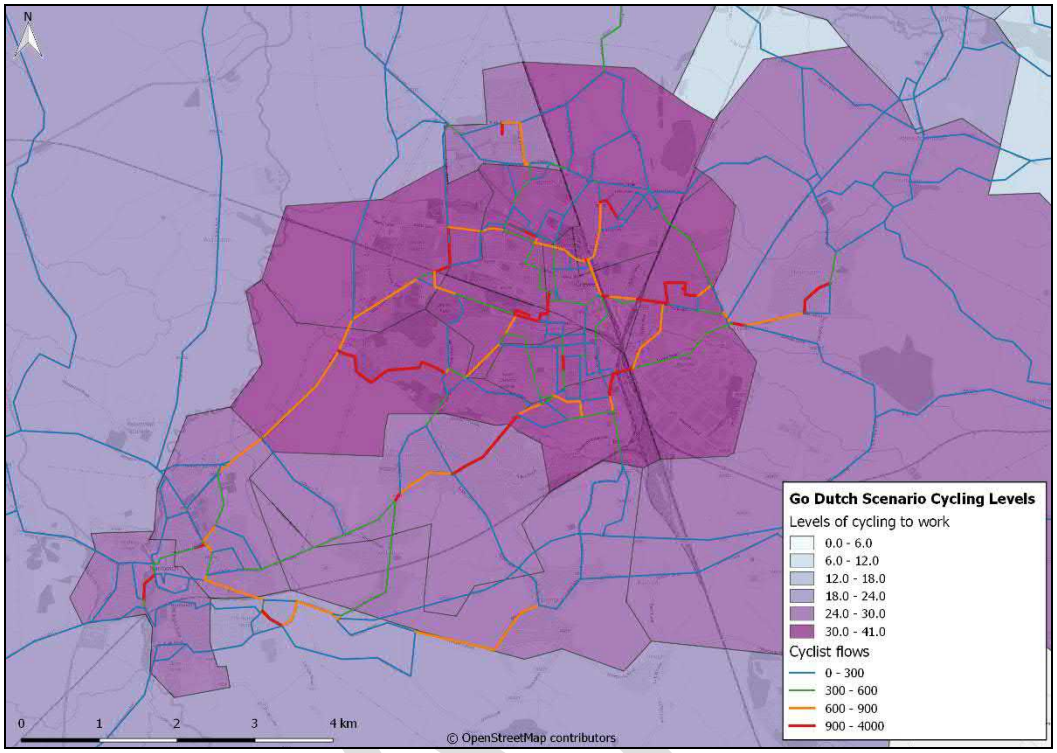


Figure 3-9 PCT Go-Dutch Cycling Rates

In the Go Dutch scenario the level of commuters cycling to work strongly increases, with most of the main routes showing a number of commuters higher than 600 per day and with some sections even higher than 900 commuters per day.

3.8.4 Cycling to schools

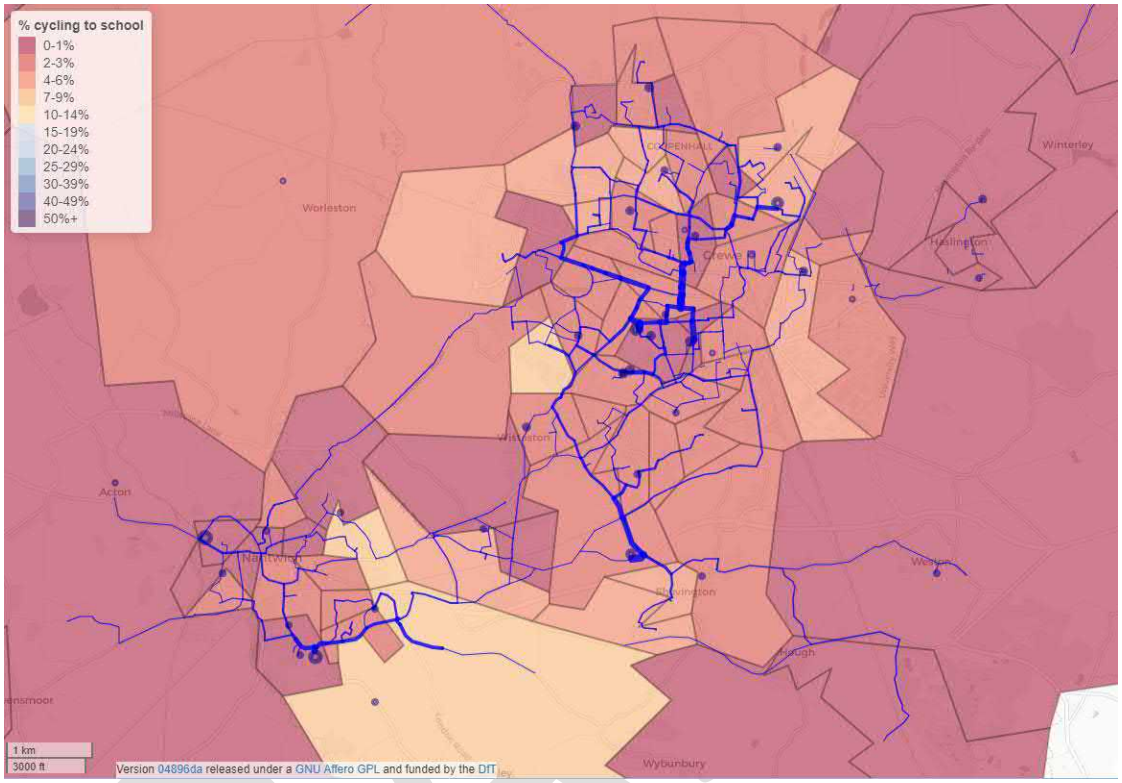


Figure 3-10 PCT School Travel Cycling Rates

The major attractors of cycling to schools in Crewe are Cheshire College South and West and Ruskin Community High School in the town centre. Another large attractor is Sir William Stanier Community School. Most potential to increase cycling to schools is in the area between these three schools.

3.9 Local Plan Sites

Cheshire East adopted their Local Plan in July 2017 which covers the period up to 2030. The areas identified for housing, employment and mixed-use developments, alongside safeguarded land is displayed in the figure below.

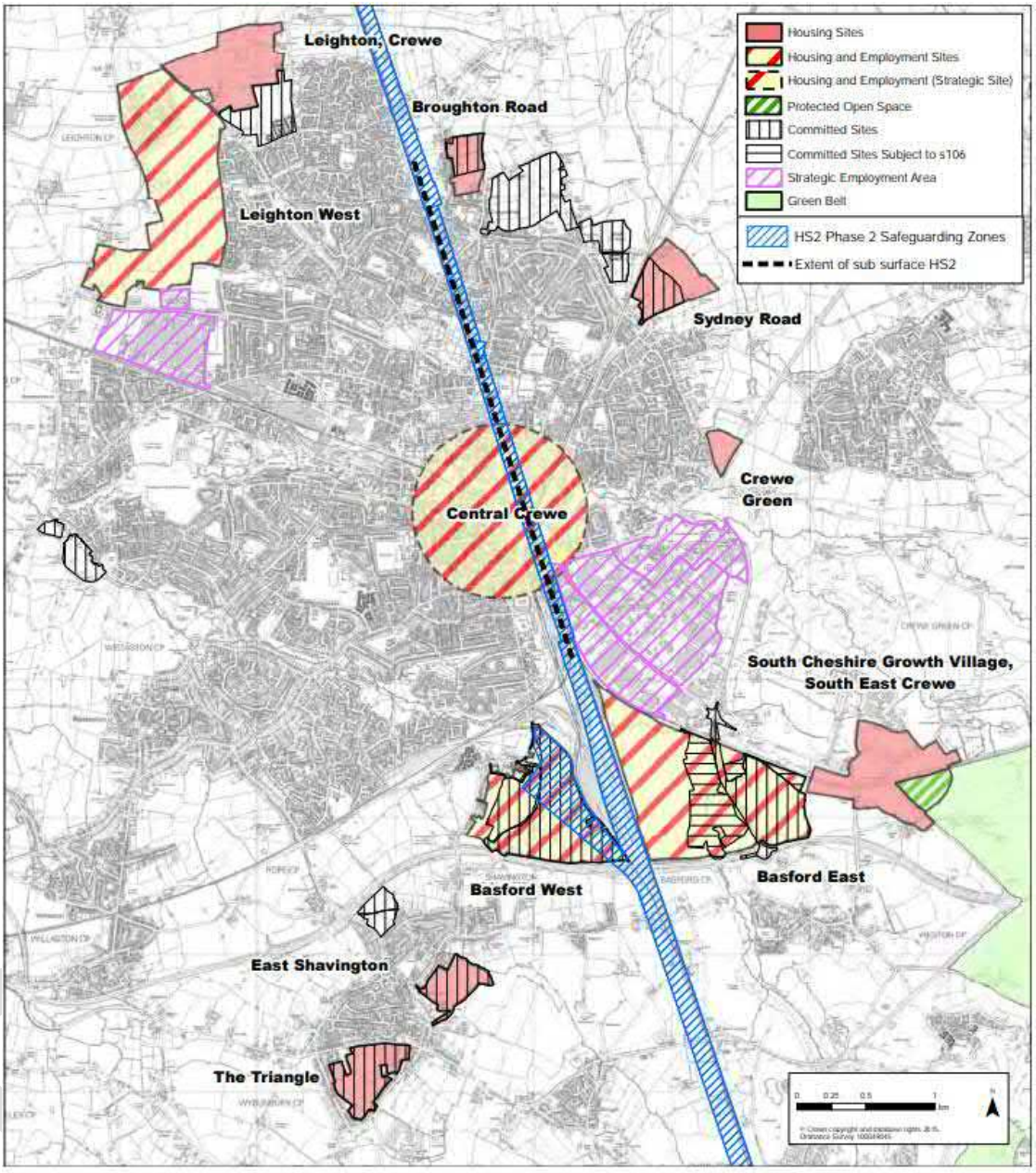


Figure 3-10 Crewe Local Plan Sites

Figure 3-10 shows that there are several Local Plan located within Crewe. This comprises of the following Local Plan Sites (LPS).

- LPS 1 Central Crewe;
- LPS 2 Basford East;
- LPS 3 Basford West;
- LPS 4 Leighton West;
- LPS 5 Leighton;
- LPS 6 Crewe Green;
- LPS 7 Sydney Road;

- LPS 8 South Cheshire Growth Village;
- LPS 9 The Shavington / Wybunbury Triangle;
- LPS 10 East Shavington;
- LPS 11 Broughton Road.

These areas of growth will be taken into consideration when developing the routes for walking and cycling, in order to ensure that they are well connected into the walking and cycling network.

3.10 Stakeholder Engagement

Engaging and consulting local Stakeholders is critical to ensure widespread 'buy in' to the delivery plan. It is also an essential stage in capturing the local knowledge that many will have about potential schemes across the study area.

stakeholders include:

- Strategic Planners, Transport Planners, Transport Development Management, Districts, Town and Parish Councils, Public Health Partners, employment sites, Leighton Hospital, local walking and cycling clubs and groups, Bikeability Instructors, Sustrans, Cycling UK (formerly CTC), Living Streets, and disability groups.

A stakeholder workshop was held in Crewe on Monday 27th February 2017 for the development of the former draft Crewe Cycling Plan. Through a desktop mapping exercise, attendees were asked to identify:

- Key locations people travel to and from: employment sites, schools, transport interchanges, leisure routes;
- Existing routes;
- Current routes which need improvement;
- Opportunities to develop new routes;
- Missing links.

A key objective of this stakeholder workshop was to begin to understand where schemes might deliver across multiple agendas e.g. a leisure cycling route that also connects to schools and employment.

Following the workshop, output was digitised to GIS to analyse against other available data. The outputs of this workshop were then used to identify key routes which this study will focus on and will subsequently be utilised to develop potential secondary route schemes to improve infrastructure.

As part of the development of this Crewe LCWIP, it was agreed that further engagement was required in order to reflect more up to date local knowledge. Therefore, an online workshop was held on the 1st April 2020 with local walking and cycling groups. The aim of the workshop was to gain an insight into local knowledge in regard to any key problems or opportunities for the walking and cycling in Crewe. In addition, attendees were asked if they had any ideas for improvements on the

network. The slides presented at the online workshop including the key feedback as part of the session are included in Appendix A; the main feedback is also summarised below:

- Opportunity for lighting on Leighton Greenway;
- Implementation of a Toucan Crossing on Peacock Roundabout;
- Addressing parking issues on both sides of Alton Street;
- Introducing traffic free routes where possible; and
- Nantwich Road outside of Crewe Railway Station being the most significant location to upgrade provision.

3.11 Mapping Trip Origin and Destination Points

Origin and destination points were identified across the LCWIP geographical area.

A *trip origin* typically refers to an area which is likely to be the starting point for frequent trips, such as residential areas.

A *trip destination* typically refers to those areas which are likely to be the end point of a journey, such as employment, schools or retail areas and transport interchanges.

Employment sites, educational establishments and future development sites were therefore mapped and trip generators in close proximity to each other were clustered to simplify the analysis.

The outcomes of the origin and destination mapping exercises are displayed in Figure 3-11 below.

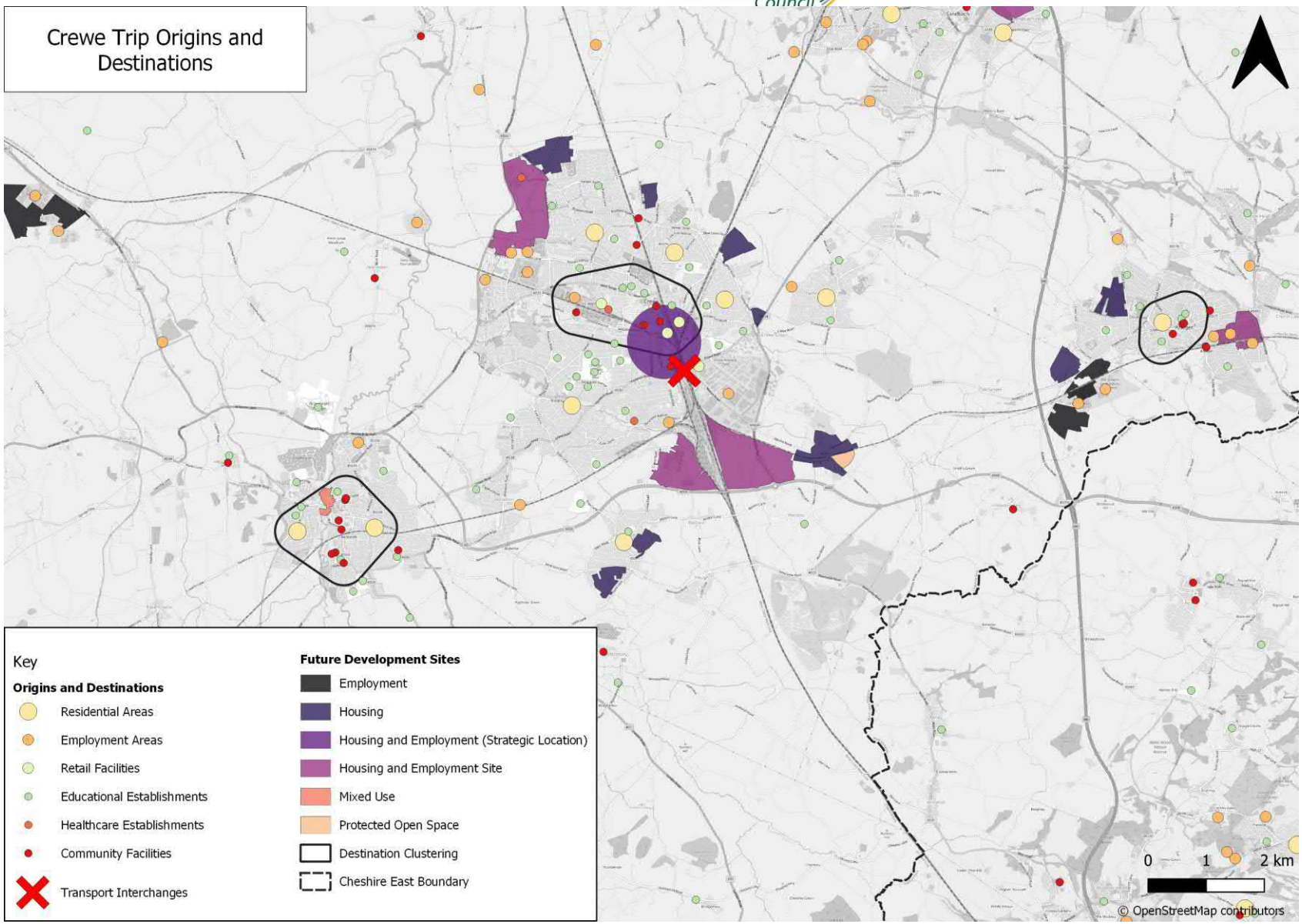


Figure 3-11 - Crewe trip origins and destinations

3.12 Identification and Classification of Desire Lines

Following the identification of trip origin and destinations, desire lines were identified to reflect the most popular origin/destination trips.

The Propensity to Cycle Tool (PCT[2]) was used to assist the identification of key cycle desire lines within the LCWIP area. The following three PCT scenarios were used to reflect the different levels of cycle activity in the LCWIP area:

- Baseline (2011 Census);
- Government Target scenario; and
- Go Dutch scenario (cycling levels in England are to reflect those in the Netherlands, taking account for English hilliness and trip distances).

The priority desire lines were identified at two levels:

- Cycling level for wider area around Crewe, including Nantwich and Alsager
- Walking level for Crewe Area, looking at shorter walking connections within the town

The outcomes of the desire line mapping for walking and cycling and shown in Figure 3-12 and Figure 3-13.

[2] Propensity to Cycle Tool found at http://pct.bike/.

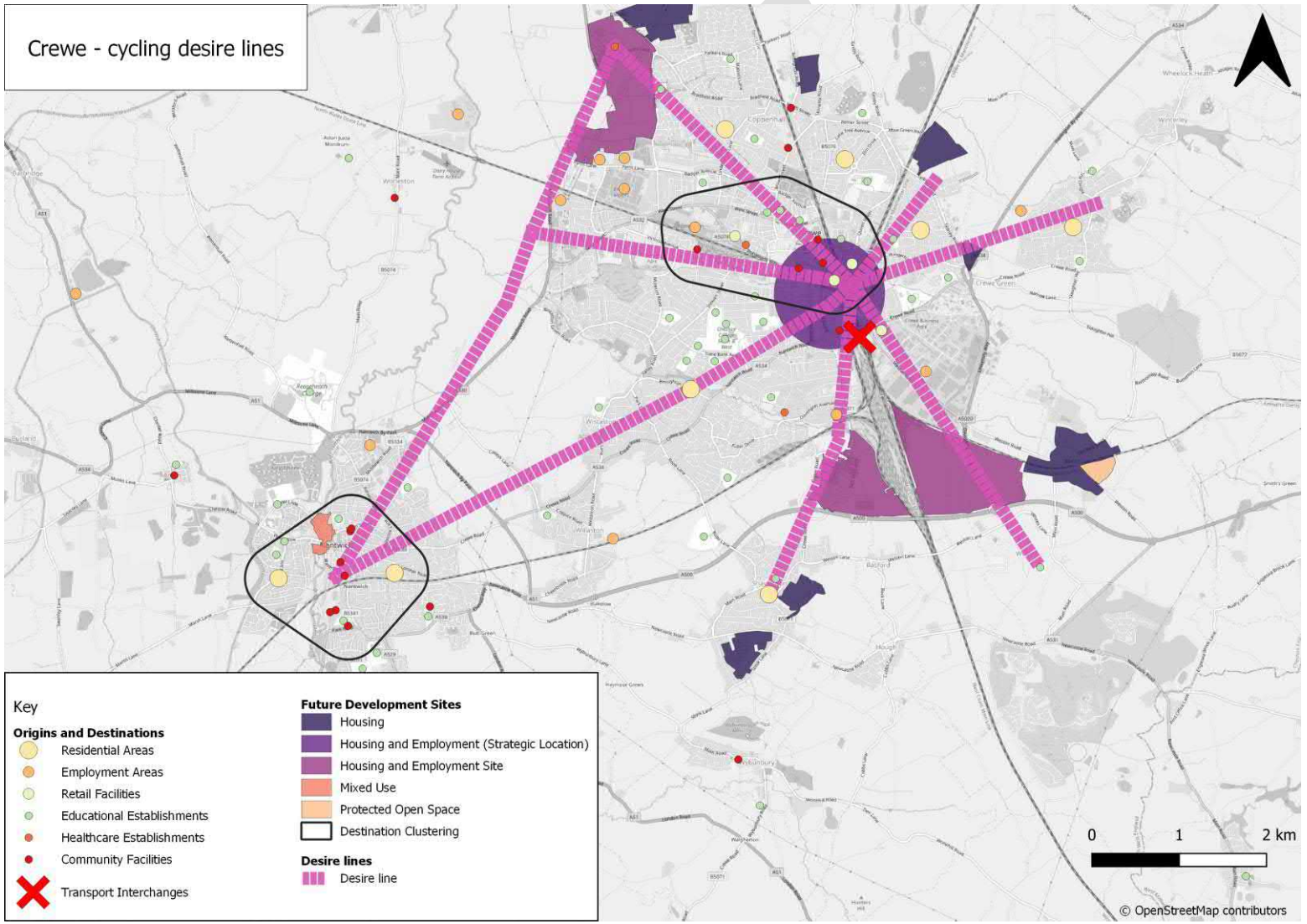


Figure 3-12 Crewe Cycling desire lines

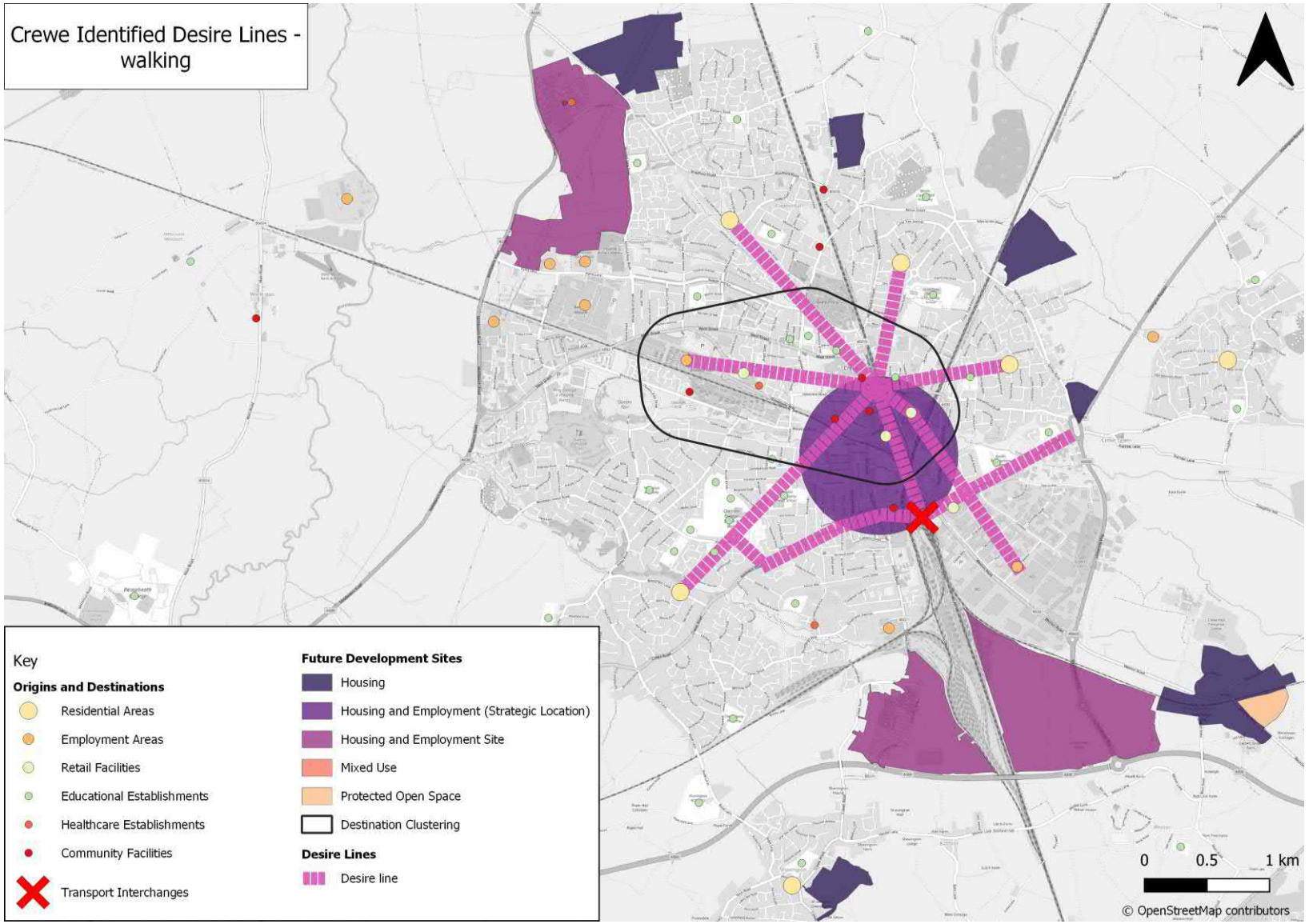


Figure 3-13 Crewe Walking desire lines

3.13 Summary

A review of baseline data for Crewe has demonstrated that:

- Travel to work via cycling across the LCWIP study area broadly aligns with the national average (6%), with the greatest number of residents travelling to work via car or van (67%) (however commuter journeys via car broadly align with the national average;

- There is potential for an increase in the number of journeys to work via cycling within Crewe, and potential to double the number of journeys to work (under 2km) undertaken on foot;

- The Cheshire East Local Plan (2017) outlines future development sites including housing and employment which will require sustainable connections through walking and cycling routes, particularly in Leighton area, north west of Crewe;

- Origin and destination mappings, development site plans, and desire lines generated through analysis of the PCT have been identified and have provided an evidence base to inform the identification of future routes and desire lines to connect key trip origins and destinations such as schools, hospitals and transport hubs; and

- Local community groups have contributed to the identification of required walking and cycling improvements. Suggested improvements have been used to inform the development of the LCWIP.

4. Network Planning for Walking

4.1 Introduction

The analysis of baseline data through a review of local policy documents and background data forms a solid evidence base to support the next step of beginning to create a network plan for people walking with the aim of forming a coherent and well-established network.

The future walking network plan has been derived through identifying links between those areas which are identified as trip origins and trip destinations. As part of this process, funnel routes have been identified, incorporating the route which most pedestrians will follow to access a particular destination. Severance associated with the landform or layout of a settlement often create funnel routes with high pedestrian flows. Through creating a network plan of funnel routes, this LCWIP identifies the core routes which require improvement.

4.2 Network Plans

A Core Walking Zone (CWZ) has been identified, comprising of a number of walking trip generators that are located within close proximity to one another within the town centre. The intention of a CWZ is to create a zone in which there are no specific routes but rather an area which creates an attractive walking environment. Such an environment could include: separation between pedestrians and motorists, public realm improvements, or wide footways/footpaths.

Within the LCWIP area, the CWZ is identified as the town centre of Crewe and the retail park, since these aligned with the most significant number of origin and destination points, as well as the identified clusters of points.

The walking network plans for Crewe are displayed below.

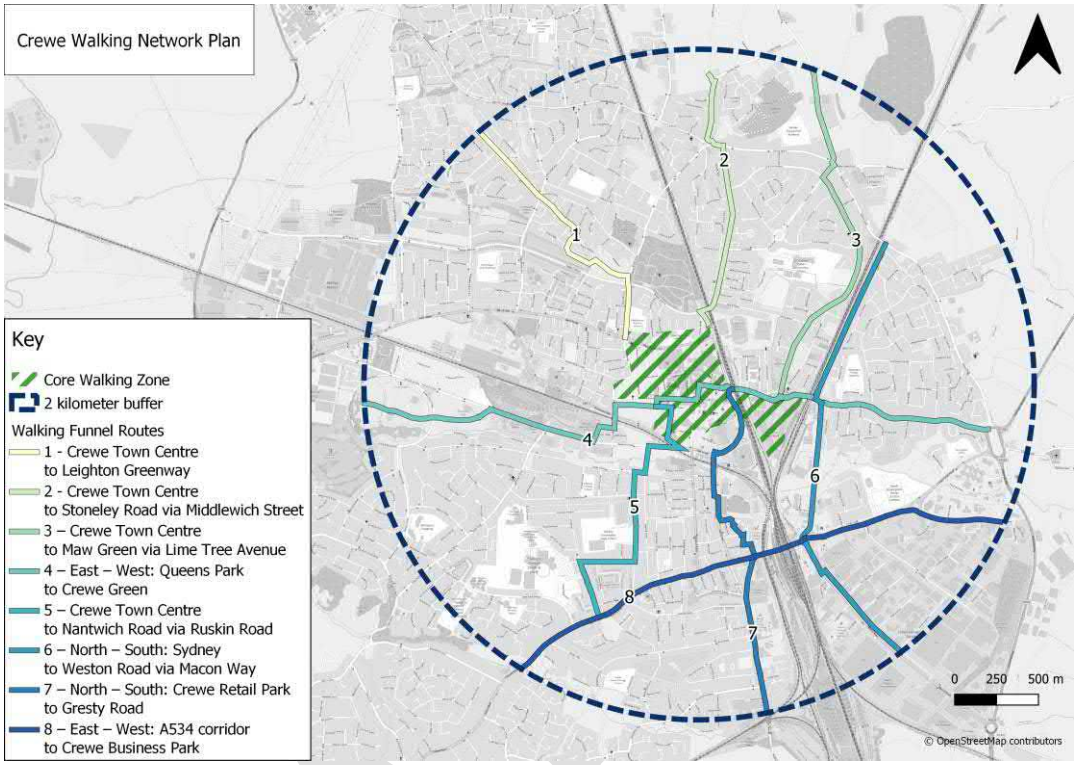


Figure 4-1 Crewe Walking Network Plan

Figure 4-1 shows that the proposed funnel routes follow the main arterial routes to:

- 1 – Crewe Town Centre to Leighton Greenway
- 2 - Crewe Town Centre to Stoneley Road via Middlewich Street
- 3 – Crewe Town Centre to Maw Green via Lime Tree Avenue
- 4 – East – West: Queens Park to Crewe Green
- 5 – Crewe Town Centre to Nantwich Road via Ruskin Road
- 6 – North – South: Sydney to Weston Road via Macon Way
- 7 – North – South: Crewe Retail Park to Gresty Road
- 8 – East – West: A534 corridor to Crewe Business Park

4.3 Key Areas for Improvement

To identify the areas where improvements to walking infrastructure are required, and the types of interventions which are most suitable, the CWZ and key walking routes were audited utilising the Walking Route Audit Tool (WRAT). Audits were undertaken using local knowledge and online research during April 2020.

The WRAT comprises of an auditing methodology which is focused around the five core design outcomes for pedestrian infrastructure. These design outcomes are similar to those required for cycling. The core design outcomes are:

1. Attractiveness (maintenance, fear of crime, traffic noise and pollution);

2. Comfort (condition, footway width, crossing width, footway parking, gradient);

3. Directness (footway provision, quality of crossing provision);

4. Safety (traffic volume, traffic speed, visibility);

5. Coherence (dropped kerbs and tactile paving).

The assessment considers the needs of vulnerable pedestrians who may be: older; visually impaired; mobility impaired; hearing impaired; with learning difficulties; buggy users, or children.

The core design outcomes are scored on a 0 - 2 scale, with 0 as the lowest score and 2 as the highest score. The WRAT was completed as part of the walking audits and the routes were scored accordingly. Following the scoring, these areas were identified as requiring the greatest improvement:

- Lighting needs to be implemented along Leighton Greenway of Route 1 to ensure safety to users and improve attractiveness of the route;

- The coherence and comfort of the footway along Stoneley Road (Route 2) and Groby Road (Route 3) need improvement as sections of these walking routes do not have a footway for pedestrians;

- Wistaston Road and Victoria Avenue along Route 4 have some narrow footways that force pedestrians closer to oncoming traffic, especially over bridges on the route;

- Earle Street bridge along Route 4 is a narrow pinch point for pedestrians and is close to traffic; and

- Noise pollution and directness along Route 6 require improvements as crossings on Hungerford Road and A532 divert pedestrians away from desire lines, crossing delays along the A532 roundabouts also affect directness of Route 6.

These routes are outlined within Table 4-1 below and full details of the WRAT are included within Appendix C.

Table 4-1 LCWIP Audited Walking Routes

Route	Audited walking funnel routes	WRAT score (max score of 40)
1	Route 1 North/South Frank Bott Avenue to Badger Avenue	26
2	Route 2 North/South Stoneley Road to Middlewich Street	22
3	Route 3 North/South Groby Road to Limetree Avenue and Queen Street	24
4	Route 4 East/West to Victoria Avenue, Delamere Way, Earle Street and Hungerford Road	20
5	Route 5 North/South Somerville Street, Lunt Avenue, Ruskin Road, Walthall Street and Wistaston Road.	25
6	Route 6 North/South A532 Weston Road, Manchester to Crewe Line and Sydney Road	15
7	Route 7 North/South B5071 to Crewe Retail Park	20
8	Route 8 East/West A534 Crewe Road to Electra Way	23
9	Core Walking Zone	19

The audits identified route sections where severance is a problem with pedestrian movements constrained by heavily trafficked routes with limited crossing provision.

The WRAT informed the selection of interventions on the funnel routes, as defined in Figure 4-1.

4.4 Establishing Walking Infrastructure Improvements

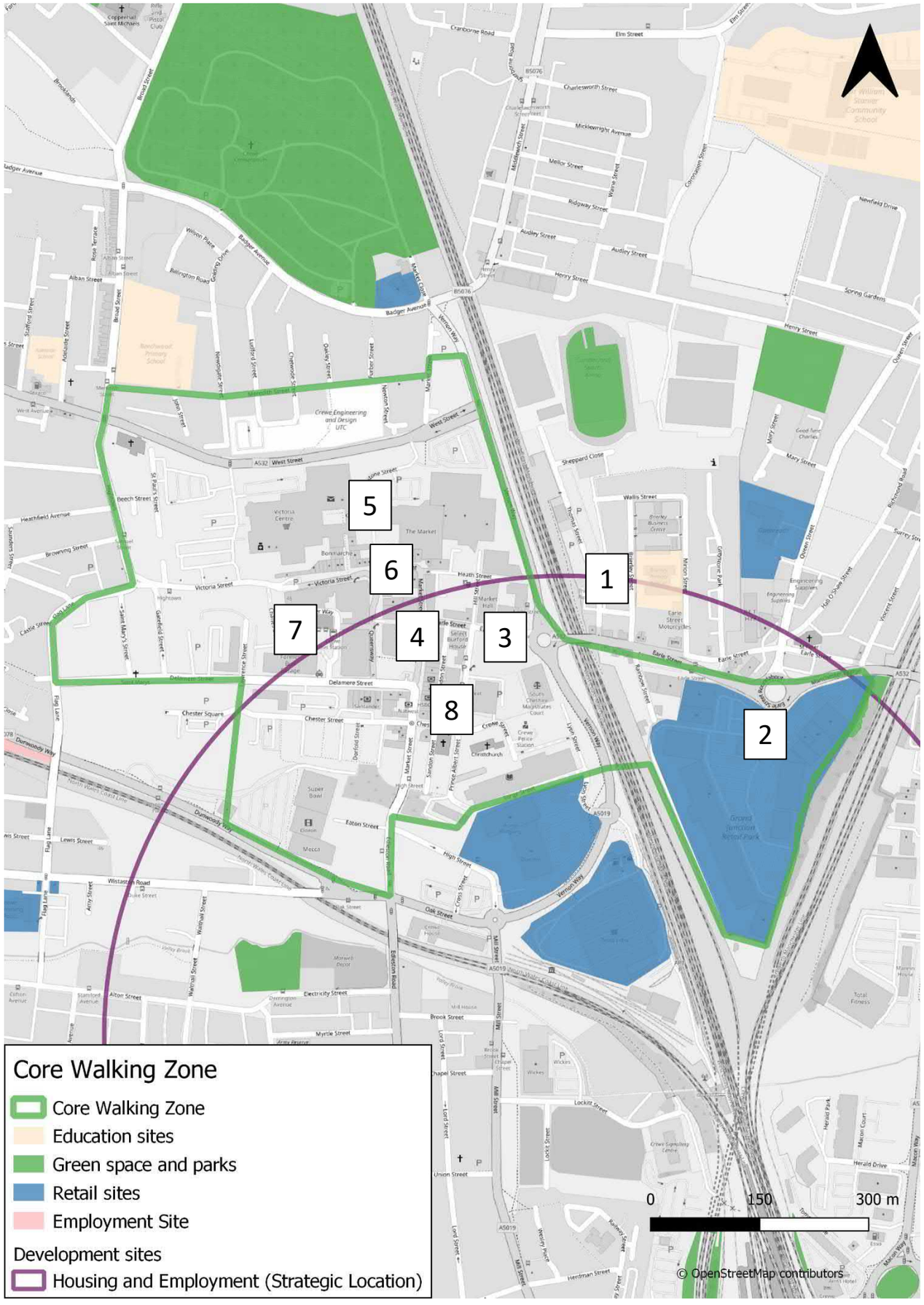
During the development of the LCWIP, improvements along funnel routes have been identified, alongside a high-level cost estimate for each route. It should be noted that further development of interventions for both walking and cycling is expected to be required to confirm their feasibility and accurate cost. A wide range of design guidance can be utilised to develop schemes to ensure high quality streets and pedestrian links.

The proposed route improvements on the future walking network are outlined in more detail in the detailed maps and interventions below. The costs for the interventions are outlined in Appendix E.

Core Walking Zone

Interventions on Primary routes

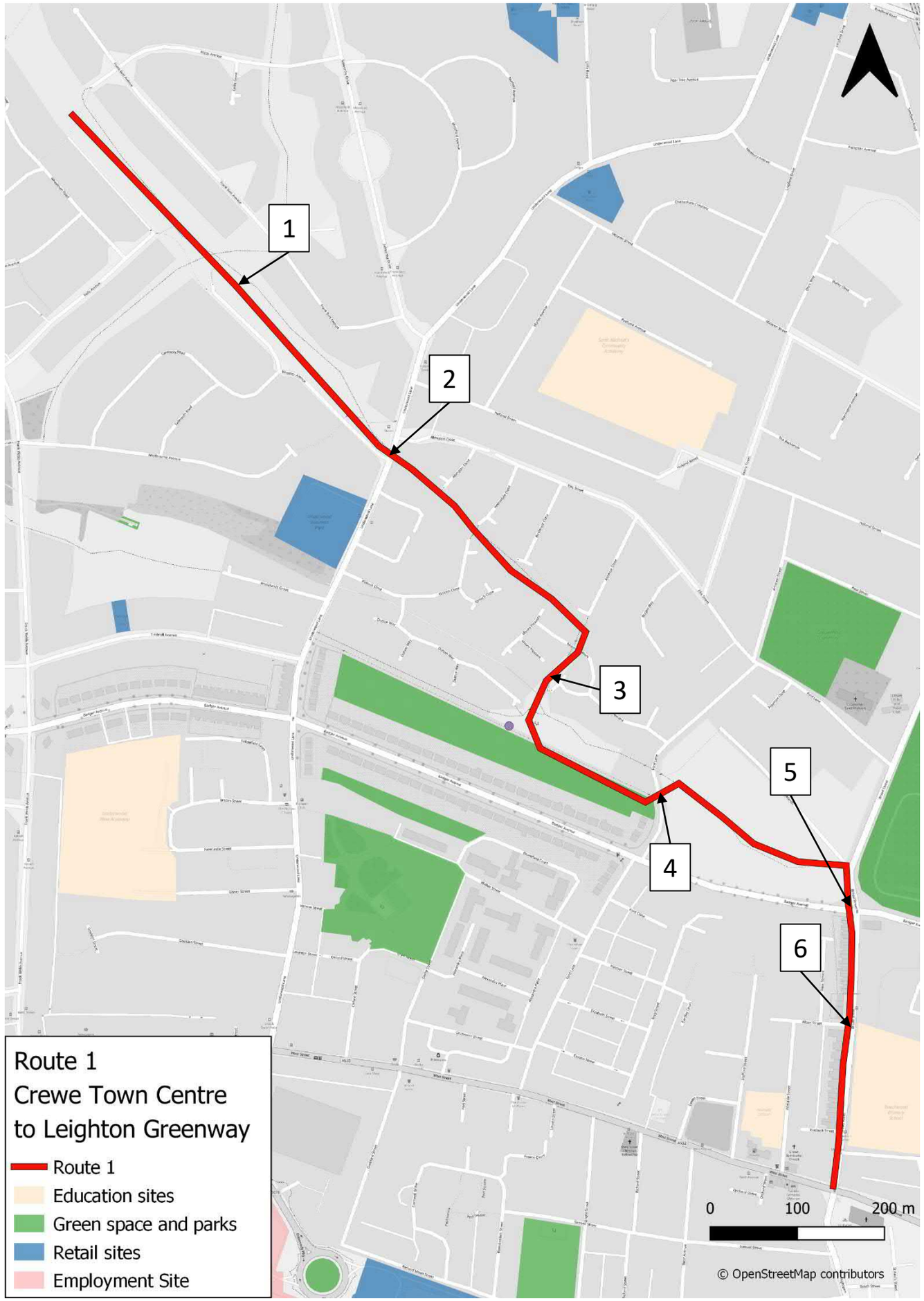
Ref	Location	Description of intervention
1	Memorial Square at Vernon Way roundabout	Narrow junction radius on Memorial Square approach arms; investigate scope to narrow approaches on other arms simplifying roundabout and slowing approaching traffic. Costed as part of Cycle Route 7.
2	Throughout	Place new and renovate existing dropped kerbs and tactile paving.
3	Throughout	Improvement and renovation of street furniture.
4	Throughout	Improvements to pavement surfacing to be considered as part of Highways maintenance programme.
5	Throughout	Improved wayfinding and signage throughout to key destinations/attractors.
6	Throughout	Consider improvements to urban realm within the Core Walking Zone as part of wider development.
7	Crewe Bus Station	Ensure the existing / proposed bus station has a clear signed route to key attractors such as the town centre and retail park.
8	Delamere Street/Chester Street	Provision of highlighted crossings on all arms of Delamere Street/Chester Street (x4).
Link to Cycle Route 2		• Meredith Street - On street improvements to formalise parking management and prevent footway parking & general environmental enhancement • Broad Street - traffic calming and environmental enhancement measures to reinforce 20mph limit and formalise parking management
Link to Cycle Route 7		• Market Street/Delamere Street to Chester Street roundabout - Junction improvement at Market St / Delamere St junction to aid movement into town centre area; works could include raised table which could extend to cover whole stretch of road to calm this location and make Chester St the town centre gateway; pedestrian guard railings could be removed to open up whole area • Chester Bridge from Chester St to High St - Create high quality cycle route along Chester Bridge consisting of either stepped cycle track on either side of carriageway or shared path. • Grand Junction Way - Widen access paths to consistent 3m and convert to shared unsegregated paths • Manchester Bridge and Earle Street new structures parallel to the railway dedicated to pedestrians and cyclists • A532 from Manchester Bridge to Vernon St roundabout to Rainbow St - Investigate scope to reallocate carriageway width to widen paths to 3m • Grand Junction Retail Park roundabout - install dedicated toucan/tiger crossings to create continuous, safe and coherent pedestrian/cycle routes



Route 1 – Crewe Town Centre to Leighton Greenway

Interventions on Primary routes

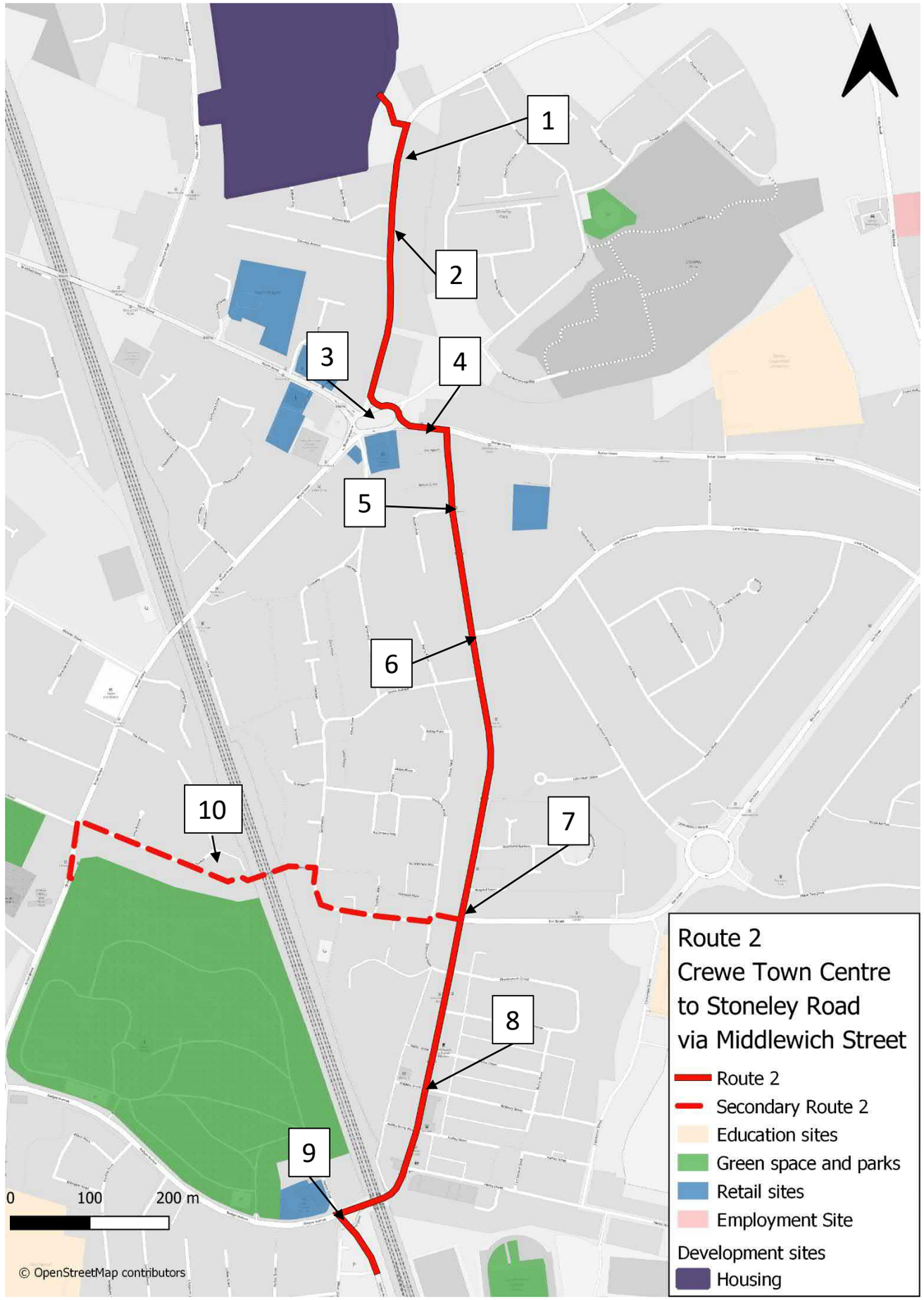
Ref	Location	Description of intervention
1	Leighton Greenway	Improve lighting, such as solar studs, on Leighton Greenway to ensure that the route feels safe and can be used in all seasons. Ensure vegetation is maintained throughout (costed as part of Cycle Route 2)
2	Windsor Avenue/Underwood Lane	Remove or increase gap between staggered barriers to improve accessibility. Consider introducing a zebra crossing on Underwood Road if space allows.
3	Windsor Avenue to Broad Street	Upgrade path to shared use with widening to 3m where possible from Windsor Avenue to Broad Street (costed as part of Cycle Route 2).
4	Ford Lane/Mount Pleasant	Remove staggered barriers and bollards to ensure access for all.
5	Broad Street crossing	Improved gateway feature to park with stretch of widened path on Broad Street raising awareness of route. Upgrade Broad Street arm of crossing to a toucan. Costed as part of Cycle Route 2.
6	Broad Street	Footpath is narrow on the east side, consider removing and creating a 3m pathway on the west side (330m), complementing traffic calming and environmental enhancement measures suggested in the cycling interventions. Consider introducing a zebra crossing.
7	Throughout	Improve wayfinding and signage throughout the whole route. Costed as part of Cycle Route 2.
Link to cycle route 2		This route follows the same path as cycle route 2 and pedestrians will also benefit from interventions proposed such as: • Widening Leighton Greenway to 3m through and improved maintenance • Tighten junction of Windsor Ave and provide direct crossing of Underwood Lane to create coherent facility • Provision of a toucan crossing on Ford Lane.



Route 2 – Crewe Town Centre to Stoneley Road via Middlewich Street

Interventions on Primary routes

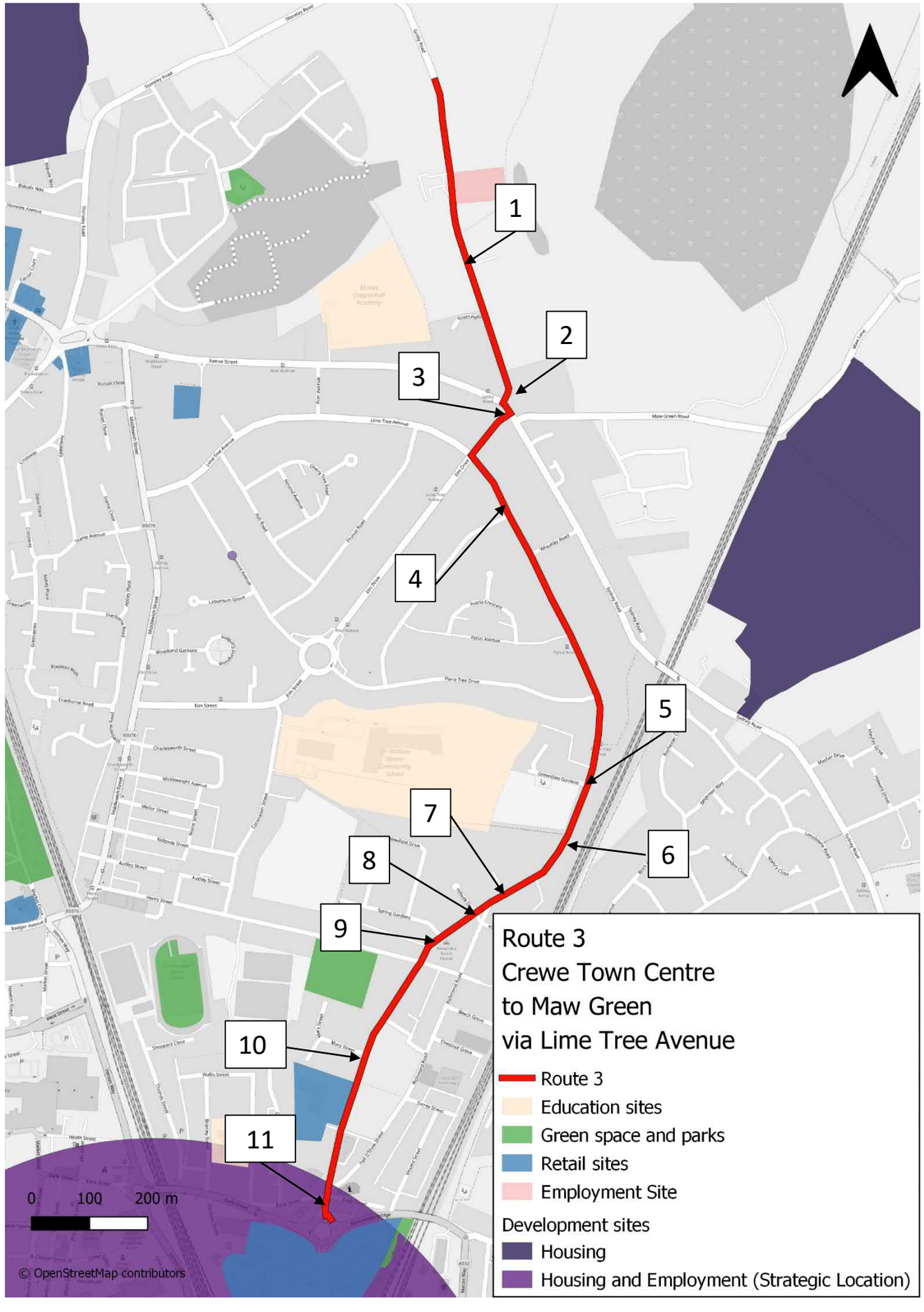
Ref	Location	Description of intervention
1	Stoneley Road	Introducing new footways at least 1.5m wide on one side of the carriageway where there are no existing routes (approx. 400m from junction with Broad Street to new housing development site).
2	Stoneley Road	Widening existing footway where feasible from Broad Street Roundabout (approx. 350m) and consider 20mph speed limit/ traffic calming.
3	Broad Street Roundabout	Introduce two Puffin crossings and three highlighted pedestrian crossings across all arms of the roundabout (x5).
4	Remer Street	Widen Remer Street footway and improve surface between Broad Street roundabout and Middlewich Street (50m).
5	Middlewich Street (north)	To the north of Middlewich Street, on the west side of the road align the path away from the road using the grass verge (approx. 30m).
6	Middlewich Street from Elm Street to Lime Tree Avenue	Scope to widen footpath using the grass verge along some sections of Middlewich Street on the east side between Elm Drive and Lime Tree Avenue (approx. 350m).
7	Middlewich Street/Elm Drive	Narrow junction mouth between Middlewich Street/Elm Street to improve pedestrian safety and accessibility of junction. Consider adding a refuge crossing at this location to aid crossing.
8	Middlewich Street from Elm Street to Badger Avenue	Street marking renovations and minor surfacing and dropped kerb.
9	Badger Avenue/Vernon Way junction	Introduce two highlighted crossings on Market Cl and B5076 arms of the junction (x2).
10	Cranbourne Road over the railway to Singleton Avenue	Potential to link into this route from Middlewich Street to Cranbourne Road, over the railway bridge to Singleton Avenue with potential links into the cemetery to allow connectivity across the railway.



Route 3 – Crewe Town Centre to Maw Green via Lime Tree Avenue

Interventions on Primary routes

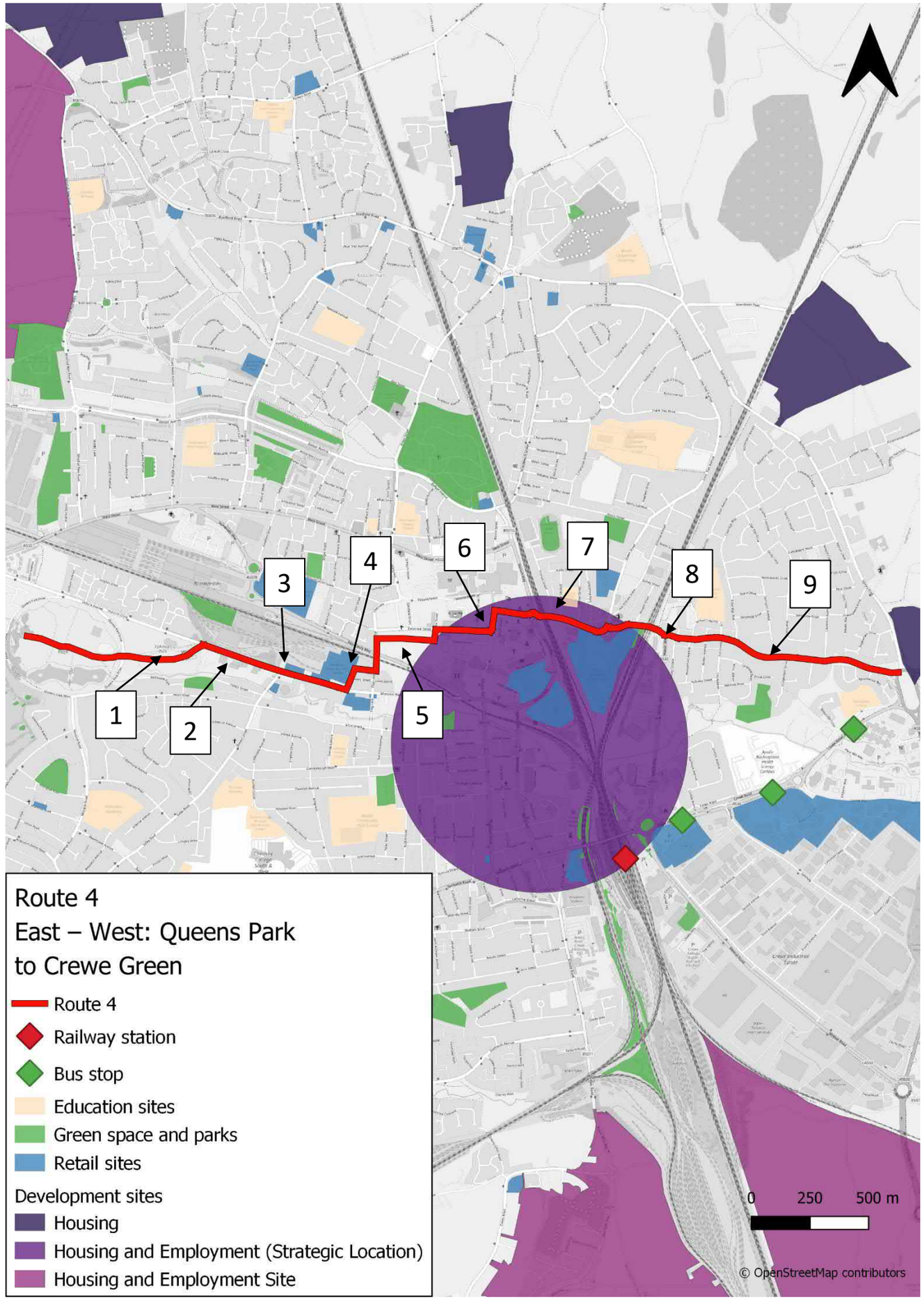
Ref	Location	Description of intervention
1	Groby Road	Introduce new footway at least 1.5 on the east side of the carriageway along Groby Road, from Remer Street to Stoneley Road junction (approx. 400m).
2	Remer Street/Groby Road/Elm Drive crossings	Introduce a pedestrian crossing across Remer Street and realign footways to meet the desire line.
3	Elm Drive/Remer Street	Narrow junction mouth at Elm Drive, extending the footway further out to reduce the width of road that needs to be crossed.
4	Lime Tree Avenue (north of Wheatley Road)	Improve footway surfacing throughout and dropped kerbs at crossing along the route such as junction with Wheatley Road. Widen pathways where possible to 1.5m (approx. 200m).
5	Entrance into Lime Tree Park	Provide a direct access to Sir William Stanier School and as such may require improvements to pathway surface. Removal of staggered barriers onto shared pathway into Lime Tree Park.
6	Lime Tree Avenue	Improvements to pavement surfacing to be considered as part of Highways maintenance programme. Introduce restrictions to prevent footway parking in the area to improve visibility. Renovate street markings throughout the avenue, especially at crossings.(approx. 600m).
7	Queens Street	Improvements to pavement surfacing to be considered as part of Highways maintenance programme.
8	Queens Street/ Richmond Road/ Hillside Drive	Review junction to improve visibility for pedestrians and implement highlighted crossings for pedestrians.
9	Queens Street between Richmond Road and Henry Street	Address pavement parking to enable pedestrians to use the footpath (160m).
10	Queens Street/Earle Street/Hall O'Shaw Street	Implement highlighted crossings across Queens Street junctions with Earle Street and O'Shaw Street.
11	A532 roundabout crossings	Feasibility study needed to scope out options for improving pedestrian crossing points, i.e toucan crossings on all arms of A532 roundabout. Costed as part of Cycle Route 7.
Link to cycle route 7		The southern end of this route overlaps with cycle route 7 and will benefit from proposed interventions at the A532 roundabout.



Route 4 – East – West: Queens Park to Crewe Green

Interventions on Primary routes

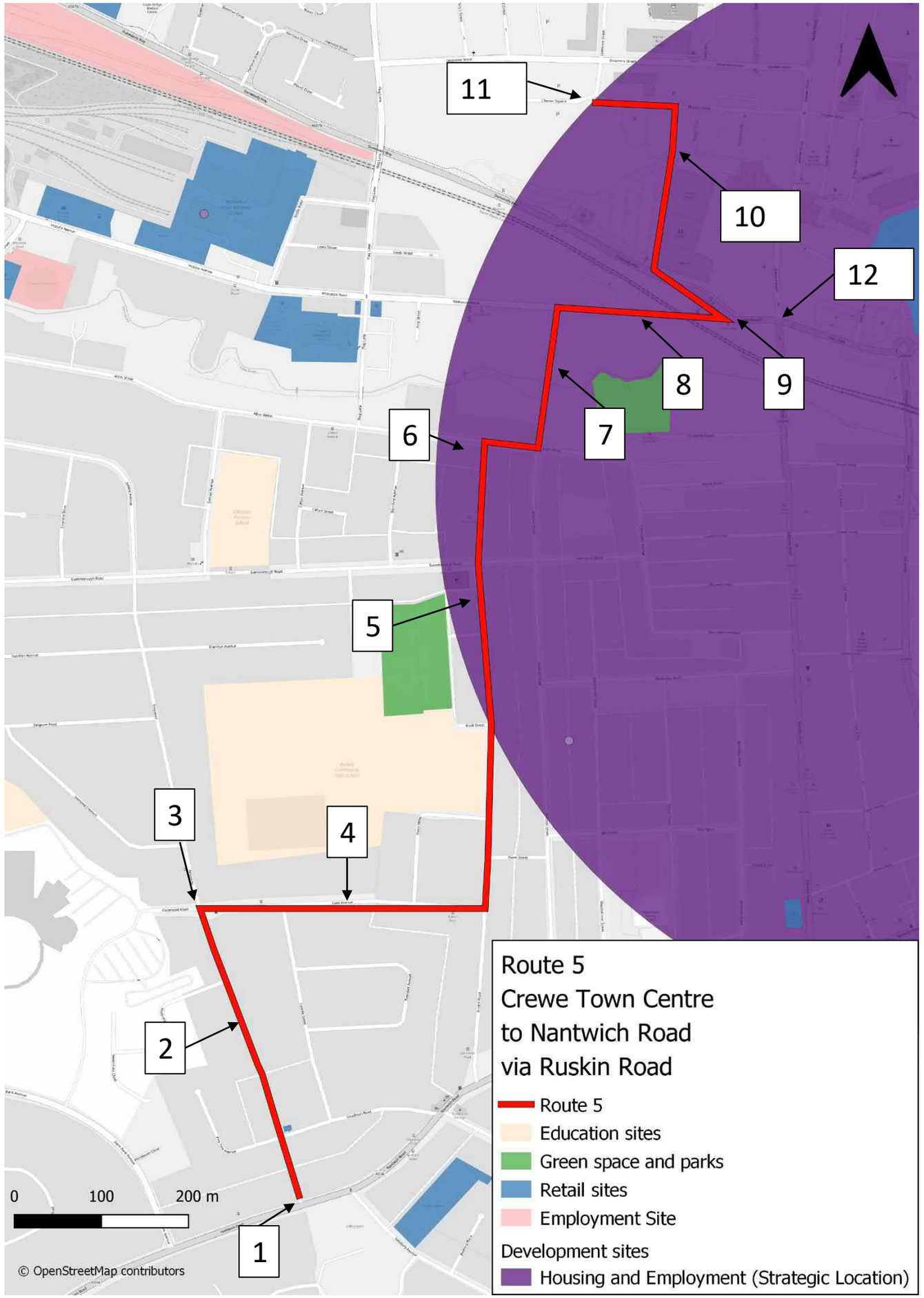
Ref	Location	Description of intervention
1	Queens Park, Tipkinder Park to Victoria Avenue	Introduce lighting along the Tipkinder Park footpath (approx. 300m) and remove staggered barriers at entrance with Victoria Avenue. Ensure vegetation is maintained throughout and introduce bins alongside the footpath (maintenance and barrier removal costed in Cycle Route 6).
2	Victoria Avenue	Improve lighting on sections (400m up to Stewart Street) adjacent to the park and improve dropped kerbs throughout Victoria Avenue.
3	Victoria Avenue/Stewart Street	Introduce highlighted crossings to complement narrowing junction radius costed as part of Cycle Route 6.
4	Bridle Road	Widen footpath to 1.5m where possible (190m); consider adding zebra crossing to Wistaston Road.
5	Flag Lane through to Chester Street	Ensure lighting on the link through to Chester Street is fit for purpose.
6	Chester Street / Market Street mini roundabout	Informal streets junction and/or improving pedestrian crossing points – feasibility study needed to scope out detailed options.
7	Earle Street	A new shared pedestrian/cycling facility recommended alongside current Earle Street Bridge (costed as part of Cycle Route 7). Improve lighting from town centre toward Grand Junction Retail Park and widen footpath (270m).
8	A532 Manchester Bridge roundabout	Dedicated crossings needed of A532 to access Sydney Road route parallel with railway line. Costed as part of Cycle Route 7.
9	Hungerford Road	Extend where feasible and repaint existing double yellow lines to prevent footway parking – currently affecting visibility and safety. Improvements to pavement surfacing to be considered as part of Highways maintenance programme.
Link to walking route 3		This route connects with southen end of walking route 3 and pedestrians will also benefit from interventions proposed such as: • Improved toucan pedestrian crossings at A532 roundabout
Link to cycle route 6		This route follows the same path as cycle route 6A and pedestrians will also benefit from interventions proposed such as: • Raised table to reduced vehicle speed along Flag Lane • Widen path from Flag Lane through to Chester Street car park to shared used, with landscaping to opening up visibility and improve perception of personal safety • Traffic calming to reinforce 20mph and measures to raise awareness of presence of cyclists (Chester Street)
Link to cycle route 7		This route follows the same path as cycle route 7 and pedestrians will also benefit from interventions proposed such as: • Recommend the existing town centre pedestrian area to be informal streets • Narrow junction radius on Memorial Square approach arms of Vernon Way roundabout; investigate scope to narrow approaches on other arms simplifying roundabout • Thomas St/Earle St junction – dropped kerbs • Remove fencing and create dedicated pedestrian/cycle shortcut access to Grand Junction Retail Park (Rainbow Street) • Drop kerbs and short stretches of path on A532 at Mirion Street and Vincent Street to allow easy crossing from A532 to residential network • New structure over Earle Street and Manchester bridges • Investigate scope to reallocate carriageway width to widen paths to 3m minimum shared unsegregated paths; create breaks in fencing along Grand Junction Retail Park boundary to allow pedestrian/cycle access away from main roundabout route (A532 from Manchester bridge to Rainbow St) • Grand Junction Retail Park roundabout - install dedicated toucan/tiger crossings to create continuous, safe and coherent pedestrian/cycle routes



Route 5 – Crewe Town Centre to Nantwich Road via Ruskin Road

Interventions on Primary routes

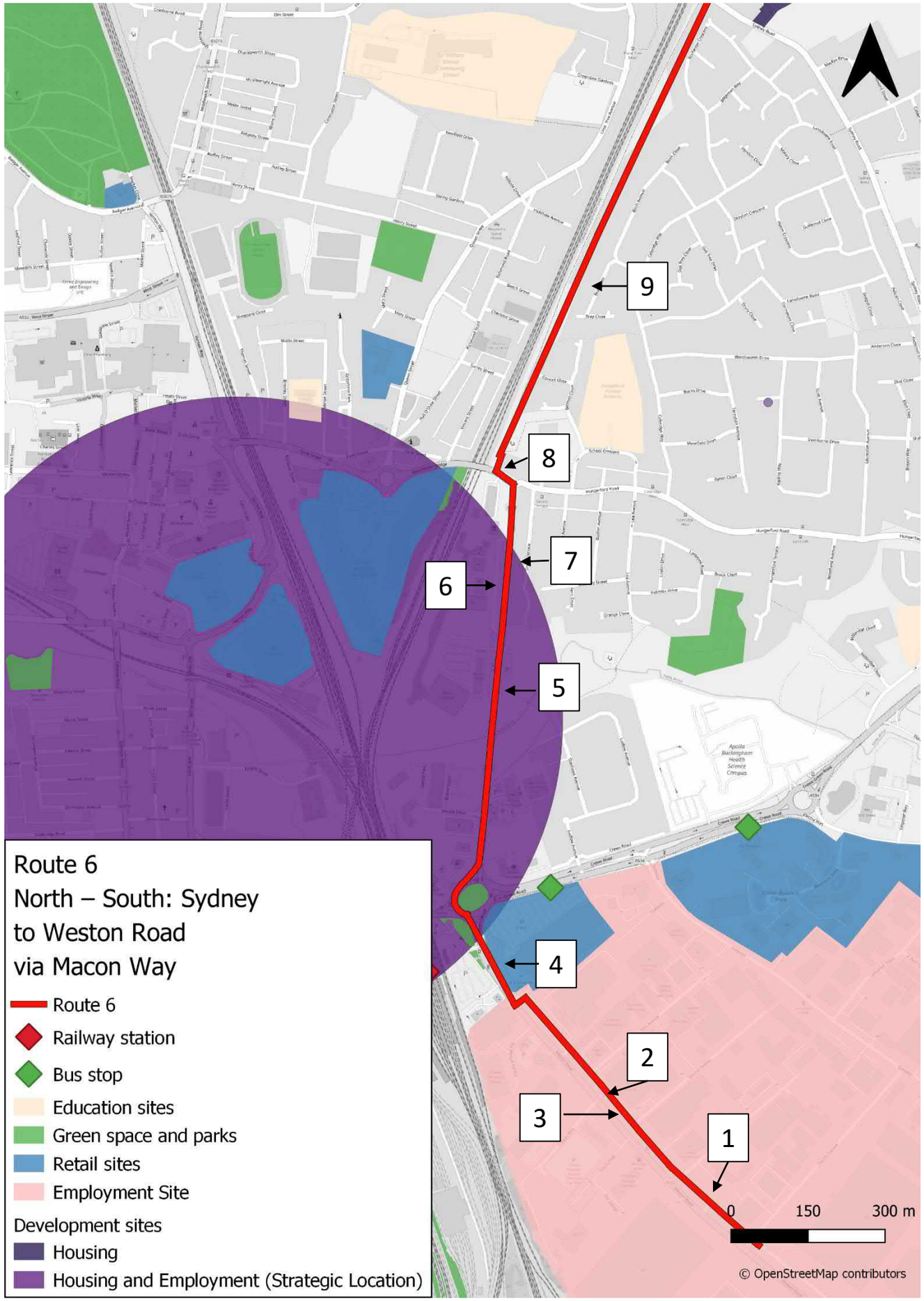
Ref	Location	Description of intervention
1	Somerville Street / Nantwich Road junction	Improved road markings at the junction and painted double yellow lines. Repair dropped kerb condition.
2	Somerville Street	Improvements to pavement surfacing to be considered as part of Highways maintenance programme. Look to address pavement parking which narrows width of pavement for pedestrians (360m).
3	Somerville Street / Lunt Avenue junction	Extend double yellow lines where feasible further down Lunt Avenue from junction to prevent cars parking and obstructing view.
4	Lunt Avenue	Maintain vegetation along Lunt Avenue. Improvements to pavement surfacing to be considered as part of Highways maintenance programme.
5	Ruskin Road	Improve condition of footpath and widen to 1.5m throughout (540m).
6	Alton Street / Walthall Street junction	Improve the condition of the pavement and dropped kerb at corner with Walthall Street.
7	Walthall Street	Considerable on-street parking also restricts movement, introduce single or double yellow lines to address this issue where feasible.
8	Wistaston Road	Footway width not wide enough to accommodate all footways users and may cause give and take. Widen footway to 1.5m (150m).
9	Dunwoody Way / Wistaston Road junction	Review crossing to better cater for pedestrians as this junction doesn't meet desire lines and requires multiple crossings. Implement a pedestrian crossing from Wistaston Road to Dunwoody Way.
10	Chester Street to Phoenix Leisure Park	Provide a sloped route between Chester Street and the Leisure Park to ensure accessibility for all. Widen steps to 1.5m (20m). Widen route parallel to Chester Street Car Park to 1.5m (45m).
11	Chester Street	Footway width is narrow, widen footway to 1.5m (80m).
12	Oak Street / Wistaston Road/ Edleston Road / Chester Bridge	Lengthen green man crossing time as these are currently short and removal of anti-pedestrian surfacing at the junction, such as pyramid pavers.
Link to LTN		• Consider feasibility and options for establishing a low traffic neighbourhood to improve streets and urban realm in these neighbourhoods and also provide key routes through to other parts on Crewe including the town centre, schools and Crewe Station.



Route 6 - North – South: Sydney to Weston Road via Macon Way

Interventions on Primary routes

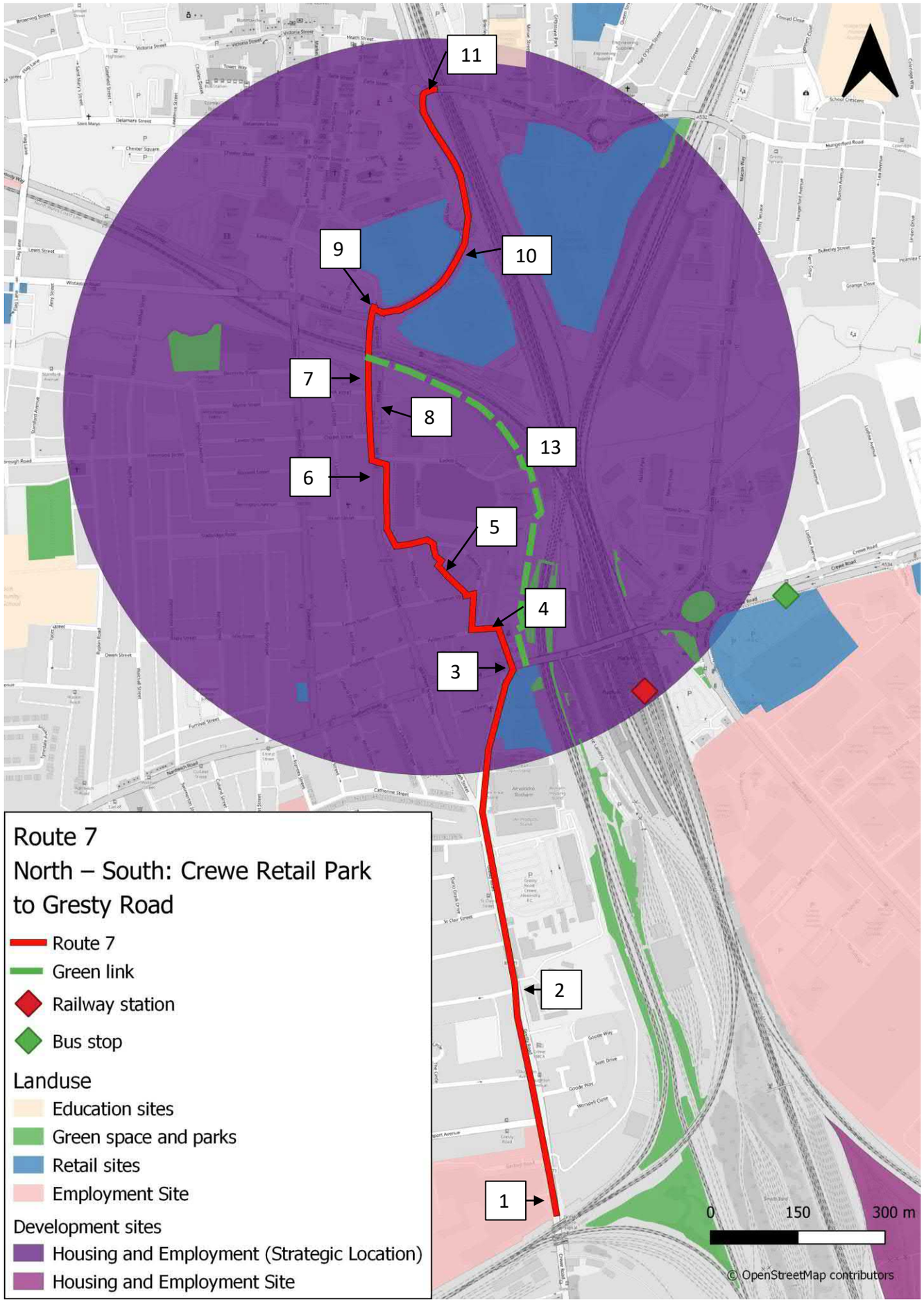
Ref	Location	Description of intervention
1	Weston Road Service Road	Improve dropped kerb quality as kerb tactiles could be improved and need maintenance.
2	Weston Road Service Road	Improve street furniture along Weston Road Service Road as there is adequate space to do so.
3	Weston Road	Widen footpaths to 1.5m throughout Weston Road on both sides of the road (approx. 600m).
4	Weston Road	Consider improvements to walking and cycling access to Crewe Hub developed as part of Crewe Hub workstream.
5	Macon Way	Improve vegetation maintenance throughout route to allow use of the whole width of shared pathway (750m x 2).
6	Macon Way Service Road	Improved dropped kerbs along Macon Way service road and widen footpath to 1.5m (180m).
7	Macon Way	Implement uncontrolled crossing of Macon Way to improve crossing facilities along the route.
8	Off road route parallel to the railway	Removal of bollards to allow access for all at both ends of the off-road route – Manchester Bridge and Sydney Road.
9	Off road route parallel to the railway	Vegetation needs to be managed on along the entire route.
Links to Cycle Route 7		• Tightening and priority pedestrian/cycle crossing at petrol station on Macon Way • 3 m shared unsegregated path on both sides of Macon Way • New toucan/tiger crossing providing dedicated crossing of Macon Way (just south of Total Fitness) • Dedicated crossings of A532 to access Sydney Road route
Links to Cycle Route 8		• Gateway feature widening access to better promote and improve perceptions of public safety of cycling trail from Hungerford Rd • Widen path to 3m where possible (route parallel to railway) • Lighting needed along path and environmental enhancement/landscaping (route parallel to railway) • Scheme to open up path to improve feelings of personal safety (route parallel to railway)
Links to Cycle Route 9		• Review Crewe Arms Roundabout with improved offer for pedestrians and cyclists – investigate improvements alongside scheme development conducted to support Crewe Hub, with emphasis on Crewe Arms and Tommy's Lane links. • High quality pedestrian/cycle route connecting from Nantwich Road to Weston Road Crewe Station entrance



Route 7 - North – South: Crewe Retail Park to Gresty Road

Interventions on Primary routes

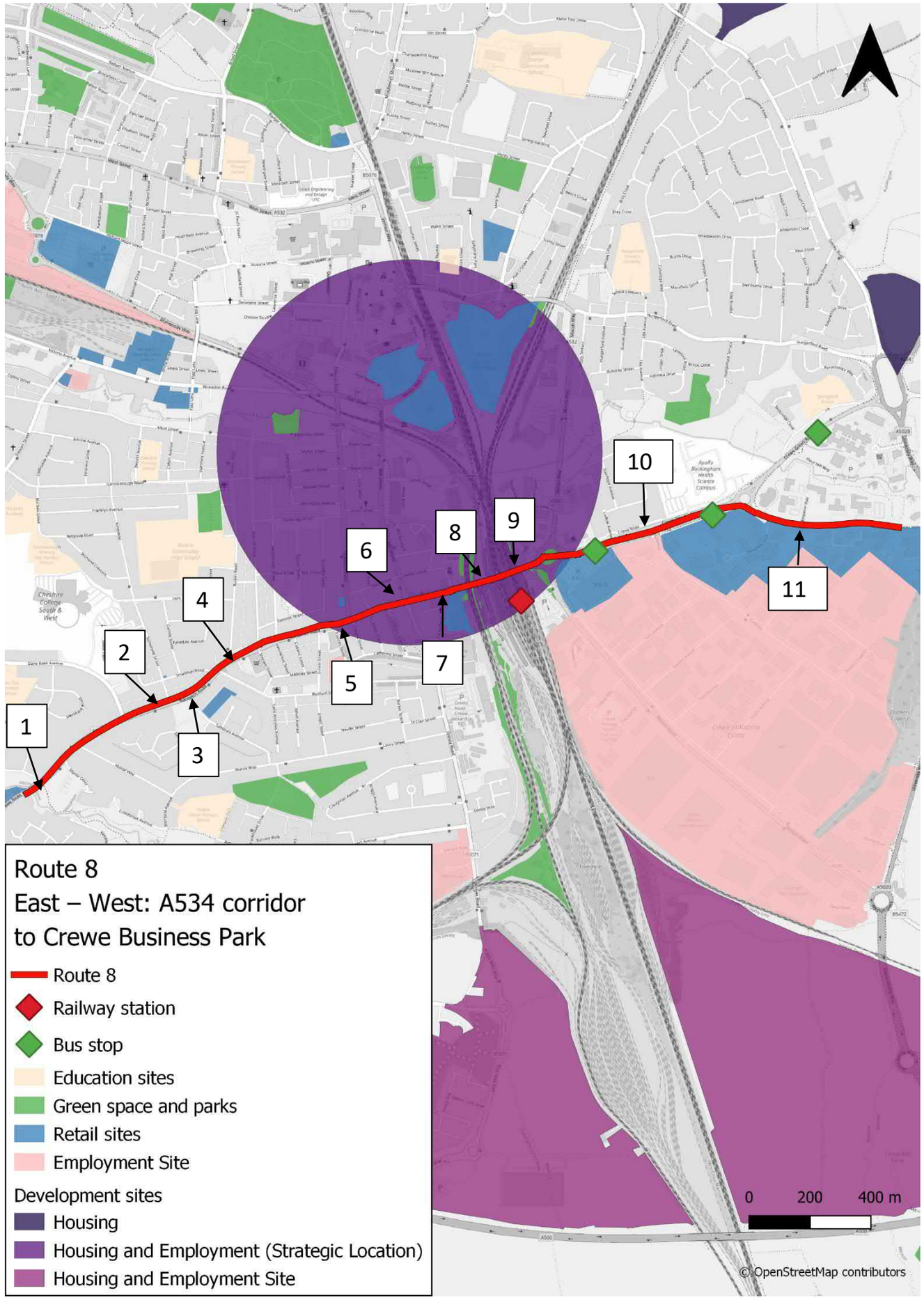
Ref	Location	Description of intervention
1	B5071 Gresty Road / Basford Road junction	Shift dropped kerb further along Basford Road as current dropped kerb forces users too close to traffic.
2	B5071 Gresty Road	Maintenance of pavement along Gresty Road as vegetation has overgrown onto the footway.
3	Nantwich Road/Pedley Street	Include an appropriate crossing facility at the junction to meet the north/south desire line to the town centre - suggested Toucan to link to Cycle Route 7.
4	Pedley Street, Railway Street	Widen footway to 1.5m to Waverley Court (190m) and improve footway surface between Pedley Street and Waverley Court.
5	Waverley Court	Ensure a 1.5m pathway (120m) through Waverley Court and removal of staggered barriers/railings and improve lighting.
6	Mill Street Footway	Improved lighting and street furniture along footway adjacent to Mill Street.
7	Mill Street (from Brook Street)	Improve dropped kerb quality, uneven and pavement needs to be in better quality for users (140m).
8	Mill Street crossing	Upgrade crossing to Toucan crossing (as this is a part of a cycle route) and lengthen green man time for crossing.
9	High Street/Vernon Way roundabout	Linking into the cycle route 7 intervention, provide zebra (1x) crossing for High Street arm and toucan crossings (3x) for other arms of the roundabout (Costed as part of Cycle Route 7)
10	Vernon Way	Management of vegetation encroaching on footway.
11	Memorial Square at Vernon Way roundabout	Narrow junction radius on Memorial Square approach arms; investigate scope to narrow approaches on other arms simplifying roundabout and slowing approaching traffic. Costed as part of Cycle Route 7.
12	Throughout	Improve wayfinding throughout the route.
13	Green Link between Nantwich Road and Mill Street	Green link consisting of a walking and cycling route and development (subject to feasibility, securing land and removal of long stay car parking).
Link to Cycle Route 7		• Nantwich Road / Pedley Street junction - gateway feature / entry treatment to aid wayfinding identifying main route to town centre • Lockitt Street - side road priority treatment with raised crossing • High Street / Vernon Way roundabout - scope to replace roundabout with pedestrian/cycle signalised crossings • Mill Street widened footway/shared pathway • Vernon Street - Widen access path to 3m to link into cycle parking at Tesco store access creating coherent network • Vernon Street/ Lyon Street - Tiger crossing on Lyon St arm of roundabout • Memorial Square at Vernon Way roundabout - Narrow junction radius on Memorial Square approach arms; investigate scope to narrow approaches on other arms simplifying roundabout and slowing approaching traffic.
Link to Cycle Route 4		• Gresty Road/South Street - Tighten junction improving visibility and reducing turning vehicle speeds • South Street/Gresty Road junction south – investigate feasability of preventing HGV traffic from travelling north towards Nantwich Road from Mornflake site



Route 8 - East – West: A534 corridor to Crewe Business Park

Interventions on Primary routes

Ref	Location	Description of intervention
1	Manor Avenue	Narrow junction mouth to minimise width required to cross the road.
2	Nantwich Road junction near Somerville Street, Nantwich Road between Bedford Street and Ruskin Road.	Upgrade crossings to Toucan crossings to support Cycle Route 5.
3	Nantwich Road/ Salisbury Avenue junction	Upgrade junction to provide pedestrian crossings points e.g. Puffin crossings.
4	A534 Nantwich Road / Ruskin Road junction	Narrow junction mouth and implement dropped kerbs to meet the desire line.
5	A534 Nantwich Road	Implement street furniture along high street of A534 Nantwich Road where pavement width allows this.
6	A534 Nantwich Road / A5019 Mill Street crossroad	Review green man time at the junction time to ensure users have sufficient time to cross.
7	Nantwich Road / Pedley Street	Linking to interventions in Walking Route 7, upgrade the junction to cater for east/west pedestrian movements.
8	Nantwich Road Bridge crossing	Linking to the intervention in Cycle Route 7 for a pedestrian/cycle bridge, upgrade and reposition the pedestrian crossing to a Toucan crossing. Reduce waiting time for pedestrians and cyclists to cross.
9	Nantwich Road / Crewe Arms Crossing	Investigate potential to realign the pedestrian crossing near Crewe Arms Hotel further towards the Crewe Arms roundabout to better cater for the desire line. Pedestrians will also benefit from improvements to Crewe Arms roundabout on cycle routes 3, 7 and 9.
10	Crewe Road	Improve vegetation clearance on Crewe Road to ensure the whole width of the shared pathway can be used. Costed as part of Cycle Route 3.
11	Electra Way	Widen footpath to 3m for a shared pathway (approx. 460m) which would also benefit cyclists.
Link to Cycle Route 3		• Upgrade existing substandard shared segregated paths on both sides of Crewe Road and remove segregation; investigate scope for provision of dedicated segregated cycle provision such as stepped cycle tracks or widening path to consistent 3m cycle track/shared unsegregated path on both sides with side road priority improvements along route. • Introduce a raised table at the Crewe Road junction with Ludlow Avenue, in addition to narrowing the junction mouth and widening the pavement here to 3m for pedestrians and cyclists. • Crewe Green Road roundabout at MMU - Install dedicated pedestrian/cycle signals on all arms to create coherent and safe route
Link to Cycle Route 5		• Nantwich Road from Smallman Road through to Pedley Street - some small scale improvements possible but wider network management needed to reduce vehicular traffic on this route • Investigate potential to bring eastbound cycle route back on carriageway before Broughton Road sideroad • Raised table at Broughton Lane junction
Link to Cycle Route 7		• Additional separate structure parallel to the railway with a shared cycling/walking pathway to be provided on Nantwich Road bridge • Review Crewe Arms Roundabout with improved offer for pedestrians and cyclists – investigate improvements alongside scheme development conducted to support Crewe Hub, with emphasis on Crewe Arms and Tommy's Lane links. • Gateway feature at Pedley Street/Nantwich Road junction



4.5 Example Infrastructure

The quality of infrastructure is fundamental to creating an environment which actively encourages walking and cycling. Information and examples are provided below for the types of walking infrastructure recommended in this LCWIP.

Puffin crossing (image source: Sustrans)

Abbey Road Zebra crossing (image source: BBC)

Continuous footway (Image source: Phil Jones)

Hornchurch Town Centre urban realm improvements and traffic calming (Image source: Jacobs)

Poynton urban realm improvement (Image source: Sustrans)

5. Network Planning for Cycling

5.1 Introduction

The key output of this stage is a Cycling Network Map which details the preferred cycling routes for future development and specific suggested infrastructure interventions. The Cycling Network Map provides a high-level overview of the preferred routes which should be considered for further development.

5.2 Network Plans

This section will set out the proposed cycle routes. They have been recommended based on an analysis of the information presented in preceding chapters of this report including information from the Propensity to Cycle Tool, stakeholder engagement and an awareness of existing infrastructure projects and growth in employment and housing. Investing in these routes as a priority is likely to have the biggest impact in achieving growth in cycling levels in the study area.

Illustrated in the figure below are the nine routes where it is recommended to undertake further investigation of existing and potential infrastructure to fully unlock the potential for cycling in the study area. Each of the lines is only illustrative and a number of options may be feasible on each route.

More detail will be provided over the coming pages on each of the individual routes as to why they have been selected, the potential they have and any key attractors that they pass.

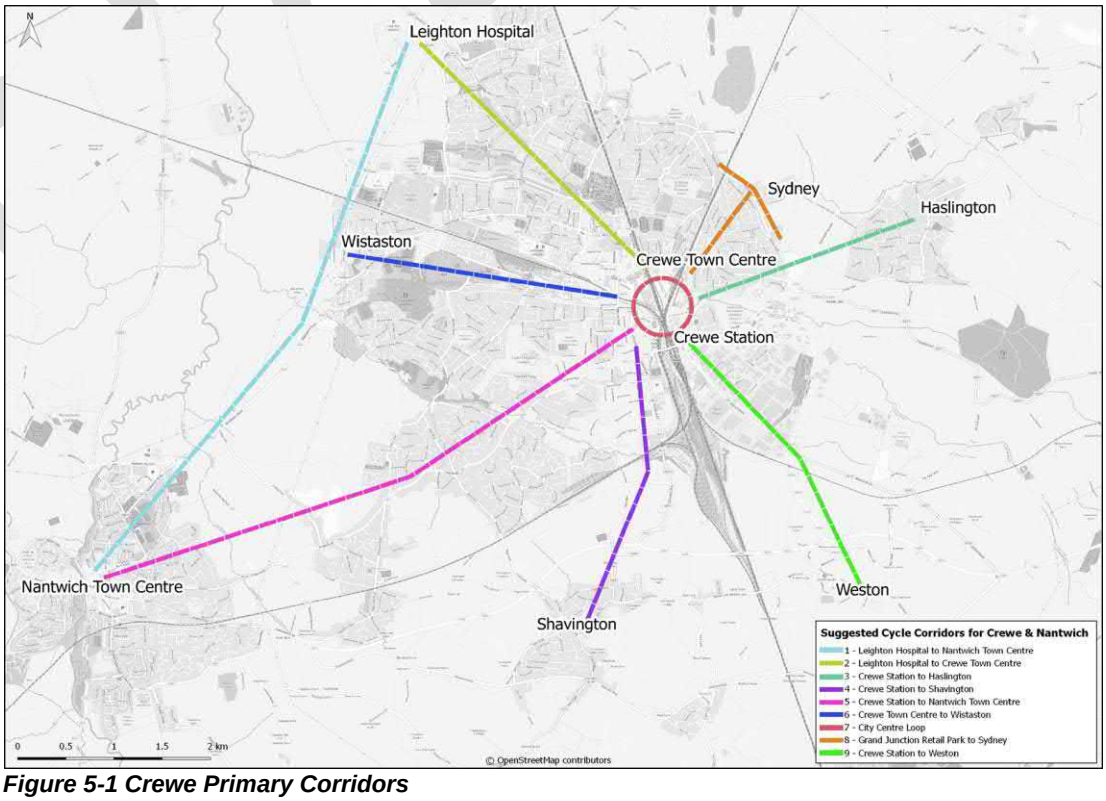
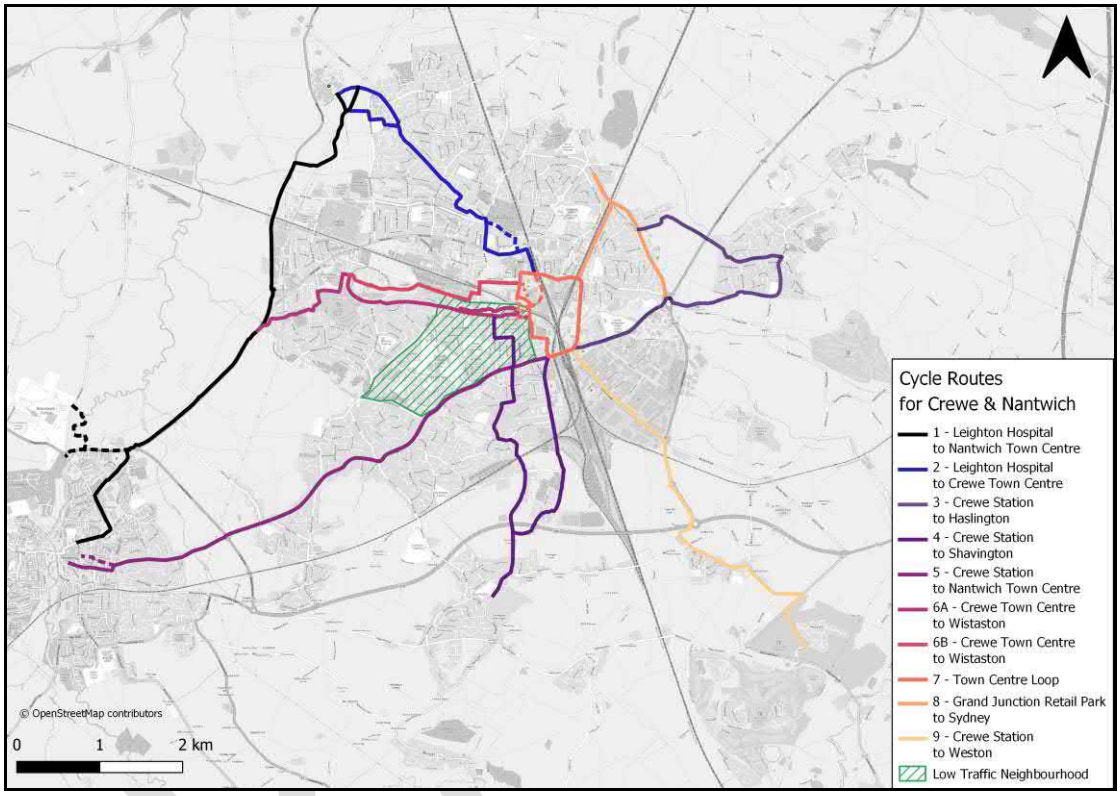


Figure 5-1 Crewe Primary Corridors

Each of the corridors presented in Figure 5-1 had a number of feasible route options, both direct and quieter alternatives, which were explored in detail through a desk-based study. A number of factors, including the Level of Service score for each

route were taken into account before finalising each of the routes – the Level of Service scoring is included in Appendix D. An overview of the routes is shown in Figure 5-2 below.

Figure 5-2 Recommended cycle routes



5.3 Establishing Cycling Infrastructure Improvements

The schemes set out in this section aim to deliver a high-quality cycling network in line with the LCWIP design objectives. Further feasibility and design work is required to understand in more detail opportunities, constraints and detailed costings alongside any impacts or benefits for stakeholders.

Interventions have been suggested that are aligned with national guidance and lessons learnt from delivery of previous active travel schemes. All schemes developed will be in accordance with the latest guidance - LTN 01/20 Cycle Infrastructure Design.

The proposed interventions are outlined in the following summary sheets and detailed maps and interventions below. The costs for the proposed interventions are outlined in Appendix F.

Crewe LCWIP Walking and Cycling Proposals

Proposed schemes within Crewe aim to improve connectivity across the town, including links between the town centre and Crewe Station and links to Nantwich. Some of the main schemes are highlighted below with more detail on the following slides.

A new cycle and walking route beside the A530, connecting with the existing off road cycle and pedestrian route between Nantwich and Crewe and linking to the North West Crewe development area and Leighton Hospital.

Enhanced cycle facilities on Vernon Way and West Street to improve safety on this route.

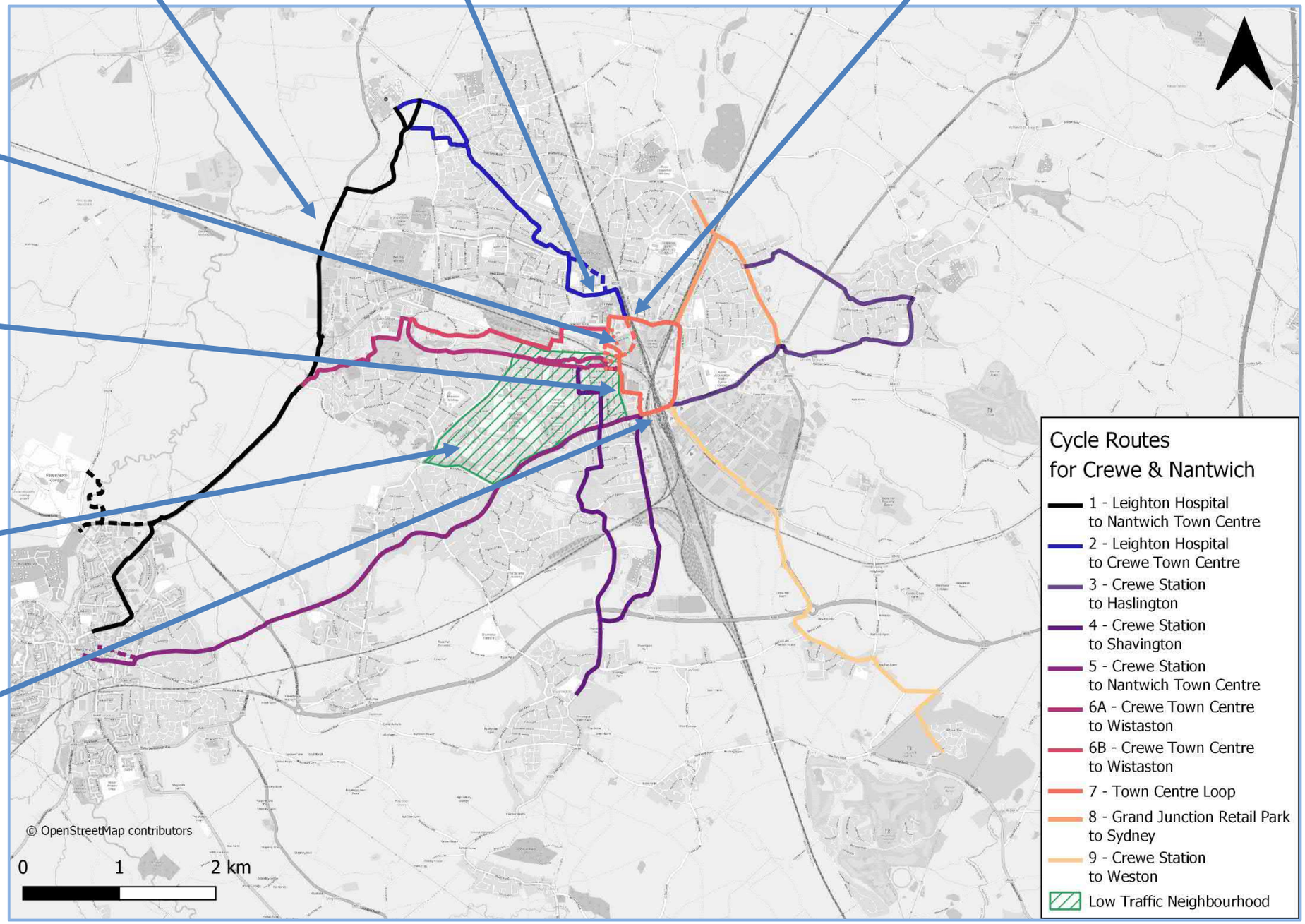
Improvements on the route from the town centre to Grand Junction Retail Park, including provision of a new bridge structure dedicated to cyclists and pedestrians parallel to the Earle Street bridge.

Route connecting from High Street / Vernon Way roundabout towards the town centre routing past the Leisure Centre as part of regeneration proposals for the area.

Mill Street Corridor – provision of a green link connecting from Nantwich Road towards the town centre and enhanced route under the railway bridge.

Consider feasibility and options for 20mph speeds limits at various locations and improved urban realm.

As part of the Crewe Station works, an additional separate structure parallel to Nantwich Road across the railway is planned with high quality segregated cycling/walking routes.



Route 1: Leighton Hospital to Nantwich Town Centre

Route summary

This route would close a gap in existing provision by extending the Crewe to Nantwich Greenway in the North to Leighton Hospital and in the south to Nantwich Town Centre and upgrade an existing commuter and leisure route while also connecting future developments.

Interventions Overview

High Estimate: £2,490,873
Low Estimate: £1,907,353

The minor interventions that are recommended, mostly junction upgrades , public realm improvements and traffic management measures in Nantwich and Wistaston. Medium schemes consist of new and upgraded cycling facilities and crossing facilities in Leighton West and Nantwich. Major interventions include new cycle paths on the Nantwich Bypass and Middlewich Road, as well as an upgrade of the Alvaston roundabout.

Benefits

High BCR (high demand, low cost) – 6.56

Low BCR (low demand, high cost) – 3.87

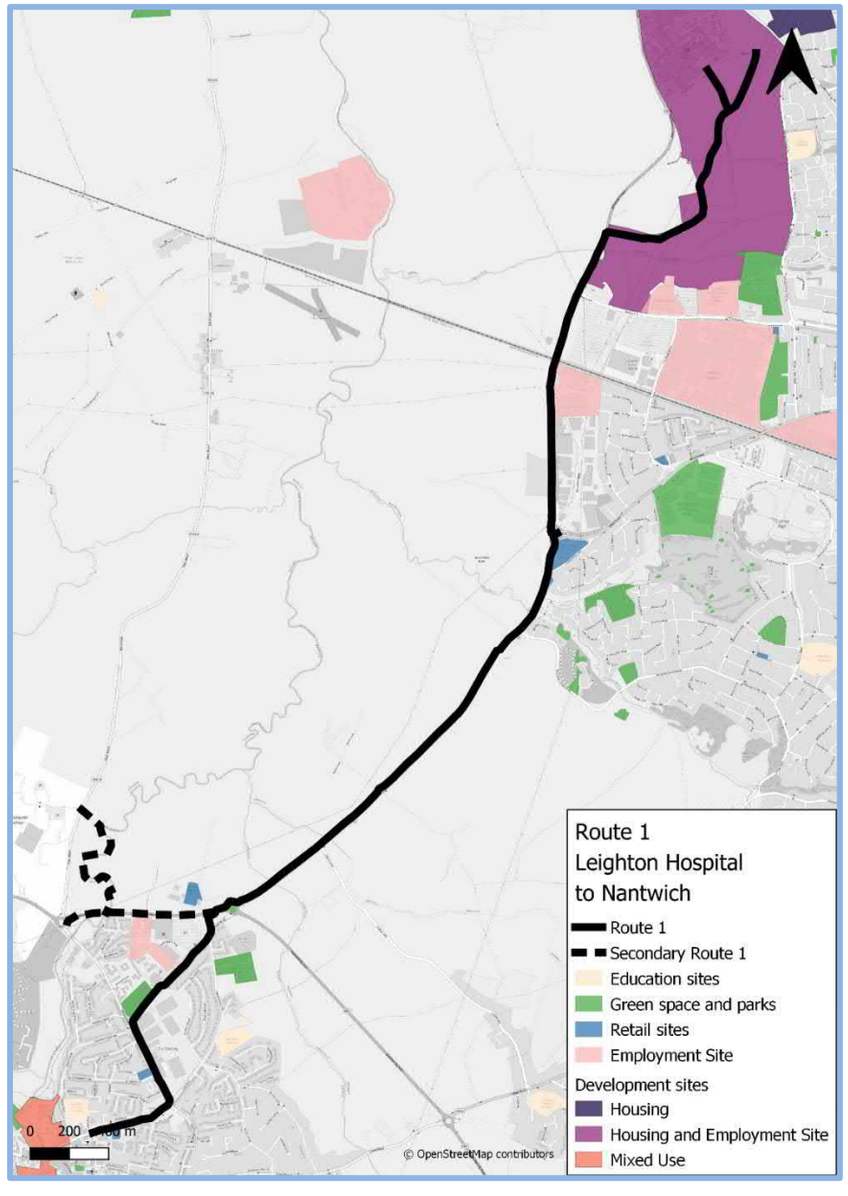
Level of Service

Level of service	Existing (score/max score)
Cohesion	2/6
Directness	8.5/10
Safety	9/16
Comfort	4.5/8
Attractiveness	4.5/10
Total	28.5/50

The strategic case

This route would support existing commuting patterns from Nantwich to Crewe, in particular to Bentley Motors and Leighton Hospital. The route would also connect the new Leighton West residential development. In addition, the suggested route would support future economic growth as it passes the proposed employment sites south of Leighton West and north of Bentley.

The Crewe to Nantwich Greenway is an existing leisure and commuting route which would see the northern and southern parts upgraded.
Moreover, the route would provide safer routes to three schools in Nantwich and Leighton and form part of routes to Reaseheath College north of Nantwich. As a direct route between residential areas and major employers and service centres, the route has the potential to shift traffic from the roads, especially Middlewich Road (A530).



Route 2: Leighton Hospital to Crewe Town Centre

Route summary

This route links the north western part of Crewe to the town centre. It starts at Leighton Hospital, passes through footpath FP19 until the Badger Ave./Broad St. intersection, continues along Broad St., West St. and finishes on Vernon Way/Earle St. roundabout, where it joins with the proposed Route 7.
The northern part of the route will be developed as part of the new Leighton West residential development masterplan. Currently most of the route follows a footpath with sufficient space for improvements. It is interrupted in some points where crossing facilities needs to be provided. The last section passes through a denser commercial area with less space for interventions.

Interventions Overview

High Estimate: £1,730,550
Low Estimate: £1,558,401

The majority of the recommended interventions are medium cost schemes with most of these being new cyclist crossings and some new or upgraded cycling facilities, and lighting schemes. There are also some minor and major interventions, however these are limited.

Benefits

High BCR (high demand, low cost) – 2.32

Low BCR (low demand, high cost) – 1.46

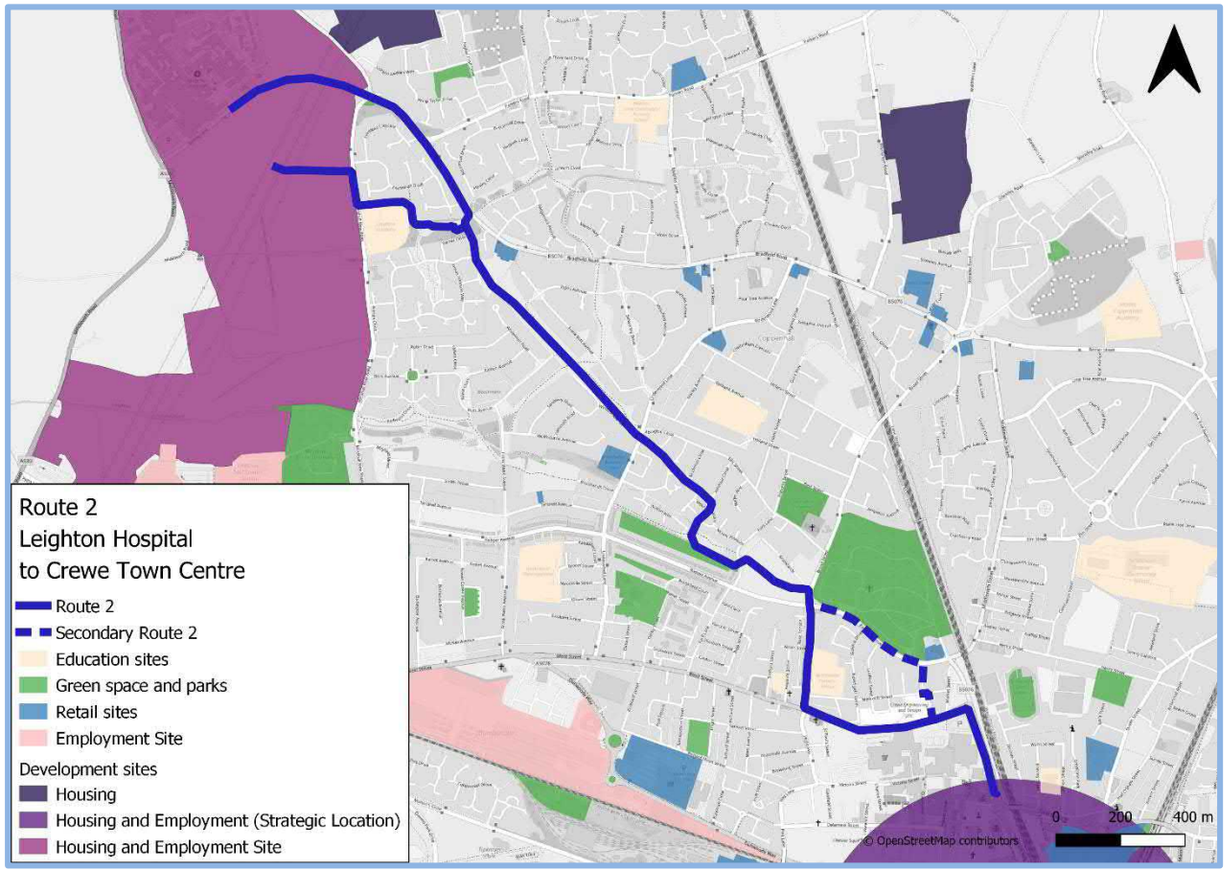
Level of Service

Level of service	Existing (score/max score)
Cohesion	3/6
Directness	7/10
Safety	8.5/16
Comfort	4.5/8
Attractiveness	3/10
Average	26/50

The strategic case

By providing a direct link between Leighton Hospital and the town centre, this route would support existing commuting patterns from the residential area in the north western part of the town to Leighton Hospital and to the town centre. It will also link the new residential area of Leighton West directly to the town centre, thereby encouraging cycling as a mode of travel to the town centre, education, employment and shopping opportunities.

The route also passes through a relatively deprived area close to the town centre, increasing accessibility where it might constitute a barrier to employment.
As the majority of the route passes through a green corridor with few interruptions, the route has the potential to be used as leisure route.



Route 3: Crewe Station to Haslington

Route summary

This route connects Crewe to Haslington and consists of two different sections. The first starts at the Crewe railway station, following Crewe Green Road through to Bradeley Road in Haslington. The second section connects Haslington with Sydney, via Bradeley Hall Road.

Cycling infrastructure only exists along Crewe Green Road, and interventions would be necessary eastwards of Crewe Green Roundabout and throughout Haslington, as well as an upgrade of Bradeley Hall Road and the bridle path connecting the latter to Sydney.

Interventions Overview

High Estimate: £1,714,920
Low Estimate: £1,270,784

A majority of the minor interventions are traffic management and public realm improvements in Haslington. Medium cost schemes include particular junction upgrades and cycling path provision in Crewe Green and Haslington. Major interventions include new upgraded cycling lanes in Crewe.

Benefits

High BCR (high demand, low cost) – 2.80

Low BCR (low demand, high cost) – 1.65

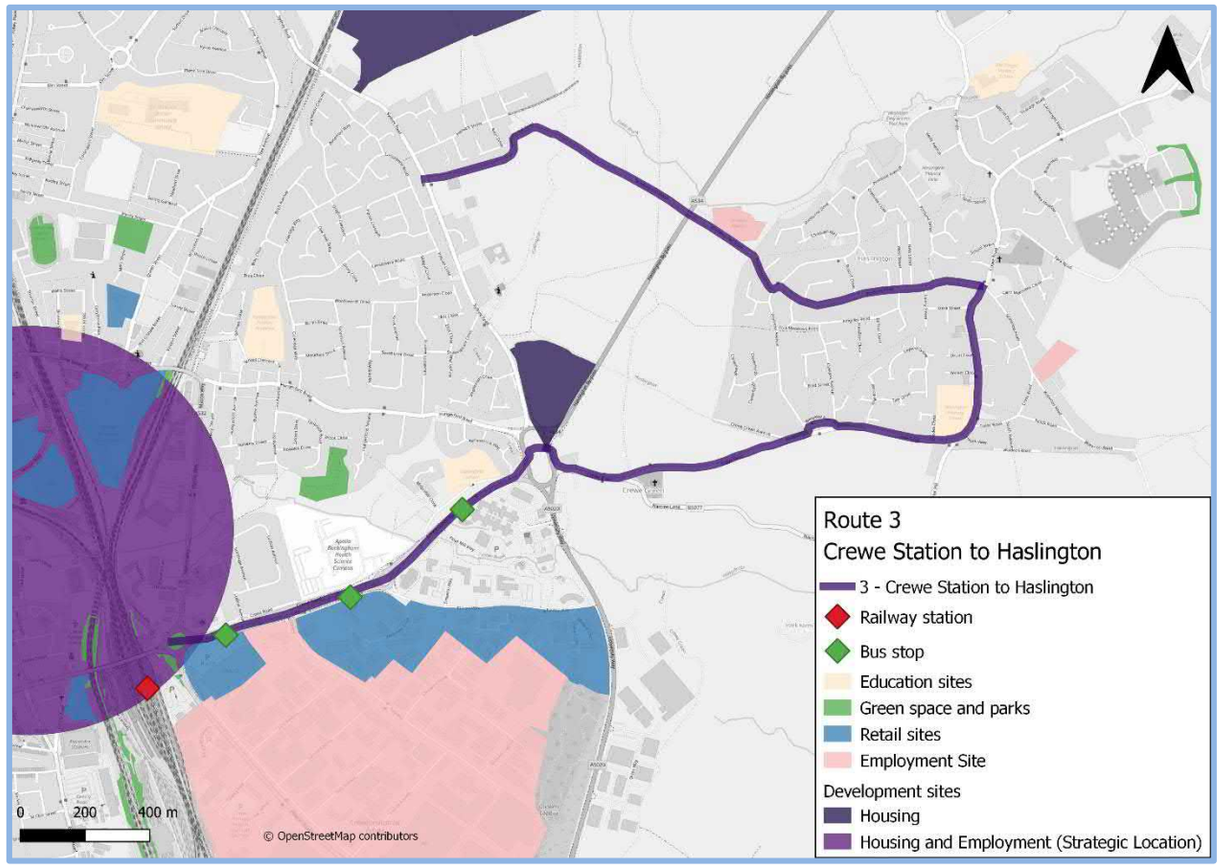
Level of Service

Level of service	Existing (score/max score)
Cohesion	2.5/6
Directness	7.75/10
Safety	8.25/16
Comfort	3.75/8
Attractiveness	4.5/10
Average	26.75/50

The strategic case

This route would establish a direct cycle link between Haslington and Sydney and support commuting patterns from Haslington to the Crewe station, thereby also fostering multimodal journeys. The section linking Haslington to Sydney would likely see increased use for leisure purposes, whilst also creating a largely car-free corridor to the town centre and the northern part of Crewe.

The interventions proposed will aim to address some safety issues in particular along Crewe Green Road and Crewe Road, making it safer and more convenient for cyclists.



Route 4: Crewe Station to Shavington

Route summary

This route links Crewe station to Shavington. It is made of two sections, the first along Gresty Rd, following new cycling infrastructure along Jack Mills Way and then going into Shavington through Crewe Rd. The second section starts at the intersection between Crewe Rd and the B5071 and follows and alternative route to Gresty Rd, passing through the residential area south of Nantwich Rd going along Brookhouse Dr and Ernest St. It then crosses Nantwich Rd and links up with route 6, providing a connection to the town centre.
Currently Gresty Rd, with its high levels of traffic, and HGV share, narrow lanes and poor pavement condition, constitutes a very unattractive cycling route. The new section on Jack Mills way is equipped with high quality facilities on both sides. The section of the route which goes through Brookhouse Dr and Ernest St is mainly residential, with a high number of cars parked on the side of the road and no existing cycling infrastructure.

Interventions Overview

High Estimate: £3,190,506
Low Estimate: £2,410,380

A majority of schemes on this route are minor schemes in the form of public realm improvements and traffic management measures. For medium cost schemes, junction upgrades and a new cycling facility are recommended in Shavington.

Benefits

High BCR (high demand, low cost) – 1.47

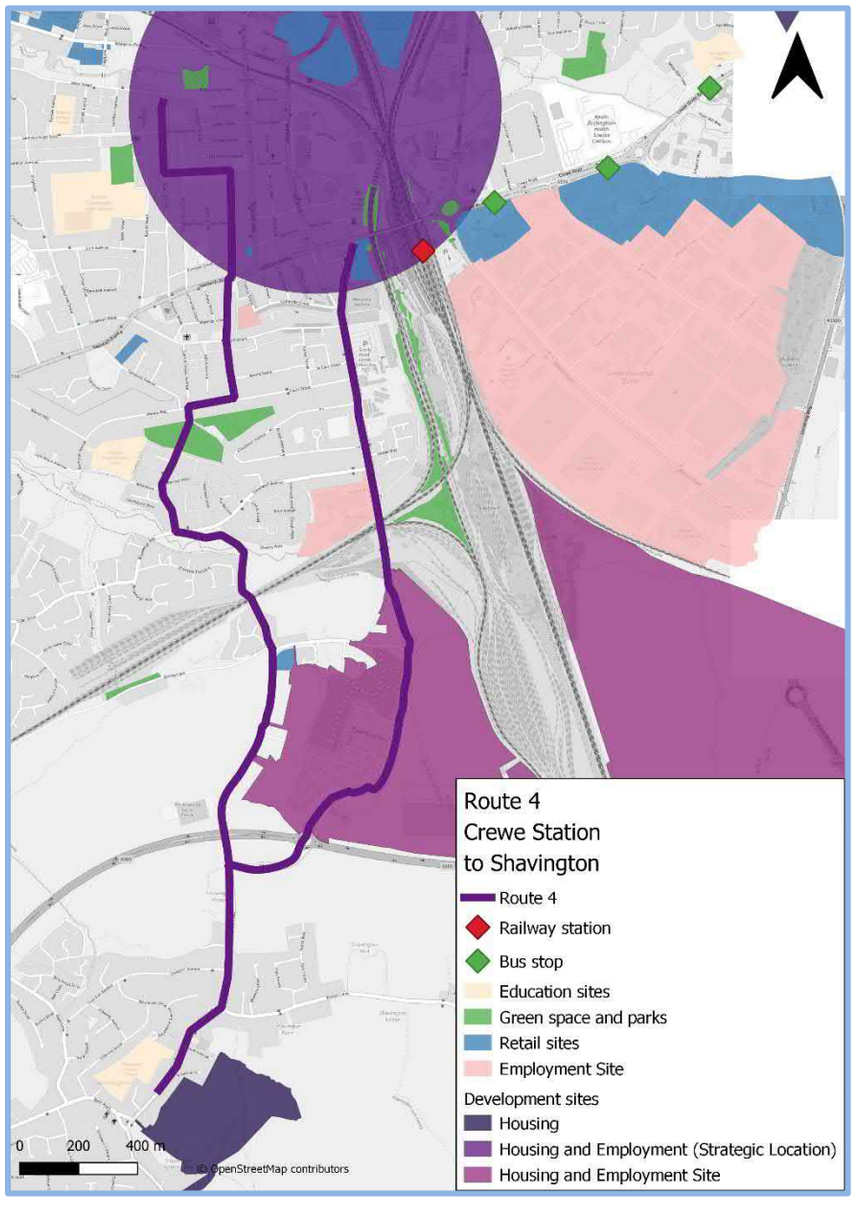
Low BCR (low demand, high cost) – 0.82

Level of Service

Level of service	Existing (score/max score)
Cohesion	1.5/6
Directness	6/10
Safety	6.75/16
Comfort	3.75/8
Attractiveness	4.5/10
Average	22.5/50

The strategic case

This route will strongly support the new developments in Basford West by making it accessible for cyclists and linking it to the station and town centre, enabling commuters to cycle to work. In the process, it will create new interchange opportunities with the railway station.
Moreover, the will provide a safer route to education, employment and services in Crewe for residents of Shavington. In particular, this route would allow students living in Shavington and the southern residential areas of Crewe to access secondary schools and colleges more safely.
The route will help address the high number of accidents along Gresty Rd and positively impact on the high levels of pollution around Nantwich Road and contribute to a reduction in car use on the corridor from Gresty Rd to Shavington.



Route 5: Crewe Station to Nantwich Town Centre

Route summary

This route links Nantwich town centre to Crewe railway station. It starts on Hospital Street in Nantwich and then goes along Crewe Rd, crossing the Nantwich Bypass and following the main road through Nantwich Rd until Crewe railway station. Currently there is provision of a narrow advisory lane all along Crewe Rd/Nantwich Rd with a feasibility study required to investigate options to reallocate highway space. The section of Nantwich Rd closer to the Railway station is highly commercial and congested, with cars parked on the sides of the road.

Interventions Overview

High Estimate: £1,757,544
Low Estimate: £1,421,641

Minor interventions include traffic management and wayfinding measures. Medium cost schemes include junction upgrades and upgraded cycling facilities such as upgrades to Peacock roundabout to make it safer for cyclists.

Benefits

High BCR (high demand, low cost) – 1.48

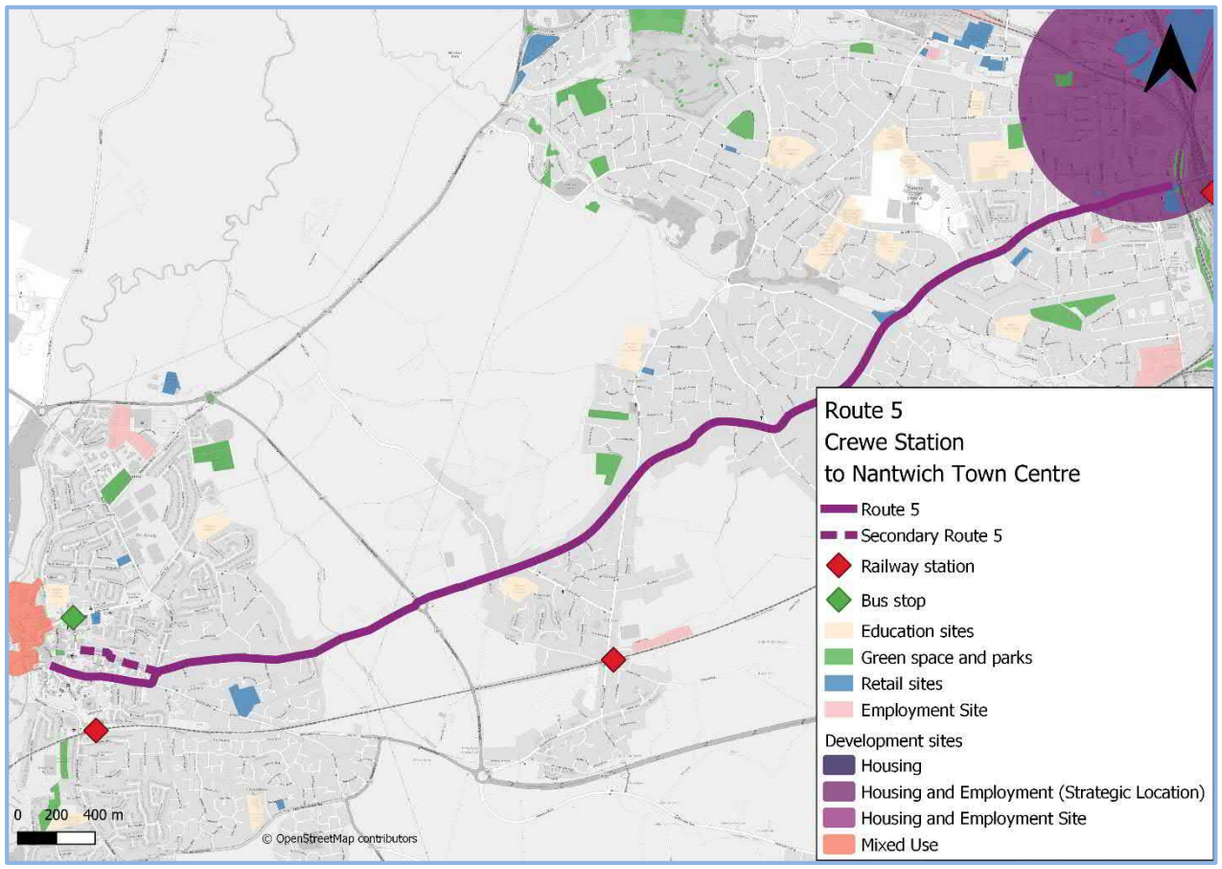
Low BCR (low demand, high cost) – 0.89

Level of Service

Level of service	Existing (score/max score)
Cohesion	1/6
Directness	5/10
Safety	6/16
Comfort	3/8
Attractiveness	4.5/10
Average	19.5/50

The strategic case

This route is the main corridor linking Nantwich to Crewe. It will support daily commuting patterns not only between Crewe and Nantwich but also from the south western residential areas to the employment centres of Crewe. As a further benefit, it will increase the interchange opportunities for users living along the route by connecting them to the railway station.
The interventions will help to reduce the high number of accidents involving cyclists especially in the section within Crewe closer to the town centre and Crewe station, which also shows higher level of deprivation and air pollution.
The route will also facilitate access to education, serving the South Cheshire College and a number of primary and secondary schools in its proximity.



Route 6: Crewe Town Centre to Wistaston

Route summary

This route links the town centre with the western part of the town and the proposed route 1. It starts at the Coppenhall Ln/Middlewich Rd roundabout, crosses the King George V playing field. The route then splits into two parts:

- One follows Alton St up to Electricity St and Brook St, with an option for an off road route via Valley Brook.
- The second continues via Tipkinder Park – Wistaston Road and Flag Lane through to Chester Street.

The initial part of the route suffers from high level of traffic and frequent accesses from the side roads. The section up to the beginning of Alton St has big open spaces and needs minor interventions. The long stretch of Alton St/ Electricity St and Brook St is quite narrow with car parked along the sides and a frequent number of intersections with side roads.

Interventions Overview

High Estimate: £871,461
Low Estimate: £805,304

Minor cost schemes on this route mostly consists of streetscape improvements on road. Other interventions include improving the quality of the Connect 2 route through the park. There is also potential for an off road route through Valley Brook area.

Benefits

High BCR (high demand, low cost) – 6.23

Low BCR (low demand, high cost) – 4.31

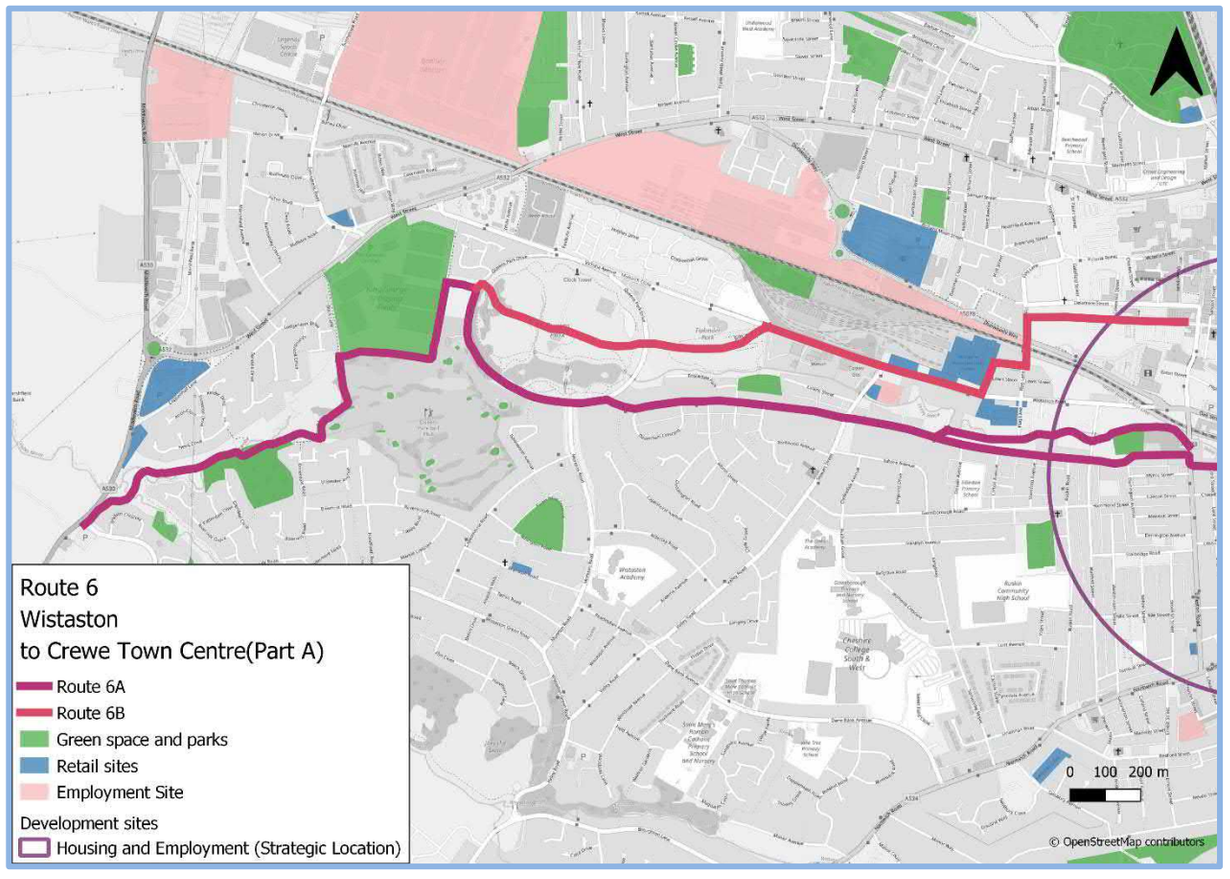
Level of Service

Level of service	Existing (score/max score)
Cohesion	2.8/6
Directness	7/10
Safety	7/16
Comfort	3.3/8
Attractiveness	5/10
Average	25/50

The strategic case

This route will provide a route coming from Middlewich Road to the town centre, the west/east flows to Bentley Motors and the leisure trips to the King George V playing field as well as Queens Park.

The interventions will further help to reduce the number of accidents on the road and will help mitigate the high deprivation to which the eastern areas close to the town centre are subject to. Furthermore, the route in the section closer to the town centre, passes close to an AQMA and will provide an important contribution to improve local air quality in the affected area.



Route 7: Town Centre Loop

Route summary

This route forms a loop that covers the central area of the town, from Crewe railway station to the Grand Junction Retail Park, the War memorial and closing the loop again at Crewe station.

From the station the route goes along Macon Way, then Earle St, it passes through the pedestrian area in Market St and reaches Mill St where after a short stretch of off road path it crosses the car park and ends at the railway station.
Currently, cycling infrastructure is provided on the eastern part of the loop north of Crewe Station. However, several interventions are necessary to create a coherent route and space for intervention is particularly limited in the northern sections and on the station approach.

Interventions Overview

High Estimate: £9,310,967
Low Estimate: £7,237,660

Medium schemes on this route are mostly junction improvements and pathway improvements. This route includes improved facilities between the station and town centre. A number of major schemes are included such as a pedestrian/cycle bridge at Earle Street bridge and an improved facility at Nantwich Road bridge.

Benefits

7a - Nantwich Road to town centre section
High BCR (high demand, low cost) – 3.08
Low BCR (low demand, high cost) – 1.25

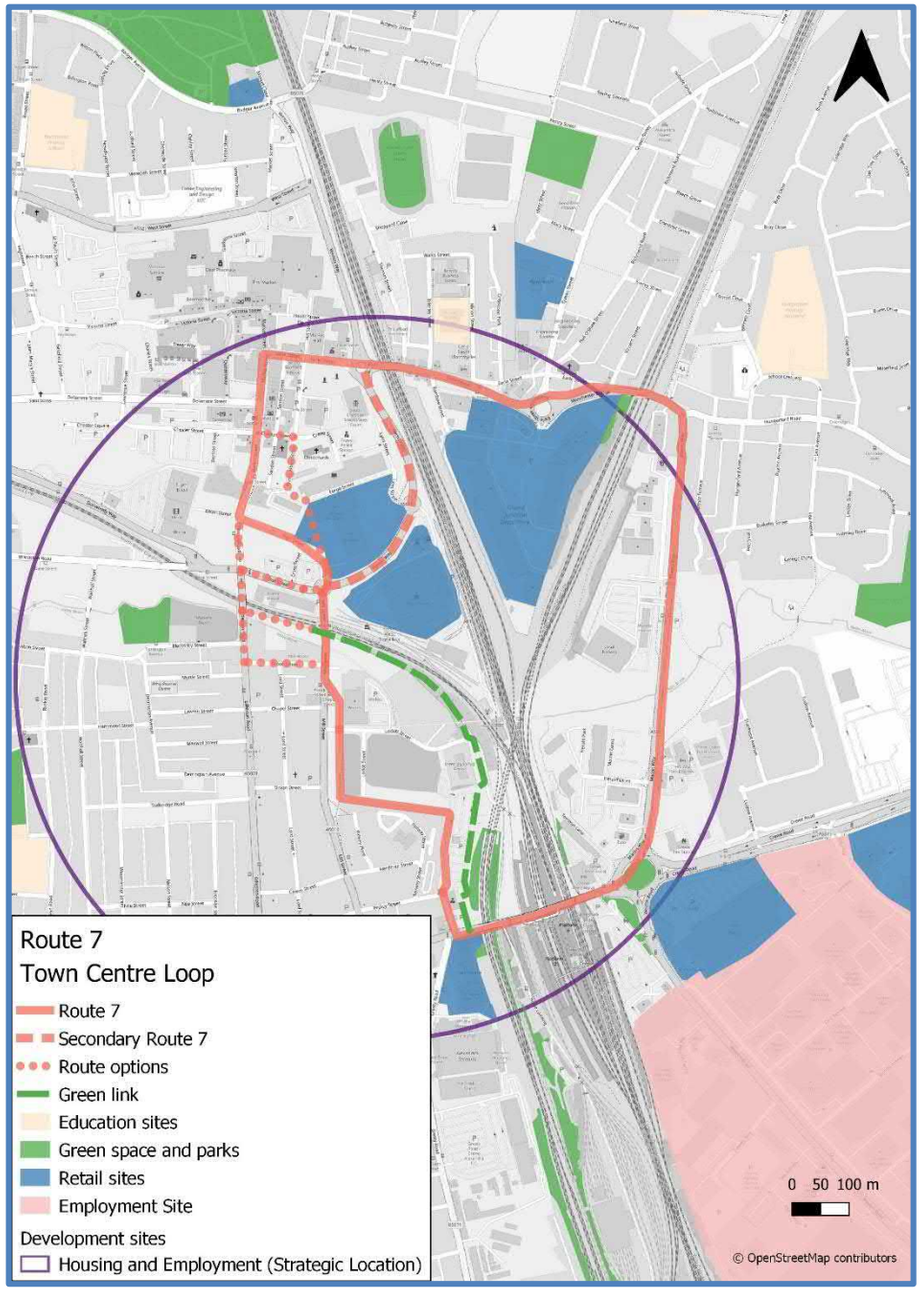
7b - Earle St – Manchester Bridge – Macon Way
High BCR (high demand, low cost) – 2.12
Low BCR (low demand, high cost) – 1.23

Level of Service

Level of service	Existing (score/max score)
Cohesion	3/6
Directness	4.5/10
Safety	7/16
Comfort	4/8
Attractiveness	5/10
Average	23.5/50

The strategic case

This route will be used as a connection from the railway station to the town centre but will also connect all other areas of the proposed route. Besides, this route will maximise interchange opportunities due to the link between the railway station and the town centre and the connection with the bus station.
The proposed interventions will improve safety along the route and will improve also the air pollution in the area and create a coherent route connecting other transport hubs, service and shopping opportunities. The overall value of this route consists not only in the connection between town centre, retail park and bus and railway station but also in the fact that it is the connecting element for all other routes, making the loop the core of the cycling route network.



Route 8: Crewe Station to Sydney

Route summary

This route is made up of two sections in a T-shape. The first starts at the Manchester Bridge/Macon Way roundabout, and follows a pathway north along the railway line up to Sydney road bridge, the second is perpendicular to this and covers Sydney Road from Elm Drive in Maw Green down to Crewe Green Roundabout in the south east.

The first section is has been transformed into a cycle path in recent years, yet requires some additional interventions. The perpendicular section does not feature any dedicated facilities and would need the creation of an off-road path alongside Sydney Road.

Interventions Overview

High Estimate: £1,728,705
Low Estimate: £1,403,110

Minor works on this route include converting and connecting existing paths as well as public realm improvements and gateway features. Medium schemes include new or upgraded cycling paths and new dedicated crossings.

Benefits

High BCR (high demand, low cost) – 1.95

Low BCR (low demand, high cost) – 1.19

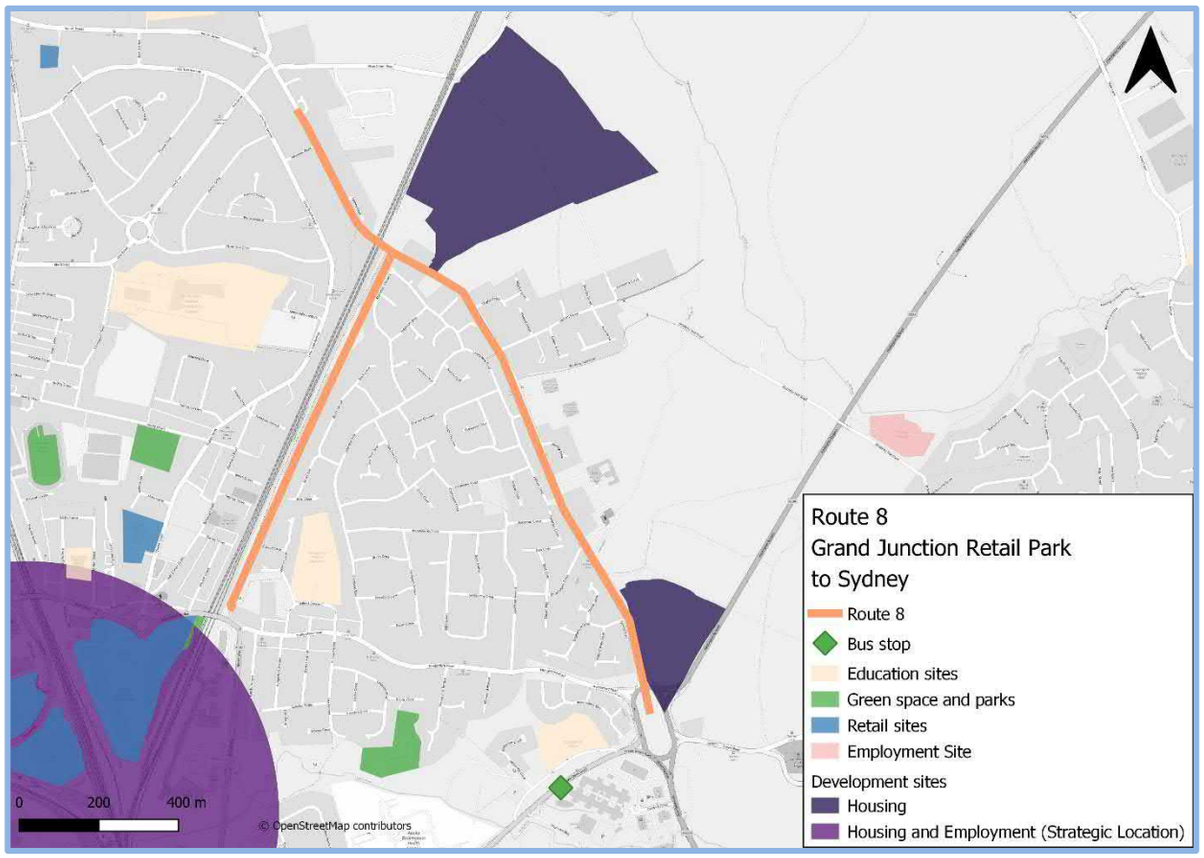
Level of Service

Level of service	Existing (score/max score)
Cohesion	2.25/6
Directness	8.5/10
Safety	9.25/12
Comfort	4.75/6
Attractiveness	5/8
Average	29.75/50

The strategic case

This route will create a link from the northern residential areas north of Sydney Road and the Grand Junction Retail Park as well as other commercial areas and the town centre. Moreover, it will provide an extension of route 3 to Haslington, thus creating a direct link from Haslington and the north eastern residential areas to the centre of Crewe. It will have mainly an educational and service purpose due to the presence of schools and the retail park in the proximity but it will also improve commuter trips from Haslington and the north-eastern residential areas to the key employment centres in the town centre and business parks.

The route will also help in reducing the number of accidents especially on Sydney Rd and provide safer and off-road journeys to at least three schools nearby.



Route 9: Crewe Station to Weston

Route summary

This route links the Crewe Railway station to Weston, passing through Weston Rd, following on David Whitby Way and crossing an overpass and continuing onto Cemetery Road in Weston.

Currently the section that goes along Weston Rd passes through the parallel service road divided by a large green space. This section is highly used by HGVs coming from and to the industrial area. On David Whitby Way, a new cycling facility on both sides is provided. After the A500 overpass the route follows a quieter rural and narrow road with less intervention options.

Interventions Overview

High Estimate: £1,763,919
Low Estimate: £1,276,021

Four minor works such as traffic management, wayfinding and public realm improvements are suggested, a majority of these are located in Basford East and Weston. Medium schemes are recommended along Weston Road and the Nantwich Road/Weston Road roundabout. Major schemes include junction upgrades to better incorporate cyclist movements.

Benefits

High BCR (high demand, low cost) – 2.20

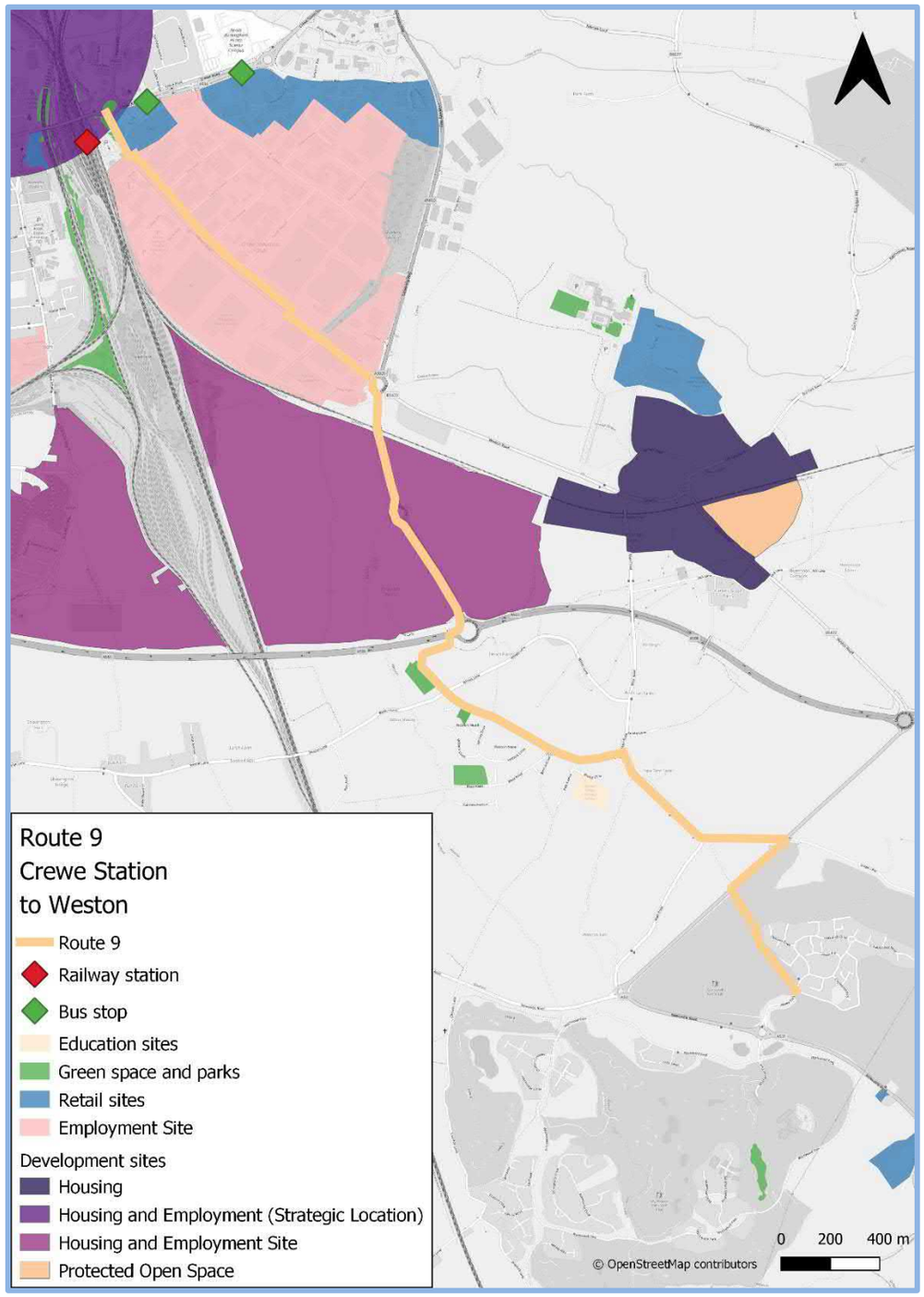
Low BCR (low demand, high cost) – 1.16

Level of Service

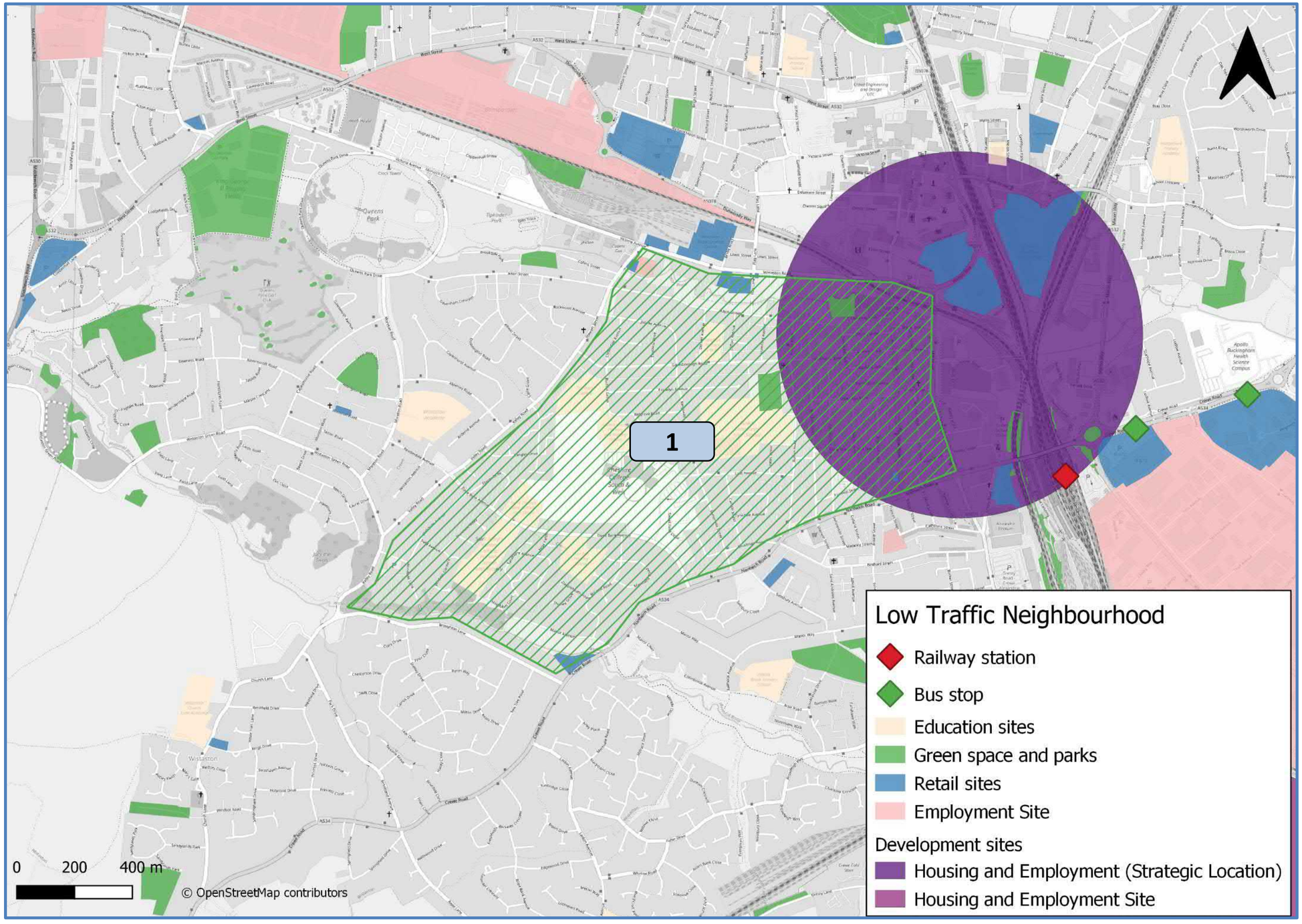
Level of service	Existing (score/max score)
Cohesion	1.5/6
Directness	6.5/10
Safety	6.5/16
Comfort	4.25/8
Attractiveness	4.25/10
Average	23/50

The strategic case

The suggested route 9 would provide a safer route for commuters living in Weston and those that want to access the town centre and Crewe station. In addition, it will connect the Basford East development sites which constitute a major future employment and residential area to the town centre and station as well as other residential areas, without the need to use a car. It will likely serve mostly as a commuter route and to access local service and commercial centres, but would also provide a cycling link to secondary and tertiary education.



Low Traffic Neighbourhood



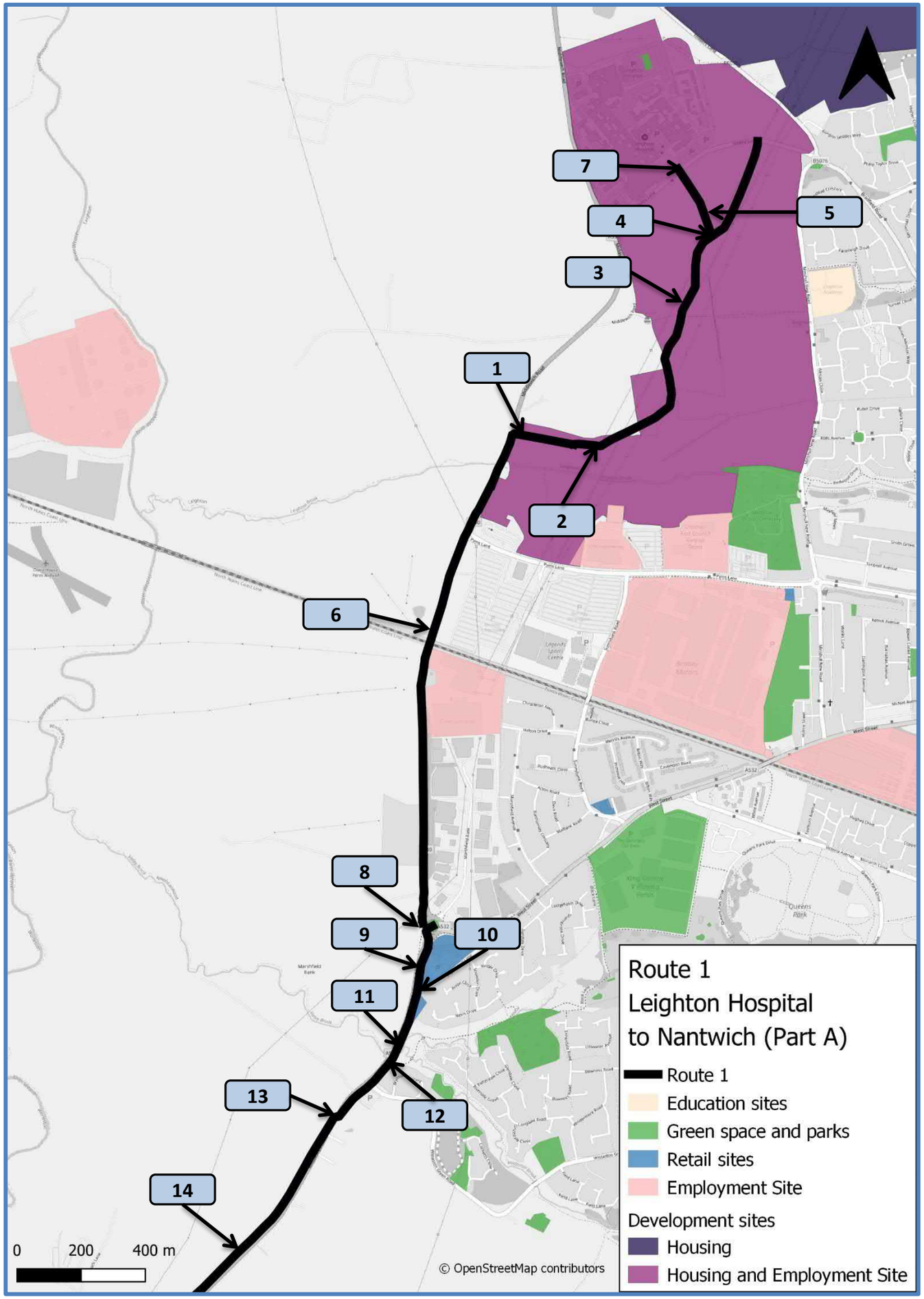
Interventions

Ref	Location	Description of intervention
1	Low Traffic Neighbourhood (LTN)	Consider feasibility and options for establishing a series of LTNs within the proposed area above to improve streets and urban realm in these neighbourhoods and also provide key routes through to other parts on Crewe including the town centre, schools and Crewe Station.

Route 1 – Leighton Hospital to Nantwich (Part A)

Interventions on Primary routes

Ref	Location	Description of intervention
1	Middlewich Road (A530), approx. 300m north of Pyms Lane junction	New central refuge crossing point of Leighton Link Road to connect cycle facilities.
2	Link road between Middlewich Road (A530) and southern Leighton Link Road roundabout	New off-road walking / cycling facility along the Leighton Link Road (approx. 250m).
3	Off-road link between the suggested Middlewich Road (A530) /Leighton West Link Road north of the planned Bentley expansion site up to the proposed pub site next to the Smithy Lane roundabout	New off-road shared walking / cycling trail through fields (approx. 1100m).
4	Intersection between off-road trail and new Leighton West Link Road	Provide dedicated crossing facilities for cyclists to connect both sides of the off-road link.
5	Between the crossing and Leighton Hospital access	New off-road walking / cycling facility along the new Leighton West Link Road (approx. 250m).
6	Middlewich Road (A530) between Leighton Hall Farm and Coppenhall Lane	Committed scheme already being taken forward for delivery between Coppenhall Lane and Leighton Link Road to install 3m shared path and new pedestrian / cycle bridge over rail line.
7	Northern roundabout on the planned Leighton West Link Road, just south of Leighton Hospital	Provide dedicated crossing facilities for cyclists (toucan/tiger) on the roundabout to provide a safe route to Leighton Hospital.
8	Middlewich Road (A530) /Coppenhall Lane roundabout	Upgrade roundabout to provide dedicated links to and across the junction (Toucan/tiger crossings) and upgrade paths to 3m and remove segregation.
9	Middlewich Road (A530) / Coppenhall Lane southern junction (Motorsave Direct)	Upgrade surface quality and extend paths to 3 m (approx. 200m).
10	Middlewich Road (A530) / Coppenhall Lane roundabout to Coppenhall Lane (Motorsave Direct) junction	Junction treatment and investigate options to create a consistent coherent route with adequate width.
11	Middlewich Road (A530) / Coppenhall Lane (Motorsave Direct) to Wistaston Green Road	Upgrade substandard width shared path to consistent width cycle track, reallocate space from central hatching, verge protection of cycle route where feasible.
12	Middlewich Road (A530) / Wistaston Green Road junction	Review toucan crossing to ensure that it meets the needs of pedestrians and cyclists.
13	Middlewich Road (A530) - Rising Sun pub	Side road priority crossing at pub parking access.
14	Crewe to Nantwich Greenway	Path may require lighting – could existing highway columns be adapted?



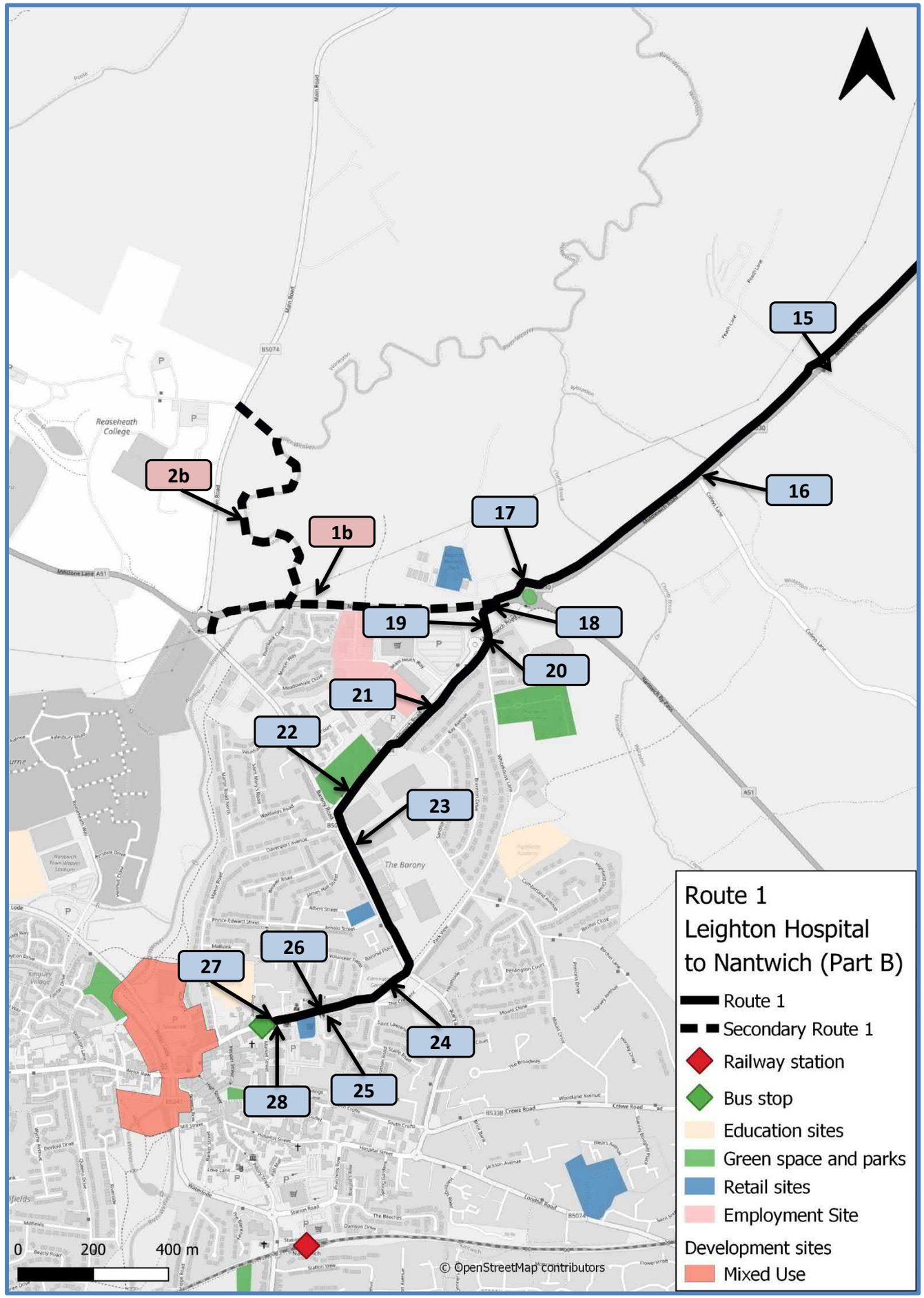
Route 1 – Leighton Hospital to Nantwich (Part B)

Interventions on Primary routes

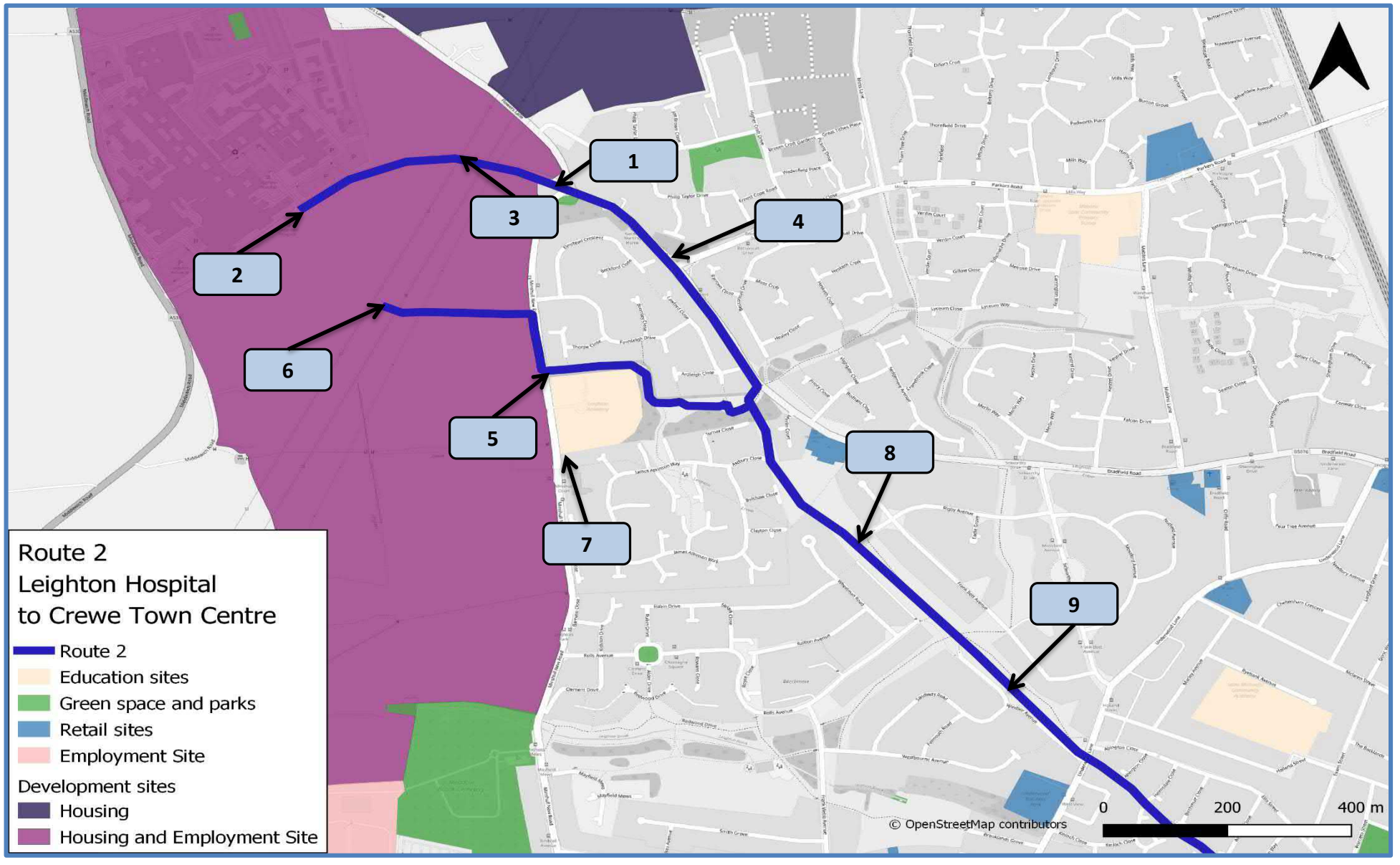
Ref	Location	Description of intervention
15	Middlewich Road (A530) / Alvaston Hall access	Raised table and side road priority crossing on the Crewe to Nantwich Greenway.
16	Middlewich Road (A530) / Colleys Lane Junction	Provide short stretch of path and formal/informal crossing to access Crewe to Nantwich Greenway.
17	Middlewich Road (A530) / Alvaston roundabout	Provide dedicated crossing facilities for cyclists on all arms (toucan/tiger) of the roundabout, remove cyclists dismount signs to create coherent route, improve size of central refuges and upgrade path to 3m (machine laid) unsegregated where possible.
18	Shared path linking Nantwich Bypass to Middlewich Road (A530)	The shared path requires lighting. Remove or increase gap between staggered barriers to accommodate all cycle designs.
19	Middlewich Road (A530) from Nantwich Bypass to Whitehouse Lane	Upgrade existing shared use path to 3m unsegregated path to link with toucan crossing.
20	Whitehouse Lane	Provide dedicated crossing of Whitehouse Lane (Tiger/Toucan) and widen approach paths to 3m.
21	Service Road alongside Middlewich Road from Whitehouse Lane to Barony Park	Investigate potential for street lighting on the service road.
22	Path in Barony Park alongside Middlewich Road	Widen existing facility in Barony Park to 3m where possible.
23	Path in Barony Park alongside Barony Road	Widen existing path 3m where possible and incorporate side road priority at skate park car park access point.
24	Path through Coronation Gardens alongside Beam Street	Widen existing path to 3m and investigate potential to continue path behind trees away from traffic.
25	Beam Street / Volunteer Fields Junction	Toucan/tiger crossing to help access to and from Coronation Gardens.
26	Beam Street/Volunteer Fields junction	Gateway feature to town centre area and start of 20mph zone.
27	Beam Street from Volunteer Fields to Market Street	20mph along Beam Street between Volunteer Fields and Market Street.
28	Beam Street from Volunteer Fields to Market Street	Local highway enhancement programme to reinforce 20mph area, could comprise of traffic calming measures, side road narrowing, planting etc.
29	General route signage	General direction signage for pedestrians / cyclists along route.

Interventions on Secondary routes

Ref	Location	Description of intervention
1b	Nantwich Bypass from Alvaston roundabout to Reaseheath roundabout	On-road segregated kerbed protected lane on both sides.
2b	Nantwich Bypass to Reaseheath College	New cycling path following western side of river Weaver toward Reaseheath College.



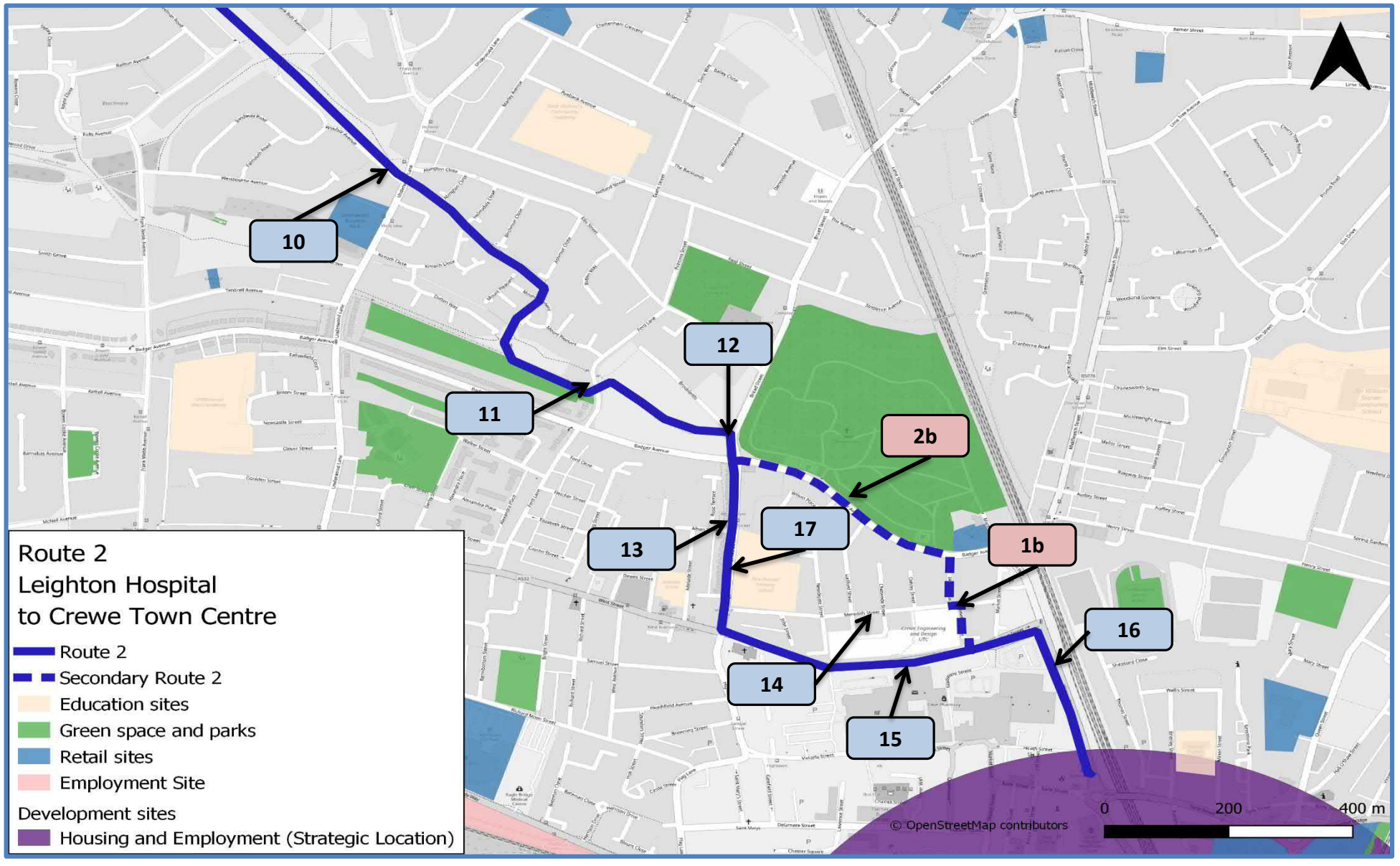
Route 2 – Leighton Hospital to Crewe Town Centre



Interventions on Primary routes

Ref	Location	Description of intervention
1	Smithy Lane / Bradfield Road (B5076) roundabout	Tighten roundabout to simplify and reduce vehicular approach speeds; provide bigger central islands to accommodate pedestrians/cyclists with dedicated crossings (tiger) to link to new proposed cycle facilities on Smithy Lane. Locate a toucan crossing south of the roundabout across Minshull New Road to link with Smithy Lane.
2	Smithy Lane between Bradfield Road roundabout and Leighton Hospital access	Make route pedestrian/cycle only with proposed masterplan road closure. This is a major opportunity to create a more people friendly space by reclaiming space for pedestrian and cyclists.
3	Crossing between Smithy Lane and new Flowers Lane/new Hospital roundabout Link Road	Provide dedicated crossing facilities for cyclists (toucan/tiger) to connect both sides of the old Smithy Lane.
4	Bradfield Road (B5076) from Smithy Lane roundabout to off-road link access	Focus on minor improvements, particularly around bus stop area. Ensure there is a suitable maintenance regime.
5	Minshull New Road by off-road path access at Leighton Academy	Formal dedicated pedestrian/cycle crossing into new development (tiger/toucan); remove or increase gap between staggered barriers to improve accessibility by adapted cycles, mobility scooters etc.
6	From crossing Minshull New Road up to the crossing	New off-road shared walking / cycling trail (approx. 380m).
7	Leighton Academy	Review school access and cycle parking provision to ensure it is suitable for existing use and growth associated with new development.
8	Off-road link from Bradfield Road to Broad Street	Consistent lighting, such as solar studs, along the whole off-road path and localised vegetation clearance to open up visibility on path improving perceptions of personal safety; add dog refuse bins and benches; needs frequent maintenance regime.
9	Off-road link from Bradfield Road to Broad Street	Widen path to consistent 3m machine-laid surface along entire length (where possible).

Route 2 – Leighton Hospital to Crewe Town Centre



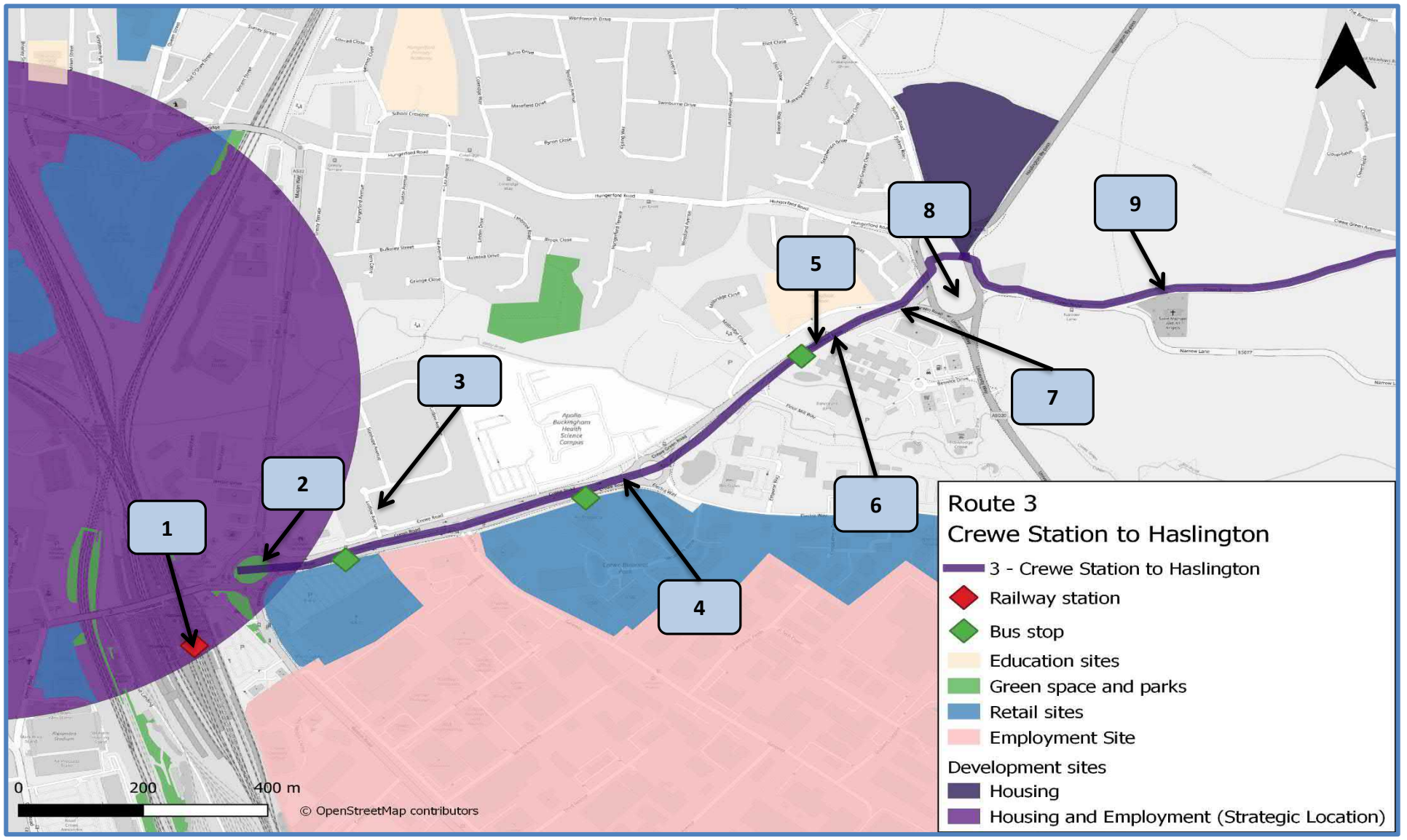
Interventions on Primary routes

Ref	Location	Description of intervention
10	Underwood Lane at crossing of off-road trail	Tighten junction of Windsor Avenue and provide direct crossing of Underwood Ln to create coherent facility (tiger or toucan, potentially on raised table).
11	Ford Lane at crossing of off-road trail	Formal crossing (tiger) or speed control table with crossing point; traffic calming on approaches.
12	Broad Street at access/exit from off-road trail	Improved gateway feature to park with stretch of widened path on Broad Street raising awareness of route. Upgrade Broad Street arm of crossing to a toucan.
13	Broad Street from Badger Avenue to West Street	Traffic calming and environmental enhancement measures to reinforce 20mph limit and formalise parking management.
14	Meredith Street	On street improvements to formalise parking management and prevent footway parking & general environmental enhancement.
15	West Street from Broad Street to Vernon Way	Investigate potential for delivery of bi-directional cycle path on one side of carriageway.
16	Vernon Way from West Street to Earle Street	Investigate potential for delivery of bi-directional off-road cycle track on west side of carriageway linking with new facility south of Earle Street.
17	General route signage	General direction signage for pedestrians / cyclists along route.

Interventions on Secondary routes

Ref	Location	Description of intervention
1b	West Street/Newton Street	Improved gateway feature from West Street to Newton Street to raise secondary route awareness and traffic calming measures.
2b	Badger Avenue	Upgrade path to shared pedestrian/cycle path; widen up to 3m wherever possible.

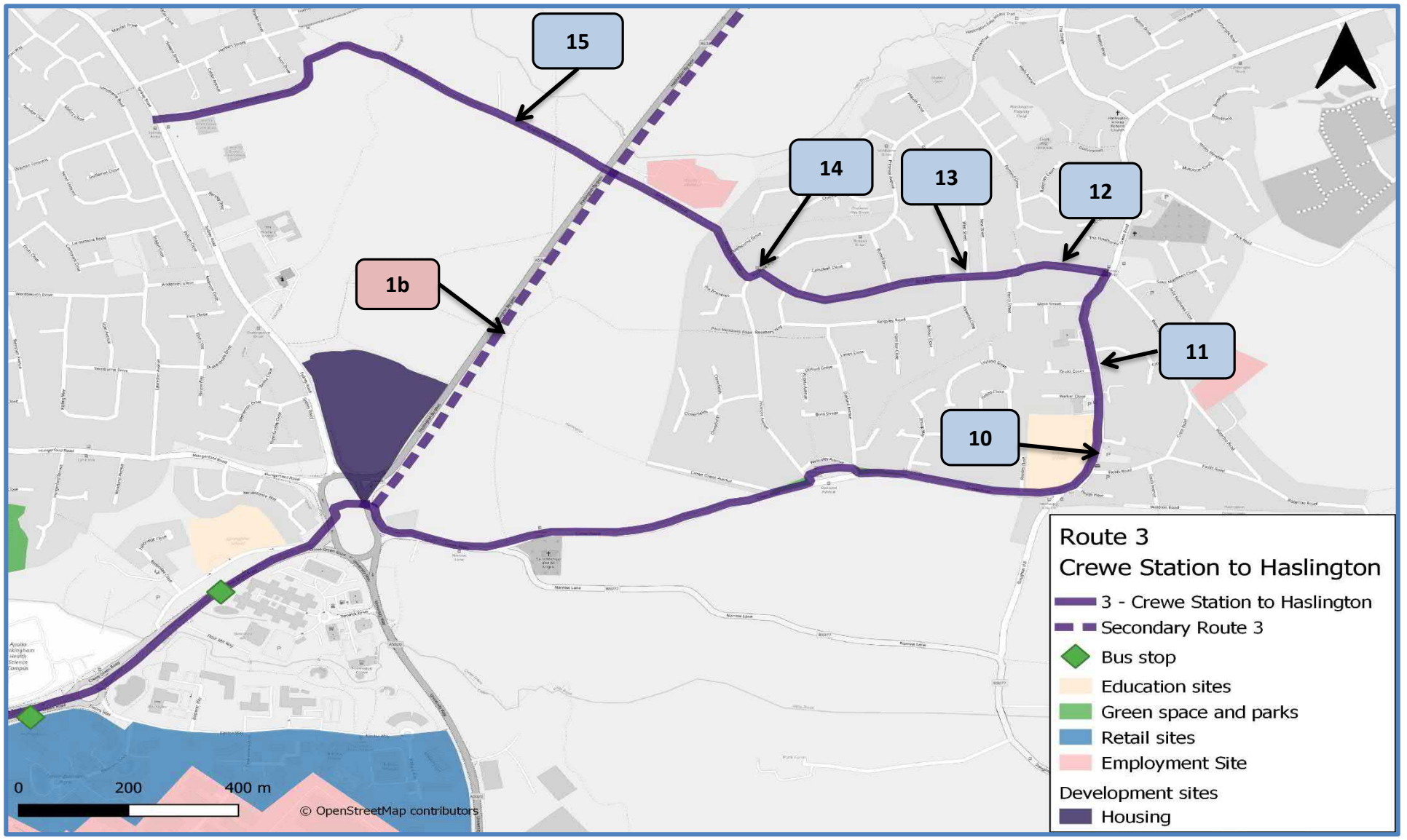
Route 3 – Crewe Station to Haslington



Interventions on Primary routes

Ref	Location	Description of intervention
1	Nantwich Road at Crewe Station	Crewe Hub provides a major opportunity to create a more people friendly space. Improved links into Pedley Street, along Nantwich Road and to the Crewe Arms roundabout are crucial. As part of the Crewe Station works, an additional separate structure parallel to Nantwich Road across the railway is planned with high quality segregated cycling/walking routes.
2	Crewe Arms Roundabout	Review Crewe Arms Roundabout and pedestrian/cycle signals to make crossing this busy intersection as convenient and easy as possible. Scope at Tommy's Lane junction to tighten kerblines and reduce vehicle speeds; vegetation clearance needed to expose full effective path width. Pedestrians at Crewe Arms Roundabout will also benefit from additional improvements as part of proposed walking routes.
3	Crewe Road / Ludlow Avenue	Introduce a raised table at the junction with Ludlow Avenue, in addition to narrowing the junction mouth and widening the pavement here to 3m for pedestrians and cyclists. Solutions would need to incorporate the existing bus layby/bus stop on Crewe Road.
4	Crewe Road from Crewe Arms Roundabout to Crewe Green Road roundabout at MMU	Upgrade existing substandard shared segregated paths on both sides of Crewe Road and remove segregation; investigate scope for provision of dedicated segregated cycle provision such as stepped cycle tracks or widening path to consistent 3m cycle track/shared unsegregated path on both sides with side road priority improvements along route. Route maintenance required throughout to allow full use of the facilities along Crewe Road.
5	Crewe Green Road roundabout at MMU	Install dedicated pedestrian/cycle signals on all arms to create coherent and safe route.
6	Crewe Green Road from MMU roundabout to Crewe Green Roundabout	Consider reducing speed limit to 30mph.
7	Crewe Green Road from MMU roundabout to Crewe Green Roundabout	Investigate scope for provision of dedicated 3m segregated cycle routes on both sides of the roundabout within highway land to replace existing substandard shared segregated paths; side road priority improvements along route (requires speed limit of 30mph along this route).
8	Crewe Green Roundabout	Review cycle provision at Crewe Green Roundabout, such as the cycle path exit on Hungerford Road, as part of post scheme monitoring and evaluation study.
9	Crewe Green Roundabout to Rhodes Close	A segregated route on the north side that is a shared pathway for pedestrians and cyclists to be provided utilising space on the existing grass verge.

Route 3 – Crewe Station to Haslington



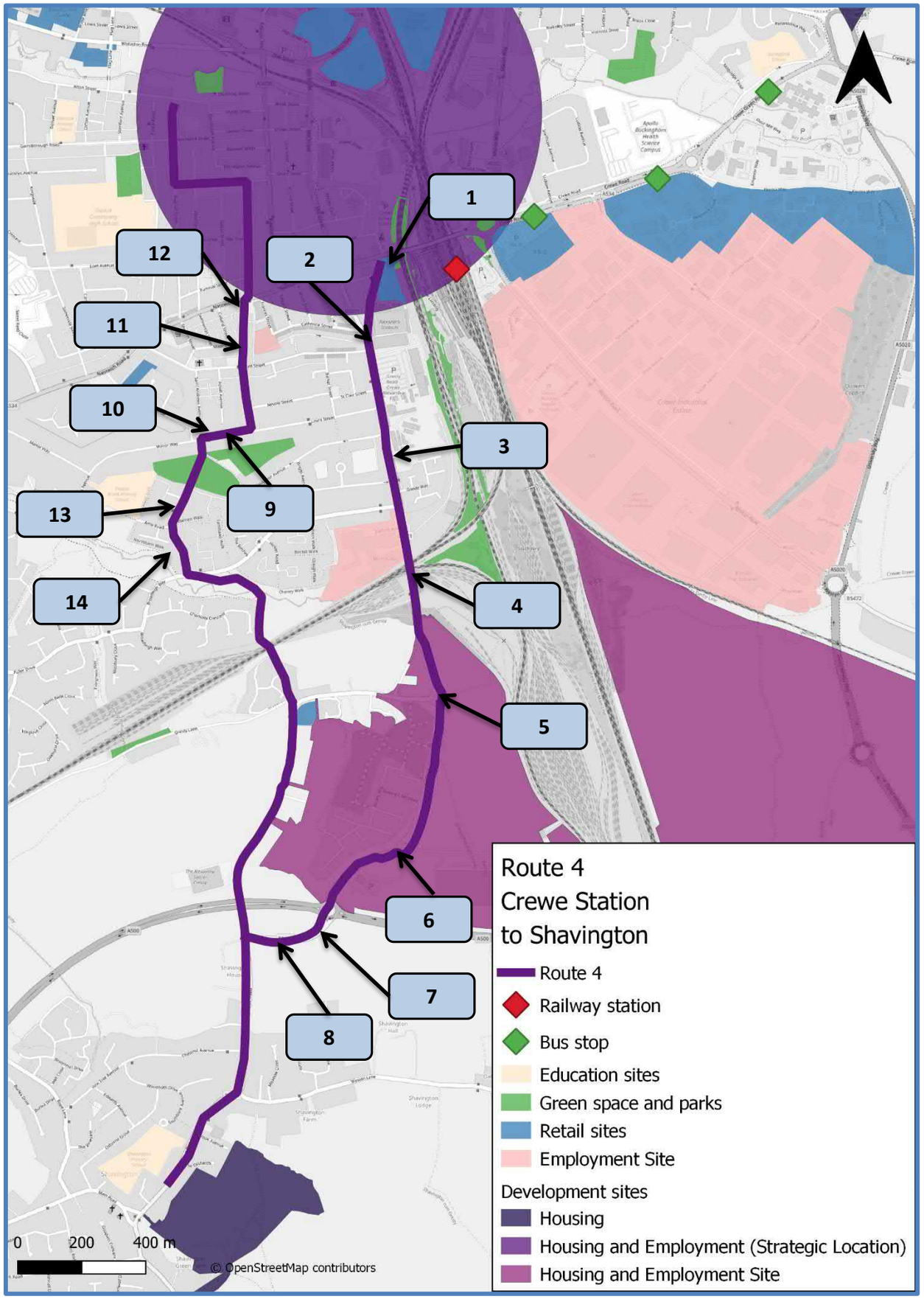
Interventions on Primary routes

Ref	Location	Description of intervention
10	Crewe Road through Haslington from Rhodes Close to Ashley Meadow	Reduce speed limit to 20mph through village centre.
11	Crewe Road through Haslington from Rhodes Close to Ashley Meadow	Consider gateway feature to village and environmental enhancements to reinforce speed limit and complement existing calming measures. Include side road junction narrowing / pedestrian priority crossings. Particular focus at Bradeley Road / Waterloo Road junction.
12	Bradeley Road	Investigate scope for closure of junction to vehicular traffic with filtered permeability for pedestrians / cyclists.
13	Bradeley Road	Traffic calming to reinforce 20mph speed limit.
14	Bradeley Road/Primrose Avenue/Bradeley Hall Road	Junction tightening and raised table to reduce vehicle speeds and help wayfinding to create coherent route.
15	Bradeley Hall Lane	Upgrade existing bridleway to consistent width 3m where possible with surfacing. Investigate possibility of lighting to improve perceptions of personal safety for year round usage.
16	General route signage	General direction signage for pedestrians/cyclists along route.

Interventions on Secondary routes

Ref	Location	Description of intervention
1b	Haslington Bypass from Crewe Green roundabout to Sandbach	Investigate scope for provision of shared bi-directional off-road cycle route along the A534 to Sandbach, including a crossing in Wheelock area.

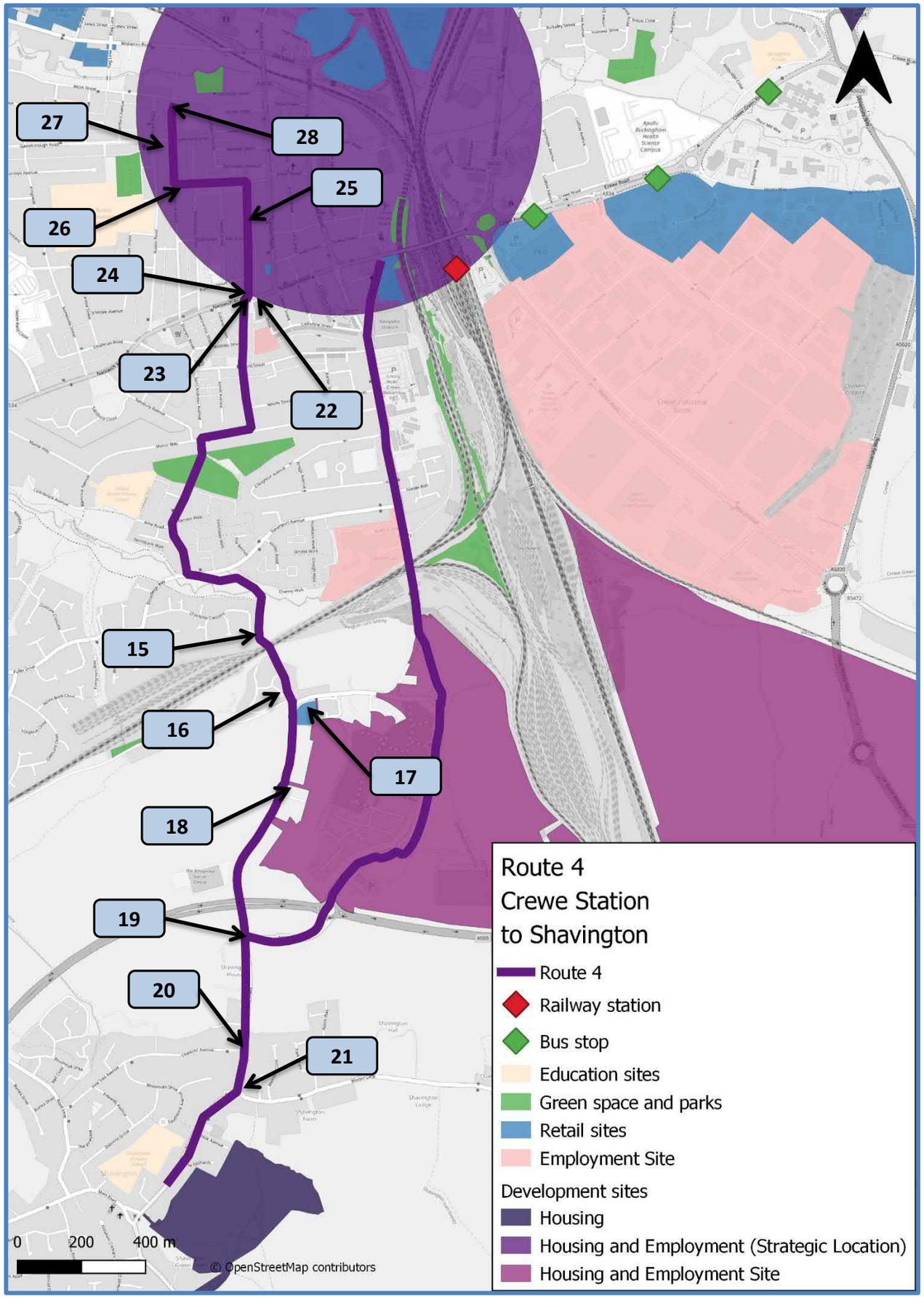
Route 4 – Crewe Station to Shavington (Part A)



Interventions on Primary routes

Ref	Location	Description of intervention
1	Gresty Road from Nantwich Road junction to South Street junction	Investigate scope to make this stretch of Gresty Road informal streets with pedestrian / cycle traffic dominating and through traffic encouraged to use South Street.
2	Gresty Road / South Street junction	Tighten junction improving visibility and reducing turning vehicle speeds.
3	South Street / Gresty Road from Nantwich Road to the railway bridge and new cycling facilities south of railway	Prevent HGV traffic from travelling north towards Nantwich Road from Mornflake site.
4	Gresty Road at Mornflake / Railway Bridge to start of new cycling facility	Access review and improvements needed to ensure pedestrians / cyclists can pass this area safely. Extend shared provision beyond rail bridge to link into new cycling facility. Some challenges as embankment and railway land.
5	Jack Mills Way roundabout	Provide dedicated crossing facilities (toucan / tiger) to create coherent and safe route.
6	Jack Mills Way / B5071 roundabout	Provide dedicated crossing facilities (toucan / tiger) to create coherent and safe route.
7	A500 / B5071 roundabout	Extend path from Jack Mills Way to junction and incorporate formal toucan crossing across eastern arm of junction.
8	A500 / B5071 junction to Crewe Road	New bi-directional off-road cycle track (approx. 300m). For coherence with paths on Jack Mills Way path most likely to be on north side of carriageway although possible on either side.
9	Ernest Street	Heavily parked street, particularly in northern section. Measures to formalise parking ensuring clear wide carriageway for cycle passage.
10	Ernest Street / Bedford Street junction	Junction treatment with raised table calming to ease crossing of pedestrians / cyclists.
11	Manor Way	Consider introduction of on carriageway measures to reinforce low speed limits.
12	Manor Way	Consider introduction of reduced speed limit to 20mph.
13	Brookhouse Drive	Consider introduction of on carriageway measures to reinforce low speed limits.
14	Brookhouse Drive	Consider introduction of reduced speed limit to 20mph.

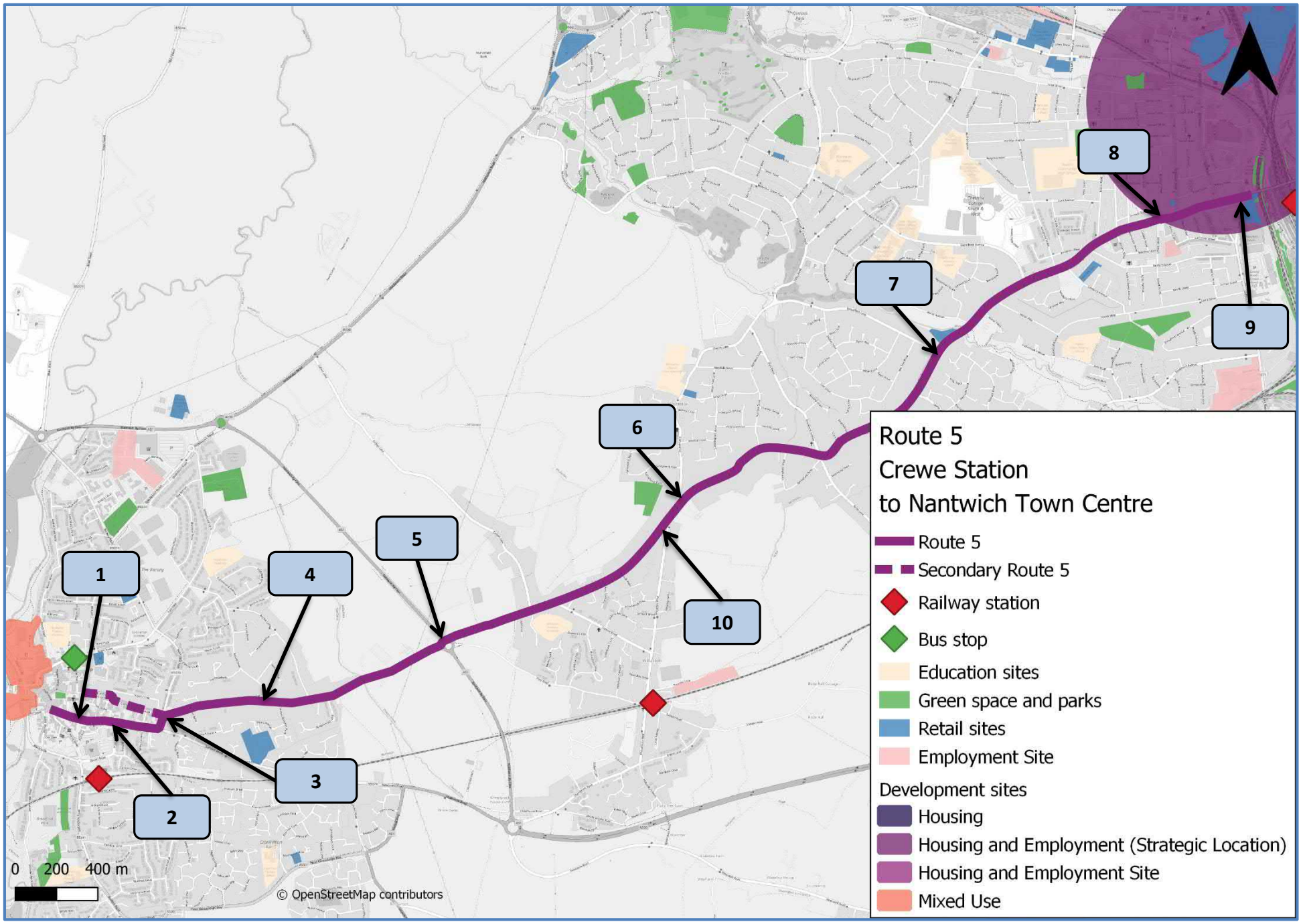
Route 4 – Crewe Station to Shavington (Part B)



Interventions on Primary routes

Ref	Location	Description of intervention
15	Gresty Greenway through to junction of Gresty Green Road with Gresty Lane	Undertake path maintenance to expose full width.
16	Gresty Greenway through to junction of Gresty Green Road with Gresty Lane	Lighting of path and gateway improvements to promote this route.
17	Junction of Gresty Green Road/Gresty Lane/ Crewe Road	Tighten junction to slow vehicle speeds and allow emerging and crossing cyclists better visibility.
18	Crewe Road from Gresty Lane to 50m north of Chestnut Avenue	New bi-directional off-road cycle track (approx. 1000m); most scope appears on west of Crewe Road north of A500 (potential to deliver in field boundary) and then on east side south of A500; would need to raise parapets on A500 overbridge.
19	Crewe Road/A500 slip junction	Tighten junction if possible and incorporate pedestrian/cycle phases to allow safe crossing and coherent transition across paths.
20	Crewe Road from 50m north of Chestnut Avenue to Shavington Main Road	Investigate potential to provide advisory on-road cycle lanes; if not feasible then traffic calming to reduce vehicle speeds through Shavington (some on carriageway parking).
21	Main Road / Crewe Road junction at Shavington	Tighten junction to reduce vehicle speeds and crossing distances for pedestrians and cyclists; potential for central refuge or formal pedestrian crossing linking to new development; new development needs dedicated pedestrian/cycle access onto Crewe Road at north of development and a crossing to link to Main Road.
22	Ernest Street/Nantwich Road junction	Potential scope for closure of junction of Ernest Road / Nantwich Road to through traffic or making top section one-way with cycle contraflow. This would allow either a continuous footway or junction narrowing. Further feasibility / consultation would be required.
23	Nantwich Road between Brooklyn Street and Ernest Street	Relocate existing pedestrian crossing to between Brooklyn Street and Ernest Street, upgrade to toucan or parallel zebra crossing.
24	Brooklyn Street/Nantwich Road junction	Potential scope for closure of junction of Brooklyn Street/Nantwich Road to through traffic or making top section one-way with cycle contraflow; would allow either a continuous footway or junction narrowing (further feasibility/ consultation would be required).
25	Brooklyn Street (entire length)	Heavily parked street – consider measures to formalise parking ensuring clear wide carriageway for cycle passage.
26	Stalbridge Road/Walthall Street junction	Junction treatment with speed table and parking suspension on junction.
27	Walthall Street from Stalbridge Road to Alton Street	Heavily parked street – consider measures to formalise parking ensuring clear wide carriageway for cycle passage.
28	Alton Street/Walthall Street junction.	Junction treatment with speed table and parking suspension on junction.
29	General route signage	General direction signage for pedestrians / cyclists along route.

Route 5 – Crewe Station to Nantwich Town Centre



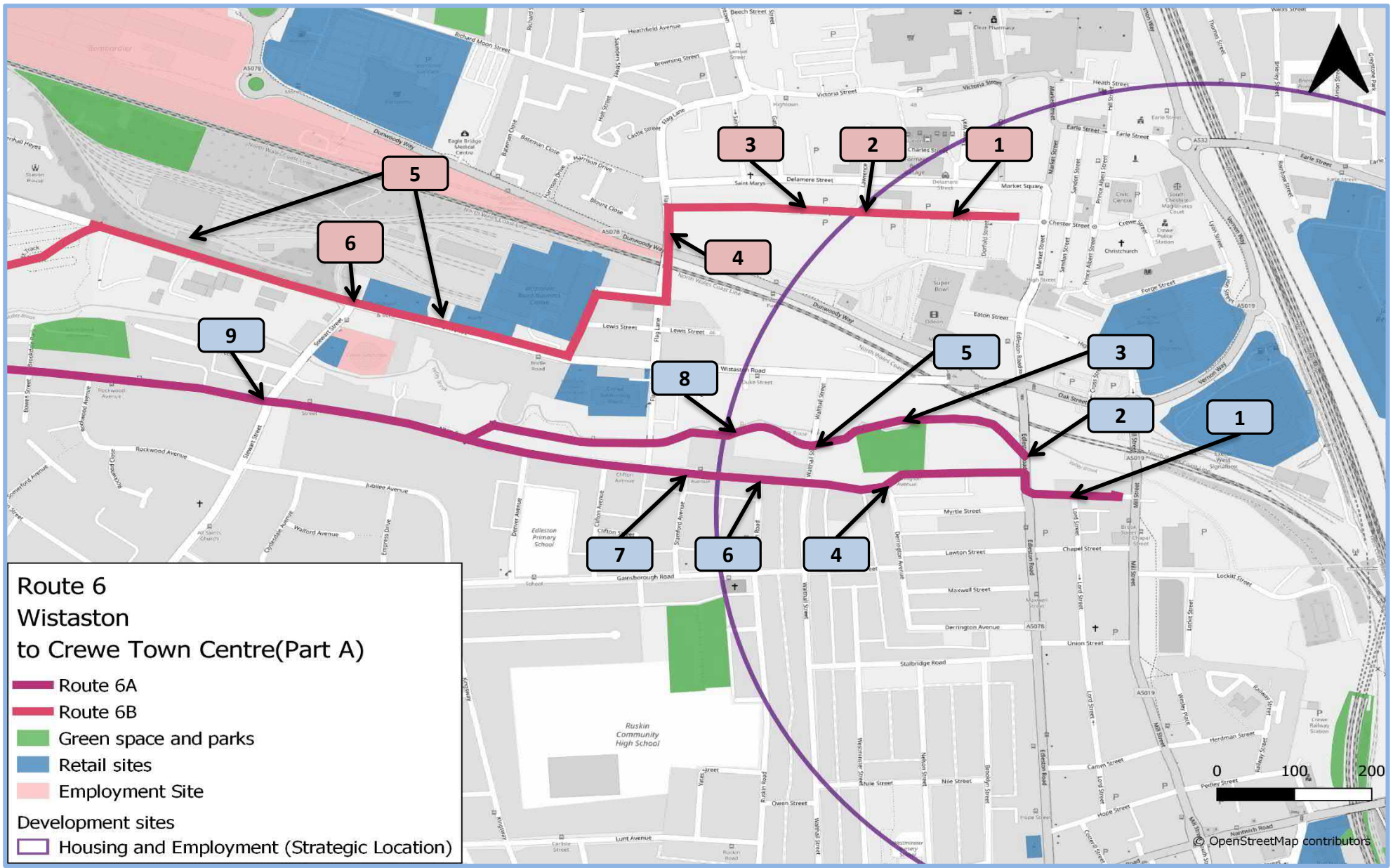
Interventions on Primary routes

Ref	Location	Description of intervention
1	Hospital Street from Pillory Street to junction with The Gullet	On-road unmarked contra-flow cycle lane with gateway signage.
2	Hospital Street / Pratchetts Row roundabout	Reduce radius of mini roundabout slowing vehicle speeds and making it easier to negotiate for cyclists.
3	Hospital Street and Crewe Road roundabouts with B5074	Review of area, incorporating reduced radius of mini roundabouts slowing vehicle speeds and making it easier to negotiate for cyclists; also scope to reduce carriageway width between two roundabouts and improve crossing facilities for pedestrians in the area with zebra crossings on junction arms.
4	Crewe Road from B5074 roundabout to Nantwich bypass roundabout (approx. 1500m)	Existing on road advisory lanes are sub-standard in width; detailed assessment needed based on carriageway width and traffic volumes - may only be feasible from Mount Drive onwards.
5	Crewe Road / Nantwich bypass roundabout (Peacock roundabout)	Provide dedicated pedestrian/cycle crossings e.g. Toucan crossings at roundabout to allow cyclists to safely negotiate the off-road routes; if two phase crossings are needed then increase size of central refuge to safely accommodate cyclists.
6	Crewe Road from Nantwich bypass roundabout (Peacock roundabout) to Smallman Road (approx. 3800m)	Existing on road advisory lanes are sub-standard in width. Detailed assessment needed based on carriageway width and traffic volumes and investigate potential to bring eastbound cycle route back on carriageway before Broughton Road side road.
7	Broughton Lane/Crewe Road junction	Narrow junction mouth and implement a raised table to improve safety for cyclists and pedestrians.
8	Nantwich Road from Smallman Road through to Pedley Street.	Busy and congested stretch of road, already 20mph with traffic calming; broader feasibility required to understand scope to reshape urban realm and available highway space to provide light segregation or off carriageway shared path.
9	Nantwich Road/Pedley Street junction	Upgrade junction to cater for all cyclist and pedestrian movements, linking in with the Crewe Hub proposed cycle/ pedestrian bridge parallel to Nantwich Road Bridge, in addition to creating a gateway feature to the town centre (links to Cycle Route 7 interventions).
10	General route signage	General direction signage for pedestrians / cyclists along route.
11	Throughout	Maintenance throughout the route in particular road markings.

Interventions on Secondary routes

Ref	Location	Description of intervention
1b	Monk's Lane	Consider utilising Monk's Lane as an alternative to Hospital Street for access into the town centre.

Route 6 – Wistaston to Crewe Town Centre(Part A)



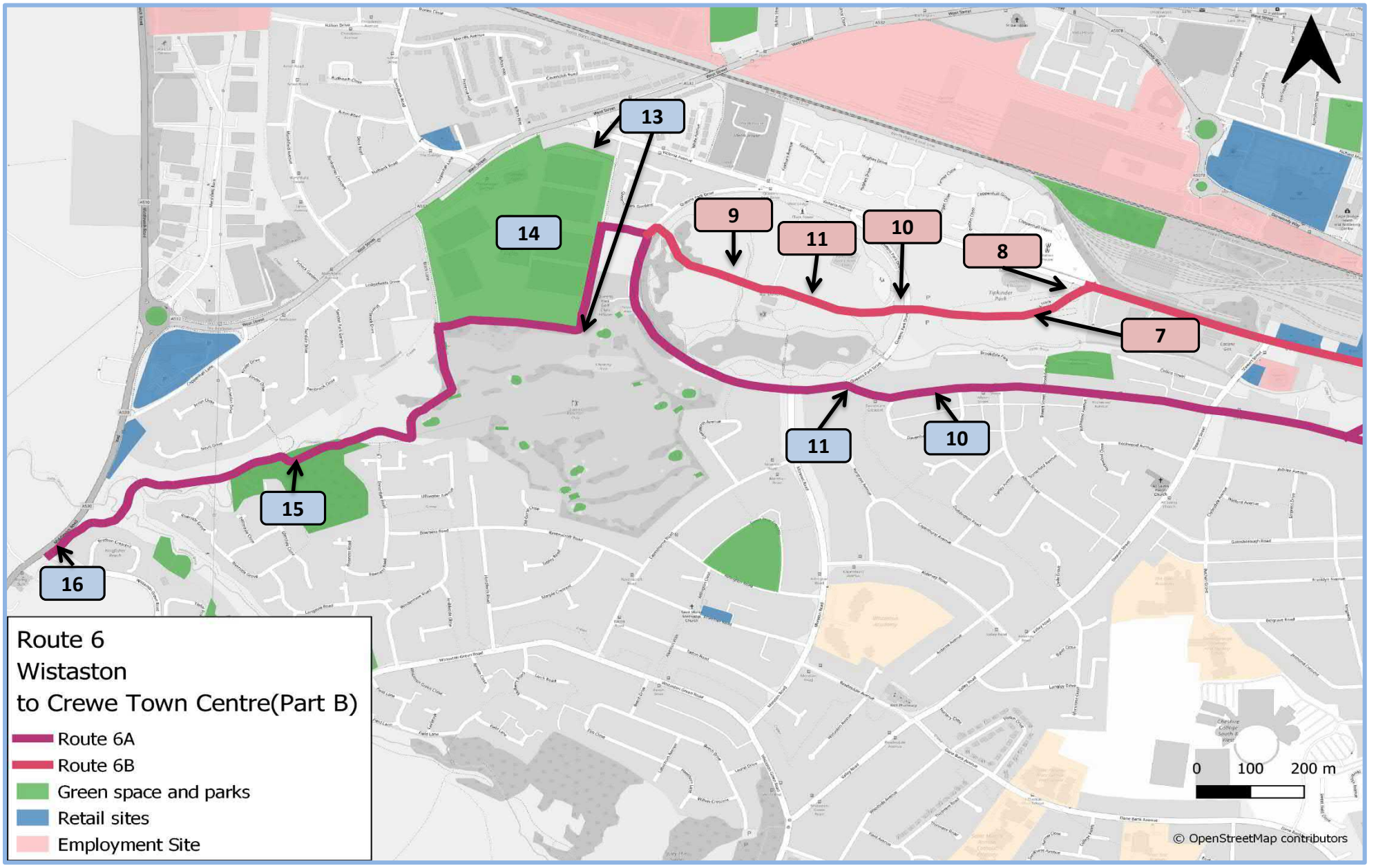
Interventions on Route 6A

Ref	Location	Description of intervention
1	Brook Street	Footway parking creates unpleasant environment for pedestrians and cyclists - streetscape design measures to manage and formalise parking.
2	Valley Brook / Edleston Road	Link pathway into the new proposed bridge structure for pedestrians and cyclists across Edleston Road Bridge (see Cycle Route 7).
3	Valley Brook Path from Walthall Street to Wistaston Road	Upgrade path to shared use (3m) with widened access and lighting to improve perceptions of personal safety through park, gradient may require some path realignment.
4	Electricity Street / Derrington Avenue junction	Junction treatment to tighten junction and introduce raised table to reduce vehicle speeds and improve pedestrian/cycle environment.
5	Walthall Street	Open up and create dedicated gateway features to Valley Brook Path; incorporate build outs to restrict parking at access points.
6	Electricity Street and Alton Street	Reduce speed limit to 20mph.
7	Electricity Street and Alton Street	Consider traffic calming and streetscape improvements to reinforce 20mph limit. Address parking issues through allowing for parking only one side of Alton Street.
8	Valley Brook Path from Walthall Street to Alton Street	Upgrade path to shared use with widening to 3m where possible. Lighting, surfacing and general maintenance to improve perceptions of personal safety. Links include to Amy Street, Flag Lane and Alton Street; Include gateway feature to promote route from Alton Street.
9	Junction of Alton Street / Stewart Street	Junction treatment to tighten junction radius.

Interventions on Route 6B

Ref	Location	Description of intervention
1	Chester Street	Consider traffic calming to reinforce 20mph and measures to raise awareness of presence of cyclists. General route formalisation.
2	Chester Square	Provide on-road lane (3m where possible) through the car park on the northern side of the road.
3	Car parking at the access of Chester Square	Widen path from Flag Lane through to Chester Street car park to shared used, with landscaping to opening up visibility and improve perception of personal safety.
4	Flag Lane from Bridle Road to the access to Chester Square	Raised table to reduced vehicle speed along Flag Lane.
5	Victoria Avenue / Wistaston Road	Consider provision of advisory cycle lanes both sides and a detailed assessment needed based on carriageway width and traffic volumes. Alternatively, consider introducing more traffic calming on these roads.
6	Victoria Avenue / Stewart Street junction	Reduce junction radius to slow turning vehicles and make route easier to negotiate by bicycle.

Route 6 – Wistaston to Crewe Town Centre (Part B)



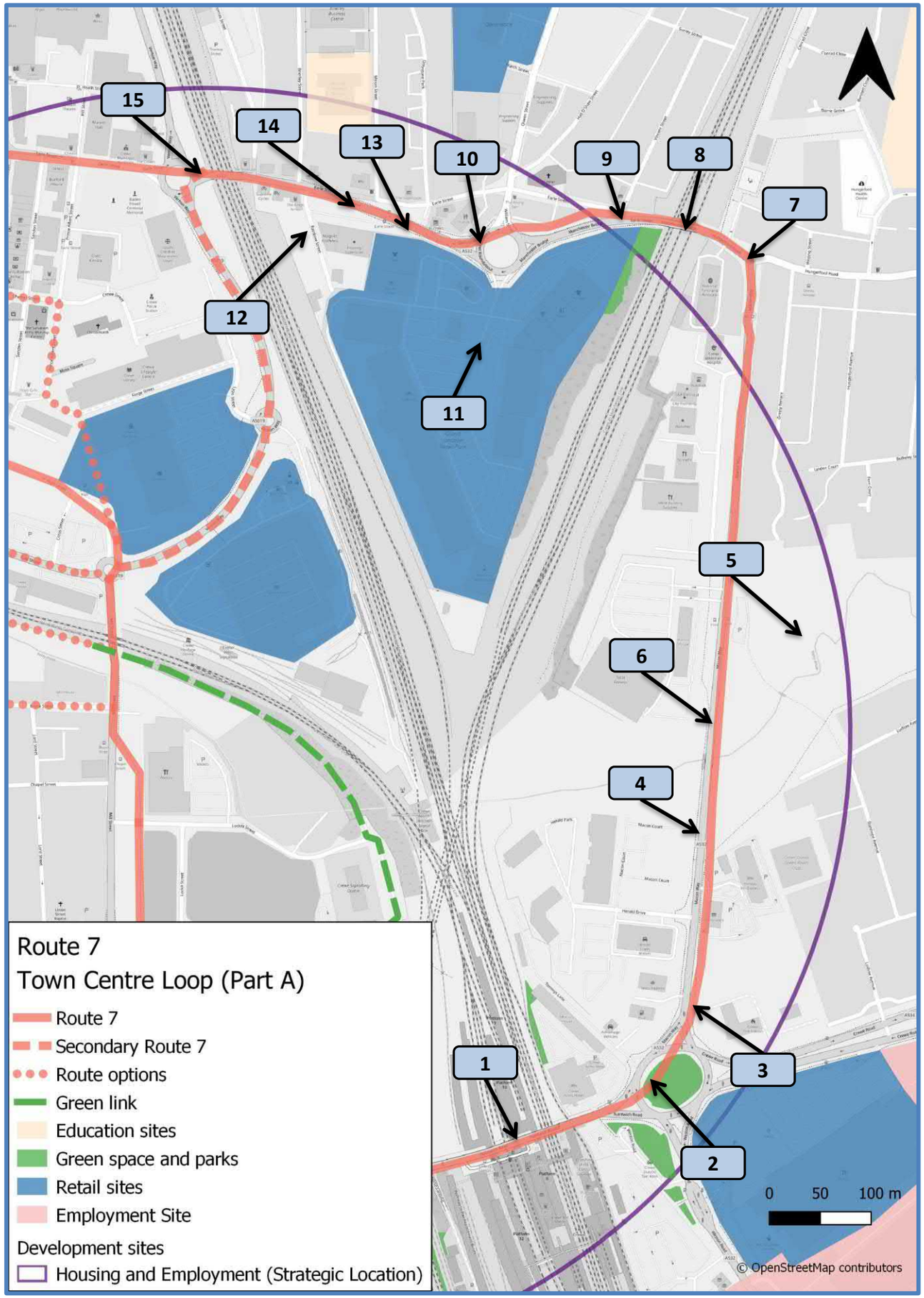
Interventions on Route 6

Ref	Location	Description of intervention
10	Alton Street from Brookdale Park to Davenham Crescent	Streetscape improvements to formalise on-street parking arrangements and act as informal traffic calming. Consider on-street parking on one side of the road only.
11	Alton Street / Queens Park Drive junction	Junction treatment to tighten junction radius reducing speed of turning vehicles.
12	General route signage	General direction signage for pedestrians / cyclists along route.
13	King George V Playing Field	Lighting of path around park perimeter and some minor path desire line surfacing improvements at corners.
14	King George V Playing Field	Parking management measures and calming to reduce vehicle speeds and ensure cyclists can comfortably take the lane.
15	Connect 2 route near Wistaston Brook	Review quality of the route through Wistaston Brook to improve route attractiveness.
16	Connect 2 entrance at Wistaston Green Road	Improve gateway feature onto the Connect2 route.

Interventions on Route 6B

Ref	Location	Description of intervention
7	Tipkinder Park	Surface covered in vegetation and therefore requires regular maintenance.
8	Tipkinder Park to Victoria Avenue	Remove staggered barriers onto Victoria Avenue to allow accessibility for all.
9	Queens Park Drive - pedestrian/cyclist section	Gateway features at either end to improve promotion of this route and lighting to improve perceptions of personal safety for year round usage; pedestrian/cyclist priority over Queens Park Golf Course access route and replacement of staggered barriers with bollard between Queens Park and King George V Playing Fields. Localised vegetation clearance to open up visibility on path improving perceptions of personal safety. Add dog refuse bins and benches.
10	Queens Park / Tipkinder Park crossing of Queens Park Drive	Minor desire line surfacing improvements.
11	Queens Park	Some signage/wayfinding improvements needed within park to more clearly identify route options to the A530 and Crewe Town Centre.

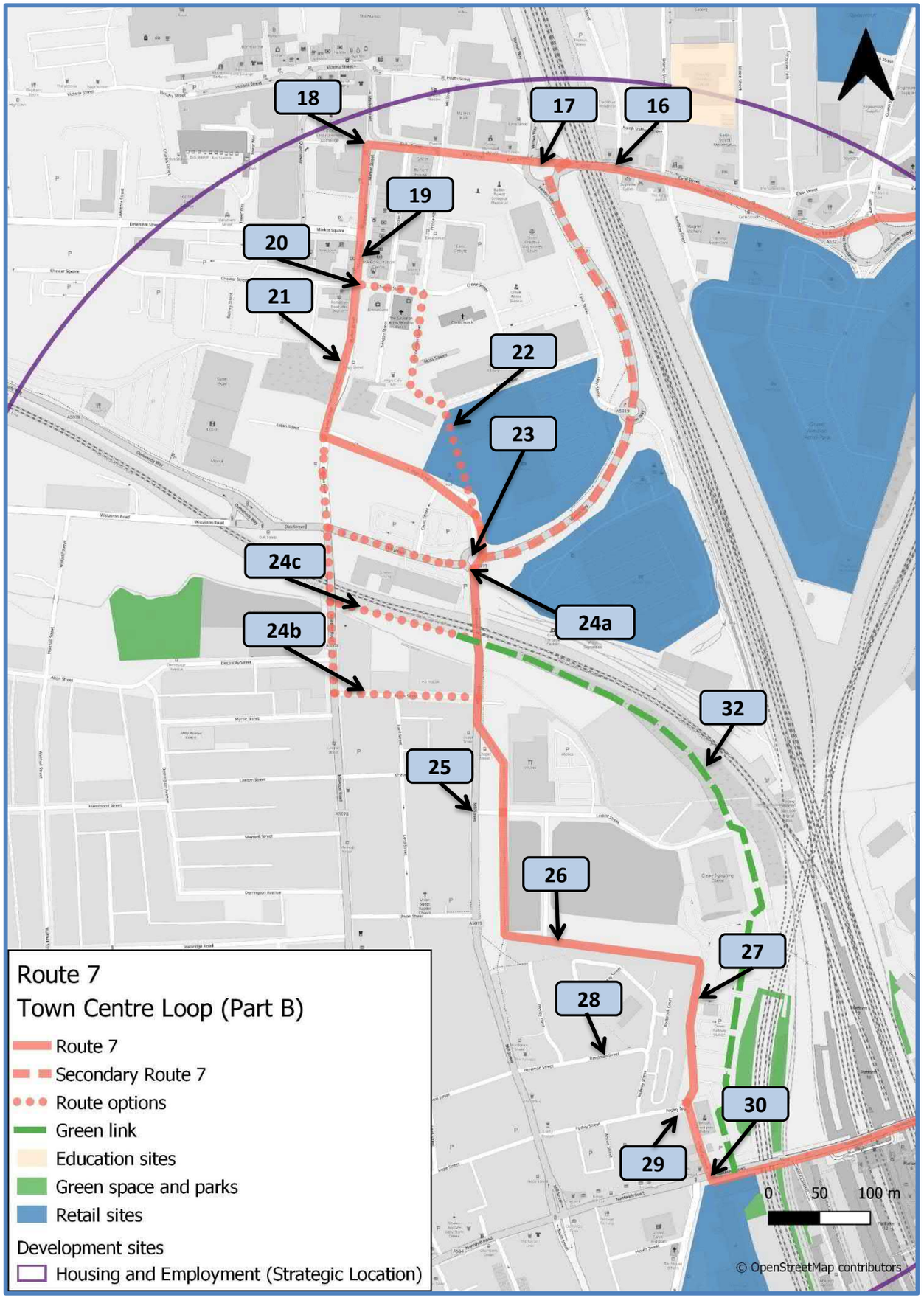
Route 7 – Town Centre Loop (Part A)



Interventions on Primary routes

Ref	Location	Description of intervention
1	Nantwich Road at Crewe Station	Crewe Hub provides a major opportunity to create a more people friendly space. Improved links into Pedley Street, along Nantwich Road and to the Crewe Arms roundabout are crucial. As part of the Crewe Station works, an additional separate structure parallel to Nantwich Road across the railway is planned with high quality segregated cycling/walking routes.
2	Crewe Arms Roundabout	Review Crewe Arms Roundabout and pedestrian/cycle signals to make crossing this busy intersection as convenient and easy as possible. Scope at Tommy's Lane junction to tighten kerblines and reduce vehicle speeds; vegetation clearance needed to expose full effective path width. Pedestrians at Crewe Arms Roundabout will also benefit from additional improvements as part of proposed walking routes.
3	Petrol station exit Macon Way (A532)	Tightening of kerblines and pedestrian/cycle crossing.
4	Macon Way (A532) from Nantwich Road roundabout to A532 Manchester Bridge roundabout	Upgrade existing segregated paths to consistent 3m shared unsegregated path on both sides of Macon Road (like on Vernon Way); investigate scope for provision of dedicated segregated cycle routes within highway land.
5	Valley Brook Park	Programme of path improvement/barrier removal to widen and upgrade network of paths to shared use.
6	Macon Way just south of Total Fitness access at Valley Brook Park	New toucan/tiger crossing providing dedicated crossing of Macon Way.
7	A532 Manchester Bridge roundabout	Dedicated crossings needed of A532 to access Sydney Road route parallel with railway line.
8	Manchester Bridge A532	The bridge itself has been recently refurbished and there is little scope for dedicated provision. Should the opportunity arise then provision of a new bridge structure dedicated to cyclists and pedestrians would address this critical link in the network.
9	A532 from Manchester Bridge to Vernon Street roundabout to Rainbow Street	Investigate scope to widen paths to 3m minimum shared unsegregated paths; create breaks in fencing along Grand Junction Retail Park boundary to allow pedestrian/cycle access away from main roundabout route.
10	Grand Junction Retail Park roundabout	Busy roundabout with no formal pedestrian/cycle facilities; consider install dedicated toucan/tiger crossings to create continuous, safe and coherent pedestrian/cycle routes.
11	Grand Junction Way	Widen access paths to consistent 3m and convert to shared unsegregated paths.
12	Rainbow Street	Remove fencing and create dedicated pedestrian/cycle shortcut access to Grand Junction Retail Park.
13	Mirion Street / Greystone Park crossing of A532	Minor works to improve approach to toucan crossing.
14	Earle Street at Mirion Street and Vincent Street	Drop kerbs and short stretches of path on A532 at Mirion Street and Vincent Street to allow easy crossing from A532 to residential network.
15	Earle Street from Rainbow Street to Vernon Way roundabout	Provision of a new bridge structure dedicated to cyclists and pedestrians parallel to the Earle Street bridge. Further feasibility study needed to identify preferred alignment of bridge.

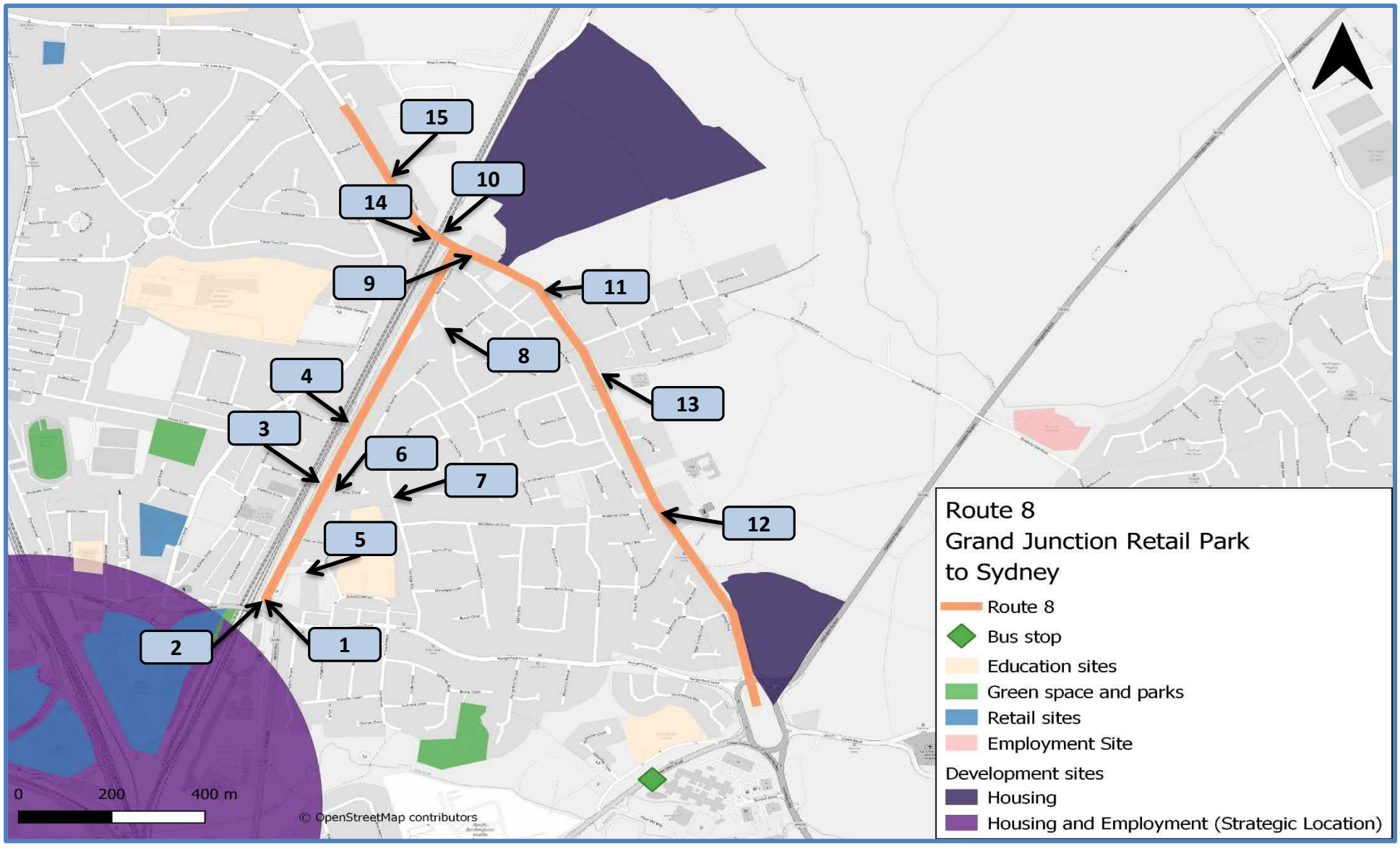
Route 7 – Town Centre Loop (Part B)



Interventions on Primary routes

Ref	Location	Description of intervention
16	Thomas Street / Earle Street junction	Drop kerbs to aid access to and from Earle Street.
17	Memorial Square at Vernon Way roundabout	Narrow junction radius on Memorial Square approach arms; investigate scope to narrow approaches on other arms simplifying roundabout and slowing approaching traffic.
18	Town centre pedestrianised area	Unclear if cycling is currently allowed within the pedestrianised area; space seems sufficient with some existing kerb segregation in places - recommend allowing this to be informal streets, could initially be undertaken with an experimental 6-12 month traffic order.
19	Market Street / Delamere Street junction to Chester Street roundabout	Junction improvement at Market Street / Delamere Street junction to aid movement into town centre area; works could include raised table which could extend to cover whole stretch of road to calm this location and make Chester Street the town centre gateway; pedestrian guard railings could be removed to open up whole area.
20	Chester Street / Market Street mini roundabout	Tighten existing roundabout to slow vehicular movements and make junction simpler to negotiate for cyclists.
21	Chester Bridge from Chester Street to High Street	Create high quality cycle route along Chester Bridge consisting of either stepped cycle track on either side of carriageway or shared path.
22	High Street	Current environment is very dilapidated but subject to regeneration proposals as part of master plan exercise. Potential for a contraflow route on High Street before linking into a route past the lifestyle centre.
23	High Street / Vernon Way roundabout	Scope to improve pedestrian and cyclist crossing points around the roundabout.
24a	Mill Street – under east side of Mill Street underpass – along Oak Street	Look into the feasibility of extending the cycleway under the underpass through Mill Street, creating additional underpass of the railway bridge. Route would then continue along Oak St or High St (intervention 22). Consider adding a shared path along Oak Street between Mill Street roundabout and Edleston Road signalised junction.
24b	Mill Street – Brook Street – Edleston Road	Extend the cycleway along Brook Street and Edleston Road; this would require a new bridge structure parallel to the existing Edleston Road Bridge. Extend pavement to 3m between Brook St and the junction to create a shared pathway (links to Cycle Route 6).
24c	Mill Street - Parallel to railway (Valley Brook) – Edleston Road	New cycleway route parallel to the railway (Valley Brook) and Edleston Road that would require a new bridge structure parallel to the existing Edleston Road Bridge (links to Cycle Route 6). Likely to be significant challenges associated with ecology / landscape and engineering feasibility of spanning the different height levels.
25	Mill Street / Lockitt Street junction	Side road priority treatment with raised table and/or parallel crossing.
26	Pedley Street Car Park – Lockitt Street – Mill Street	Widened and upgraded route to for pedestrians / cyclists as part of redevelopment proposals on Mill Street.
27	Pedley Street Car Park	In case of redevelopment, consider incorporating a high quality cycle route.
28	Herdman Street / Railway Street / Pedley Street	Traffic calming and junction tightening (potentially raised tables) to enforce lower speed limit; streetscape improvements & planting to improve natural wayfinding and make route more attractive. Reduce speed limit to 20mph.
29	Mill Street / Nantwich Road link	Potential for an improved cycleway on a re-aligned Pedley Street (future Council aspiration). This could include a new two way route for cyclists and pedestrians.
30	Junction of Nantwich Road / Pedley Street	Gateway feature / entry treatment to aid wayfinding identifying main route to town centre, linking into intervention 1.
31	General route signage	General direction signage for pedestrians / cyclists along route.
32	Green Link between Nantwich Road and Mill Street	Green link consisting of a walking and cycling route and development (subject to feasibility and securing land).

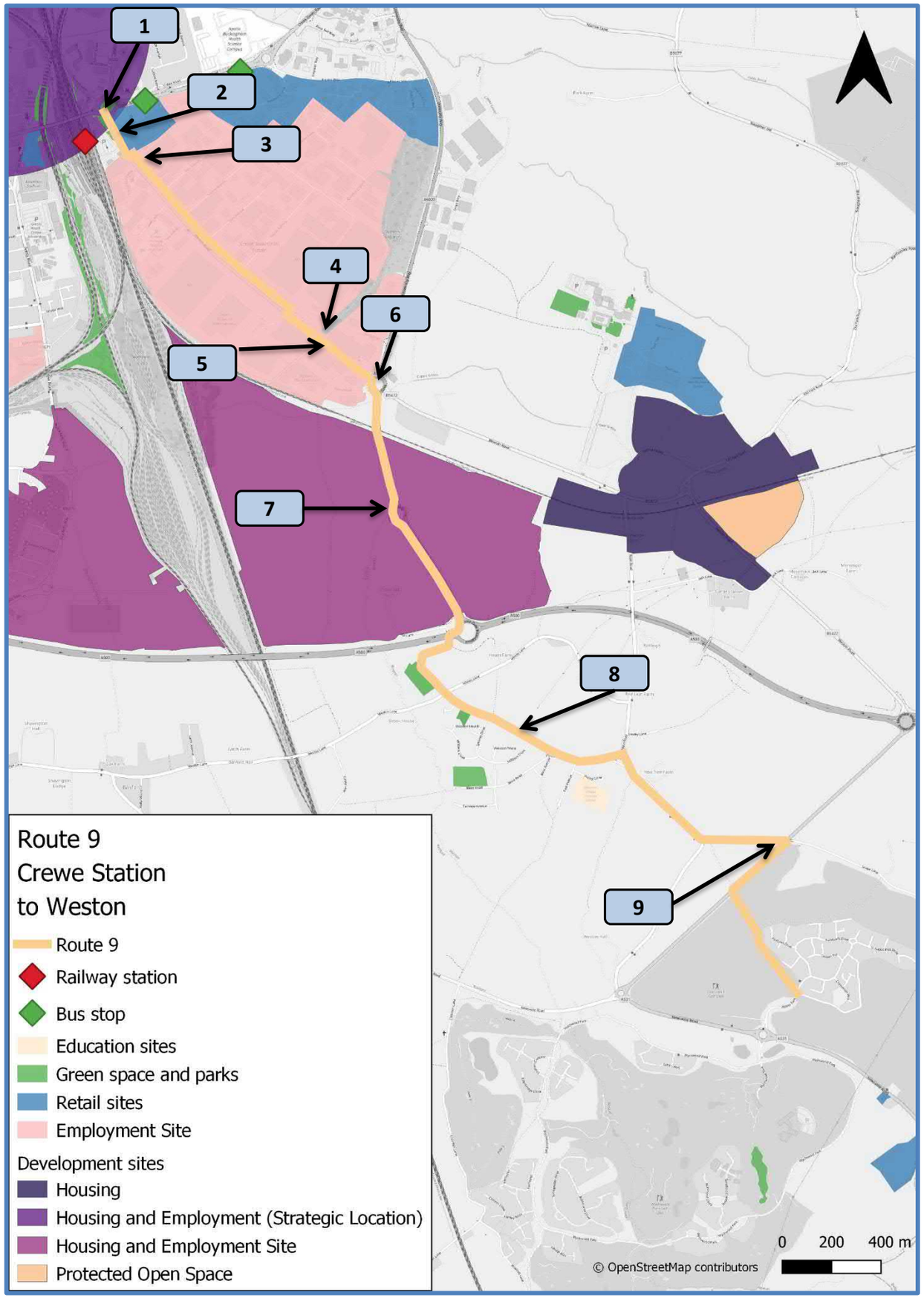
Route 8 – Grand Junction Retail Park to Sydney



Interventions on Primary routes

Ref	Location	Description of intervention
1	Hungerford Road at Manchester Bridge / Macon Way	Tighten junction radius of Macon Way / Hungerford Road roundabout. Install toucan / tiger crossing of Hungerford Road to link with Macon Way cycle route.
2	Hungerford Road at Manchester Bridge / Macon Way	Gateway feature widening access to better promote and improve perceptions of public safety of cycling trail from Hungerford Road.
3	Off-road pedestrian/cycling route from Hungerford Road to Sydney Road (parallel to the railway)	Widen path to 3m where possible with machine laid surface (approx. 1000m).
4	Off-road pedestrian/cycling route from Hungerford Road to Sydney Road (parallel to the railway)	Lighting needed along path and environmental enhancement/landscaping scheme to open up path to improve feelings of personal safety (approx. 1000m).
5	Bennett Close just north of Hungerford Medical Centre	Gateway feature at car park with dedicated path to open up and formalise link from Bennett Close to off-road route.
6	Conrad Close	Vegetation clearance and widening of link through from Conrad Close to off-road path improving perceptions of safety.
7	Footpath from Coleridge Way to off-road route (just north of Bennett Close)	Convert path to shared use with 'Please consider other path user' signage and investigate opportunities for widening.
8	Rochester Crescent / Betjeman Way junction	Investigate potential of link to off-road trail through greenspace just north of junction of Rochester Crescent / Betjeman Way.
9	Sydney Road access to off-road route	Gateway feature widening access to better promote and improve perceptions of public safety of pedestrian / cyclist trail from Sydney Road. Remove bollards limiting access to path.
10	Sydney Road from Bradeley Hall Road to railway bridge	Create dedicated off-road bi-directional cycle track / shared path on western side of carriageway. Likely to require some land acquisition on bridge approach.
11	Sydney Road from Bradeley Hall Road to Hungerford Road junction	Bi-directional off-road cycle track / shared path on western side of carriageway with junction narrowings and side road priority linking into existing facilities at Hungerford Road junction.
12	Sydney Road at Bradley Hall Road access	New toucan / tiger crossing to access Bradeley Hall Road route from new shared use route (intervention 11).
13	Footpath from Sydney Road at rail bridge to Queen Street	Upgrade footpath to shared use link with lighting (approx. 200m).
14	Sydney Road from rail bridge to Maw Green Road	Create dedicated off-road bi-directional cycle track / shared path on western side of carriageway. Looks most feasible on north side of road as fewer trees and potential to utilise short stretch of service road. Crossing required if on other side to path across rail bridge.
15	General route signage	General direction signage for pedestrians / cyclists along route.

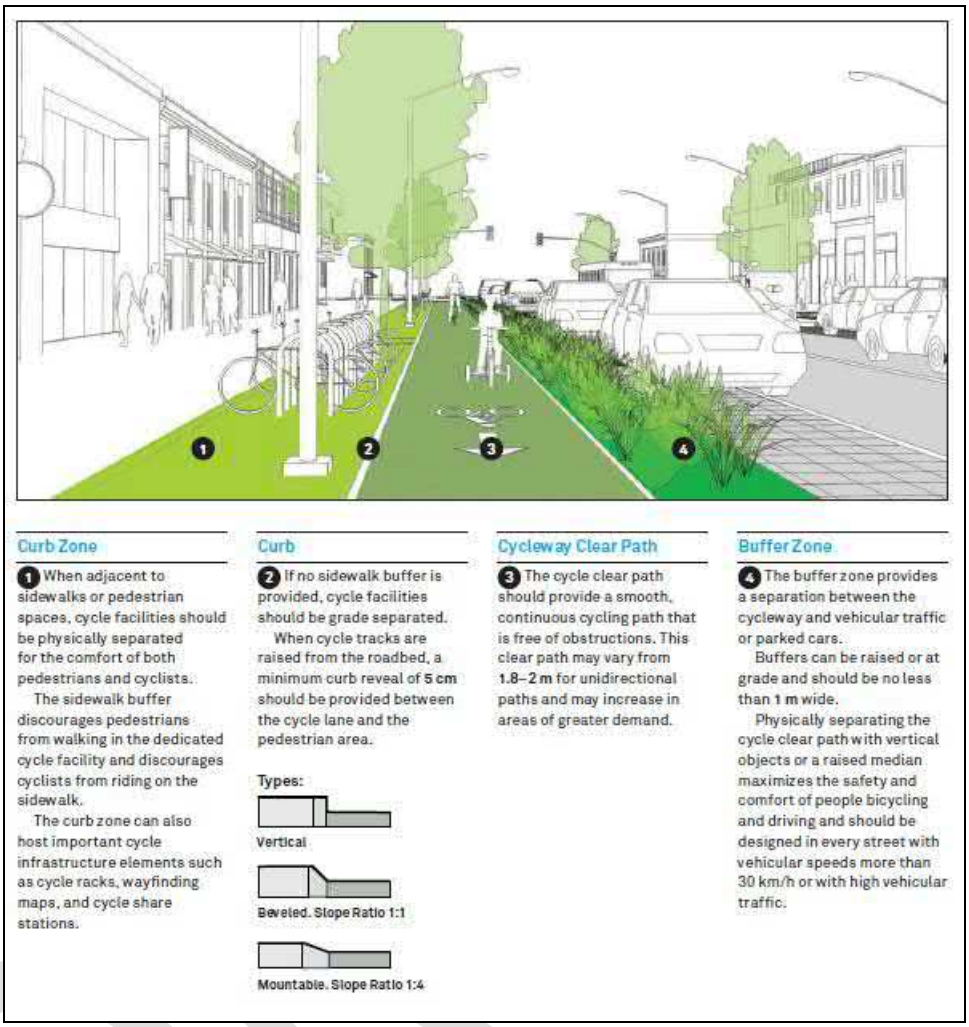
Route 9 – Crewe Station to Weston



Interventions on Primary routes

Ref	Location	Description of intervention
1	Crewe Arms Roundabout	Review Crewe Arms Roundabout and pedestrian/cycle signals to make crossing this busy intersection as convenient and easy as possible. Scope at Tommy's Lane junction to tighten kerblines and reduce vehicle speeds; vegetation clearance needed to expose full effective path width. Pedestrians at Crewe Arms Roundabout will also benefit from additional improvements as part of proposed walking routes.
2	Nantwich Road / Weston Road	High quality pedestrian/cycle route connecting from Nantwich Road to Weston Road Crewe Station entrance (approx. 190m).
3	Weston Road – Crewe Hub	Incorporate high quality pedestrian/cycle routes and facilities to improve access from both sides of the station.
4	Weston Road (near access road)	Near the junction with the access road, realign the existing route nearer to Weston Road itself to improve visibility at the junction with the local access road, including introducing give way signs.
5	Weston Road from Nantwich Road roundabout to University Way roundabout	Dedicated off-road cycle facilities should be provided - could take the form of a bi-directional cycle track in the grassed central area between Weston Road and its service road.
6	Weston Road / University Way roundabout	Provide dedicated crossings (tiger /toucan) on all arms to create coherent safe cycle route.
7	David Whitby Way roundabout	Provide dedicated crossings (tiger /toucan) to create coherent safe cycle route.
8	Cemetery Road	Lighting of this road and 30mph speed limit signage; introduce 'quiet lanes' signage and complementary traffic calming measures as far as village centre.
9	Weston to Wychwood Park	Extension of cycle route from Weston to Wychwood Park to connect to new housing.
10	General route signage	General direction signage for pedestrians / cyclists along route.

5.4 Example Infrastructure



Segregated cycle tracks (Source: NACTO Global Street Design Guide)

Enfield Mini Holland visualisation (image source: Jacobs)

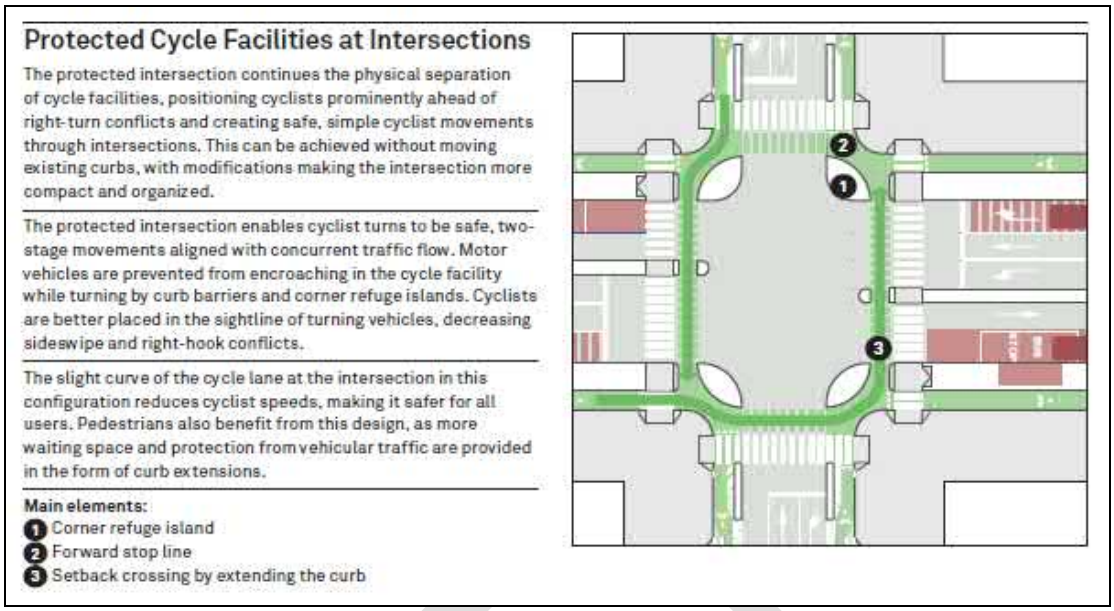
Chapel Street East visualisation: cycle tracks, traffic calming and urban realm improvements (Source: Salford City Council)

Filtered permeability (images source: Jacobs)

Bus stop bypass (Image source: Transport for Greater Manchester)

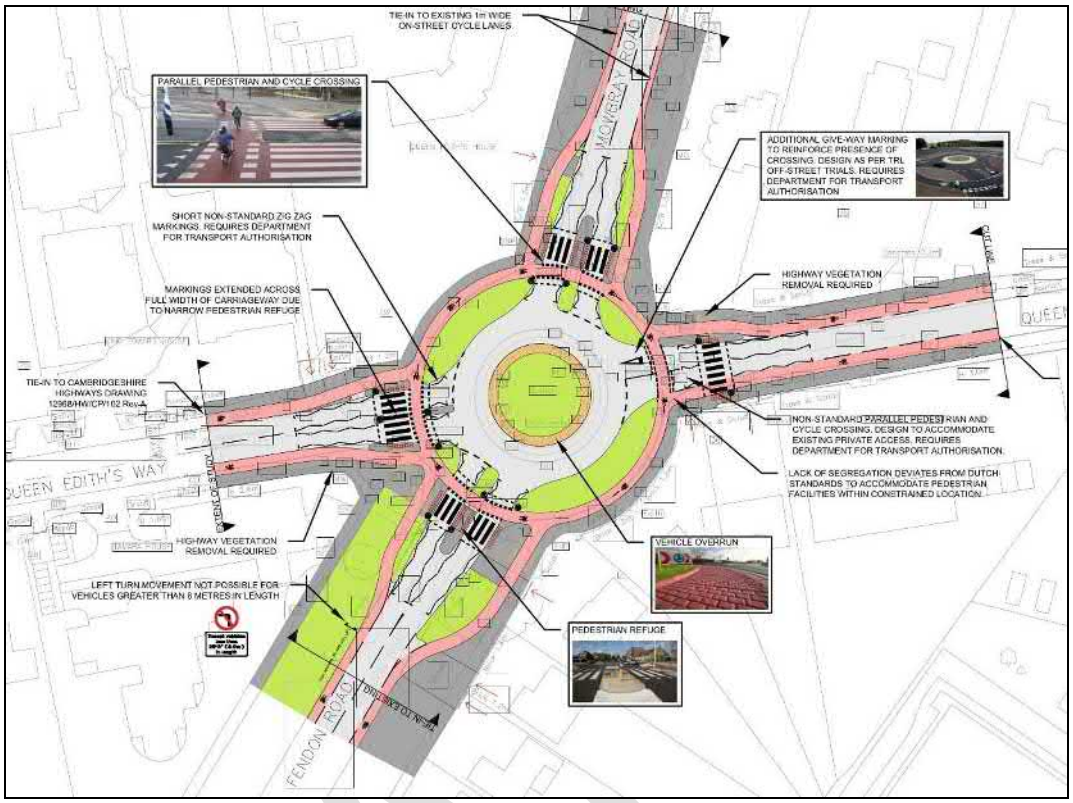
Side road priority (Image source: Cycling Embassy of Great Britain)

Parallel crossing (Image Source: Ranty Highway Man Blog)



(Source: NATCO Global Street Design Guide)

Trafford Road visualisation (image source: Salford City Council)



Fendon Road Roundabout (Source: Cambridgeshire County Council)

Proposed CYCLOPS in Chorlton District Centre (Source: Transport for Greater Manchester)

6. Prioritising Improvements

Section 4 and Section 5 have outlined the vision for the future walking and cycling network in the Crewe and schemes required to enable this vision. High quality infrastructure and a cohesive network is required to achieve a step change in the levels of people walking and cycling. The full network will need to be delivered to encourage a significant uptake in walking and cycling for everyday journeys. There is a range of funding sources available but there is a limit on the number of schemes which can be taken forward at any one time. This chapter of the report sets out key evidence and rationale to prioritise improvements to the walking and cycling network.

DfT's LCWIP guidance recommends that priority should typically be given to schemes that are likely to have the greatest impact on levels of walking and cycling. To build the local case for future investment it is important that early improvements evidence the local benefits and show a good return on investment.

Although it is crucial to develop a prioritised programme on investment, it is important to have flexibility with regard to the funding sources available. Some schemes fit the aims of funders better than others and therefore there will be a need to have a degree of flexibility.

In addition to delivering schemes on the ground it will be important to develop more long term and ambitious schemes in parallel, which entail greater levels of feasibility, planning and design. Ensuring that whilst delivering in the short term, a forward programme of investment is developed. For more ambitious and large-scale schemes such as roundabouts and links with segregated cycle tracks, external funding (i.e. funding not possessed by CEC) is likely to be needed. For some external funding sources, there are short timescales for developing bidding documents, and having scheme concepts already developed can enable authorities to submit high quality bids that leverage substantial investment.

Sections 6.1 to 6.3 outline the appraisal work which has been undertaken, and Section 6.4 sets out the key workstreams and schemes which are recommended to be taken forward.

6.1 Return on Investment

As noted above, it is important to deliver value for money from improvements and build the case for future investment. Investment in walking and cycling routes has been shown to give a high return on investment which is evidenced within a wide range of studies. Walking and cycling provides a broad range of benefits to both the users of the new infrastructure, and the communities the infrastructure is built within. In March 2013, the cycleway Connect2 project linking Crewe and Nantwich was officially opened, providing a car-free cycle route between the two towns. Monitoring shows a 43% increase in cyclists using the route, a 60% increase in pedestrians and a benefit to cost ratio of 4.0.

As part of this LCWIP, the high-level return on investment has been calculated using the DfT's Active Mode Appraisal Tool (AMAT). This tool estimates economic benefits as a result of investing in walking and cycling schemes in line with DfT WebTAG appraisal guidance compared against high level cost estimates for improvements. The benefits reported within the tool include:

- Health through reduced mortality;
- Modal shift through reduced congestion and reduced environmental impacts; and
- Journey ambience.

It should be noted the nature of this appraisal is high level and intended for the use of prioritising investment in the network, giving a broad range of potential benefits which could be realised on each route. Further analysis and work would be required to develop these estimates to form business cases for individual projects and programmes.

In line with the DfT TAG unit A1.2 (July 2017), an optimism bias of 44% has been applied to all active travel interventions.

6.1.1 Walking Economic Appraisal

There is limited existing data to calculate the benefits associated with an increase in walking on specific routes, with no equivalent of the Propensity to Cycle Tool available. As a result, the estimated potential benefits have been calculated based upon a range of increases in walking levels across the town to demonstrate the potential benefits associated with these increases.

One source of readily available evidence regarding walking is the 2011 Census which reports number / percentage of people walking to work.

The 2011 Census reported:

- 15% of people walk to work in Crewe;

However, given 30% of journeys to work in Crewe are under 2km, there is scope for improvement.

Based upon this, an increase of modal share in the number of journeys to work undertaken on foot has been calculated against the potential number of journeys under 2km which could be completed on foot. Two increases have been considered are:

- Medium scenario – 20%
- High scenario – 25%

In the table overleaf the estimated costs of the walking network have been used to understand the likely Benefit Cost Ratio (BCR) associated with the medium and high scenario increase for increasing levels of walking to work in Crewe.

Table 6-1 Economic benefits of walking investment

Number of trips completed on foot	Indicative Cost	BCR
Medium scenario (20% of all commuter trips)	High estimated cost - £3.3 million	1.77
High scenario (25% of all commuter trips)	Low estimated cost - £2.5 million	4.81

At a high level, these BCRs suggest that investment in the walking network would be value for money in both scenarios. Further work would be required to further develop the individual proposals and investigate demand on each section when the proposals are taken forward.

The outputs from the AMAT can be found in Appendix G.

6.1.2 Cycling Economic Appraisal

The PCT has been utilised to understand current and future potential cycling levels in the LCWIP study area. Building on this information the AMAT has been used to estimate benefits for cycling improvements and compare these against costs. Two scenarios have been applied to gain indicative BCRs:

- Low BCR – low cycle demand and high estimated cost
- High BCR – high cycle demand and low estimated cost

Appendix G includes the full output from the AMATs with Table 6-2 showing summary outputs.

Table 6-2 AMAT Summary Outputs

No.	Cycling route	Indicative BCR Low	Indicative BCR High
1	Leighton Hospital to Nantwich Town Centre	2.92	4.13
2	Leighton Hospital to Crewe Town Centre	1.46	2.32
3	Crewe Station to Haslington	1.65	2.80
4	Crewe Station to Shavington	0.82	1.47
5	Crewe Station to Nantwich Town Centre	0.89	1.48
6	Crewe Town Centre to Wistaston	4.31	6.23
7a	Town Centre Loop (Nantwich Road to Town Centre)	1.25	3.08
7b	Town Centre Loop (Earle St – Manchester Bridge – Macon Way)	1.23	2.12
8	Grand Junction Retail Park to Sydney	1.19	1.95
9	Crewe Station to Weston	1.16	2.20

Caution should be used in interpreting the indicative BCRs for route improvements due to the high-level nature of the assessment. Further work is required to develop business cases and understand feasibility for longer term and higher cost interventions.

Although the short / medium term improvements proposed will significantly improve the walking and cycling network, the LCWIP also includes elements of a core Dutch style segregated network. This will provide the facilities to achieve a step change in levels of cycling. As noted above, the AMAT is very sensitive to scheme cost and it is therefore recommended that as part of conducting feasibility studies into the establishment of this high quality segregated network, a more detailed and bespoke approach is taken to more fully understand the likely value for money for these long term improvements. Additionally, it should also be borne in mind that transformational schemes would deliver a wide range of other benefits including increasing walking levels, improving the public realm and revitalising areas currently experiencing severance as seen with London Mini Holland schemes.

6.2 Objectives Appraisal

In addition to the economic appraisal, improvements have been appraised against the following objectives, which encompasses a selection of the objectives within the adopted CEC LTP4 2019-2024:

- Supporting growth & economic strength through connectivity;
- Ensuring accessibility to services;
- Protecting and improving our environment; Promote health, wellbeing and physical activity;
- Maintaining and managing our network assets; and
- Improve organisational efficiency and effectiveness.

The routes were also appraised against three additional objectives:

- Costs of construction and maintenance;
- Potential to attract funding; and
- Dependency on other schemes.

Improvements have also been screened for deliverability (affordability; technical feasibility; value for money; and acceptability) to inform whether schemes can be progressed in the short (up to 2 years), medium (3 – 5 years) and long term (5+ years).

Appendix B shows the full objectives appraisal for walking and cycling route improvements, with summary information provided below.

6.2.1 Walking Improvements Objectives Appraisal

Overall, all the routes scored highly since all display potential to increase walking levels between trip origins and trip destinations; Particularly those which enhance economic growth such as core walking zones, link transport hubs, employment areas and health sites.

All of the routes scored highly for acceptability and attractiveness since they improve the quality of walking provision for all users within Crewe. The sequencing of the

routes is reflective of influential factors such as financial requirements and the scale of the time and resource investment which is required along each route.

Table 6-3 Objectives Appraisal for Walking Route Improvements

		Objectives Appraisal			Deliverability			Sequencing		
	Funnel route	TOTAL (max score 45)	RANK	Affordability	Technical Feasibility	Value for Money	Acceptability	Short-term (less than 2 yrs.)	Medium-term (3-5 yrs.)	Long-term (5 yrs.+)
1a	Crewe Town Centre to Leighton Greenway	34	7							
1b	Leighton Greenway	35	5							
2	Crewe Town Centre to Middlewich Street	33	10							
3	Crewe Town Centre to Maw Green via Lime Tree Avenue	34	7							
4	East/West: Queens Park to Crewe Green	39	3							
5	Crewe Town Centre to Nantwich Road via Ruskin Road	34	7							
6a	North/South: Weston Road and Macon Way	35	5							
6b	Crewe to Sydney via off road path parallel to the railway	30	12							
7a	North/South: Crewe Retail Park to A534 Nantwich Road	41	1							
7b	Greste Road	31	11							
8	East/West: A534 corridor to Crewe Business Park	37	4							
9	Core Walking Zone	41	1							

6.2.2 Cycling Improvements Objectives Appraisal

The objectives appraisal scored the more ambitious route improvements highly according to contributions to hitting the LCWIP objectives, mainly due to their proximity to major trip attractors such as the town centre, educational sites, employment, hospitals and transport interchanges.

Table 6-4 Objectives Appraisal for Cycling Route Improvements

	Route Title	Objectives Appraisal			Deliverability			Sequencing		
		TOTAL (max score 45)	RANK	Affordability	Technical Feasibility	Value for Money	Acceptability	Short-term (less than 2 yrs.)	Medium-term (3-5 yrs.)	Long-term (5 yrs.+)
1	Leighton Hospital to Nantwich	36	5							
2a	Leighton Hospital to Leighton Greenway	37	2							
2b	Leighton Greenway to Crewe Town Centre	37	2							
3	Crewe Station to Haslington	33	9							
4a	Crewe Station to Shavington	36	5							
4b	Shavington Greenway to town centre	31	12							
5	Crewe Station to Nantwich Town Centre	37	2							
6a	Crewe town centre to Wistaston via Alton Street	34	8							
6b	Crewe town centre to Wistaston via Victoria Avenue	31	12							
7	Town Centre Loop	40	1							
8	Grand Junction Retail Park to Sydney	33	9							
9a	Crewe Station to Weston	36	5							
9b	Weston onwards	32	11							

6.3 Synergies between Walking and Cycling Investment

While the LCWIP process includes separate approaches to planning and identifying walking and cycling improvements, measures that improve conditions for one user group will often benefit the other. Additionally, it is crucial a holistic approach to planning, design and implementation of infrastructure is followed to ensure one mode does not negatively impact on the other.

6.4 Recommended Sequencing of Investment

An indicative sequencing of investment has been set out below to guide future scheme development and delivery. This sequencing seeks to balance the various evidence outlined above into a practical and evidence led programme.

This investment programme has a number of work streams that are recommended to deliver short term improvements and develop more ambitious schemes for future delivery.

6.4.1 Developer Funding Schemes

The National Planning Policy Framework makes clear the importance of sustainable development, noting "transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives".

Given the scale of development coming forward in Cheshire East over the coming years there will be scope for delivery of key schemes and linkages into development sites through the planning process via Section 106 / 278 or within the footprint of development itself. Future developments are at varying stages of the planning process, developments which are at a stage in which there is potential for key routes within the future walking and cycling network to be incorporated into the development sites, should be continually identified.

6.4.2 Short Term Scheme Delivery

For schemes delivered through the CEC annual investment programme such as the Local Transport Plan Integrated Block and other sources of external funding it is recommended that route improvements are delivered as shown in Table 6-5 and Table 6-6 subject to funding availability.

Table 6-5 Recommended Short Term Walking and Cycling Investment (up to 2 years)

Investment Theme & Evidence	Key Routes	Key Schemes
Improvements to crossing provision **Evidence:** Knowledge of the area and stakeholder input has identified locations where there is a degree of pedestrian severance across busy roads and therefore crossings are required.	1 - Leighton Hospital to Nantwich (cycling)	New crossing point of Leighton Link Road to be delivered as part of the wider scheme.
		Middlewich Road (A530) / Wistaston Green Road junction - review toucan crossing to ensure that it meets the needs of pedestrians and cyclists.
	7 - Town Centre Loop (cycling)	Mirion Street / Greystone Park crossing - minor works to improve approach to toucan crossing.
	Core Walking Zone	Provision of highlighted crossings on all arms of Delamere Street/Chester Street.
Quality improvements to existing and new routes **Evidence:** Small, low cost changes required to upgrade routes that have been identified.	1 - Leighton Hospital to Nantwich (cycling)	Committed scheme already being taken forward for delivery between Coppenhall Lane and Leighton Link Road to install shared path and new pedestrian / cycle bridge over rail line. Middlewich Road (A530) / Coppenhall Lane southern junction (Motorsave Direct) - upgrade surface quality and extend paths to 3m. Middlewich Road (A530) / Coppenhall Lane (Motorsave Direct) to Wistaston Green Road -

Investment Theme & Evidence	Key Routes	Key Schemes
		upgrade substandard width shared path to consistent width cycle track, reallocate space from central hatching, verge protection of cycle route where feasible.
	7 - Town Centre Loop (cycling)	Feasibility study into provision of a new bridge structure and alignment dedicated to cyclists and pedestrians in the vicinity of the current Earle Street bridge.
		Feasibility study into the options for improving the route between the Train Station and town centre, in particular around the options outlined near Mill Street bridge.
		Dropped kerbs and short stretches of path on A532 at Mirion Street and Vincent Street.
		Drop kerbs to aid access to and from Earle Street.
		Rainbow Street - create dedicated pedestrian/cycle shortcut access to Grand Junction Retail Park.
	Core Walking Zone	Place new and renovate existing dropped kerbs and tactile paving.
	2 – Leighton Hospital to Crewe Town Centre (cycling)	Investigate potential for delivery of bi-directional cycle path on one side of carriageway (West Street from Broad Street to Vernon Way).
		Investigate potential for delivery of bi-directional off-road cycle track on west side of carriageway linking with new facility south of Earle Street (Vernon Way from West Street to Earle Street).
Small improvements e.g. removal of barriers, vegetation maintenance and wayfinding **Evidence:** Low cost, 'quick wins' to improve	1 - Crewe Town Centre to Leighton Greenway (walking)	Ford Lane/Mount Pleasant - remove staggered barriers and bollards to ensure access for all.
		Improve wayfinding and signage throughout the whole route.
	Core Walking Zone	Improved wayfinding and signage throughout to key destinations/attractors.

Investment Theme & Evidence	Key Routes	Key Schemes
routes for accessibility and wayfinding as identified through review of the routes and WRAT.		Ensure the existing / proposed bus station has a clear signed route to key attractors such as the town centre and retail park.
	7 – North – South: Crewe Retail Park to Gresty Road (walking)	Improve wayfinding throughout the route.
		Vernon Way - management of vegetation encroaching on footway.
	Low Traffic Neighbourhood	Measures to calm traffic speeds and reduce traffic volumes to be identified in consultation with stakeholders.

6.4.3 Medium Term Scheme Delivery

Table 6-6 Recommended Medium Term Walking and Cycling Investment (3-5 years)

Investment Theme	Key Routes	Key Schemes
Improvements to crossing provision **Evidence:** Knowledge of the area and stakeholder input has identified locations where there is a degree of pedestrian severance across busy roads and therefore crossings are required.	3 - Crewe Town Centre to Maw Green via Lime Tree Avenue (walking)	Implement highlighted crossings across Queens Street junctions with Earle Street and O'Shaw Street.
	4 – East – West: Queens Park to Crewe Green (walking)	Informal streets junction and/or improving pedestrian crossing points at Chester St/Market St – feasibility study.
Quality improvements to existing and new routes **Evidence:** Small, low cost changes required to upgrade routes that have been identified.	6 - Wistaston to Crewe Town Centre (cycling)	Improve gateway feature onto the Connect2 route. Review quality of the route through Wistaston Brook to improve route attractiveness.
Small improvements e.g. removal of barriers, vegetation maintenance and wayfinding **Evidence:** Low cost, 'quick wins' to improve routes for accessibility and wayfinding as	6 - North – South: Sydney to Weston Road via Macon Way (walking)	Improve vegetation maintenance throughout off road route to allow use of the whole width of pathway to be used.
	6 - Wistaston to Crewe Town Centre (cycling)	Remove staggered barriers onto Victoria Avenue to allow accessibility for all.

Investment Theme	Key Routes	Key Schemes
identified through review of the routes and WRAT.	5 - Crewe Station to Nantwich Town Centre (cycling)	Maintenance throughout the route in particular road markings.
	4 – East – West: Queens Park to Crewe Green (walking)	Remove staggered barriers at entrance with Victoria Avenue. Ensure vegetation is maintained throughout.
	8 - East – West: A534 corridor to Crewe Business Park (walking)	Improve vegetation clearance on Crewe Road to ensure the whole width of the shared pathway can be used.
Junction redesign or modification **Evidence:** Similar rationale to improvements proposed for short term interventions however these schemes will require more feasibility / design work.	7 -Town Centre Loop (cycling)	Narrow junction radius on Memorial Square approach arms; investigate scope to narrow approaches on other arms simplifying roundabout and slowing approaching traffic.
		Junction improvement at Market Street / Delamere Street junction to aid movement into town centre area.
		Review Crewe Arms Roundabout and pedestrian/cycle signal alignments need review to make crossing this busy intersection as convenient and easy as possible.
	1 - Leighton Hospital to Nantwich (cycling)	Middlewich Road (A530) / Coppenhall Lane roundabout to Coppenhall Lane (Motorsave Direct) junction – junction treatment.
	8 - Grand Junction Retail Park to Sydney (cycling)	Hungerford Road at Manchester Bridge / Macon Way - tighten junction radius of Macon Way / Hungerford Rd roundabout.
Cycle streets/traffic calming/filtered permeability **Evidence:** Some feasibility required however are relatively low-cost interventions.	7 - Town Centre Loop (cycling)	Herdman St / Railway St / Pedley St - Traffic calming and junction tightening (potentially raised tables) to enforce lower speed limit; streetscape improvements & planting to improve natural wayfinding and make route more attractive. Reduce speed limit to 20mph.
		Edleston Rd from Nantwich Rd to Wistaston Rd - traffic calming and streetscape improvements to reinforce 20mph limit and residential/local nature of road.
		A532 from Manchester Bridge to Vernon St roundabout to Rainbow St - Investigate scope to reallocate carriageway width to widen paths to 3m minimum shared unsegregated paths.

Investment Theme	Key Routes	Key Schemes
		Provision of a new bridge structure and alignment dedicated to cyclists and pedestrians parallel to the Earle Street bridge, following the short-term feasibility study.
Shared path/footway improvements **Evidence:** Improvements to existing footpaths/cycle routes that require upgrades.	2 - Leighton Hospital to Crewe Town Centre (cycling)	Improved gateway feature to park with stretch of widened path on Broad Street raising awareness of route.
	7 – North – South: Crewe Retail Park to Gresty Road (walking)	Pedley Street, Railway Street - Widen footway to 1.5m to Waverley Court (190m) and improve footway surface between Pedley Street and Waverley Court.
	1 - Crewe Town Centre to Leighton Greenway (walking)	Upgrade path to shared use with widening to 3m where possible from Windsor Avenue to Broad Street.
	7 - Town Centre Loop (cycling)	Nantwich Road at Crewe Station - Crewe Hub provides a major opportunity to create a more people friendly space. Improved links into Pedley Street and at Nantwich Road roundabouts are crucial. As part of Crewe Station works, an additional separate structure parallel to the railway with a shared cycling/walking pathway to be provided.
		Implementation of the chosen option following the feasibility study into the options for improving the route between the Station and town centre near Mill St bridge.
	2 - Leighton Hospital to Crewe Town Centre (cycling)	Badger Avenue - Upgrade path to shared pedestrian/cycle path; widen up to 3 m wherever possible.
	8 - Grand Junction Retail Park to Sydney (cycling)	Footpath from Sydney Road at rail bridge to Queen Street - Upgrade footpath to shared use link with lighting.

7. Integration and Application

Walking and cycling routes interact with other infrastructure such as highways and the urban realm. Likewise, from a policy perspective, walking and cycling fits within a broader context and policy framework. To achieve a step change in walking and cycling, a wider supportive policy framework is crucial to nudge people and support behaviour change. Section 7 outlines how this LCWIP can be integrated in broader policy and ensure delivery cuts across a wide range of future investment programmes.

7.1 Sustainable Modes of Travel Strategy (SMOTS)

Encouraging young people to walk and cycle has a wide range of benefits associated with reducing congestion as part of the school run, reducing parking issues in proximity of educational establishments, and crucially helping our children to be healthier and happier. This LCWIP details a number of walking and cycling route improvements in the vicinity of schools and educational sites, notably improvements to the core walking zone in Crewe, and improvements to walking and cycling provision near Ruskin Community High School, Hungerford Primary Academy and Crewe Engineering UTC, amongst others. As part of the ongoing SMOTS programme these improvements should be considered for funding. Additionally, schools should be encouraged to produce Travel Plans that detail local access improvements which may not have been considered by this LCWIP which focuses on primary routes.

The production of School Travel Plans also presents an opportunity to roll out supporting measures that provide practical support such as Bikeability cycle training, scooter/cycle storage and promotional measures. For primary schools there is a significant opportunity to increase levels of walking / scooting to school. Cycling to primary schools should also be encouraged where off carriageway provision exists, and major modal shift can be achieved for cycling to secondary schools and colleges.

7.2 Future Transport Policy / Strategy

Future iterations of transport policy / strategy should include key recommendations of this LCWIP as they come forward. Some overlapping policies are outlined in greater detail below.

7.2.1 Sustainable Travel Enhancement Programme (STEPs)

This LCWIP will inform the delivery programme of STEPs by recommending schemes which should be taken forward, as detailed in Section 6.4.

7.2.2 LTP4 Local Transport Delivery Plans and Parking Strategies

The LTP4 supports future schemes to encourage the uptake of walking and cycling, with direct reference to the LCWIP as a linked document to the LTP.

Alongside the finalisation of the LTP, CEC are producing Delivery Plans for towns across the Borough. These Delivery Plans should incorporate key schemes detailed in this LCWIP for Crewe, with scheme proposals outside these areas being

developed to achieve the design objectives sets out in the LCWIP technical guidance.

7.2.3 Town Centre and HS2 Regeneration Programme

Plans are currently being developed for the regeneration of Crewe such as the town centre and the area surrounding Crewe Station as a result of the arrival of HS2. There is an opportunity for potential funding from the Future High Streets Fund and Stronger Towns Fund to progress interventions outlined within this LCWIP. LCWIP interventions should interlink with regeneration proposals in order to directly contribute to effective placemaking and creating an attractive walking and cycling network within Crewe.

7.3 Development Management

A crucial early priority for implementation of the LCWIP will be working with developers as part of the planning process to ensure walking and cycling routes in the vicinity of and within developments deliver high quality walking and cycle routes. Funding secured from developers to mitigate effects on the transport generated from new development should fund walking and cycling route improvements.

7.4 Funding Submissions

Key to delivery of this LCWIP will be securing external funds. CEC have an annual programme of transport infrastructure delivered through the Local Transport Plan Integrated Transport Block and it is recommended a portion of this is used to deliver lower cost schemes and conduct feasibility planning for future higher cost interventions to develop ready to go schemes to seek external funding.

Key potential external funding sources are set out below alongside high-level recommendations for suitable schemes:

- **DfT Emergency Active Travel Fund** – Measures outlined within this LCWIP are being considered as part of the recently announced DfT Emergency Active Travel Fund to improve walking and cycling facilities.

- **Sustrans National Cycling Network** – Sustrans are investing funds in improving the quality of the NCN to achieve a higher standard of provision. CEC will engage with Sustrans to identify improvements to the NCN within the LCWIP study area, and demonstrate the positive contribution which the interventions identified in this LCWIP can have on the NCN. In the short term / medium term, Sustrans have funds to invest and should be engaged regarding key schemes set out in the short and medium term within Chapter 6.

- **DfT Cycle Rail Fund** – the DfT currently have a programme of improving cycle facilities at rail stations and it is recommended that improvements are considered at Crewe Station which is within the LCWIP area.

- **Other future central government funding** – as noted above, it will be important to develop plans for higher cost and ambitious schemes which will require external funding. Future funding pots which may come forward could include another round of Local Growth Fund or specific funds for implementation of LCWIP schemes. It is recommended CEC monitor these opportunities and develop applications as appropriate.

- **Promotion and engagement** – although it is noted local authorities have limited revenue funding which can be used for promoting walking and cycling routes and offering practical support, there are some options which can be explored including: securing Bikeability funding for cycle training in schools; working with public health colleagues to integrate promotion of walking and cycling routes into their ongoing public health campaigns; requiring robust and good quality Travel Plans as part of the planning process; and engaging community groups to help them promote / support walking and cycling. It is also recommended that CEC apply for any future funding which may be available as a successor to the DfT's Access Fund.

- **Future LCWIP Fund** – should a LCWIP fund be brought forward, schemes within this LCWIP should be considered. DfT have plans to bring forward plans for enhanced walking and cycling networks. CEC are working towards being in a position to submit for consideration key walking and cycling schemes as part of that fund.

- **Integration with other schemes** – walking and cycling developments should be included within wider regeneration and transport schemes. For example, Crewe Access Package, development around Crewe Station and the North West Crewe development.

7.5 Key Next Steps

This LCWIP has detailed a review of the existing walking and cycling network in the LCWIP study area and identified areas for improvement. Feedback from stakeholder engagement alongside on-site observations have informed the suggested interventions and routes which should form the future cycling and walking network in the LCWIP study area. The recommendations create a long-term investment programme that will need sustained investment to deliver a step change in levels of walking and cycling.

As such, key recommended next steps include:

- Continual development of the STEPs rolling programme of investment for current funding streams controlled by CEC;
- Developing scheme designs and feasibility schemes;
- Conducting feasibility work to understand the scope and high-level design concepts for highway space reallocation;
- Working with Development Management colleagues to secure improvements through the planning process;
- Engaging Sustrans regarding funding for improvements to the national cycle network and regional cycle network within the LCWIP study area;
- Preparing bids to other external funding opportunities;
- Align cycling and walking ambitions with the development of the Local Transport Delivery Plans; and
- Align cycling and walking ambitions with the development of Crewe town centre and station regeneration programmes.

Appendix A – Stakeholder Engagement – Workshop Presentation

Crewe Local Cycling and Walking Infrastructure Plan

Stakeholder Workshop

1st April 2020

Workshop Agenda

- Welcome and introduction
- LCWIP introduction and methodology
- Data analysis and initial learnings
- Discussion
  - What key improvements are needed for walking
  - What key improvements are needed for cycling
- Next steps

Introduction to the Study

What is a Local Cycling and Walking Infrastructure Plan (LCWIP)?

- LCWIPs aiming to move from ‘accommodating’ to ‘encouraging’
- A new strategic approach to identifying cycling and walking improvements at the local level
- Enables a long term approach to developing local cycling and walking networks
- High quality networks
- Accessible for all
- Build on network already developed
- Key outputs
  - A network plan for walking and cycling
  - A prioritised programme of route improvements for future investment
  - A report which sets out the underlying analysis

Introduction to the study

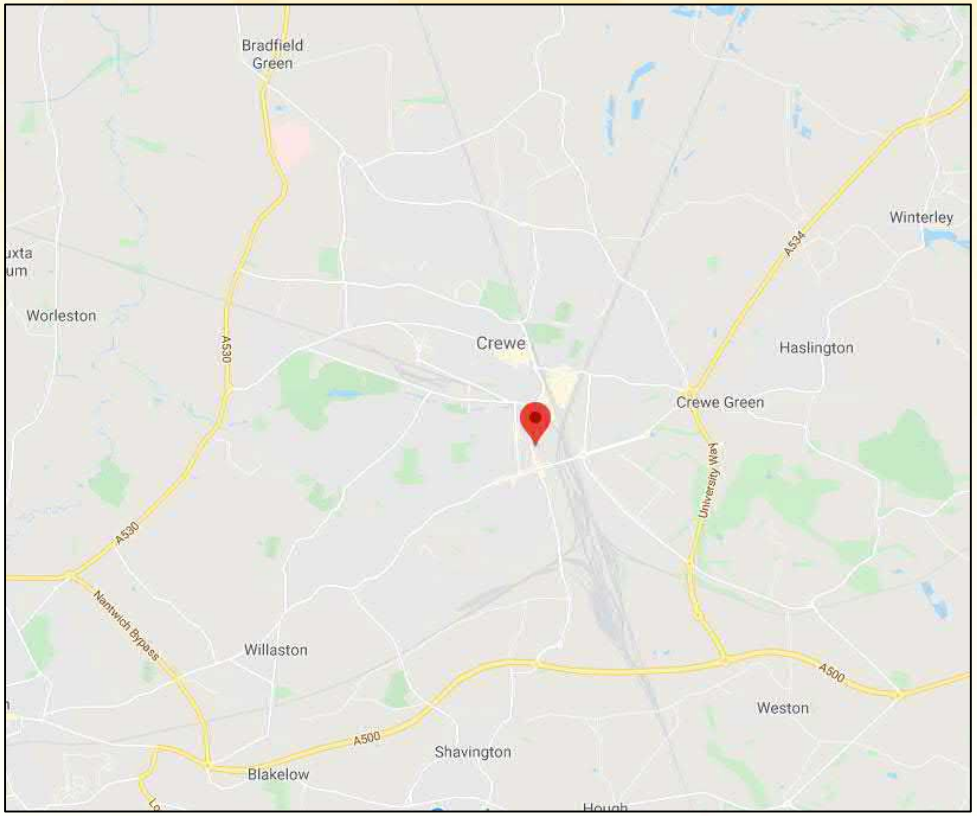
Why develop an LCWIP?

- Guide development of cohesive network
- Inform future strategy / plans
- To help to secure funding
- Help to make walking and cycling the natural choices for shorter journeys or as part of a longer journey
- Meets wide range of policy objectives at local, regional and national levels
  - Health
  - Quality of life
  - Economy
  - Environment

Study Area

- Core area covers Crewe including the town centre and retail park and links to development areas

- Links to towns and villages within walking and cycling distance to / from Crewe



LCWIP Process

Stage One: Determining Scope	*Geographical extent of LCWIP*
Stage Two: Gathering Information	*Existing conditions, policy background, barriers to cycling and walking*
	We are here
Stage Three: Network Planning for Cycling	*Origins / destinations, create a network of routes and suggested interventions*
Stage Four: Network Planning for Walking	*Origins / destinations, core walking zone, audit existing provision and determine improvements*
Stage Five: Prioritising Improvements	*Create a phased programme for future investment*
Stage Six: Integration and Application	*Integrate outputs into policy and delivery plans*

Example Interventions: Walking

Continuous footway*

Public realm improvements**

Pedestrian crossings**

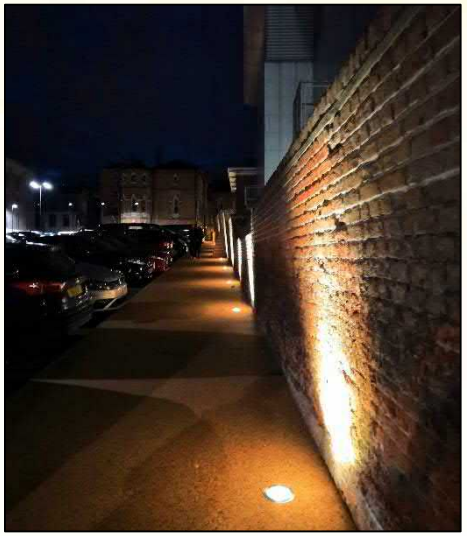
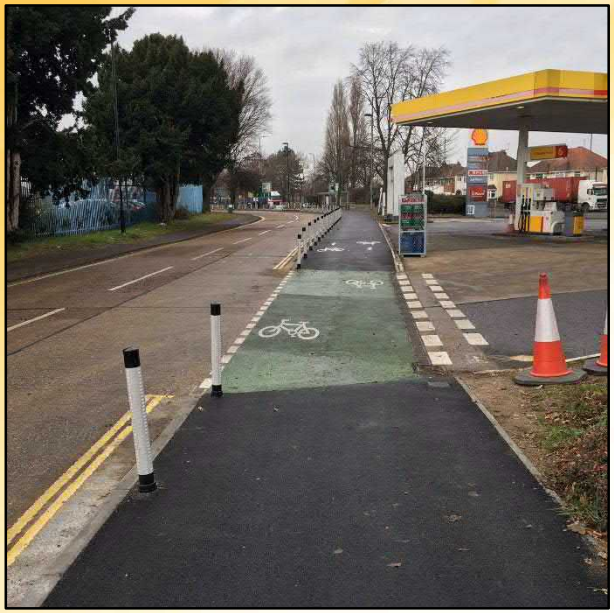


*Image Source: Phil Jones
**Image Source: Sustrans
***Image Source: trafficchoices

Example Interventions: Cycling



Light segregation*

Filters

Advanced green cycle filters**

*Image Source: Phil Jones
**Image Source: JCT Consultancy

Example Interventions: Cycling

Parking protected cycle lanes*

Designing for all***

Bus stop bypass**

Working for a brighter future together

*Image Source: Zsolt Schuller
**Image Source: Transport for Greater Manchester
***Image Source: Cycling UK/bikesandtrailers.com

Cheshire East Council

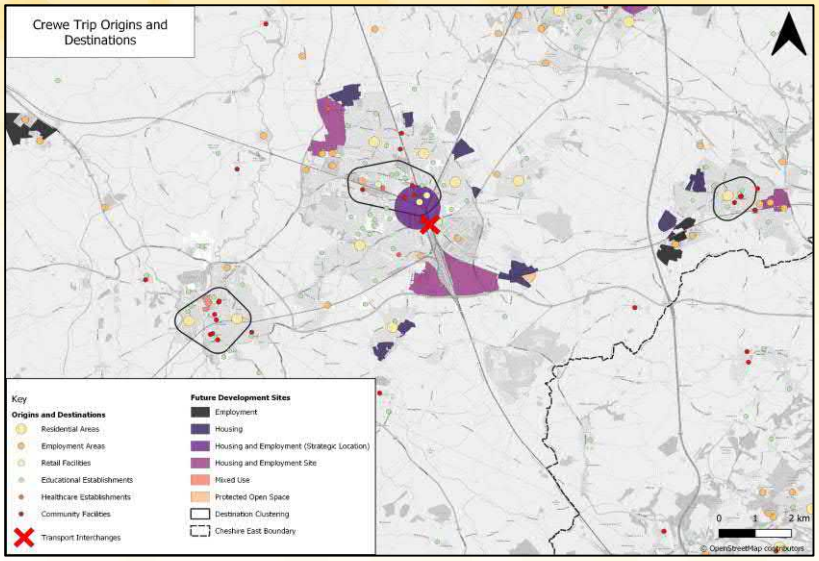
Baseline Data

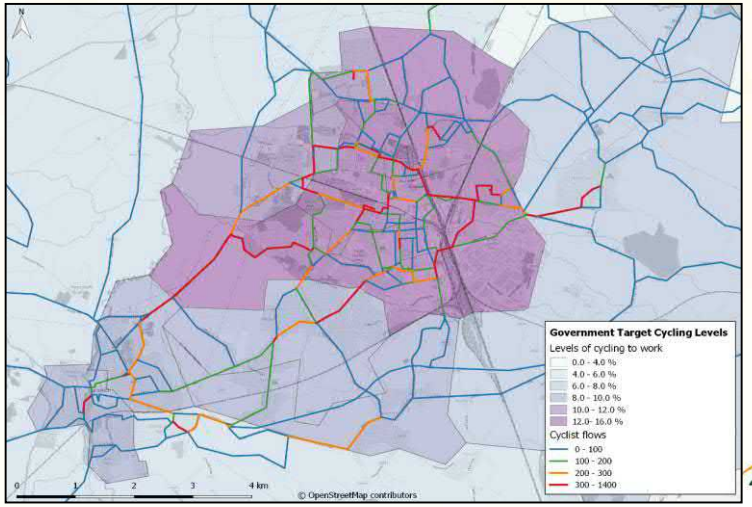
Data analysed

- Population density
- Unemployment rates and workplace population
- Proposed future developments
- Census travel to work data
- Pedestrian links
- Existing cycle network
- Location of key attractors:
  - Educational sites
  - Employment sites
  - Leisure and recreational areas
  - Transport interchanges
- Road traffic collisions
- National Propensity to Cycle Tool
- Local Transport Plan

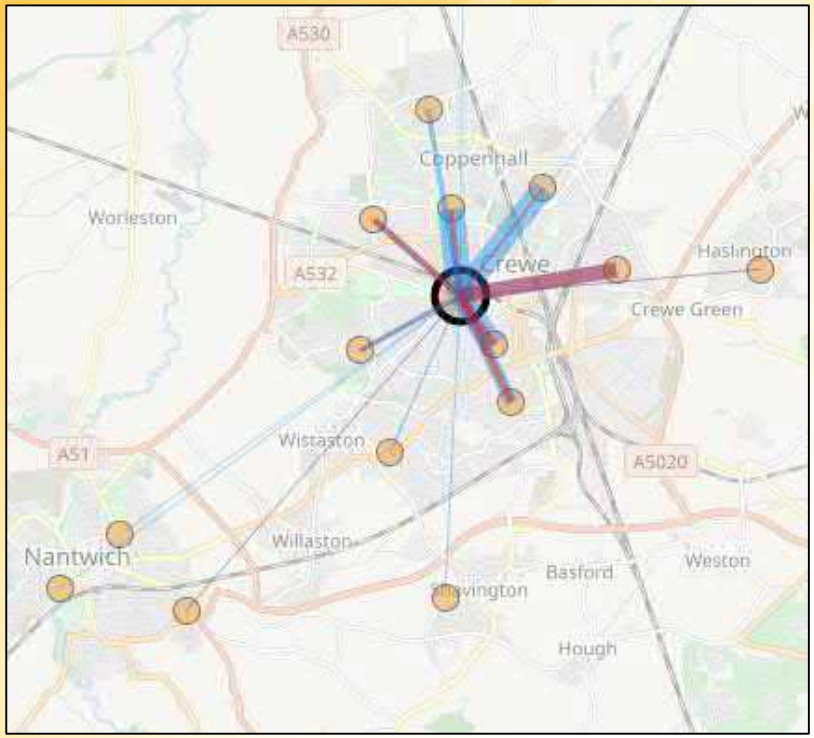
Data limitations

- No data on leisure trips
- Trip data are from Census 2011
- Walking data less extensive than cycling

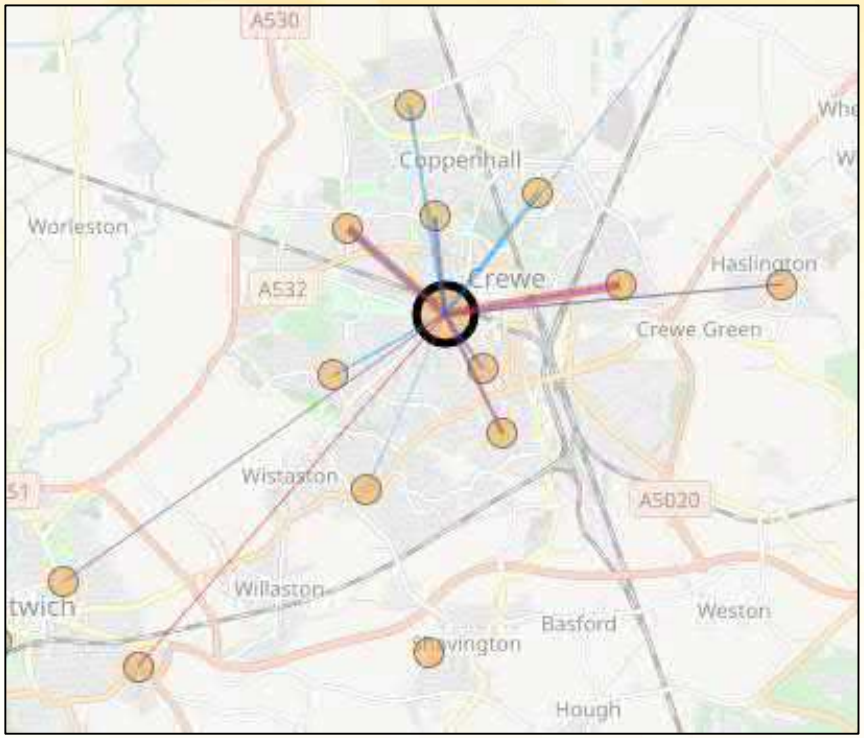




Datashine: Travel to Work

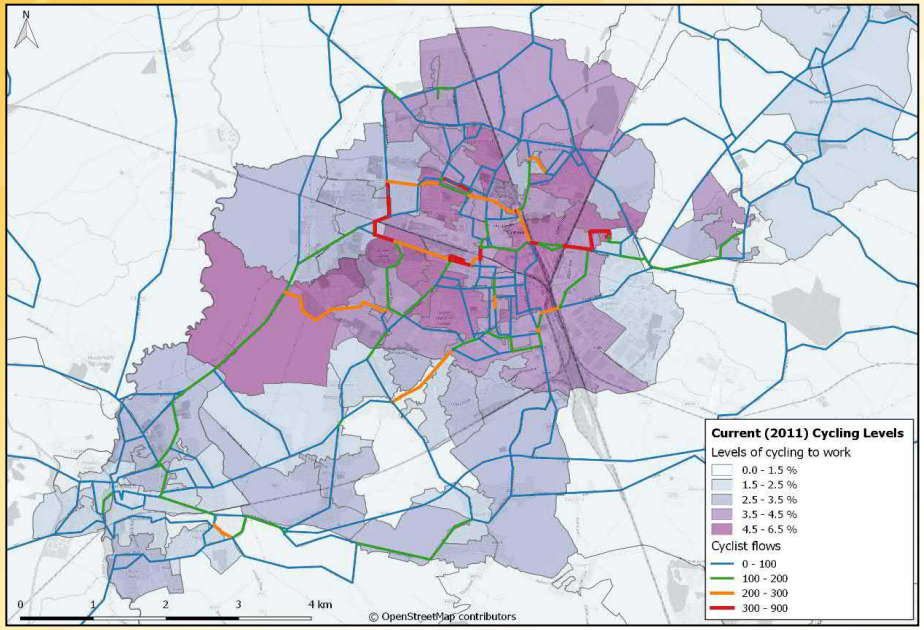


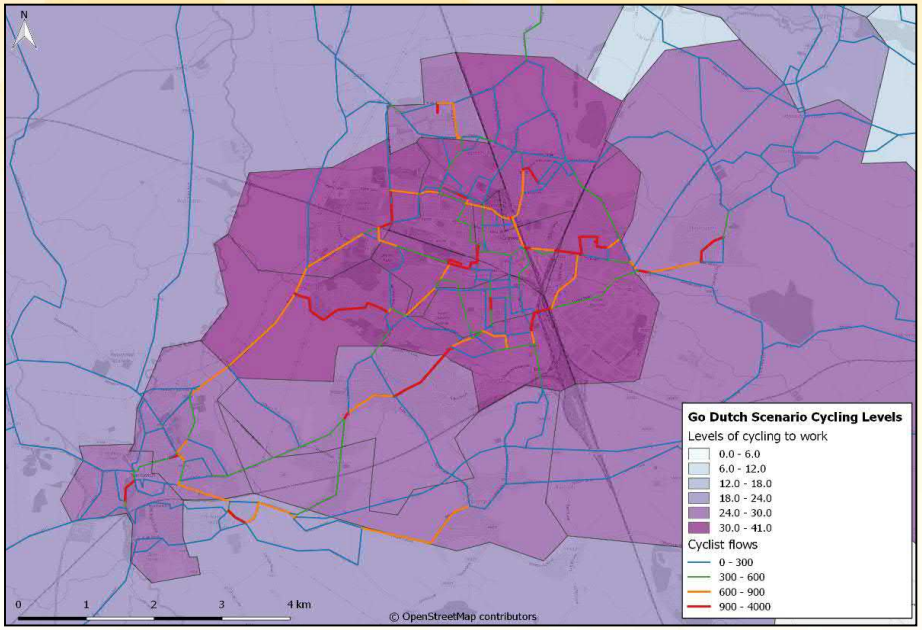
Walking flows: greatest flows to/from surrounding residential areas



Cycling flows: greatest flows to/from surrounding towns/villages

Propensity to Cycle Tool (PCT) – Possible growth in cycling

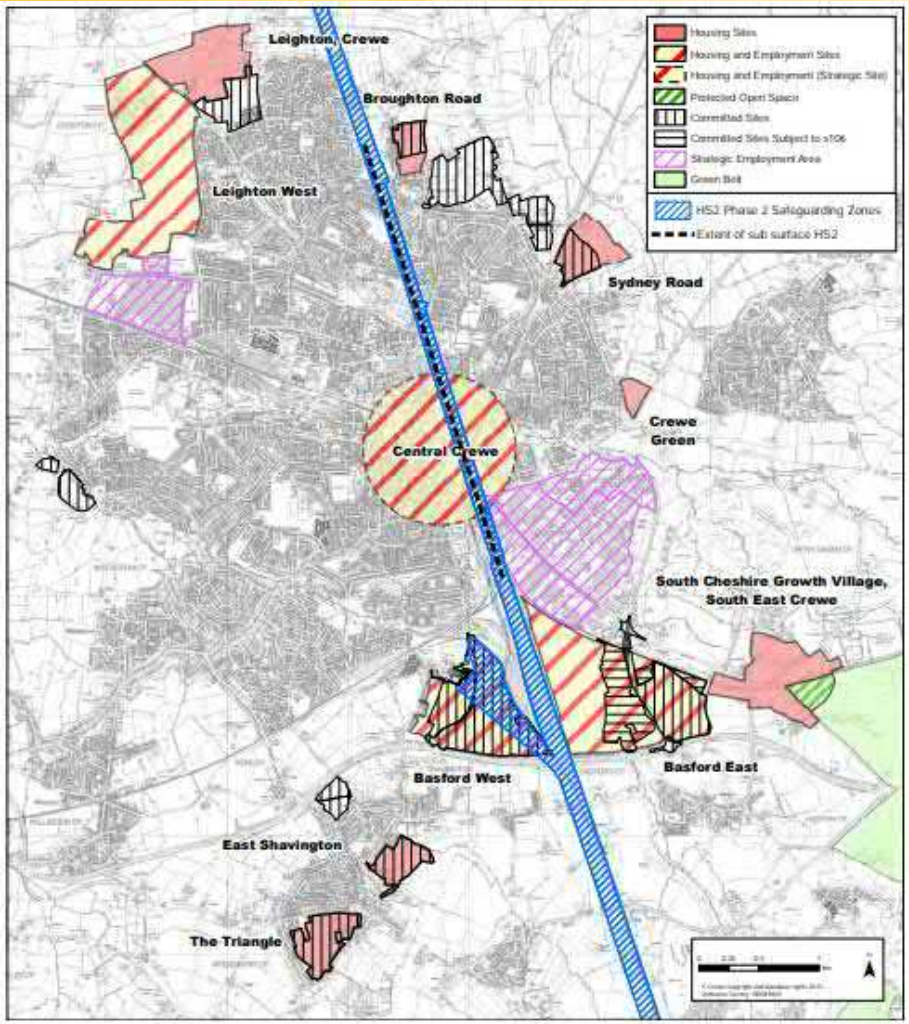




- High potential increase in cyclist commuter flows in Crewe centre, and to neighbouring towns, such as Nantwich
- Note: does not include new development and other trip purposes (e.g. school, multimodal, leisure and other everyday trips)

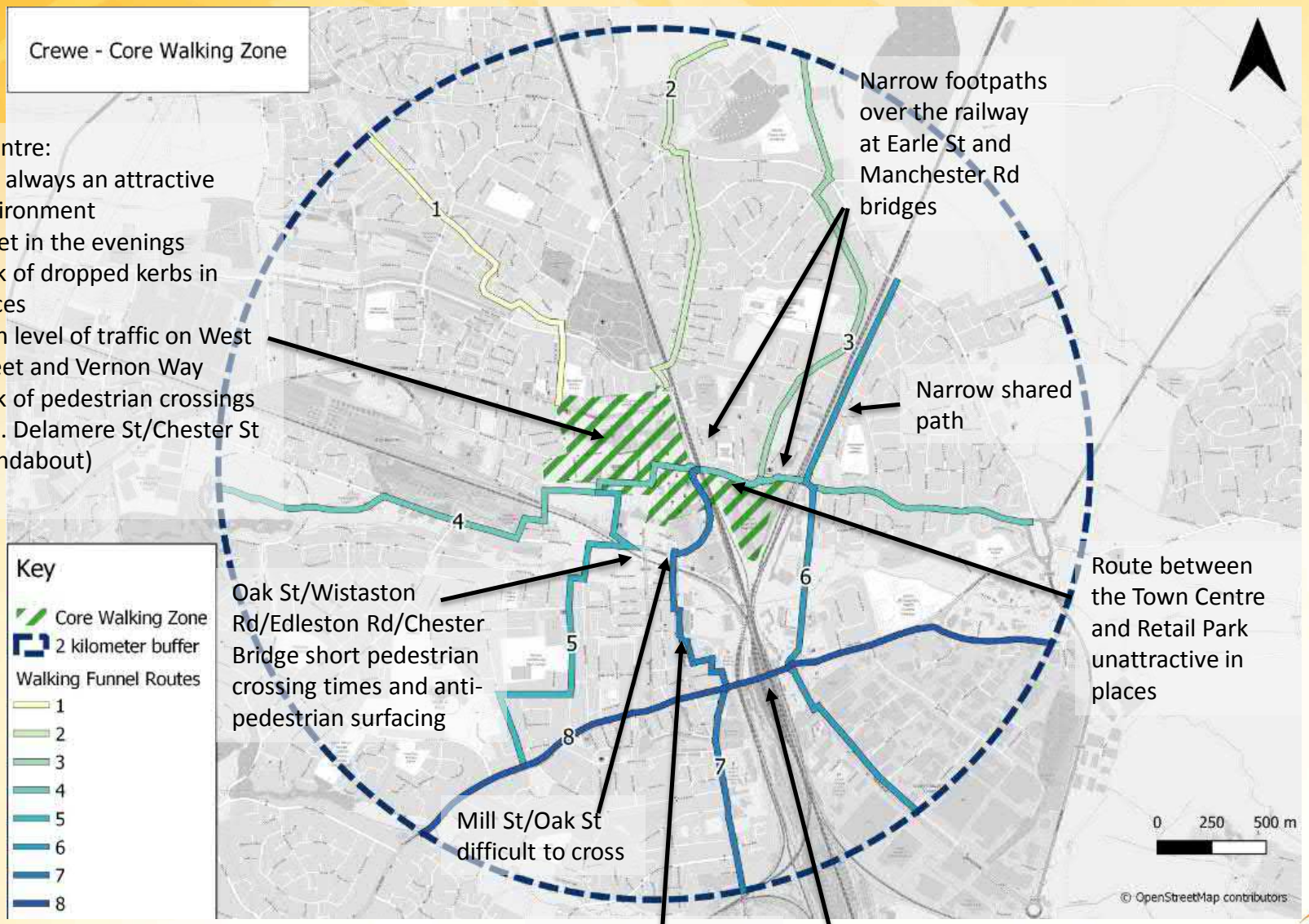
Discussion on opportunities and issues

New Planned Developments



- High proportion of mixed use development to the north and south of Crewe
- Focus on central Crewe for development
- HS2 related development (Area Action Plan)

Walking Network



Town Centre:

- Not always an attractive environment
- Quiet in the evenings
- Lack of dropped kerbs in places
- High level of traffic on West Street and Vernon Way
- Lack of pedestrian crossings (e.g. Delamere St/Chester St roundabout)

Narrow footpaths over the railway at Earle St and Manchester Rd bridges

Narrow shared path

Route between the Town Centre and Retail Park unattractive in places

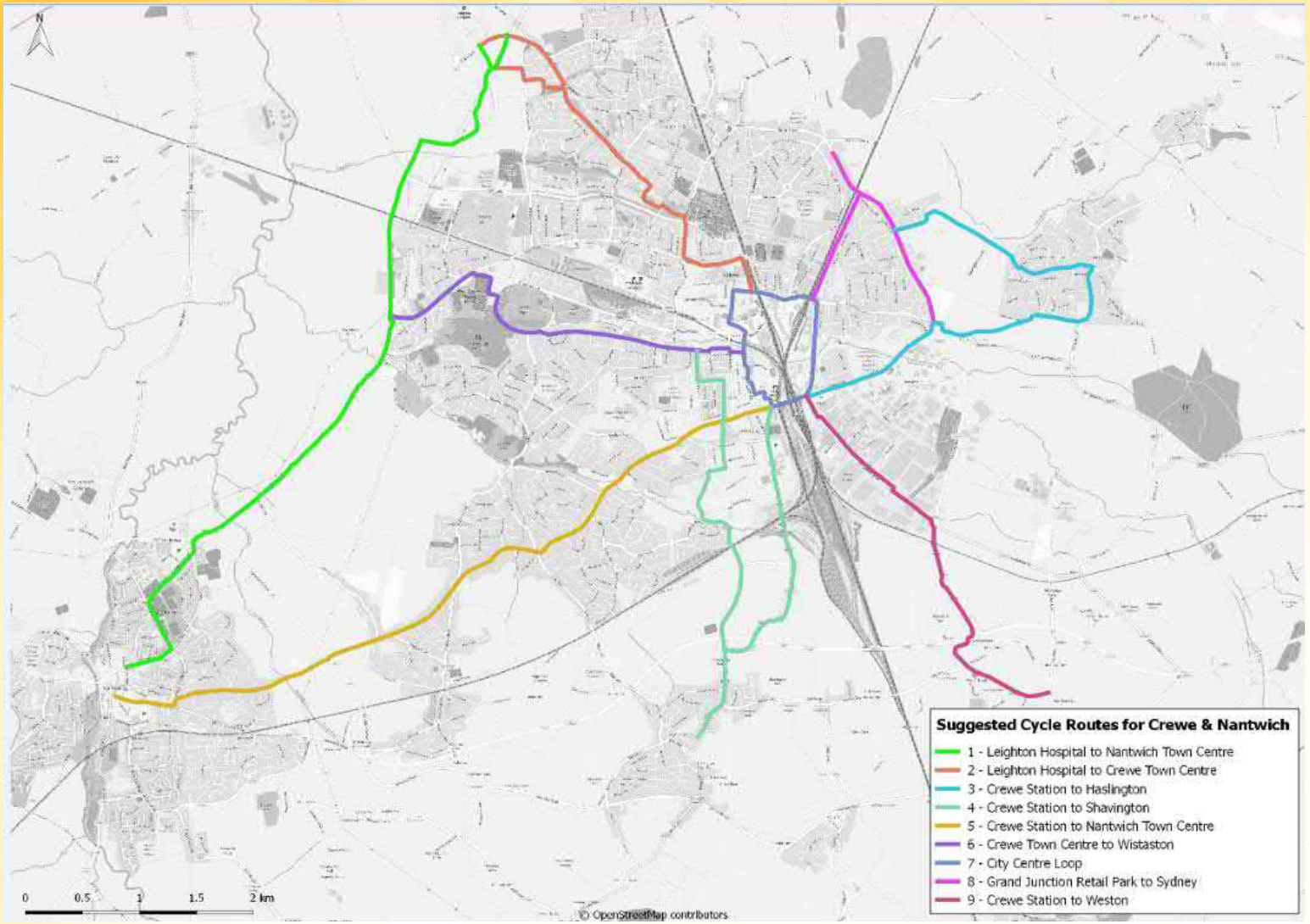
Oak St/Wistaston Rd/Edleston Rd/Chester Bridge short pedestrian crossing times and anti-pedestrian surfacing

Mill St/Oak St difficult to cross

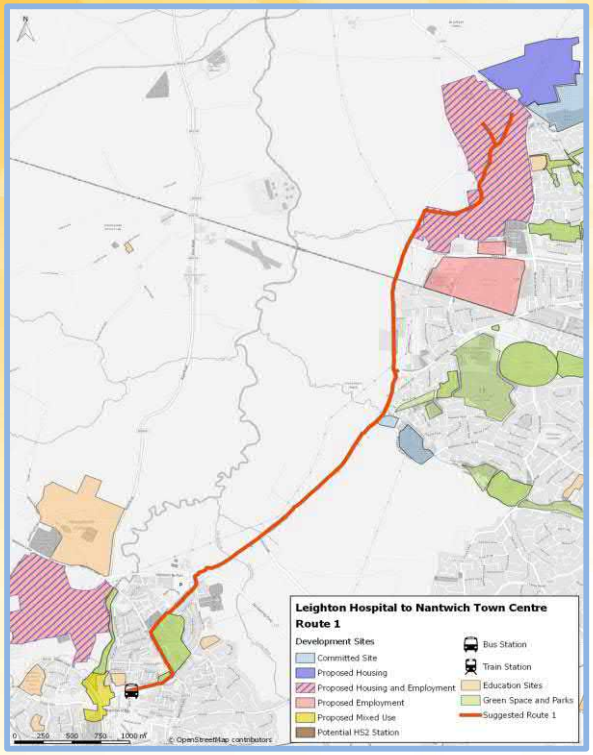
Route between Town Centre and Crewe Station could be improved further

Nantwich Rd – relatively long waiting times to cross

Cycling Network



Route 1 and Route 2

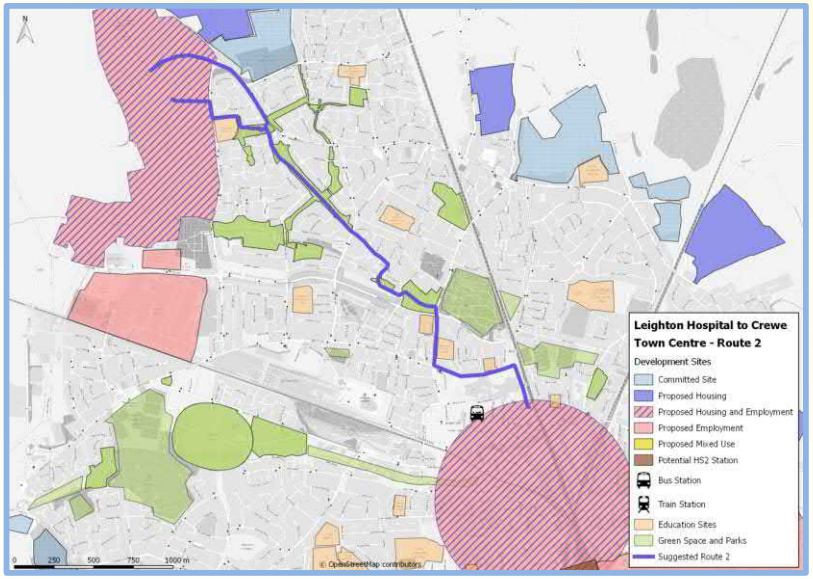


Route 1

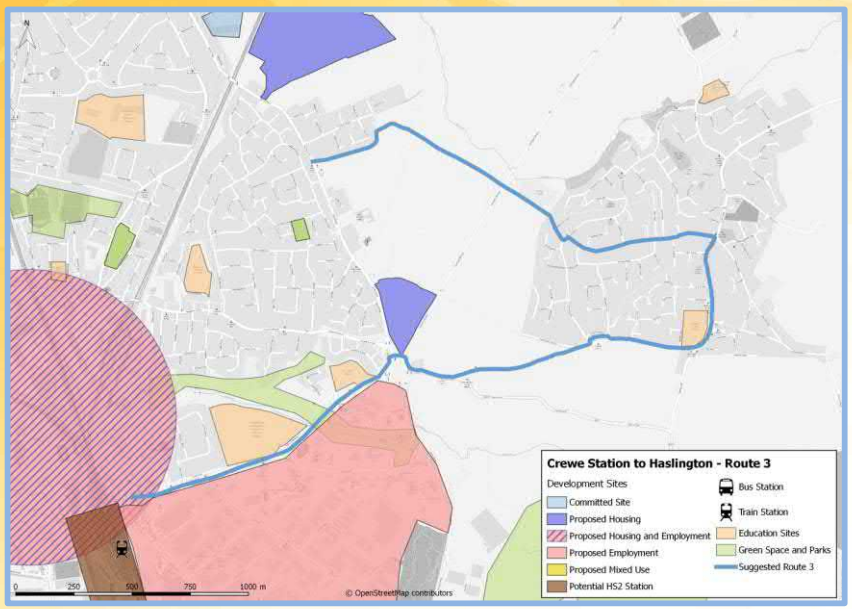
- Route approaching Nantwich town centre shared with traffic
- Connect2 – high quality route to the rising sun
- Concerns raised regarding suitability of toucan crossing north of the rising sun
- North of rising sun – route shared with high volumes of traffic and high speed traffic

Route 2

- Vernon Way and West Street – route on road with significant levels of traffic / speeds
- A gradient on Broad Street
- Bradfield Road (near Parkers Road) – shared pathway is narrow

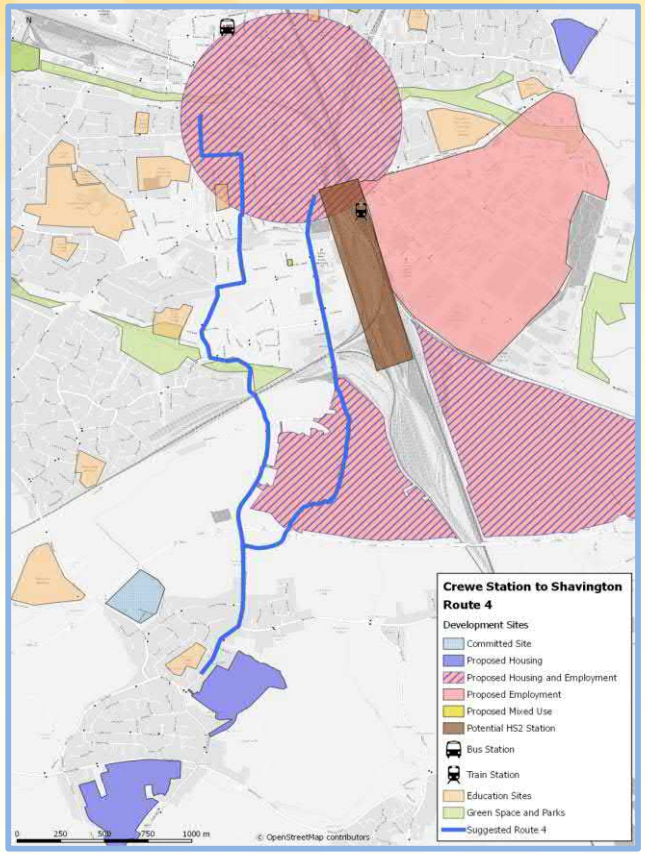


Route 3 and Route 4



Route 3

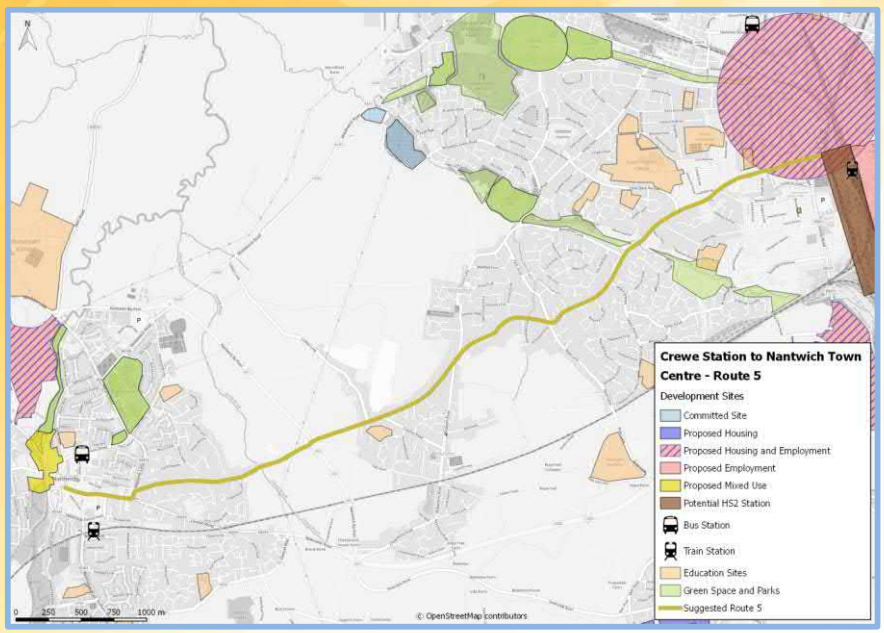
- Northern part of route is currently a bridleway
- Route on road along Crewe Road through Haslington with significant levels of traffic



Route 4

- Gresty Road – unpleasant and narrow
- Quieter route requires maintenance / ensure safety and bring it up to standard

Route 5 and Route 6

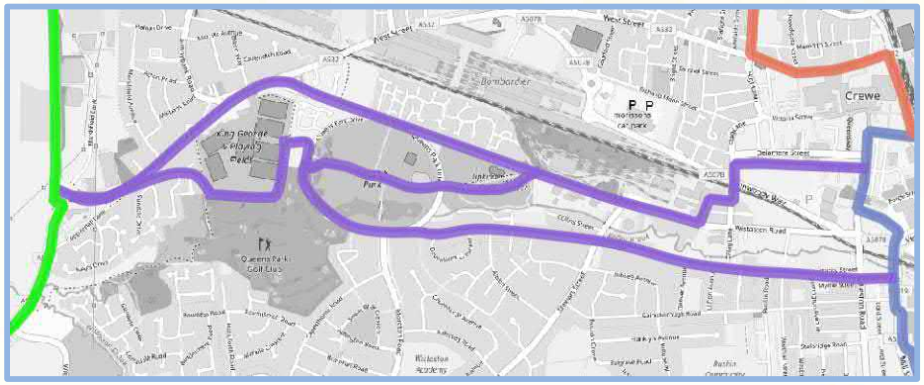


Route 5

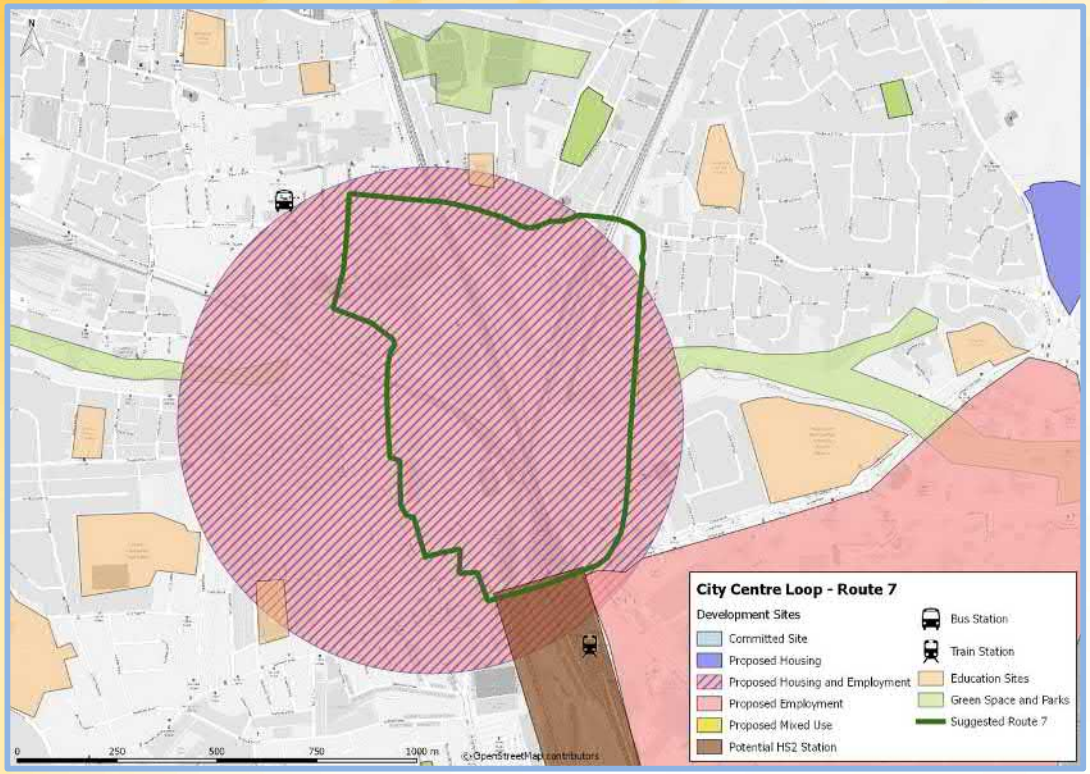
- Discontinuous route and lack of coherence
- Near Crewe Station the route is narrow and markings have worn

Route 6

- Western section off road and through the park – some quality aspects needs addressing
- To the east – route is mostly shared with traffic and is on road



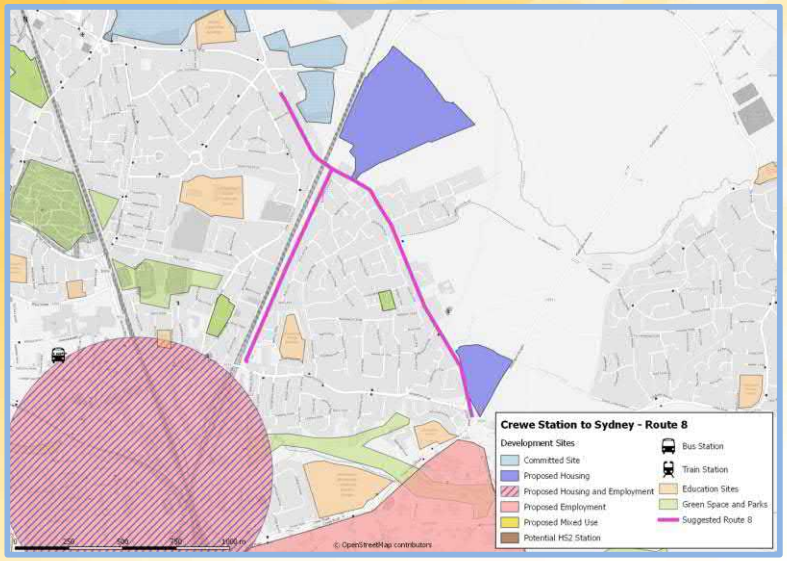
Route 7



Route 7

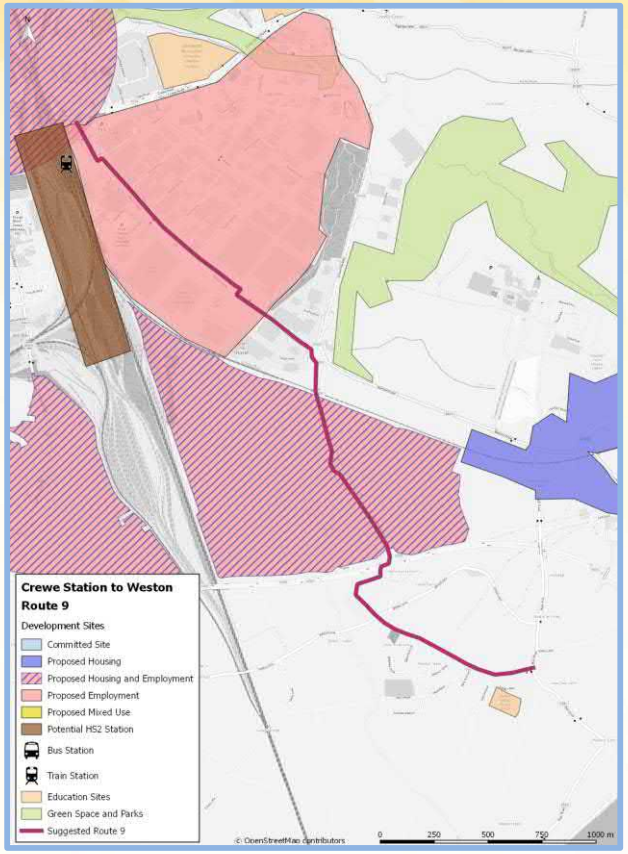
- Nantwich Road – route shared with heavy traffic
- Poor quality in some places between Crewe Station and the Town Centre
  - Wesley Place – cyclists dismount sign
  - Mill Street underpass is a constraint for cycling
  - Oak Street – busy route that is shared with traffic
  - High Street – one way
- Cycling restrictions unclear within the town centre
- Heavy traffic at Mill Street /Vernon Way roundabout
- Macon Way – discontinuous route
- Crewe Arms roundabout uncomfortable to navigate for cyclists

Route 8 and Route 9



Route 8

- Path is narrow adjacent to railway
- Sydney Road is shared with traffic south of Sydney Road bridge



Route 9

- Weston Road – discontinuous route

Next Steps

Stage One: Determining Scope	*Geographical extent of LCWIP*
Stage Two: Gathering Information	*Existing conditions, policy background, barriers to cycling and walking*
	We are here
Stage Three: Network Planning for Cycling	*Origins / destinations, create a network of routes and suggested interventions*
Stage Four: Network Planning for Walking	*Origins / destinations, core walking zone, audit existing provision and determine improvements*
Stage Five: Prioritising Improvements	*Create a phased programme for future investment*
Stage Six: Integration and Application	*Integrate outputs into policy and delivery plans*

Key Feedback

- Nantwich Road outside station – most significant place to upgrade provision
- Opportunity for lighting on Leighton Greenway so this feels safer and can be used year round
- Raised table on Ludlow Road side road on Crewe Road
- Hedge not maintained on eastbound side of Crewe Road and Danish provision (stepped cycle tracks) would be a good improvement here
- Peacock Roundabout crossing point on A534 – needs a Toucan crossing
- Alton Street – parking issues with car parked on both side of carriageway making head on collisions possible – Valley Park would take part of route off road
- Improvements should be traffic free where possible
- Mill St – Crewe Station is a busy route and could be improved

Appendix B – Objectives Appraisal

LCWIP Walking Schemes		Stage One											Stage Two						Timescales		
		LTP4 Objectives (1-5 scoring)						Additional Objectives													
Scheme	Route	Supporting growth & economic strength through connectivity	Ensuring accessibility to services	Protecting and improving our environment	Promote health, wellbeing and physical activity	Maintaining and managing our network assets	Improve organisational efficiency and effectiveness	Costs of construction and maintenance	Potential to attract funding	Dependency on other schemes	TOTAL (max score 45)		Affordability	Technical Feasibility	VFM	Political Acceptability		RANK	Short-term (0-2 yrs)	Medium-term (3-5 yrs)	Long-term (5 yrs+)
9	Core Walking Zone	5	5	5	5	4	4	4	5	4	41							1			
7a	North – South: Crewe Retail Park to A534 Nantwich Road	5	5	5	5	4	4	4	5	4	41							1			
4	East – West: Queens Park to Crewe Green	5	5	5	5	4	4	2	5	4	39							3			
8	East – West: A534 corridor to Crewe Business Park	5	4	5	3	4	4	3	5	4	37							4			
1b	Leighton Greenway	4	3	4	5	4	4	3	4	4	35							5			
6a	North – South: Weston Road and Macon Way	5	5	4	2	4	4	3	4	4	35							5			
3	Crewe Town Centre to Maw Green via Lime Tree Avenue	3	4	4	5	4	4	3	3	4	34							7			
5	Crewe Town Centre to Nantwich Road via Ruskin Road	3	3	5	5	4	4	3	3	4	34							7			
1a	Crewe Town Centre to Leighton Greenway	3	3	4	5	4	4	3	4	4	34							7			
2	Crewe Town Centre to Middlewich Street	3	3	4	5	4	4	3	3	4	33							10			
7b	North - South: Gresty Road	3	3	4	4	4	4	2	3	4	31							11			
6b	Crewe to Sydney via off road path parallel to the railway	3	3	4	2	4	4	3	3	4	30							12			

LCWIP Cycling Schemes		Stage One										Stage Two						Timescales		
		LTP4 Objectives (1-5 scoring)						Additional Objectives												
Scheme	Route	Supporting growth & economic strength through connectivity	Ensuring accessibility to services	Protecting and improving our environment	Promote health, wellbeing and physical activity	Maintaining and managing our network assets	Improve organisational efficiency and effectivness	Costs of construction and maintenance	Potential to attract funding	Dependency on other schemes	TOTAL (max score 45)		Affordability	Technical Feasibility	VFM	Political Acceptability	2	RANK	Short-term (0-2 yrs)	Medium-term (3-5 yrs)	Long-term (5 yrs+)
7	Town Centre Loop	5	5	5	5	4	4	3	5	4	40							1			
5	Crewe Station to Nantwich Town Centre	4	5	5	4	4	4	3	4	4	37							2			
2a	Leighton Hospital to Leighton Greenway	4	5	4	5	4	4	3	4	4	37							2			
2b	Leighton Greenway to Crewe Town Centre	4	5	4	5	4	4	3	4	4	37							2			
1	Leighton Hospital to Nantwich	5	4	4	3	4	4	3	5	4	36							5			
4a	Crewe Station to Shavington	5	3	4	3	4	4	4	5	4	36							5			
9a	Crewe Station to Weston	4	4	4	4	4	4	4	4	4	36							5			
6a	Crewe town centre to Wistaston via Alton Street	3	3	5	5	4	4	4	2	4	34							8			
3	Crewe Station to Haslington	4	4	5	2	4	4	4	2	4	33							9			
8	Grand Junction Retail Park to Sydney	3	2	4	4	4	4	5	3	4	33							9			
9b	Weston onwards	3	2	4	4	4	4	4	3	4	32							11			
4b	Shavington Greenway to town centre	3	3	3	3	4	4	4	3	4	31							12			
6b	Crewe town centre to Wistaston via Victoria Avenu	3	3	3	4	4	4	4	2	4	31							12			

Appendix C – Walking Route Audit Tool

Within the WRAT, a score is given to each of the above core design outcomes, on the basis of the following criteria:

- Red (score of 0); for those routes in which existing provision is considered to be extremely poor;
- Amber (score of 1); for those routes in which existing provision is considered to be acceptable with room for improvement; and
- Green (score of 2); for those routes in which existing provision is good and does not require any significant improvements.

The scoring was applied to each individual core design outcome based upon the scoring criteria within the WRAT. This allowed for the highest scoring routes to be identified based upon existing levels of provision and areas which require the greatest proportion of infrastructural improvements were reflected through the lowest score. It is to be noted that since the scoring is based upon existing provision, the lowest scoring routes are not necessarily the poorest since the existing route may have significant potential for improvement if minimal improvements were implemented.

ROUTE SUMMARY

Route Name	Route 1 Crewe Town Centre to Leighton Greenway
Length	1.6km
Name of Assessor(s)	Thomas Dando
Date of Assessment	24/03/2020

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**1**	Footways are clean and well maintained, with little littering. Vegetation maintenance could be improved.	Vegetation maintenance to be improved.
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**1**	There is a lack of lighting along the Frank Bott Avenue to Windsor Avenue section of the route (Leighton Greenway).	Increase lighting along this section of the route.
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**2**	Frank Bott Avenue to Windsor avenue is strictly pedestrian only. Broad Street only section that contains cars.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards				Lighting required on Leighton Greenway.	
ATTRACTIVENESS				**4**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**2**	Footways are all level with the only significant crossing being at Broad Street.	n/a
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/ delay.	**1**	Sections of road where users are forced onto the road along the route, Particularly after Windsor Avenue.	Widen footway where possible / address on-street parking on the footway.
7. COMFORT - width on staggered crossings/ pedestrian islands/ refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	There is adequate space for users in both directions.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**1**	Some footway parking can be found along sections of the route just after Windsor Avenue.	Address on street parking near Windsor Avenue.
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**2**	Footway is very level across the entire route.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces				Footway parking reduces footway width at some locations e.g. near Windsor Avenue.	
COMFORT				**8**		

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**2**	Very little deviation from desire lines. Section between Frank Bott Avenue and Windsor Avenue pedestrian only.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**1**	Crossings divert away slightly between Windsor Avenue and Broad Street.	Straighten the crossing at Broad Street to meet desire line.
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**1**	Crossing Broad Street may cause delays due to how busy the road is.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**2**	Crossings do not have a significant impact on journey time with all crossings being a single phase crossings.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**2**	There are very few crossings along the route.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.				N/A	
DIRECTNESS				**8**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**1**	Traffic volume is moderate along Broad Street. Which may pose as a difficulty for pedestrians looking to cross at Broad Street.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**2**	Speed of traffic is low for the majority of the route with suitable distance between the pedestrians and vehicles.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	There is good visibility for pedestrians throughout the entire route.	
SAFETY				**5**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**1**	Dropped kerb improvements along Broad Street needed.	Improve condition of existing dropped kerbs along Broad Street.
COHERENCE				**1**		
			Total Score	**26**		

Criterion	Performance Scores
Attractiveness	4
Comfort	8
Directness	8
Safety	5
Coherence	1
Total	26

Comments	Leighton Greenway is a traffic free section so scores highly in terms of directness and safety.
Actions	Route could be improved in terms of footway width and improving maintenance and lighting of Leighton Greenway.

ROUTE SUMMARY

Route Name	Route 2 Crewe Town Centre to Stoneley Road via Middlewich Street
Length	2.15km
Name of Assessor(s)	Thomas Dando
Date of Assessment	24/03/2020

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**2**	The route is well maintained with no graffiti or littering on any section of the route.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**2**	There is appropriate surveillance, lighting and no vandalism along the route. Most of the route is through residential areas, offering suitable surveillance and safety.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**1**	The route is adjacent to a key north/south route and would see considerable amounts of traffic.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards				Stoneley Road doesn't have an existing footway.	
ATTRACTIVENESS				**5**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**2**	The footways are all level and in good condition.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/ delay.	**0**	Some sections of the route do not have a footway particularly along Stoneley Road.	Introduce a footway on Stoneley Road.
7. COMFORT - width on staggered crossings/ pedestrian islands/ refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	On the sections of the route that do have pavement and footways, there is adequate space for pedestrians and cyclists for both ways without the need to give way.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**1**	Some sections of the proposed route goes through residential areas which may see more on-street parking.	Address on –street parking issues where possible to improve experience for pedestrians.
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**2**	The gradient of the footway does not change too much throughout the entire route.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces				N/A	
COMFORT				**7**		

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**1**	The footways are very direct throughout the entire route. Some sections of Stoneley do not have a footway provided for pedestrians.	Introduce footway on Stoneley Road.
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**1**	The crossings at the Broad Street roundabout and Badger Avenue provide a slight diversion from the route.	Address directness of crossings on Broad Street roundabout and Badger Street.
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**1**	There are points during the route where crossing the road may cause delay, particularly at the Broad Street Roundabout.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**1**	Crossings are staggered at the roundabout.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**2**	There is adequate green man time at the signalised crossing on Middlewich Street and Badger Avenue.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.				Crossings could better cater for users e.g. at Broad Street.	
DIRECTNESS				**6**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**1**	At some sections on the route the pavement gets too close to traffic, posing a threat to pedestrians. Traffic gets close to pedestrian routes along Stoneley Road.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**1**	Traffic along the road particularly Stoneley Road travel at moderate speeds which could be a risk to safety for cyclist.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	Throughout the entire route there is good visibility, with very little obstruction between pedestrians and oncoming traffic. Only potential safety hazard for visibility would be the railway bridge between Badger Avenue.	
SAFETY				**4**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**0**	No footway at Stoneley Road.	
COHERENCE				**0**		
			Total Score	**22**		

Criterion	Performance Scores
Attractiveness	5
Comfort	7
Directness	6
Safety	4
Coherence	0
Total	22

Comments	There is no pathway at Stoneley Road which means that this score poorly in some areas. Improvements could be made to make the route more attractive and safe.
Actions	Introduce a footway on Stoneley Road and improve on-street parking where this would be beneficial to pedestrians.

ROUTE SUMMARY

Route Name	Route 3 Crewe Town Centre to Maw Green via Lime Tree Avenue
Length	2.27km
Name of Assessor(s)	Thomas Dando
Date of Assessment	24/03/2020

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**2**	Footways are in good condition through the entire route.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**2**	Majority of the path goes through residential areas with adequate street lighting and surveillance.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**1**	Groby Road and Lime Tree avenue are key routes into Crewe retail park from the north and experience higher levels of traffic.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards				N/A	
ATTRACTIVENESS				**5**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**1**	Footways throughout the entire are in good condition. However, Groby road has no pavements until junction with Sydney Road.	Improve pedestrian provision on Groby Road.
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/ delay.	**0**	Footways along Lime Tree Avenue are very narrow and would be difficult to navigate for pedestrians.	Widen footways along Lime Tree Avenue.
7. COMFORT - width on staggered crossings/ pedestrian islands/ refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**1**	There will be occasional need for give and take whilst crossing Queen Street.	Widen footway along Queen Street ensuring adequate space for all types of users.
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**1**	There is considerable on-street parking along Lime Tree Avenue which will cause some deviation along the footway.	Address parking on Lime Tree Avenue.
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**2**	The entire route is at a comfortable gradient.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces				Widths could be improved and on-street parking to improve experience for pedestrians.	
COMFORT				**5**		

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**0**	Groby Road that does not have any footways for pedestrians to utilise. The rest of the route has footways adjacent to road.	Implement a footway on Groby Road.
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**2**	Crossings are straight and do not cause any deviation from the route.	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**2**	Lime Tree Avenue to Crewe retail park has no crossings and is direct to Crewe Retail Park.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**2**	Crossings are single phased at Williams Street roundabout and would not delay journey.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**2**	Green man time is sufficient for the entire route.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.				Footway on Groby Road is required.	
DIRECTNESS				**8**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**1**	Traffic volume is moderate particularly on Lime Tree Avenue when the footways are narrow and close to traffic.	Widen the footways along Lime Tree Avenue.
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**2**	Traffic speeds are low throughout the route.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**1**	On-street parking obscures some vision for pedestrians throughout the route.	
SAFETY				**4**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**2**	There is adequate dropped kerbs throughout the entire route.	
COHERENCE				**2**		
			Total Score	**24**		

Criterion	Performance Scores
Attractiveness	5
Comfort	5
Directness	8
Safety	4
Coherence	2
Total	24

Comments	There is no footway on Groby Road and paths are narrow in some areas.
Actions	Pedestrian experience could be improved by introducing a footway on Groby Roadand widening of footpaths where feasible.

ROUTE SUMMARY

Route Name	Route 4 East-West: Queens Park to Crewe Green
Length	4.16km
Name of Assessor(s)	Thomas Dando
Date of Assessment	25/03/2020

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**2**	Footways are in good condition throughout the entire route.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**1**	Victoria Avenue section of the route is isolated with minimal lighting. Bridle Road is also very secluded and not very attractive for users. No criminal activity and vandalism.	Improve street lighting along these sections of the route.
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**0**	Some of the route is adjacent or alongside busy main roads within Crewe, such as Earle Street and Manchester Road.	Provide a route away from the road if possible.
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards				Remove staggered gates at Tipkinder Park and lighting could be introduced on off-road sections.	
ATTRACTIVENESS				**3**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**2**	Footways are level and in good condition throughout the route.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**0**	Some sections of the route particularly Victoria Avenue, Wistaston Road, and bridges over the railway are very narrow for users.	Widen the footpath in potentially problematic areas along Victoria Avenue and Wistaston Road and Earle St.
7. COMFORT - width on staggered crossings/ pedestrian islands/ refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/ delay.	**1**	Additional crossings could be introduced.	Introduce crossings where required.
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/ delay. Footway parking causes significant deviation from desire lines.	**1**	There is on-street parking on Hungerford Road which narrows the footway for pedestrians and could cause some deviation from desire lines.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**2**	There are marginal changes in gradient but no slopes throughout the entire route.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces				Wistaston Road is narrow for pedestrians in some areas.	
COMFORT				**6**		

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**2**	The footways are direct throughout the entire route, with very little deviation from the route and caters well to pedestrian desire lines.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**1**	Crossings mostly follow desire lines and do not divert users away from the route significantly.	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**1**	Sections along A532 and Hungerford Road may see some delay.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**1**	Controlled crossings at Grand Junction roundabout and Macon Way / Hungerford Road roundabout delay pedestrian journeys up to 5 seconds due to frequency of traffic.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**2**	Green man time is sufficient to cross comfortably.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.				N/A	
DIRECTNESS				**7**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**0**	Traffic volume along A532 is moderate to high and pedestrian footways at some locations are narrow and close to traffic e.g. Manchester Bridge.	Introduce pedestrian routes away from busy roads where possible.
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**1**	Traffic speed along A532 is moderate.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	Good visibility throughout the entire route for users.	
SAFETY				**3**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**1**	Some of the sections on Victoria Avenue and Hungerford Road dropped kerbs are not in good condition.	Introduce dropped kerbs where required. Improve the conditions of existing dropped kerbs.
COHERENCE				**1**		
			Total Score	**20**		

Criterion	Performance Scores
Attractiveness	3
Comfort	6
Directness	7
Safety	3
Coherence	1
Total	20

Comments	Off-road sections through Queens Park and Tipkinder park, however, could be improved. Footway is narrow at Earle Street and Manchester Road bridge.
Actions	Improvements to the footway width, where feasible. Introduce lighting and maintenance on off-road sections.

ROUTE SUMMARY

Route Name	Route 5 Crewe Town Centre to Nantwich Road via Ruskin Road
Length	2.15km
Name of Assessor(s)	Thomas Dando
Date of Assessment	26/03/2020

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**1**	Footways on Somerville Street and Lunt Avenue are not well maintained.	Improved maintenance along Somerville Street and Lunt Avenue.
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**2**	Walking route goes through a residential area providing adequate surveillance as well as street lighting.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**2**	Mostly a residential route which does not get affected by traffic noise pollution.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards				Improved maintenance would improve attractiveness.	
ATTRACTIVENESS				**5**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**1**	There is some defects of the footpath along Lunt Avenue and Somerville Street. These defects along the these roads do not make the route difficult to use.	Improvements to path conditions along Lunt Avenue and Somerville Street.
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/ delay.	**1**	Footway width is adequate throughout the route from Somerville Street to Ruskin Road. Wistaston Road has inadequate footway widths.	Widen pathway where possible on Wistaston Road / introduce traffic calming.
7. COMFORT - width on staggered crossings/ pedestrian islands/ refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	Crossings offer plenty of space for all types of users throughout the route.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**1**	There is considerable footway parking on Ruskin Road and Lunt Avenue that may cause give and take between users.	Address parking issues on Ruskin Road and Lunt Avenue where possible to benefit pedestrians.
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**1**	Slopes do exist particularly on Chester Road and Ruskin Road but will not make the route difficult for users or exceeds 8%.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces				Parking issues impacts footway widths for pedestrians.	
COMFORT				**6**		

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**2**	Footways are direct and are provided throughout the entire route for pedestrians.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**1**	Crossings mostly follow desire lines along the route.	Improved crossing for desire line required at Dunwoody Way/Wistaston Road.
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**2**	There is very little delay due to the residential area of the route.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**2**	Crossings do not add time to the journey along this route.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**2**	Green man time is sufficient Wistaston Road.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.				N/A	
DIRECTNESS				**9**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**1**	Traffic volume is moderate especially on Wistaston Road and is also in close proximity to pedestrians due to footway width.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**2**	Traffic speeds are low throughout the entire route due to the residential area that it goes through.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	There is good visibility throughout the entire route.	
SAFETY				**5**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**0**	Dropped kerbs and tactiles are not in the best conditions.	Improvements to pathways where possible.
COHERENCE				**0**		
			Total Score	**25**		

Criterion	Performance Scores
Attractiveness	5
Comfort	6
Directness	9
Safety	5
Coherence	0
Total	25

Comments	Route is mostly through residential areas where on-street parking impacts footway widths and also means this is quiet in terms of traffic.
Actions	Coherence of route could be improved through introducing dropped kerbs and improved maintenance across the route.

ROUTE SUMMARY

Route Name	Route 6 North-South: Sydney to Weston Road via Macon Way
Length	3.41km
Name of Assessor(s)	Thomas Dando
Date of Assessment	27/03/2020

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**1**	Footways are well maintained on A532 Weston Road and throughout the entire route. Vegetation could be better maintained on the off-road pathway.	Improved vegetation maintenance.
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**1**	The off-road section of the route adjacent to the Railway line is not very well lit and secluded which would be concerning for users.	Improved lighting to improve perception of safety.
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**0**	A532 and Weston Road sections of the route are key arterial routes which see high volumes of traffic and high traffic pollution.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards				Improved lighting and width of off-road sections.	
ATTRACTIVENESS				**2**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**2**	Footways are level throughout the entire walking route.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/ delay.	**1**	On one side of the A532 the footway is too narrow and will result in give and take between users. Off road route could be wider.	Increase width of route where feasible.
7. COMFORT - width on staggered crossings/ pedestrian islands/ refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**1**	Some of the footways along A532 are close to traffic and narrow which may result in give and take between users.	Improve widths where feasible.
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**2**	No vehicles are parked along the footways for the entirety of A532 and no vehicles are allowed onto the off-road section.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**1**	Route is sloped along Macon Way.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces				Improved widths along A532	
COMFORT				**7**		

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**1**	Footways could be improved especially along A532 Weston Road as they are quite narrow.	Widen footpaths where feasible.
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**0**	Crossing especially at A532 / Hungerford Rd roundabout diverts pedestrians away from desire lines.	Improve crossing to cater for desire lines.
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**0**	Delays at A532 roundabout as volume of traffic (Crewe Arms).	Straighten crossing so it is no longer staggered. If feasible.
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**1**	Staggered crossing at A532 roundabout sees high volume of traffic and crossing will add significant time to journey.	Improve crossing where feasible.
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**1**	Extension to green man time allows for pedestrians to cross.	Extend green man time.
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.				Routes could be improved to better cater for pedestrians at junctions/ roundabouts	
DIRECTNESS				**3**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**0**	High traffic volume due to A532, pedestrian footway in close proximity to road along certain sections.	Locate footway as far away from road as possible.
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**0**	High traffic speeds along A532 and footway is narrow and in close proximity to traffic.	Locate footway as far away from road as possible.
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	There is good visibility throughout the entire route.	
SAFETY				**2**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**1**	Dropped kerbs are in good condition along A532 although could be improved.	Improve dropped kerbs across the route.
COHERENCE				**1**		
			Total Score	**15**		

Criterion	Performance Scores
Attractiveness	2
Comfort	7
Directness	3
Safety	2
Coherence	1
Total	15

Comments	This route in addition to an off-road section follows Macon Way and Weston Road, which are busy traffic routes which means this scores low.
Actions	Route could be improved by creating a verge between carriageway and footpath where possible, improve crossing points, improve the lighting, and widen shared path adjacent to railway.

ROUTE SUMMARY

Route Name	Route 7 North–South: Crewe Retail Park to Gresty Road
Length	1.81km
Name of Assessor(s)	Thomas Dando
Date of Assessment	29/03/2020

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**1**	Footways could be better maintained in some areas.	Improve footway maintenance.
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**1**	There is no evidence of vandalism across the entire route. Route goes through centre and residential areas.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**1**	There are moderate amounts of traffic along B5071 as it is a key north/ south route into Crewe centre increasing traffic noise pollution.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards				Ensure maintenance across the route.	
ATTRACTIVENESS				**3**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**2**	Footways are level and in good condition across B5071 Gresty Road and A5019 Vernon Way.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/ delay.	**1**	There is suitable width to the footways provided along A5019 Vernon Way and B5071 Gresty Road but could be improved on Mill St underpass..	Consider improvements on route on Mill Street underpass.
7. COMFORT - width on staggered crossings/ pedestrian islands/ refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**1**	Crossings along B5071 Gresty Road are suitable width with occasional need for give and take similar to A5071 Vernon Way.	Widen crossings.
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**1**	There are some instances of on-street parking along B5071 Gresty Road but do not impact footway excessively.	Address on-street parking to improve pedestrian experience.
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**1**	Footway is relatively level throughout. A5019 Vernon Way sees a slight incline.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces				Narrow width at Mill Street underpass could be addressed.	
COMFORT				**6**		

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**2**	Footways are provided for pedestrian use throughout the entire route.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**1**	Route could be improved via Pedley Street/Mill St.	Consider improvements to directness of route between Pedley Street and Mill Street.
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**1**	There is some delay for crossing at A5019 Mill Street/Oak St roundabout, with narrower footpath.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**2**	Crossings are single phase throughout entire route.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**1**	Green man time could be improved at A5019 Mill Street signalised crossing.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.				Route should be well signed throughout quiet routes through residential areas e.g. Pedley Street	
DIRECTNESS				**7**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**1**	Traffic volume is medium, with A5019 Mill Street only location where pedestrians are in close to traffic.	Locate path away from road where feasible.
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**1**	Traffic speeds are moderate throughout entire route, with pedestrians in close proximity to traffic at A5019 Mill Street.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**1**	Visibility is good throughout the route apart from underneath the railway bridge at the A5019 Mill Street and A5019 Vernon Way roundabout.	
SAFETY				**3**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**1**	Dropped kerbs could be improved at some crossing points along the route.	Improved dropped kerbs along the route.
COHERENCE				**1**		
			Total Score	**20**		

Criterion	Performance Scores
Attractiveness	3
Comfort	6
Directness	7
Safety	3
Coherence	1
Total	20

Comments	This route is of key importance to link the town centre to the train station via Mill Street—there are a number of challenges along this route.
Actions	The route should be well signed, pathways should be wide enough and provide the most direct route where possible.

ROUTE SUMMARY

Route Name	Route 8 East–West: A534 corridor to Crewe Business Park
Length	3.25km
Name of Assessor(s)	Thomas Dando
Date of Assessment	29/03/2020

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**2**	Footways are well maintained throughout the entire route.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**2**	There is no evidence of vandalism throughout the entire route and adequate street lighting. Residential areas provide surveillance.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**0**	There are considerable amounts of traffic across the route in particular on Nantwich Road.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards				This is a busy route close to traffic.	
ATTRACTIVENESS				**4**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**2**	Footways are level across the entire route.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/ delay.	**1**	Some instances where the footway becomes narrow on Electra Way and A534 Nantwich Road.	Consider options to widen footway.
7. COMFORT - width on staggered crossings/ pedestrian islands/ refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**1**	Some give and take is required along A534 Crewe Road.	Consider options to widen footway.
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**2**	No instances of vehicles parking along the route.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**1**	There is a steeper slope on Crewe Road that may make the route difficult for some users.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces				Routes should be widened where feasible.	
COMFORT				**7**		

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**2**	Footways are provided and well maintained throughout the entire route and cater for desire lines.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**1**	Crossings at Crewe Arms roundabout slightly divert pedestrians from desire lines.	Crossings could better cater for movements at the roundabout
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**1**	Staggered crossings at the roundabout will cause delays for some pedestrians.	Crossings could better cater for movements at the roundabout
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**1**	Crossings are staggered and will cause slight delay to users.	Crossings could better cater for movements at the roundabout
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**2**	Green man time is sufficient to cross the road at Crewe Road roundabout.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.				Directness of crossings could be improved.	
DIRECTNESS				**7**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**0**	Traffic volume is high at A534 Nantwich Road with pedestrians in moderate proximity to traffic.	Locate route away from traffic where possible.
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**1**	Traffic speed is moderate with pedestrians at moderate distance.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	Visibility is good throughout the entire route.	
SAFETY				**3**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**2**	Dropped kerbs are in good condition and easily accessible.	
COHERENCE				**2**		
			Total Score	**23**		

Criterion	Performance Scores
Attractiveness	4
Comfort	7
Directness	7
Safety	3
Coherence	2
Total	23

Comments	This east-west route is direct , however routes could be widened. It also follows the corridor of a busy route—the A534.
Actions	Routes should be widened where feasible and crossings improved to better cater for pedestrians.

ROUTE SUMMARY

Route Name	Core Walking Zone
Length	N/A
Name of Assessor(s)	Laura Oliver
Date of Assessment	08/04/20

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**1**	The CWZ could be improved for maintenance of vegetation and street furniture within the town centre.	Improve maintenance throughout the town centre.
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**1**	Natural surveillance when shops are open during the day but less so in the evenings.	Broaden range of activities in the town centre such as leisure to increase visibility in the evenings.
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**0**	A523 Earle Street and A523/A5019 roundabout are busy routes and traffic on Earle Street is close to walking routes. Town centre is traffic free.	Improved pedestrian routes between town centre and retail park.
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards				The urban realm within the town centre is could be improved at certain locations within design conceptions quite dated.	Consider improvements to the urban realm to improve attractiveness.
ATTRACTIVENESS				**2**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**1**	Footways could be improved within the town centre and memorial square.	Improved footway condition.
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/ delay.	**0**	Footways are narrow and close to traffic on A532 Earle Street.	Consider options to improve Earle Street footway.
7. COMFORT - width on staggered crossings/ pedestrian islands/ refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	Crossings sufficient widths.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**2**	No instances of vehicle parking on footway.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**1**	Gradient on Earle Street bridge.	Consider options to improve Earle Street footway.
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces				N/A	
COMFORT				**6**		

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**2**	Footways cater for pedestrians and desire lines.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**1**	Crossings on A5019 near A532/A5019 could better cater for desire lines. Improved facilities on retail park roundabout.	Crossings could better cater for desire lines.
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**1**	Crossing on A532 roundabout into retail park can be difficult to cross.	Introduce crossings on roundabout at the retail park.
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**2**	Controlled crossings are direct.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**1**	Green man time at some crossings are short e.g. A532/A5019 roundabout	Lengthen green man time.
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.				Routes to bus stops could be improved e.g. Crewe Bus Station. Route could be better signed throughout town centre.	
DIRECTNESS				**7**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**1**	The pedestrianised areas of the town centre are good however, high volumes of traffic on Earle Street and at the retail park, for example.	Introduce better crossings and facilities for pedestrians at the retail park.
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**1**	Pedestrians are in close proximity at some locations e.g. Earle Street.	Consider options to create a route away from traffic.
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	Visibility is good across the CWZ.	
SAFETY				**4**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**0**	Dropped kerbs could be improved throughout.	Improvements to dropped kerbs. The old kerbline in the town centre on pedestrianised streets could be removed too to create a level surface.
COHERENCE				**0**		
			Total Score	**19**		

Criterion	Performance Scores
Attractiveness	2
Comfort	6
Directness	7
Safety	4
Coherence	0
Total	19

Comments	The town centre is pedestrianised in some areas, although maintenance could be improved. The route between the town centre and retail park is car dominant and pedestrians are in close proximity to traffic at some locations.
Actions	Route could be improved to include more dropped kerbs, crossings that better cater for pedestrians could be introduced and improved maintenance across the route.

Appendix D – Level of Service Tool

The Level of Service Tool has been developed to assist local authorities in the auditing of routes. The tool can be used for both existing and proposed routes.

The tool is reported in Appendix A. It requires the auditor to score the route against each of the factors using the following scale:

- 0 for poor provision,
- 1 for provision which is adequate but should be improved if possible
- 2 for good quality provision

Any route which scores less than 35 (out of a potential 50 points, i.e. a score of 70%) will require further improvement.

This analysis was undertaken as part of the Crewe Cycling Plan development in 2017.

Average scoring on questions																
Questions	**1**	**2**	**3A**	**3B**	**4A**	**4B**	**5**	**6A**	**6B**	**6C**	**7**	**8A**	**8B**	**9A**	**9B**	**Total Score per Route**
1 - Connections	0	1	1	1	0	0	0	1	1	1	1	1	0	0	0	8
2 - Continuity and Wayfinding	1	1	0	1	0	1	0	1	1	1	1	1.5	0	1	0	10.5
3 - Density of network	1	1	1	1	1	1	1	1.5	0	1	1	1	1	1	1	14.5
4 - Distance	2	2	2	1.5	2	2	1.5	2	1	2	1.5	2	2	2	2	27.5
5 - Time: Frequency of required stops or give ways	2	1	1.5	2	1	1	1	1	1.5	1	0	2	2	1.5	1	19.5
6 - Time: Delay at junctions	1	1	1	1.5	1	1	0	1	1	1	1	2	1	0	1	14.5
7 - Time: Delay on links	1.5	1.5	1	1	0	1.5	1	1	2	1	1	2	1	1.5	1	18
8 - Gradients	2	1.5	2	2	1	1.5	1.5	2	1.5	2	1	2	1	1	2	24
9 - Reduce/ remove speed differences where cyclists are sharing the carriageway A	1	1	1	1.5	1	1	1	0	1.5	0	1	1.5	1	1	1	14.5
10 - Reduce/ remove speed differences where cyclists are sharing the carriageway B	1	1.5	0	1	1	1	0	1	2	0	1	2	1	1	1	14.5
11 - Avoid high motor traffic volumes where cyclists are sharing the carriageway	1	1	1	1.5	1	0	1	1	2	1	1	1.5	1	1	1.5	16.5
12 - Risk of collision A	1.5	1	1	2	0	0	0	0	2	0	1	2	0	1	0	11.5
13 - Risk of collision B	1	0	0	1	0	2	1	0	1.5	0	0	2	1	1	0	10.5
14 - Avoid complex design	1	1	1	1	1	1.5	1	1	1	1	1	1	0	1	0	13.5
15 - Consider and reduce risk from kerbside activity	1.5	2	1	1	0	1.5	1	0	2	0	1	2	0	1	0	14
16 - Reduce severity of collisions where they do occur	1	1	1	1.5	1	1.5	1	1	2	1	1	1.5	1	1.5	1	18
17 - Surface quality A	1	1	1	1	1	1.5	1	1	1.5	1	1	1	1	1.5	1	16.5
18 - Surface quality B	1.5	1.5	1.5	0	1	2	1	1	1	1	1	2	1.5	1.5	1.5	19
19 - Effective width without conflict	1	1	1	1	0	1	0	0	1.5	0	1	1.5	0	1	0	10
20 - Wayfinding	1	1	1	1	0	1	1	0	1	1	1	1.5	1	1	1	13.5
21 - Social safety and perceived vulnerability of user A	1	0	1.5	1	1	1	1	1	1	1.5	1	0	1.5	1	1	14.5
22 - Social safety and perceived vulnerability of user B	1	0	1	1	1	1	1	1	0	1	1	2	2	1	1	15
23 - Impact on pedestrians, including people with disabilities	1	1.5	1	1	1	1.5	1	1	1	1	1	1	1	1	1	16
24 - Minimise street clutter	1.5	1.5	1.5	1	1.5	1	1.5	2	1.5	2	1	1.5	1	1.5	1	21
25 - Secure cycle parking	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
Total Score per Route	**28.5**	**26**	**25**	**28.5**	**17.5**	**27.5**	**19.5**	**21.5**	**32.5**	**21.5**	**23.5**	**37.5**	**22**	**26**	**20**	**377**
Total Score per Route [%]	57%	52%	50%	57%	35%	55%	39%	43%	65%	43%	47%	75%	44%	52%	40%	

Average scoring on key requirements																
Key requirements	**1**	**2**	**3A**	**3B**	**4A**	**4B**	**5**	**6A**	**6B**	**6C**	**7**	**8A**	**8B**	**9A**	**9B**	**Total Score per Route**
Cohesion	2	3	2	3	1	2	1	3.5	2	3	3	3.5	1	2	1	33
Directness	8.5	7	7.5	8	5	7	5	7	7	7	4.5	10	7	6	7	103.5
Safety	9	8.5	6	10.5	5	8.5	6	4	14	3	7	13.5	5	8.5	4.5	113
Comfort	4.5	4.5	4.5	3	2	5.5	3	2	5	3	4	6	3.5	5	3.5	59
Attractiveness	4.5	3	5	4	4.5	4.5	4.5	5	4.5	5.5	5	4.5	5.5	4.5	4	68.5
Total Score per Route	**28.5**	**26**	**25**	**28.5**	**17.5**	**27.5**	**19.5**	**21.5**	**32.5**	**21.5**	**23.5**	**37.5**	**22**	**26**	**20**	**377**

Appendix E - Proposed Walking Interventions Costs

Funnel Route	ID	Location	Intervention	Indicative cost (high)	Indicative cost (low)
Crewe Core Walking Zone	1	Memorial Sq at Vernon Way roundabout	Narrow junction radius on Memorial Square approach arms; investigate scope to narrow approaches on other arms simplifying roundabout and slowing approaching traffic. Costed as part of Cycle Route 7.	*No cost*	*No cost*
	2	Throughout	Place new and renovate existing dropped kerbs and tactile paving.	£41,148	£30,861
	3	Throughout	Improvement and renovation of street furniture.	*No cost*	*No cost*
	4	Throughout	Improvements to pavement surfacing to be considered as part of Highways maintenance programme.	*No cost*	*No cost*
	5	Throughout	Improved wayfinding and signage throughout to key destinations/attractors.	£29,718	£17,145
	6	Throughout	Consider improvements to urban realm within the Core Walking Zone as part of wider development.	*No cost*	*No cost*
	7	Crewe Bus Station	Ensure the existing / proposed bus station has a clear signed route to key attractors such as the town centre and retail park.	£3,566	£2,057
	8	Delamere Street/Chester Street	Provision of highlighted crossings on all arms of Delamere Street/Chester Street (x4).	£26,213	£26,213
TOTAL				**£100,644**	**£76,276**
1 - Crewe Town Centre to Leighton Greenway	1	Leighton Greenway	Improve lighting on Leighton Greenway to ensure that the route feels safe and can be used in all seasons. Ensure vegetation is maintained throughout (costed as part of Cycle Route 2)	*No cost*	*No cost*
	2	Windsor Avenue/Underwood Lane	Remove or increase gap between staggered barriers to improve accessibility. Introduce a zebra crossing on Underwood Road if space allows.	£49,987	£30,937
	3	Windsor Avenue to Broad Street	Upgrade path to shared use with widening to 3m where possible from Windsor Avenue to Broad Street (costed as part of Cycle Route 2)	*No cost*	*No cost*
	4	Ford Lane/Mount Pleasant	Remove staggered barriers and bollards to ensure access for all	£914	£914
	5	Broad Street crossing	Improved gateway feature to park with stretch of widened path on Broad Street raising awareness of route. Upgrade Broad Street arm of crossing to a toucan. Costed as part of Cycle Route 2.	*No cost*	*No cost*
	6	Broad Street	Footpath is narrow on the east side, consider removing and creating a 3m pathway on the west side (330m), complementing traffic calming and environmental enhancement measures suggested in the cycling interventions. Consider introducing a zebra crossing.	£136,031	£83,286
	7	Throughout	Improve wayfinding and signage throughout the whole route. Costed as part of Cycle Route 2.	*No cost*	*No cost*
TOTAL				**£186,933**	**£115,137**
2 - Crewe Town Centre to Stoneley Road via Middlewich Street	1	Stoneley Road	Introducing new footways at least 1.5m wide on one side of the carriageway where there are no existing routes (approx. 400m from junction with Broad Street to new housing development site).	£104,850	£64,008
	2	Stoneley Road	Widening existing footway where feasible from Broad Street Roundabout (approx. 350m) and consider 20mph speed limit/ traffic calming.	£118,033	£82,295
	3	Broad Street Roundabout	Introduce two Puffin crossings and three highlighted pedestrian crossings across all arms of the roundabout (x5)	£208,634	£173,582
	4	Remer Street	Widen Remer Street footway and improve surface between Broad Street roundabout and Middlewich Street (50m)	£13,106	£8,001
	5	Middlewich Street (north)	To the north of Middlewich Street, on the west side of the road align the path away from the road using the grass verge (approx. 30m).	£7,864	£4,801
	6	Middlewich Street from Elm Street to Lime Tree Avenue	Scope to widen footpath using the grass verge along some sections of Middlewich Street on the east side between Elm Drive and Lime Tree Avenue (approx. 350m).	£91,744	£56,007
	7	Middlewich Street/Elm Drive	Narrow junction mouth between Middlewich Street/Elm Street to improve pedestrian safety and accessibility of junction. Consider adding a refuge crossing at this location to aid crossing.	£16,819	£16,819
	8	Middlewich Street from Elm Street to Badget Avenue	Street marking renovations and minor surfacing and dropped kerb.	£49,194	£42,336
	9	Badger Avenue / Vernon Way junction	Introduce two highlighted crossings on Market Cl and B5076 arms of the junction (x2)	£13,106	£13,106
TOTAL				**£623,351**	**£460,955**
3 – Crewe Town Centre to Maw Green via Lime Tree Avenue	1	Groby Road	Introduce new footway at least 1.5 on the east side of the carriageway along Groby Road, from Remer Street to Stoneley Road junction (approx. 400m)	£104,850	£64,008
	2	Remer Street/Groby Road/Elm Drive crossings	Introduce a pedestrian crossing across Remer Street and realign footways to meet the desire line.	£49,530	£30,480
	3	Elm Drive/Remer Street	Narrow junction mouth at Elm Drive, extending the footway further out to reduce the width of road that needs to be crossed.	£10,265	£10,265
	4	Lime Tree Avenue (north of Wheatley Road)	Improve footway surfacing throughout and dropped kerbs at crossing along the route such as junction with Wheatley Road. Widen pathways where possible to 1.5m (approx. 200m)	£52,425	£32,004
	5	Entrance into Lime Tree Park	Provide a direct access to Sir William Stanier School and as such may require improvements to pathway surface. Removal of staggered barriers onto shared pathway into Lime Tree Park.	£457	£457
	6	Lime Tree Avenue	Improvements to pavement surfacing to be considered as part of Highways maintenance programme. Introduce restrictions to prevent footway parking in the area to improve visibility. Renovate street markings throughout the avenue, especially at crossings.(approx. 600m).	£39,243	£39,243
	7	Queens Street	Improvements to pavement surfacing to be considered as part of Highways maintenance programme.	*No cost*	*No cost*
	8	Queens Street/ Richmond Road/ Hillside Drive	Review junction to improve visibility for pedestrians and implement highlighted crossings for pedestrians.	£26,213	£26,213
	9	Queens Street between Richmond Road and Henry Street	Address pavement parking to enable pedestrians to use the footpath (160m).	£8,153	£8,153
	10	Queens Street/Earle Street/Hall O'Shaw Street	Implement highlighted crossings across Queens Street junctions with Earle Street and O'Shaw Street.	£13,106	£13,106
	11	A532 roundabout crossings	Feasibility study needed to scope out options for improving pedestrian crossing points, i.e toucan crossings on all arms of A532 roundabout. Costed as part of Cycle Route 7.	*No cost*	*No cost*
TOTAL				**£304,243**	**£223,929**
4 – East – West: Queens Park to Crewe Green	1	Queens Park, Tipkinder Park to Victoria Avenue	Introduce lighting along the Tipkinder Park footpath (approx. 300m) and remove staggered barriers at entrance with Victoria Avenue. Ensure vegetation is maintained throughout and introduce bins alongside the footpath (maintenance and barrier removal costed in Cycle Route 6)	£32,613	£32,613
	2	Victoria Avenue	Improve lighting on sections (400m up to Stewart St) adjacent to the park and improve dropped kerbs throughout Victoria Avenue.	£51,739	£48,996
	3	Victoria Avenue/Stewart Street	Introduce highlighted crossings to complement narrowing junction radius costed as part of Cycle Route 6.	£6,192	£6,192
	4	Bridle Road	Widen footpath to 1.5m where possible (190m); consider adding zebra crossing to Wistaston road.	£99,334	£60,883
	5	Chester St / Market St mini roundabout	Informal streets junction and/or improving pedestrian crossing points – feasibility study needed to scope out detailed options to complement intervention outlined in Cycle Route 7.	£26,213	£26,213
	6	Earle Street	A new shared pedestrian/cycling facility recommended alongside current Earle Street Bridge (costed as part of Cycle Route 7) Improve lighting from town centre toward Grand Junction Retail Park and widen footpath (270m).	£99,311	£71,742
	7	A532 Manchester Bridge roundabout	Dedicated crossings needed of A532 to access Sydney Road route parallel with railway line. Costed as part of Cycle Route 7.	*No cost*	*No cost*
	8	Hungerford Road	Extend where feasible and repaint existing double yellow lines to prevent footway parking – currently affecting visibility and safety. Improvements to pavement surfacing to be considered as part of Highways maintenance programme.	£8,153	£8,153
TOTAL				**£323,555**	**£254,793**
5 – Crewe Town Centre to Nantwich Road via Ruskin Road	1	Somerville Street / Nantwich Road junction	Improved road markings at the junction and painted double yellow lines. Repair dropped kerb condition.	£11,491	£8,748
	2	Somerville Street	Improvements to pavement surfacing to be considered as part of Highways maintenance programme. Look to address pavement parking which narrows width of pavement for pedestrians (360m)	£8,153	£8,153
	3	Somerville Street / Lunt Avenue junction	Extend double yellow lines where feasible further down Lunt Avenue from junction to prevent cars parking and obstructing view.	£8,153	£8,153
	4	Lunt Avenue	Maintain vegetation along Lunt Avenue. Improvements to pavement surfacing to be conisdered as part of Highways maintenance programme.	£1,916	£1,916
	5	Ruskin Road	Improve condition of footpath and widen to 1.5m thoughout (540m).	£141,548	£86,410
	6	Alton Street / Walthall Street junction	Improve the condition of the pavement and dropped kerb at corner with Walthall Street.	£13,009	£12,323
	7	Walthall Street	Considerable on-street parking also restricts movement, introduce single or double yellow lines to address this issue where feasible.	£8,153	£8,153
	8	Wistaston Road	Footway width not wide enough to accommodate all footways users and may cause give and take. Widen footway to 1.5m (150m)	£39,319	£24,003
	9	Dunwoody Way / Wistaston Road junction	Review crossing to better cater for pedestrians as this junction doesn't meet desire lines and requires multiple crossings. Implement a pedestrian crossing from Wistaston Road to Dunwoody Way.	£94,487	£76,961
	10	Chester Street to Pheonix Leisure Park	Provide a sloped route between Chester Street and the Leisure Park to ensure accessibility for all. Widen steps to 1.5m (20m). Widen route parallel to Chester Street Car Park to 1.5m (45m).	£17,038	£10,401
	11	Chester Street	Footway width is narrow, widen footway to 1.5m (80m)	£20,970	£12,802
	12	Oak Street / Wistaston Road/ Edleston Road / Chester Bridge	Lengthen green man crossing time as these are currently short and removal of anti-pedestrian surfacing at the junction.	£51,358	£51,358
TOTAL				**£415,597**	**£309,382**
	1	Weston Road Service Road	Improve dropped kerb quality as kerb tactiles could be improved and need maintenance.	£10,973	£8,230

6 – North – South: Sydney to Weston Road via Macon Way	2	Weston Road Service Road	Improve street furniture along Weston Road Service Road as there is adequate space to do so.	*No cost*	*No cost*
	3	Weston Road	Widen footpaths to 1.5m throughout Weston Road on both sides of the road (approx. 600m)	£157,276	£96,011
	4	Weston Road	Consider improvements to walking and cycling access to Crewe Hub developed as part of Crewe Hub workstream.	*No cost*	*No cost*
	5	Macon Way	Improve vegetation maintenance throughout route to allow use of the whole width of shared pathway (750m x 2)	£9,579	£9,579
	6	Macon Way Service Road	Improved dropped kerbs along Macon Way service road and widen footpath to 1.5m (180m)	£58,155	£37,033
	7	Macon Way	Implement uncontrolled crossing of Macon Way to improve crossing facilities along the route	£18,288	£13,716
	8	Off road route parallel to the railway	Vegetation needs to be managed on along the entire route (off-road section)	£6,386	£6,386
	9	Off road route parallel to the railway	Removal of bollards to allow access for all at both ends of the off-road route – Manchester Bridge and Sydney Road	£457	£457
TOTAL				**£261,115**	**£171,413**
7 – North – South: Crewe Retail Park to Gresty Road	1	B5071 Gresty Road / Basford Road junction	Shift dropped kerb further along Basford Road as current dropped kerb forces users too close to traffic.	£10,265	£6,067
	2	B5071 Gresty Road	Maintenance of pavement along Gresty Road as vegetation has overgrown onto the footway.	£6,067	£10,265
	3	Nantwich Road/Pedley Street	Include an appropriate crossing facility at the junction to meet the north/south desire line to the town centre - suggested Toucan to link to Cycle Route 7.	£102,869	£83,819
	4	Pedley Street, Railway Street	Widen footway to 1.5m to Waverley Court (190m) and improve footway surface between Pedley Street and Waverley Court.	£49,804	£30,404
	5	Waverley Court	Ensure a 1.5m pathway (120m) through Waverley Court and removal of staggered barriers/railings and improve lighting.	£31,912	£19,659
	6	Mill Street Footway	Improved lighting and street furniture along footway adjacent to Mill Street.	£20,383	£20,383
	7	Mill Street (from Brook Street)	Improve dropped kerb quality, uneven and pavement needs to be in better quality for users (140m)	£36,698	£22,403
	8	Mill Street crossing	Upgrade crossing to Toucan crossing (as this is a part of a cycle route) and lengthen green man time for crossing.	£102,869	£83,819
	9	High Street/Vernon Way roundabout	Linking into the cycle route 7 intervention, provide zebra (1x) crossing for High Street arm and toucan crossings (3x) for other arms of the roundabout (Costed as part of Cycle Route 7)	*No cost*	*No cost*
	10	Vernon Way	Management of vegetation encroaching on footway.	£2,938	£2,938
	11	Memorial Sq at Vernon Way roundabout	Narrow junction radius on Memorial Square approach arms; investigate scope to narrow approaches on other arms simplifying roundabout and slowing approaching traffic. Costed as part of Cycle Route 7.	*No cost*	*No cost*
	12	Throughout	Improve wayfinding throughout the route.	£14,265	£8,230
TOTAL				**£378,071**	**£287,988**
8 – East – West: A534 corridor to Crewe Business Park	1	Manor Avenue	Narrow junction mouth to minimise width required to cross the road.	£10,265	£10,265
	2	Nantwich Road junction near Somerville Street, Nantwich Road betw	Upgrade crossings to Toucan crossings to support Cycle Route 5.	£205,739	£167,639
	3	Nantwich Road/ Salisbury Avenue junction	Upgrade junction to provide pedestrian crossings points e.g. Puffin crossings.	£94,487	£76,961
	4	A534 Nantwich Road / Ruskin Road junction	Narrow junction mouth and implement dropped kerbs to meet the desire line.	£10,265	£10,265
	5	A534 Nantwich Road	Implement street furniture along High Street of A534 Nantwich Road where pavement width allows this.	*No cost*	*No cost*
	6	A534 Nantwich Road / A5019 Mill Street crossroad	Review green man time at the junction time to ensure users have sufficient time to cross.	*No cost*	*No cost*
	7	Nantwich Road / Pedley Street	Linking to interventions in Walking Route 7, upgrade the junction to cater for east/west pedestrian movements	£102,869	£83,819
	8	Nantwich Road Bridge crossing	Linking to the intervention in Cycle Route 7 for a pedestrian/cycle bridge, upgrade and reposition the pedestrian crossing to a Toucan crossing. Reduce waiting time for pedestrians and cyclists to cross.	£102,869	£83,819
	9	Nantwich Road / Crewe Arms Crossing	Investigate potential to realign the pedestrian crossing near Crewe Arms Hotel further towards the Crewe Arms roundabout to better cater for the desire line. Pedestrians will also benefit from improvements to Crewe Arms roundabout on cycle routes 3, 7 and 9.	£102,869	£83,819
	10	Crewe Road	Improve vegetation clearance on Crewe Road to ensure the whole width of the shared pathway can be used. Costed as part of Cycle Route 3.	*No cost*	*No cost*
	11	Electra Way	Widen footpath to 3m for a shared pathway (approx. 460m) which would also benefit cyclists.	£120,578	£73,609
TOTAL				**£749,943**	**£590,198**
TOTAL				**£3,343,450**	**£2,490,070**

Appendix F – Proposed Cycling Interventions Costs

Intervention	Indicative low cost	Indicative high cost	Cost reference	Optimism bias (44%) high cost	Optimism bias (44%) low cost	Year price	Optimism bias (44%) high cost	Optimism bias (44%) low cost
							2020	2020
Crossings								
Zebra crossing (including high friction surfacing on approaches)	£20,000	£32,500	http://www.wiltshire.gov.uk/highways-works-cost	£46,800	£28,800	2017	£49,530	£30,480
Divided zebra crossing (including high friction surfacing on approaches)	£28,000	£39,500	http://www.wiltshire.gov.uk/highways-works-cost	£56,880	£40,320	2017	£60,198	£42,672
Puffin crossing (including high friction surfacing on approaches)	£50,500	£62,000	http://www.wiltshire.gov.uk/highways-works-cost	£89,280	£72,720	2017	£94,487	£76,961
Toucan crossing (including high friction surfacing on approaches)	£55,000	£67,500	http://www.wiltshire.gov.uk/highways-works-cost	£97,200	£79,200	2017	£102,869	£83,819
Highlighted crossing point (includes bollards and associated costs)	£4,300	£4,300	http://www.wiltshire.gov.uk/highways-works-cost	£6,192	£6,192	2017	£6,553	£6,553
Pedestrian refuge including electrical works and other associated works	£9,000	£12,000	http://www.wiltshire.gov.uk/highways-works-cost	£17,280	£12,960	2017	£18,288	£13,716
Footways								
Shared path (per metre)	£105	172	Low cost: provided by Lancashire County Council for recent scheme costing High cost: http://www.wiltshire.gov.uk/highways-works-cost	£248	£151	2017	£262	£160
With kerbing/edgings (per metre)	£80	80	http://www.wiltshire.gov.uk/highways-works-cost	£115	£115	2017	£122	£122
Build out footway	£7,000	£7,000	Cheshire East Council (CEC)	£10,080	£10,080	2019	£10,265	£10,265
Public realm improvements								
New warning or regulatory sign (per sign)	£225	£390	http://www.wiltshire.gov.uk/highways-works-cost	£562	£324	2017	£594	£343
Directional sign on new posts	£450	£780	http://www.wiltshire.gov.uk/highways-works-cost	£1,123	£648	2017	£1,189	£686
Provision of a standard street lighting column including service connection	£2,675	£2,675	http://www.wiltshire.gov.uk/highways-works-cost	£3,852	£3,852	2017	£4,077	£4,077
Clearing vegetation (m2)	£4	£4	2014 http://www.pathsforall.org.uk/pfa/creating-paths/estimating-price-guide.html	£6	£6	2014	£6	£6
Traffic Calming								
Mini roundabout with signage, lighting and lining (without resurfacing the carriageway)	£6,750	£11,300	http://www.wiltshire.gov.uk/highways-works-cost	£16,272	£9,720	2017	£17,221	£10,287
Splitter island (uncontrolled crossing)	£9,000	£9,000	http://www.wiltshire.gov.uk/highways-works-cost	£12,960	£12,960	2017	£13,716	£13,716
Narrowing of carriageway to introduce one-way priority traffic operation, including signage, lighting and lining	£34,300	£34,300	http://www.wiltshire.gov.uk/highways-works-cost	£49,392	£49,392	2017	£52,273	£52,273
20mph zone, coloured entry treatment including signing, lining and street lighting	£17,250	£17,250	http://www.wiltshire.gov.uk/highways-works-cost	£24,840	£24,840	2017	£26,289	£26,289
Double speed cushion layout and associated works such as street lighting, signing and lining	£7,900	£11,250	http://www.wiltshire.gov.uk/highways-works-cost	£16,200	£11,376	2017	£17,145	£12,040
Speed control table with crossing point and associated works such as coloured surfacing, street lighting, signing and lighting	£13,900	£13,900	http://www.wiltshire.gov.uk/highways-works-cost	£20,016	£20,016	2017	£21,183	£21,183
Raised junction with crossing point and associated works such as coloured surfacing, street lighting, signing and lining	£33,700	£33,700	http://www.wiltshire.gov.uk/highways-works-cost	£48,528	£48,528	2017	£51,358	£51,358
Dropped kerbs (one side only)	£675	£900	http://www.wiltshire.gov.uk/highways-works-cost	£1,296	£972	2017	£1,372	£1,029
Bollards	£150	£350	http://www.wiltshire.gov.uk/highways-works-cost	£504	£216	2017	£533	£229
Bus shelters	£3,500	£9,000	http://www.wiltshire.gov.uk/highways-works-cost	£12,960	£5,040	2017	£13,716	£5,334
Bus stop bypass	£20,000	£50,000	Example from Cheshire East Council (2019)	£72,000	£28,800	2019	£73,325	£29,330
Automatic cycle counters (per counter)	£6,000	£6,000	GOVUK: Cycle City Ambition Schemes; cycle intervention costs	£8,640	£8,640	2018	£8,974	£8,974
Moving bollards	£30,000	£30,000	Original price by BCC	£43,200	£43,200	2019	£43,995	£43,995
Cycleway								
Cycle super highway (two-way physical segregation, per km)	£1,115,000	£1,450,000	GOVUK: Cycle City Ambition Schemes; cycle intervention costs (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/742451/typical-costings-for-ambitious-cycling-schemes.pdf)	£2,088,000	£1,605,600	2018	£2,168,623	£1,667,596
Cycle super highway (two-way light segregation, per km)	£240,000	£240,000	GOVUK: Cycle City Ambition Schemes; cycle intervention costs	£345,600	£345,600	2018	£358,944	£358,944
Mixed strategic cycle route (per km)	£460,000	£800,000	GOVUK: Cycle City Ambition Schemes; cycle intervention costs	£1,152,000	£662,400	2018	£1,196,481	£687,977
Resurfacing cycle route	£140,000	£190,000	GOVUK: Cycle City Ambition Schemes; cycle intervention costs	£273,600	£201,600	2018	£284,164	£209,384
Comprehensive cycle route signage (per km)	£12,000	£12,000	GOVUK: Cycle City Ambition Schemes; cycle intervention costs	£17,280	£17,280	2018	£17,947	£17,947
Dutch style rdbt	£1,600,000	£1,600,000	GOVUK: Cycle City Ambition Schemes; cycle intervention costs	£2,304,000	£2,304,000	2018	£2,392,963	£2,392,963
Remodelled major junction	£1,560,000	£1,610,000	GOVUK: Cycle City Ambition Schemes; cycle intervention costs	£2,318,400	£2,246,400	2018	£2,407,919	£2,333,139
Large-scale cycle parking (for 10s to 100s)	120,000	700,000	GOVUK: Cycle City Ambition Schemes; cycle intervention costs	£1,008,000	£172,800	2018	£1,046,921	£179,472
On-road cycleway (light segregation, per km)	210,000	210,000	2016 https://www.gov.uk/government/case-studies/protected-cycle-lanes-salford-greater-manchester	£302,400	£302,400	2016	£327,096	£327,096
Other								
Parking restrictions (formulation of proposals, consultation, traffic orders, and materials)	£5,350	£5,350	http://www.wiltshire.gov.uk/highways-works-cost	£7,704	£7,704	2017	£8,153	£8,153
Central hatching markings (includes removal of existing markings and new markings - per metre)	£34	£34	http://www.wiltshire.gov.uk/highways-works-cost	£49	£49	2017	£52	£52
New bridge structure	£500,000	£500,000.00	GOVUK: Cycle City Ambition Schemes; cycle intervention costs	£720,000	£720,000	2018	£747,801	£747,801
Shared space area	£400,000	£600,000.00	CIHT Creating better streets: inclusive and accessible places (reviewing shared streets) 2018 Example: Leonard Circus, London Borough of Hackney	£864,000	£576,000	2018	£897,361	£598,241
Junction redesign	£280,000.00	£820,000.00	Example from Cheshire East Council junction improvement (2019)	£1,180,800	£403,200.00	2019	£1,202,528	£410,619

Costs	High		Low	
1	£	3,299,830	£	3,023,759
2	£	1,730,550	£	1,558,401
3	£	1,714,920	£	1,270,784
4	£	3,190,506	£	2,410,380
5	£	1,757,544	£	1,421,641
6	£	871,461	£	805,304
7	£	9,310,967	£	7,237,660
a	£	3,583,576	£	2,136,628
b	£	5,727,391	£	5,101,033
8	£	1,728,705	£	1,403,110
9	£	1,763,919	£	1,276,021

Cycle Route	ID	Location	Intervention	Indicative cost (high)	Indicative cost (low)
Route 1 – Leighton Hospital to Nantwich	1	Middlewich Road (A530), approx. 300m north of Pyms Lane junction	New central refuge crossing point of Leighton Link Road to connect cycle facilities.	*No cost*	*No cost*
	2	Link road between Middlewich Road (A530) and southern Leighton Link Road roundabout	New off-road walking / cycling facility along the Leighton Link Road (approx. 250m).	*No cost*	*No cost*
	3	Off-road link between the suggested Middlewich Road (A530) /Leighton West Link Road north of the planned Bentley expansion site up to the proposed pub site next to the Smithy Lane roundabout	New off-road shared walking / cycling trail through fields (approx. 1100m).	*No cost*	*No cost*
	4	Intersection between off-road trail and new Leighton West Link Road	Provide dedicated crossing facilities for cyclists (toucan/tiger) to connect both sides of the off-road link.	*No cost*	*No cost*
	5	Between the crossing and Leighton Hospital access	New off-road walking / cycling facility along the new Leighton West Link Road (approx 250m).	*No cost*	*No cost*
	6	Middlewich Road (A530) between Leighton Hall Farm and Coppenhall Lane	Committed scheme already being taken forward for delivery between Copenhall Lane and Leighton Link Road to install 3m shared path and new pedestrian / cycle bridge over rail line	*No cost*	*No cost*
	7	Northern roundabout on the planned Leighton West Link Road, just south of Leighton Hospital	Provide dedicated crossing facilities for cyclists (toucan/tiger) on the roundabout to provide a safe route to Leighton Hospital.	*No cost*	*No cost*
	8	Middlewich Road (A530) /Coppenhall Lane roundabout	Upgrade roundabout to provide dedicated links to and across the junction (Toucan/tiger crossings) and upgrade paths to 3m and remove segregation.	£1,872,000	£1,872,000
	9	Middlewich Road (A530) / Coppenhall Lane southern junction (Motorsave Direct)	Upgrade surface quality and extend paths to 3 m (approx 200m).		
	10	Middlewich Road (A530) / Coppenhall Lane roundabout to Coppenhall Lane (Motorsave Direct) junction	Junction treatment and investigate options to create a consistent coherent route with adequate width.		
	11	Middlewich Road (A530) / Coppenhall Lane (Motorsave Direct) to Wistaston Green Road	Upgrade substandard width shared path to consistent width cycle track, reallocate space from central hatching, verge protection of cycle route where feasible.		
	12	Middlewich Road (A530) / Wistaston Green Road junction	Review toucan crossing to ensure that it meets the needs of pedestrians and cyclists.	£16,819	£16,819
	13	Middlewich Road (A530) - Rising Sun pub	Side road priority crossing at pub parking access.	£6,553	£6,553
	14	Crewe to Nantwich Greenway	Path may require lighting – could existing highway columns be adapted?	£256,830	£256,830
	15	Middlewich Road (A530) / Alvaston Hall access	Raised table and side road priority crossing on the Crewe to Nantwich Greenway.	£51,358	£51,358
	16	Middlewich Road (A530) / Colleys Lane Junction	Provide short stretch of path and formal/informal crossing to access Crewe to Nantwich Greenway.	£52,151	£32,080
	17	Middlewich Road (A530) / Alvaston roundabout	Provide dedicated crossing facilities for cyclists on all arms (toucan/tiger) of the roundabout, remove cyclists dismount signs to create coherent route, improve size of central refuges and upgrade path to 3m (machine laid) unsegregated where possible.	£480,819	£367,281
	18	Shared path linking Nantwich Bypass to Middlewich Road (A530)	The shared path requires lighting. Remove or increase gap between staggered barriers to accommodate all cycle designs.	£12,687	£12,687
	19	Middlewich Road (A530) from Nantwich Bypass to Whitehouse Lane	Upgrade existing shared use path to 3m unsegregated path to link with toucan crossing.	£41,940	£25,603
	20	Whitehouse Lane	Provide dedicated crossing of Whitehouse Lane (Tiger/Toucan) and widen approach paths to 3m.	£113,135	£94,085
	21	Service Road alongside Middlewich Road from Whitehouse Lane to Barony Park	Investigate potential for street lighting on the service road.	£32,613	£32,613
	22	Path in Barony Park alongside Middlewich Road	Widen existing facility in Barony Park to 3m where possible.	£58,978	£36,004
	23	Path in Barony Park alongside Barony Road	Widen existing path 3m where possible and incorporate side road priority at skate park car park access point.	£121,889	£76,961
	24	Path through Coronation Gardens alongside Beam Street	Widen existing path to 3m and investigate potential to continue path behind trees away from traffic.	£17,038	£10,401
	25	Beam Street / Volunteer Fields Junction	Toucan/tiger crossing to help access to and from Coronation Gardens.	£102,869	£83,819
	26	Beam Street/Volunteer Fields junction	Gateway feature to town centre area and start of 20mph zone.	£5,000	£5,000
	27	Beam Street from Volunteer Fields to Market Street	20mph along Beam Street between Volunteer Fields and Market Street.	£26,289	£26,289
	28	Beam Street from Volunteer Fields to Market Street	Local highway enhancement programme to reinforce 20mph area, could comprise of traffic calming measures, side road narrowing, planting etc.	£30,861	£17,373
		Nantwich Bypass from Alvaston roundabout to Reaseheath roundabout	On-road segregated 1.5m kerbed protected lane on both sides.	£225,428	£137,616
		Nantwich Bypass to Reaseheath College	New cycling path following western side of river Weaver toward Reaseheath College.	£188,731	£115,214
TOTAL				**£3,299,830**	**£3,023,759**

Cycle Route	ID	Location	Intervention	Indicative cost (high)	Indicative cost (low)
Route 2 – Leighton Hospital to Crewe Town Centre	1	Smithy Lane / Bradfield Road (B5076) roundabout	Tighten roundabout to simplify & reduce vehicular approach speeds; provide bigger central islands to accommodate pedestrians/cyclists with dedicated crossings (tiger) to link to new proposed cycle facilities on Smithy Lane. Locate a toucan crossing south of the roundabout across Minshull New Road to link with Smithy Lane.	£225,398	£187,298
	2	Smithy Lane between Bradfield Road roundabout and Leighton Hospital access	Make route pedestrian/cycle only with proposed masterplan road closure. This is a major opportunity to create a more people friendly space by reclaiming space for pedestrian and cyclists.	£10,000	£10,000
	3	Crossing between Smithy Lane and new Flowers Lane/new Hospital roundabout Link Road	Provide dedicated crossing facilities for cyclists (toucan/tiger) to connect both sides of the old Smithy Lane.	£102,869	£83,819
	4	Bradfield Road (B5076) from Smithy Lane roundabout to off-road link access	Focus on minor improvements, particularly around bus stop area. Ensure there is a suitable maintenance regime.	£3,832	£3,832
	5	Minshull New Road by off-road path access at Leighton Academy	Formal dedicated pedestrian/cycle crossing into new development (tiger/toucan); remove or increase gap between staggered barriers to improve accessibility by adapted cycles, mobility scooters etc.	£103,098	£84,048
	6	From crossing Minshull New Road up to the crossing	New off-road shared walking / cycling trail (approx 380m).	£99,608	£60,807
	7	Leighton Academy	Review school access and cycle parking provision to ensure it is suitable for existing use and growth associated with new development.	£21,183	£21,183
	8	Off-road link from Bradfield Road to Broad Street (Leighton Greenway)	Consistent lighting of whole off-road path & localised vegetation clearance to open up visibility on path improving perceptions of personal safety; add dog refuse bins and benches; needs frequent maintenance regime.	£161,300	£161,300
	9	Off-road link from Bradfield Road to Broad Street (Leighton Greenway)	Widen path to consistent 3m machine-laid surface along entire length (where possible).	£240,028	£240,028
	10	Underwood Lane at crossing of off-road trail	Tighten junction of Windsor Avenue and provide direct crossing of Underwood Ln to create coherent facility (tiger or toucan, potentially on raised table).	£154,228	£135,178
	11	Ford Lane at crossing of off-road trail	Formal crossing (tiger) or speed control table with crossing point; traffic calming on approaches.	£102,869	£83,819
	12	Broad Street at access/exit from off-road trail	Improved gateway feature to park with stretch of widened path on Broad Street raising awareness of route. Upgrade Broad Street arm of crossing to a toucan.	£118,135	£99,085
	13	Broad Street from Badger Avenue to West Street	Traffic calming and environmental enhancement measures to reinforce 20mph limit and formalise parking management.	£26,289	£26,289
	14	Meredith Street	On street improvements to formalise parking management and prevent footway parking & general environmental enhancement.	£8,153	£8,153
	15	West Street from Broad Street to Vernon Way	Investigate potential for delivery of bi-directional cycle path on one side of carriageway.	£179,472	£179,472
	16	Vernon Way from West Street to Earle Street	Investigate potential for delivery of bidirectional off-road cycle track on west side of carriageway linking with new facility south of Earle Street.	£107,683	£107,683
	17	General route signage	General direction signage for pedestrians / cyclists along route.	£66,405	£66,405
		West Street/Newton Street	Improved gateway feature from West Street to Newton Street to raise secondary route awareness and traffic calming measures.	£5,000	£5,000
		Badger Avenue	Upgrade path to shared pedestrian/cycle path; widen up to 3 m wherever possible.	£104,850	£64,008
TOTAL				**£1,730,550**	**£1,558,401**

Cycle Route	ID	Location	Intervention	Indicative cost (high)	Indicative cost (low)
Route 3 – Crewe Station to Haslington	1	Nantwich Road at Crewe Station	Crewe Hub provides a major opportunity to create a more people friendly space. Improved links into Pedley Street, along Nantwich Road and to the Crewe Arms roundabout are crucial. As part of the Crewe Station works, an additional separate structure parallel to Nantwich Road across the railway is planned with high quality segregated cycling/walking routes.	£5,000	£5,000
	2	Crewe Arms Roundabout	Review Crewe Arms Roundabout and pedestrian/cycle signals to make crossing this busy intersection as convenient and easy as possible. Scope at Tommy's Lane junction to tighten kerblines and reduce vehicle speeds; vegetation clearance needed to expose full effective path width. Pedestrians at Crewe Arms Roundabout will also benefit from additional improvements as part of proposed walking routes.	*Costed as part of route 7*	*Costed as part of route 7*
	3	Crewe Road / Ludlow Avenue	Introduce a raised table at the junction with Ludlow Avenue, in addition to narrowing the junction mouth and widening the pavement here to 3m for pedestrians and cyclists.	£61,624	£61,624
	4	Crewe Rd from Crewe Arms Roundabout to Crewe Green Road roundabout at MMU	Upgrade existing substandard shared segregated paths on both sides of Crewe Rd and remove segregation; investigate scope for provision of dedicated segregated cycle provision such as stepped cycle tracks or widening path to consistent 3m cycle track/shared unsegregated path on both sides with side road priority improvements along route. Route maintenance required throughout to allow full use of the facilities along Crewe Road.	£322,215	£199,686
	5	Crewe Green Road roundabout at MMU	Install dedicated pedestrian/cycle signals on all arms to create coherent and safe route.	£308,608	£251,458
	6	Crewe Green Road from MMU roundabout to Crewe Green Roundabout	Consider reducing speed limit to 30mph.	£26,289	£26,289
	7	Crewe Green Road from MMU roundabout to Crewe Green Roundabout	Investigate scope for provision of dedicated 3m segregated cycle routes on both sides of the roundabout within highway land to replace existing substandard shared segregated paths ; side road priority improvements along route (requires speed limit of 30mph along this route).	£293,657	£189,508
	8	Crewe Green Roundabout	Review cycle provision at Crewe Green Roundabout as part of post scheme monitoring and evaluation study.	*No cost*	*No cost*
	9	Crewe Green Roundabout to Rhodes Close	A segregated route that is a shared pathway for pedestrians and cyclists to be provided utilising space on the existing grass verge.	£306,688	£187,222
	10	Crewe Rd through Haslington from Rhodes Close to Ashley Meadow	Reduce speed limit to 20mph through village centre.	£26,289	£26,289
	11	Crewe Road through Haslington from Rhodes Close to Ashley Meadow	Consider gateway feature to village and environmental enhancements to reinforce speed limit and complement existing calming measures. Include side road junction narrowing / pedestrian priority crossings. Particular focus at Bradeley Road / Waterloo Road junction.	£47,367	£47,367
	12	Bradeley Road	Investigate scope for closure of junction to vehicular traffic with filtered permeability for pedestrians / cyclists.	£15,000	£15,000
	13	Bradeley Road	Traffic calming to reinforce 20mph speed limit.	£30,861	£25,755
	14	Bradeley Road/Primrose Avenue/Bradeley Hall Road	Junction tightening and raised table to reduce vehicle speeds and help wayfinding to create coherent route.	£51,358	£51,358
	15	Bradeley Hall Lane	Upgrade existing bridleway to consistent width 3m where possible with surfacing. Investigate possibility of lighting to improve perceptions of personal safety for year round usage.	£128,434	£92,697
	16	General route signage	General direction signage for pedestrians/cyclists along route.	£91,531	£91,531
		Haslington Bypass from Crewe Green roundabout to Sandbach	Investigate scope for provision of shared bi-directional off-road cycle route along the A534 to Sandbach, including a crossing in Wheelock area.	£13,662,322	£10,505,854
TOTAL				**£1,714,920**	**£1,270,784**

Cycle Route	ID	Location	Intervention	Indicative cost (high)	Indicative cost (low)
Route 4 – Crewe Station to Shavington	1	Gresty Road from Nantwich Road junction to South Street junction	Investigate scope to make this stretch of Gresty Road informal streets with pedestrian / cycle traffic dominating and through traffic encouraged to use South Street.	£897,361	£598,241
	2	Gresty Road / South Street junction	Tighten junction improving visibility and reducing turning vehicle speeds.	£10,265	£10,265
	3	South Street / Gresty Road from Nantwich Road to the railway bridge and new cycling facilities south of railway	Prevent HGV traffic from travelling north towards Nantwich Road from Mornflake site.	£8,153	£8,153
	4	Gresty Road at Mornflake / Railway Bridge to start of new cycling facility	Access review and improvements needed to ensure pedestrians / cyclists can pass this hostile area safely. Extend shared provision beyond rail bridge to link into new cycling facility. Some challenges as embankment and railway land.	£123,199	£75,209
	5	Jack Mills Way roundabout	Provide dedicated crossing facilities (toucan / tiger) to create coherent and safe route.	£308,608	£251,458
	6	Jack Mills Way / B5071 roundabout	Provide dedicated crossing facilities (toucan / tiger) to create coherent and safe route.	£358,137	£281,938
	7	A500 / B5071 roundabout	Extend path from Jack Mills Way to junction and incorporate formal toucan crossing across eastern arm of junction.	£173,643	£127,024
	8	A500 / B5071 junction to Crewe Road	New bi-directional off-road cycle track (approx 300m). For coherence with paths on Jack Mills Way path most likely to be on north side of carriageway although possible on either side.	£104,588	£63,848
	9	Ernest Street	Heavily parked street, particularly in northern section. Measures to formalise parking ensuring clear wide carriageway for cycle passage.	£8,153	£8,153
	10	Ernest Street / Bedford Street junction	Junction treatment with raised table calming to ease crossing of pedestrians / cyclists.	£51,358	£51,358
	11	Manor Way	Consider introduction of on carriageway measures to reinforce low speed limits.	£42,367	£42,367
	12	Manor Way	Consider introduction of reduced speed limit to 20mph.	£26,289	£26,289
	13	Brookhouse Drive	Consider introduction of on carriageway measures to reinforce low speed limits.	£42,367	£42,367
	14	Brookhouse Drive	Consider introduction of reduced speed limit to 20mph.	£26,289	£26,289
	15	Gresty Greenway through to junction of Gresty Green Road with Gresty Lane	Undertake path maintenance to expose full width.	£3,640	£3,640
	16	Gresty Greenway through to junction of Gresty Green Road with Gresty Lane	Lighting of path and gateway improvements to promote this route.	£61,150	£61,150
	17	Junction of Gresty Green Road/Gresty Lane/ Crewe Road	Tighten junction to slow vehicle speeds and allow emerging and crossing cyclists better visibility.	£51,358	£51,358
	18	Crewe Road from Gresty Lane to 50m north of Chestnut Avenue	New bi-directional off-road cycle track (approx 1000m); most scope appears on west of Crewe Road north of A500 (potential to deliver in field boundary) and then on east side south of A500; would need to raise parapets on A500 overbridge.	£348,628	£212,825
	19	Crewe Road/A500 slip junction	Tighten junction if possible and incorporate pedestrian/cycle phases to allow safe crossing and coherent transition across paths.	£46,841	£37,697
	20	Crewe Road from 50m north of Chesnutt Avenue to Shavington Main Road	Investigate potential to provide advisory on-road cycle lanes; if not feasible then traffic calming to reduce vehicle speeds through Shavington (some on carriageway parking).	£36,271	£36,271
	21	Main Road / Crewe Road junction at Shavington	Tighten junction to reduce vehicle speeds and crossing distances for pedestrians and cyclists; potential for central refuge or formal pedestrian crossing linking to new development; new development needs dedicated pedestrian/cycle access onto Crewe Road at north of development and a crossing to link to Main Road.	£135,537	£87,227
	22	Ernest Street/Nantwich Road junction	Potential scope for closure of junction of Ernest Road / Nantwich Road to through traffic or making top section one-way with cycle contraflow. This would allow either a continuous footway or junction narrowing. Further feasibility / consultation would be required.	£15,000	£15,000
	23	Nantwich Road between Brooklyn Street and Ernest Street	Relocate existing pedestrian crossing to between Brooklyn Street and Ernest Street, upgrade to toucan or parallel zebra crossing.	£102,869	£83,819
	24	Brooklyn Street/Nantwich Road junction	Potential scope for closure of junction of Brooklyn Street/Nantwich Road to through traffic or making top section one-way with cycle contraflow; would allow either a continuous footway or junction narrowing (further feasibility/ consultation would be required).	£15,000	£15,000
	25	Brooklyn Street (entire length)	Heavily parked street - measures to formalise parking ensuring clear wide carriageway for cycle passage.	£8,153	£8,153
	26	Stalbridge Road/Walthall Street junction	Junction treatment with speed table and parking suspension on junction.	£29,337	£29,337
	27	Walthall Street from Stalbridge Road to Alton Street	Heavily parked street - measures to formalise parking ensuring clear wide carriageway for cycle passage.	£8,153	£8,153
	28	Alton Street/Walthall Street junction.	Junction treatment with speed table and parking suspension on junction.	£29,337	£29,337
	29	General route signage	General direction signage for pedestrians / cyclists along route.	£118,452	£118,452
TOTAL				**£3,190,506**	**£2,410,380**

Cycle Route	ID	Location	Intervention	Indicative cost (high)	Indicative cost (low)
Route 5 – Crewe Station to Nantwich Town Centre	1	Hospital Street from Pillory Street to junction with The Gullet	On-road unmarked contra-flow cycle lane with gateway signage.	£81,015	£49,377
	2	Hospital Street / Pratchetts Row roundabout	Reduce radius of mini roundabout slowing vehicle speeds and making it easier to negotiate for cyclists.	£17,221	£10,287
	3	Hospital Street and Crewe Road roundabouts with B5074	Review of area, incorporating reduced radius of mini roundabouts slowing vehicle speeds and making it easier to negotiate for cyclists; also scope to reduce carriageway width between two roundabouts and improve crossing facilities for pedestrians in the area with zebra crossings on junction arms.	£381,150	£233,932
	4	Crewe Road from B5074 roundabout to Nantwich bypass roundabout (approx. 1500m)	Existing on road advisory lanes are sub-standard in width; detailed assessment needed based on carriageway width and traffic volumes - may only be feasible from Mount Drive onwards.	£77,723	£77,723
	5	Crewe Road / Nantwich bypass roundabout (Peacock roundabout)	Provide dedicated pedestrian/cycle crossings e.g. Toucan crossings at roundabout to allow cyclists to safely negotiate the off-road routes; if two phase crossings are needed then increase size of central refuge to safely accommodate cyclists.	£514,346	£419,097
	6	Crewe Road from Nantwich bypass roundabout (Peacock roundabout) to Smallman Road (approx. 3800m)	Existing on road advisory lanes are sub-standard in width. Detailed assessment needed based on carriageway width and traffic volumes and investigate potential to bring eastbound cycle route back on carriageway before Broughton Road side road.	£196,899	£196,899
	7	Boughton Lane/Crewe Road junction	Narrow junction mouth and implement a raised table to improve safety for cyclists and pedestrians.	£51,358	£51,358
	8	Nantwich Road from Smallman Road through to Pedley Street.	Busy and congested stretch of road, already 20mph with traffic calming; some small scale improvements possible but wider network management needed to reduce vehicular traffic on this route.	£78,790	£62,026
	9	Nantwich Road/Pedley Street junction	Upgrade junction to cater for all cyclist and pedestrian movements, linking in with the Crewe Hub proposed cycle/ pedestrian bridge parallel to Nantwich Road Bridge, in addition to creating a gateway feature to the town centre (links to Cycle Route 7 interventions).	£205,739	£167,639
	10	General route signage	General direction signage for pedestrians / cyclists along route.	£113,067	£113,067
	11	Throughout	Maintenance throughout the route in particular road markings.	£40,234	£40,234
TOTAL				**£1,757,544**	**£1,421,641**

Cycle Route	ID	Location	Intervention	Indicative cost (high)	Indicative cost (low)
Route 6 – Wistaston to Crewe Town Centre(Part A)	1	Brook Street	Footway parking creates unpleasant environment for pedestrians and cyclists - streetscape design measures to manage formalise and manage parking.	£8,153	£8,153
	2	Valley Brook / Edleston Road	Link pathway into the new proposed bridge structure for pedestrians and cyclists across Edleston Road Bridge (see Cycle Route 7).	*Costed in CR7*	*Costed in CR7*
	3	Valley Brook Path from Walthall Street to Wistaston Road	Upgrade path to shared use (3m) with widened access and lighting to improve perceptions of personal safety through park, gradient may require some path realignment.	£104,698	£76,619
	4	Electricity Street / Derrington Avenue junction	Junction treatment to tighten junction and introduce raised table to reduce vehicle speeds and improve pedestrian/cycle environment.	£51,358	£51,358
	5	Walthall Street	Open up and create dedicated gateway features to Valley Brook Path; incorporate build outs to restrict parking at access points.	£15,265	£15,265
	6	Electricity Street / Alton Street	Reduce speed limit to 20mph.	£26,289	£26,289
	7	Electricity Street / Alton Street	Consider traffic calming and streetscape improvements to reinforce 20mph limit. Address parking issues through allowing for parking only one side of Alton Street.	£50,520	£50,520
	8	Valley Brook Path from Walthall Street to Alton Street	Upgrade path to shared use with widening to 3m where possible. Lighting, surfacing and general maintenance to improve perceptions of personal safety. Links include to Amy Street, Flag Lane and Alton Street; Include gateway feature to promote route from Alton Street.	£127,529	£127,529
	9	Junction of Alton Street / Stewart Street	Junction treatment to tighten junction radius.	£10,265	£10,265
	10	Alton St from Brookdale Park to Davenham Crescent	Streetscape improvements to formalise on-street parking arrangements and act as informal traffic calming. Consider on-street parking on one side of the road only.	£8,153	£8,153
	11	Tipkinder Park to Victoria Avenue	Remove staggered barriers onto Victoria Avenue to allow accessibility for all.	£229	£229
	12	Alton Street / Queens Park Drive junction	Junction treatment to tighten junction radius reducing speed of turning vehicles.	£10,265	£10,265
	13	General route signage	General direction signage for pedestrians / cyclists along route.	£123,836	£123,836
	14	King George V Playing Field	Lighting of path around park perimeter and some minor path desire line surfacing improvements at corners.	£52,997	£52,997
	15	King George V Playing Field	Parking management measures and calming to reduce vehicle speeds and ensure cyclists can comfortably take the lane.	£8,153	£8,153
	16	Connect 2 route near Wistaston Brook	Review quality of the route through Wistaston Brook to improve route attractiveness.	£5,428	£5,428
	17	Connect 2 entrance at Wistaston Green Road	Improve gateway feature onto the Connect2 route.	£5,000	£5,000
Route 6 – Wistaston to Crewe Town Centre (Part B)	1	Chester Street	Consider traffic calming to reinforce 20mph and measures to raise awareness of presence of cyclists. General route formalisation.	£17,145	£12,040
	2	Chester Square	Provide on-road lane (3m where possible) through the car park on the northern side of the road.	£26,213	£16,002
	3	Car parking at the access of Chester square	Widen path from flag lane through to Chester street car park to shared used, with landscaping to opening up visibility and improve perception of personal safety.	£38,008	£23,203
	4	Victoria Avenue / Wistaston Road junction	Review road surface quality. Consider traffic calming measures on approaches to Wistaston Road.	£51,358	£51,358
	5	Flag Lane from Bridle Road to the access to Chester square	Raised table to reduced vehicle speed along Flag Lane.	£21,183	£21,183
	6	Victoria Avenue / Wistaston Road	Consider provision of advisory cycle lanes both sides and a detailed assessment needed based on carriageway width and traffic volumes. Alternatively, consider introducing more traffic calming on these roads.	£67,360	£67,360
	7	Victoria Avenue / Stewart Street junction	Reduce junction radius to slow turning vehicles and make route easier to negotiate by bicycle.	£17,221	£10,287
	8	Tipkinder Park	Surface covered in vegetation and therefore requires regular maintenance.	£2,171	£2,171
	9	Queens Park Drive - pedestrian/cyclist section	Gateway features at either end to improve promotion of this route and lighting to improve perceptions of personal safety for year round usage; pedestrian/cyclist priority over Queens Park Golf Course access route and replacement of staggered barriers with bollard between Queens Park and King George V Playing Fields. Localised vegetation clearance to open up visibility on path improving perceptions of personal safety. Add dog refuse bins and benches.	£20,039	£20,039
	10	Queens Park / Tipkinder Park crossing of Queens Park Drive	Minor desire line surfacing improvements.	£2,621	£1,600
	11	Queens Park	Some signage/wayfinding improvements needed within park to more clearly identify route options to the A530 and Crewe Town Centre.	*costed in 'general route signage' above*	*costed in 'general route signage' above*
TOTAL				**£871,461**	**£805,304**

Cycle Route	ID	Location	Intervention	Indicative cost (high)	Indicative cost (low)
Route 7 – Town Centre Loop	1	Nantwich Road at Crewe Station	Crewe Hub provides a major opportunity to create a more people friendly space. Improved links into Pedley Street, along Nantwich Road and to the Crewe Arms roundabout are crucial. As part of the Crewe Station works, an additional separate structure parallel to Nantwich Road across the railway is planned with high quality segregated cycling/walking routes.	£650,587	£500,279
	2	Crewe Arms Roundabout	Review Crewe Arms Roundabout and pedestrian/cycle signals to make crossing this busy intersection as convenient and easy as possible. Scope at Tommy's Lane junction to tighten kerblines and reduce vehicle speeds; vegetation clearance needed to expose full effective path width. Pedestrians at Crewe Arms Roundabout will also benefit from additional improvements as part of proposed walking routes.	£514,346	£419,097
	3	Petrol station exit Macon Way (A532)	Tightening of kerblines and pedestrian/cycle crossing.	£59,795	£40,745
	4	Macon Way (A532) from Nantwich Road roundabout to A532 Manchester Bridge roundabout	Upgrade existing segregated paths to consistent 3m shared unsegregated path on both sides of Macon Road (like on Vernon Way); investigate scope for provision of dedicated segregated cycle routes within highway land.	£243,229	£243,229
	5	Valley Brook Park	Programme of path improvement/barrier removal to widen and upgrade network of paths to shared use.	£44,790	£27,432
	6	Macon Way just south of Total Fitness access at Valley Brook Park	New toucan/tiger crossing providing dedicated crossing of Macon Way.	£102,869	£83,819
	7	A532 Manchester Bridge roundabout	Dedicated crossings needed of A532 to access Sydney Road route parallel with railway line.	£308,608	£251,458
	8	Manchester Bridge A532	The bridge itself has been recently refurbished and there is little scope for dedicated provision. Should the opportunity arise then provision of a new bridge structure dedicated to cyclists and pedestrians would address this critical link in the network.	£1,500,000	£1,500,000
	9	A532 from Manchester Bridge to Vernon Street roundabout to Rainbow Street	Investigate scope to widen paths to 3m minimum shared unsegregated paths; create breaks in fencing along Grand Junction Retail Park boundary to allow pedestrian/cycle access away from main roundabout route.	£86,502	£52,806
	10	Grand Junction Retail Park roundabout	Busy roundabout with no formal pedestrian/cycle facilities; consider install dedicated toucan/tiger crossings to create continuous, safe and coherent pedestrian/cycle routes.	£411,477	£335,278
	11	Grand Junction Way	Widen access paths to consistent 3m and convert to shared unsegregated paths.	£30,404	£30,404
	12	Rainbow Street	Remove fencing and create dedicated pedestrian/cycle shortcut access to Grand Junction Retail Park.	£2,286	£2,286
	13	Mirion Street / Greystone Park crossing of A532	Minor works to improve approach to toucan crossing.	£6,553	£4,000
	14	Earle Street at Mirion Street and Vincent Street	Drop kerbs and short stretches of path on A532 at Mirion Street and Vincent Street to allow easy crossing from A532 to residential network.	£1,219	£1,219
	15	Earle Street from Rainbow Street to Vernon Way roundabout	Provision of a new bridge structure dedicated to cyclists and pedestrians parallel to the Earle Street bridge. Further feasibility study needed to identify preferred alignment of bridge.	£1,500,000	£1,500,000
	16	Thomas Street / Earle Street junction	Drop kerbs to aid access to and from Earle Street.	£732	£732
	17	Memorial Square at Vernon Way roundabout	Narrow junction radius on Memorial Square approach arms; investigate scope to narrow approaches on other arms simplifying roundabout and slowing approaching traffic.	£17,221	£10,287
	18	Town centre pedestrianised area	Unclear if cycling is currently allowed within the pedestrianised area; space seems sufficient with some existing kerb segregation in places - recommend allowing this to be informal streets, could initially be undertaken with an experimental 6-12 month traffic order.	£897,361	£598,241
	19	Market Street / Delamere Street junction to Chester Street roundabout	Junction improvement at Market Street / Delamere Street junction to aid movement into town centre area; works could include raised table which could extend to cover whole stretch of road to calm this location and make Chester Street the town centre gateway; pedestrian guard railings could be removed to open up whole area.	£53,644	£53,644
	20	Chester Street / Market Street mini roundabout	Tighten existing roundabout to slow vehicular movements and make junction simpler to negotiate for cyclists.	£17,221	£10,287
	21	Chester Bridge from Chester Street to High Street	Create high quality cycle route along Chester Bridge consisting of either stepped cycle track on either side of carriageway or shared path.	£39,319	£24,003
	22	High Street	Current environment is very dilapidated but subject to regeneration proposals as part of master plan exercise.	£10,000	£10,000
	23	High Street / Vernon Way roundabout	Scope to improve pedestrian and cyclist crossing points around the roundabout.	£411,477	£335,278
	24a	Mill Street – under west side of Mill Street underpass – along Oak Street	Look into the feasibility of extending the cycleway under the underpass through Mill Street, creating additional underpass of the railway bridge. Route would then continue along Oak St or High St (intervention 22). Consider adding a shared path along Oak Street between Mill Street roundabout and Edleston Road signalised junction.	£2,000,000	£900,000
	24b	Mill Street – Brook Street – Edleston Road	Extend the cycleway along Brook Street and Edleston Road; this would require a new bridge structure parallel to the existing Edleston Road Bridge. Extend pavement to 3m between Brook St and the junction to create a shared pathway (links to Cycle Route 6).		
	24c	Mill Street - Parallel to railway (Valley Brook) – Edleston Road	New cycleway route parallel to the railway (Valley Brook) and Edleston Road that would require a new bridge structure parallel to the existing Edleston Road Bridge (links to Cycle Route 6). Likely to be significant challenges associated with ecology / landscape and engineering feasibility of spanning the different height levels.		
	25	Mill Street / Lockitt Street junction	Side road priority treatment with raised table and/or parallel crossing.	£66,751	£49,225
	26	Pedley Street Car Park – Lockitt Street – Mill Street	Widened and upgraded route to for pedestrians / cyclists as part of redevelopment proposals on Mill Street.	£52,425	£32,004
	27	Pedley Street Car Park	In case of redevelopment, consider incorporating a high quality cycle route.	£89,123	£54,406
	28	Herdman Street / Railway Street / Pedley Street	Traffic calming and junction tightening (potentially raised tables) to enforce lower speed limit; streetscape improvements & planting to improve natural wayfinding and make route more attractive. Reduce speed limit to 20mph.	£68,656	£68,656
	29	Mill Street / Nantwich Road link	Potential for an improved cycleway on a re-aligned Pedley Street (future Council aspiration). This could include a new two way route for cyclists and pedestrians.	£65,532	£40,005
	30	Junction of Nantwich Road / Pedley Street	Gateway feature / entry treatment to aid wayfinding identifying main route to town centre, linking into intervention 1.	£5,000	£5,000
	31	General route signage	General direction signage for pedestrians / cyclists along route	£53,842	£53,842
TOTAL				**£9,310,967**	**£7,237,660**
7a				**£3,583,576**	**£2,136,628**
7b				**£5,727,391**	**£5,101,033**

Cycle Route	ID	Location	Intervention	Indicative cost (high)	Indicative cost (low)
Route 8 - Grand Junction Retail Park to Sydney	1	Hungerford Road at Manchester Bridge / Macon Way	Tighten junction radius of Macon Way / Hungerford Rd roundabout. Install toucan / tiger crossing of Hungerford Rd to link with Macon Way cycle route.	£102,869	£83,819
	2	Hungerford Road at Manchester Bridge / Macon Way	Gateway feature widening access to better promote and improve perceptions of public safety of cycling trail from Hungerford Road.	£5,000	£5,000
	3	Off-road pedestrian/cycling route from Hungerford Road to Sydney Road (parallel to the railway)	Widen path to 3m where possible with machine laid surface (approx. 1000m).	£160,019	£160,019
	4	Off-road pedestrian/cycling route from Hungerford Road to Sydney Road (parallel to the railway)	Lighting needed along path and environmental enhancement/landscaping scheme to open up path to improve feelings of personal safety (approx. 1000m).	£101,917	£101,917
	5	Bennett Close just north of Hungerford Medical Centre	Gateway feature at car park with dedicated path to open up and formalise link from Bennett Close to off-road route.	£5,000	£5,000
	6	Conrad Close	Vegetation clearance and widening of link through from Conrad Close to off-road path improving perceptions of safety.	£2,685	£1,664
	7	Footpath from Coleridge Way to off-road route (just north of Bennett Close)	Convert path to shared use with 'Please consider other path user' signage and investigate opportunities for widening.	£31,333	£19,088
	8	Rochester Crescent / Betjeman Way junction	Investigate potential of link to off-road trail through greenspace just north of junction of Rochester Crescent / Betjeman Way.	£27,523	£16,802
	9	Sydney Road access to off-road route	Gateway feature widening access to better promote and improve perceptions of public safety of pedestrian / cyclist trail from Sydney Road. Remove bollards limiting access to path.	£5,914	£5,914
	10	Sydney Road from Bradeley Hall Road to railway bridge	Create dedicated off-road bi-directional cycle track / shared path on western side of carriageway. Likely to require some land acquisition on bridge approach.	£290,308	£223,765
	11	Sydney Rd from Bradeley Hall Rd to Hungerford Rd junction	Bi-directional off-road cycle track / shared path on western side of carriageway with junction narrowings and side road priority linking into existing facilities at Hungerford Road junction.	£485,822	£374,464
	12	Sydney Road at Bradley Hall Road access	New toucan / tiger crossing to access Bradeley Hall Road route from new shared use route	£102,869	£83,819
	13	Footpath from Sydney Road at rail bridge to Queen Street	Upgrade footpath to shared use link with lighting (approx. 200m)	£72,809	£52,387
	14	Sydney Road from rail bridge to Maw Green Road	Create dedicated off-road bi-directional cycle track / shared path on western side of carriageway. Looks most feasible on north side of road as fewer trees and potential to utilise short stretch of service road. Crossing required if on other side to path across rail bridge.	£284,384	£219,198
	15	General route signage	General direction signage for pedestrians / cyclists along route	£50,252	£50,252
TOTAL				**£1,728,705**	**£1,403,110**

Cycle Route	ID	Location	Intervention	Indicative cost (high)	Indicative cost (low)
Route 9 – Crewe Station to Weston	1	Crewe Arms Roundabout	Review Crewe Arms Roundabout and pedestrian/cycle signals to make crossing this busy intersection as convenient and easy as possible. Scope at Tommy's Lane junction to tighten kerblines and reduce vehicle speeds; vegetation clearance needed to expose full effective path width. Pedestrians at Crewe Arms Roundabout will also benefit from additional improvements as part of proposed walking routes.	*Costed as part of route 7*	*Costed as part of route 7*
	2	Nantwich Road / Weston Road	High quality pedestrian/cycle route connecting from Nantwich Road to Weston Road Crewe Station entrance (approx. 190m).	£49,804	£30,404
	3	Weston Road – Crewe Hub	Incorporate high quality pedestrian/cycle routes and facilities to improve access from both sides of the station.	£78,638	£48,006
	4	Weston Road (near access road)	Near the junction with the access road, realign the existing route nearer to Weston Road itself to improve visibility at the junction with the local access road, including introducing give way signs.	£12,390	£10,096
	5	Weston Road from Nantwich Rd roundabout to University Way roundabout	Dedicated off-road cycle facilities should be provided - could take the form of a bi-directional cycle track in the grassed central area between Weston Road and its service road.	£393,189	£240,028
	6	Weston Road / University Way roundabout	Provide dedicated crossings (tiger /toucan) on all arms to create coherent safe cycle route.	£461,007	£365,757
	7	David Whitby Way roundabout	Provide dedicated crossings (tiger /toucan) to create coherent safe cycle route.	£205,739	£167,639
	8	Cemetery Rd	Lighting of this road and 30mph speed limit signage; introduce 'quiet lanes' signage and complementary traffic calming measures as far as village centre.	£101,056	£94,945
	9	Weston to Wychwood Park	Extension of cycle route from Weston to Wychwood Park to connect to new housing.	£366,977	£224,026
	10	General route signage	General direction signage for pedestrians / cyclists along route.	£95,120	£95,120
TOTAL				**£1,763,919**	**£1,276,021**

Appendix G – Economic Appraisal Summary

The Active Mode Appraisal Toolkit (AMAT) is used to conduct appraisals of walking and cycling schemes.

Using WebTAG, it calculates the following types of impacts from an intervention:

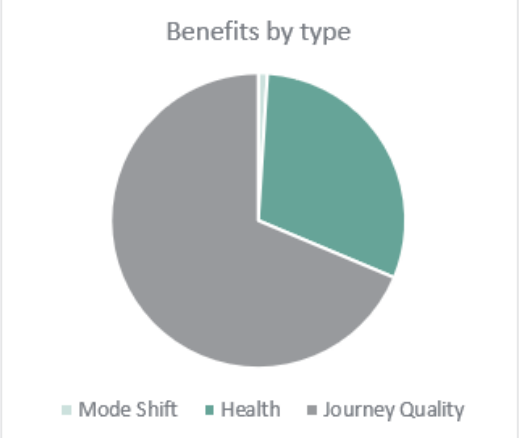
- Physical Activity;
- Absenteeism Benefits;
- Journey Quality Benefits;
- Environmental Impacts;
- Indirect Tax Impacts; and
- Congestion Impacts.

Individual AMATs have been developed for the cycling network, with one overall AMAT for the walking network due to the lack of data in order to estimate walking demand on individual routes.

Route 1 Low Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	58.50
Infrastructure	0.55
Accident	16.48
Local Air Quality	0.07
Noise	1.10
Greenhouse Gases	2.90
Reduced risk of premature death	1700.92
Absenteeism	380.92
Journey Ambience	4714.99
Indirect Taxation	-10.77
Government costs	2352.18
Private contribution	0.00
PVB	6865.10
PVC	2351.63
BCR	**2.92**

Benefits by type:		
Mode Shift	68.82	1.0%
Health	2081.84	30.3%
Journey Quality	4714.99	68.7%

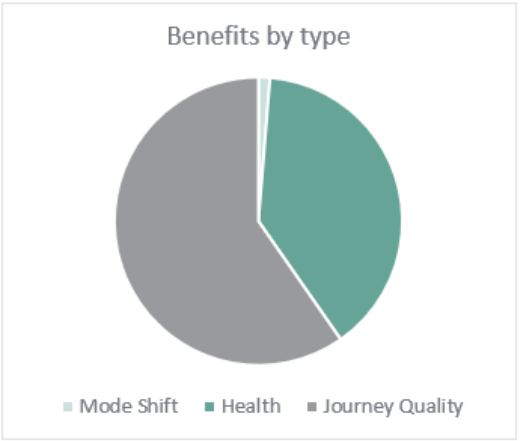


The illustrative case study in WebTAG unit A5.1 uses slightly different assumptions on the valuation of decongestion benefits which result in a higher estimated benefit there. This is due to the specfic nature of the case study and to fully replicate this approach here would have increased the complexity of this tool with no apparent benefit.

Route 1 High Scenario AMCB tab results following AMAT assessmnt.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	97.70
Infrastructure	0.92
Accident	27.53
Local Air Quality	0.11
Noise	1.84
Greenhouse Gases	4.84
Reduced risk of premature death	2840.96
Absenteeism	636.23
Journey Ambience	5317.66
Indirect Taxation	-17.99
Government costs	2155.46
Private contribution	0.00
PVB	8908.88
PVC	2154.54
BCR	**4.13**

Benefits by type:		
Mode Shift	114.94	1.3%
Health	3477.19	39.0%
Journey Quality	5317.66	59.7%



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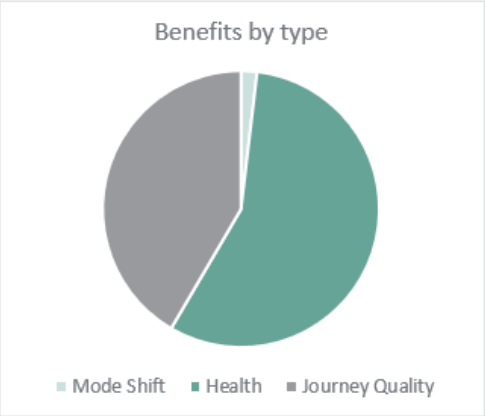
Route 2 Low Scenario AMCB tab results folllowing AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	28.72
Infrastructure	0.27
Accident	8.09
Local Air Quality	0.03
Noise	0.54
Greenhouse Gases	1.42
Reduced risk of premature death	835.22
Absenteeism	187.05
Journey Ambience	751.15
Indirect Taxation	-5.29
Government costs	1233.83
Private contribution	0.00
PVB	1806.94
PVC	1233.56
BCR	**1.46**

Benefits by type:		
Mode Shift	33.79	1.9%
Health	1022.26	56.6%
Journey Quality	751.15	41.6%



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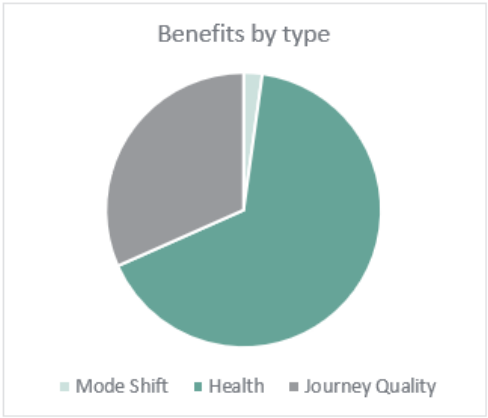
Route 2 High Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	47.80
Infrastructure	0.45
Accident	13.47
Local Air Quality	0.05
Noise	0.90
Greenhouse Gases	2.37
Reduced risk of premature death	1390.00
Absenteeism	311.29
Journey Ambience	814.03
Indirect Taxation	-8.80
Government costs	1110.52
Private contribution	0.00
PVB	2571.11
PVC	1110.07
BCR	**2.32**

Benefits by type:		
Mode Shift	56.24	2.2%
Health	1701.29	66.2%
Journey Quality	814.03	31.7%



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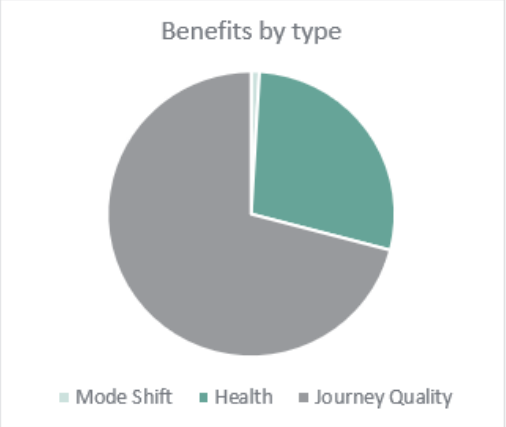
Route 3 Low Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	15.93
Infrastructure	0.15
Accident	4.49
Local Air Quality	0.02
Noise	0.30
Greenhouse Gases	0.79
Reduced risk of premature death	463.33
Absenteeism	103.76
Journey Ambience	1429.41
Indirect Taxation	-2.93
Government costs	1222.42
Private contribution	0.00
PVB	2015.10
PVC	1222.27
BCR	**1.65**

Benefits by type:		
Mode Shift	18.75	0.9%
Health	567.10	28.1%
Journey Quality	1429.41	70.9%



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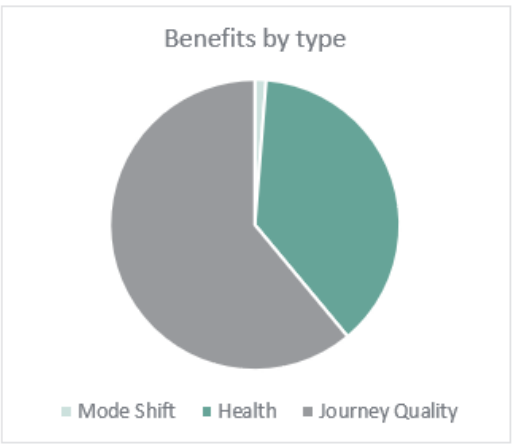
Route 3 High Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	26.84
Infrastructure	0.25
Accident	7.56
Local Air Quality	0.03
Noise	0.50
Greenhouse Gases	1.33
Reduced risk of premature death	780.35
Absenteeism	174.76
Journey Ambience	1546.65
Indirect Taxation	-4.94
Government costs	905.95
Private contribution	0.00
PVB	2533.08
PVC	905.70
BCR	**2.80**

Benefits by type:		
Mode Shift	31.57	1.2%
Health	955.11	37.7%
Journey Quality	1546.65	61.1%



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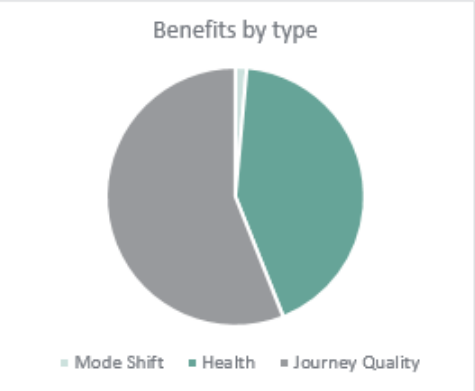
Route 4 Low Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	22.43
Infrastructure	0.21
Accident	6.32
Local Air Quality	0.03
Noise	0.42
Greenhouse Gases	1.11
Reduced risk of premature death	652.32
Absenteeism	146.09
Journey Ambience	1051.50
Indirect Taxation	-4.13
Government costs	2274.49
Private contribution	0.00
PVB	1876.09
PVC	2274.28
BCR	0.82

Benefits by type:		
Mode Shift	26.39	1.4%
Health	798.41	42.6%
Journey Quality	1051.50	56.0%

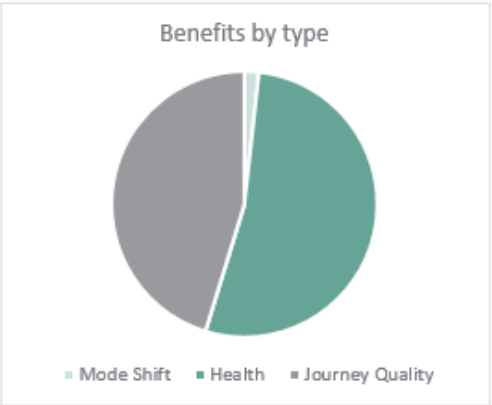


The illustrative case study in WebTAG unit A5.1 uses slightly different assumptions on the valuation of decongestion benefits which result in a higher estimated benefit there. This is due to the specfic nature of the case study and to fully replicate this approach here would have increased the complexity of this tool with no apparent benefit.

Route 4 High Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	37.53
Infrastructure	0.35
Accident	10.58
Local Air Quality	0.04
Noise	0.71
Greenhouse Gases	1.86
Reduced risk of premature death	1091.27
Absenteeism	244.39
Journey Ambience	1140.25
Indirect Taxation	-6.91
Government costs	1717.81
Private contribution	0.00
PVB	2519.71
PVC	1717.45
BCR	1.47

Benefits by type:		
Mode Shift	44.15	1.8%
Health	1335.66	53.0%
Journey Quality	1140.25	45.2%



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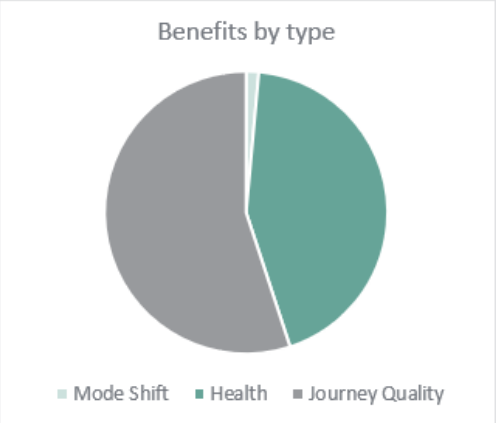
Route 5 Low Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	13.63
Infrastructure	0.13
Accident	3.84
Local Air Quality	0.02
Noise	0.26
Greenhouse Gases	0.67
Reduced risk of premature death	396.27
Absenteeism	88.74
Journey Ambience	613.03
Indirect Taxation	-2.51
Government costs	1253.07
Private contribution	0.00
PVB	1113.95
PVC	1252.94
BCR	**0.89**

Benefits by type:		
Mode Shift	16.03	1.4%
Health	485.02	43.5%
Journey Quality	613.03	55.0%



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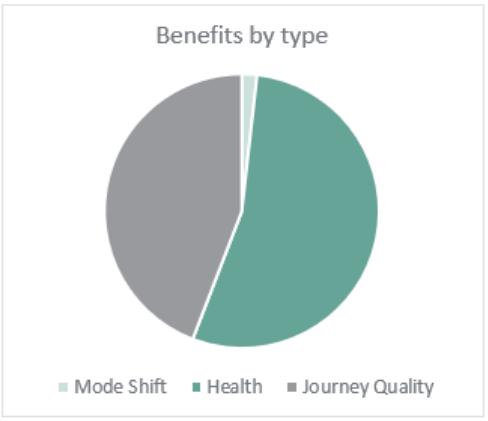
Route 5 High Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	22.85
Infrastructure	0.21
Accident	6.44
Local Air Quality	0.03
Noise	0.43
Greenhouse Gases	1.13
Reduced risk of premature death	664.52
Absenteeism	148.82
Journey Ambience	664.81
Indirect Taxation	-4.21
Government costs	1013.58
Private contribution	0.00
PVB	1504.81
PVC	1013.36
BCR	**1.48**

Benefits by type:		
Mode Shift	26.89	1.8%
Health	813.33	54.0%
Journey Quality	664.81	44.2%



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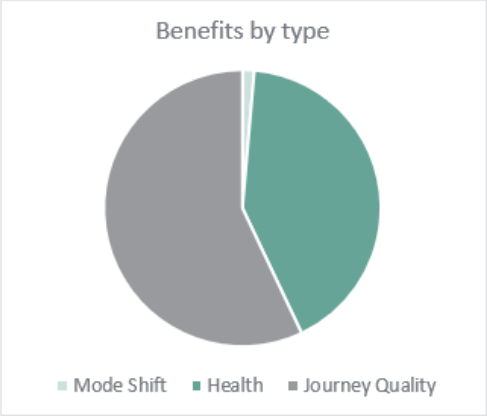
Route 6 Low Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	31.24
Infrastructure	0.29
Accident	8.80
Local Air Quality	0.04
Noise	0.59
Greenhouse Gases	1.55
Reduced risk of premature death	908.38
Absenteeism	203.43
Journey Ambience	1524.49
Indirect Taxation	-5.75
Government costs	620.83
Private contribution	0.00
PVB	2672.75
PVC	620.54
BCR	**4.31**

Benefits by type:		
Mode Shift	36.75	1.4%
Health	1111.81	41.6%
Journey Quality	1524.49	57.0%



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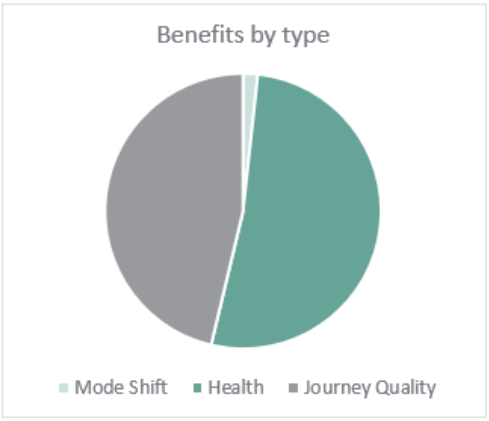
Route 6 High Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	52.21
Infrastructure	0.49
Accident	14.71
Local Air Quality	0.06
Noise	0.98
Greenhouse Gases	2.58
Reduced risk of premature death	1518.03
Absenteeism	339.96
Journey Ambience	1653.35
Indirect Taxation	-9.62
Government costs	573.79
Private contribution	0.00
PVB	3572.27
PVC	573.30
BCR	**6.23**

Benefits by type:		
Mode Shift	61.42	1.7%
Health	1857.98	52.0%
Journey Quality	1653.35	46.3%



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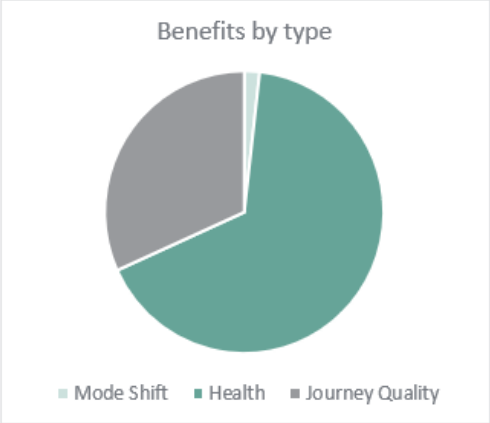
Route 7a Low Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	47.99
Infrastructure	0.45
Accident	13.52
Local Air Quality	0.05
Noise	0.90
Greenhouse Gases	2.38
Reduced risk of premature death	1668.55
Absenteeism	445.98
Journey Ambience	1010.02
Indirect Taxation	-8.84
Government costs	2554.61
Private contribution	0.00
PVB	3180.56
PVC	2554.16
BCR	**1.25**

Benefits by type:

Mode Shift	56.46	1.8%
Health	2114.53	66.5%
Journey Quality	1010.02	31.8%



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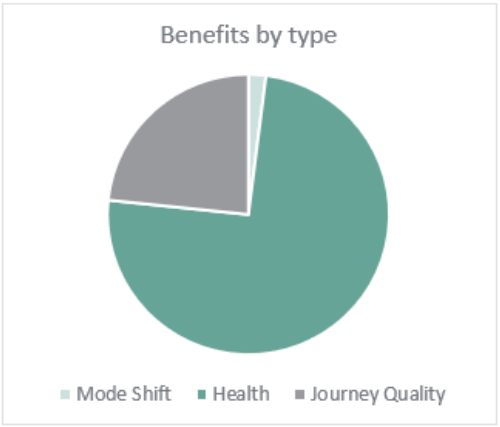
Route 7a High Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	79.64
Infrastructure	0.75
Accident	22.44
Local Air Quality	0.09
Noise	1.50
Greenhouse Gases	3.94
Reduced risk of premature death	2762.04
Absenteeism	736.69
Journey Ambience	1094.90
Indirect Taxation	-14.67
Government costs	1523.22
Private contribution	0.00
PVB	4686.58
PVC	1522.47
BCR	**3.08**

Benefits by type:

Mode Shift	93.70	2.0%
Health	3498.73	74.6%
Journey Quality	1094.90	23.4%



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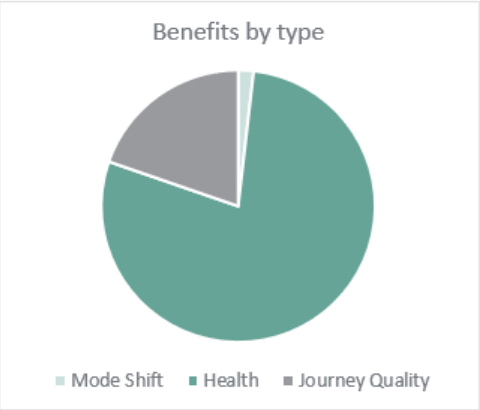
Route 7b Low Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	77.47
Infrastructure	0.73
Accident	21.83
Local Air Quality	0.09
Noise	1.46
Greenhouse Gases	3.84
Reduced risk of premature death	3054.42
Absenteeism	896.30
Journey Ambience	991.04
Indirect Taxation	-14.27
Government costs	4082.11
Private contribution	0.00
PVB	5032.18
PVC	4081.38
BCR	**1.23**

Benefits by type:		
Mode Shift	91.14	1.8%
Health	3950.72	78.5%
Journey Quality	991.04	19.7%



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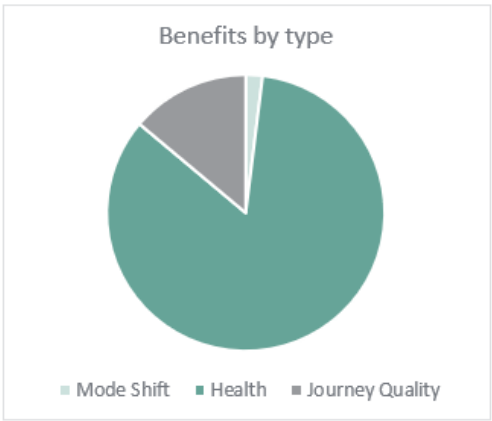
Route 7b High Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	127.92
Infrastructure	1.20
Accident	36.05
Local Air Quality	0.14
Noise	2.40
Greenhouse Gases	6.33
Reduced risk of premature death	5027.55
Absenteeism	1472.21
Journey Ambience	1070.62
Indirect Taxation	-23.56
Government costs	3635.91
Private contribution	0.00
PVB	7719.67
PVC	3634.70
BCR	**2.12**

Benefits by type:		
Mode Shift	150.49	1.9%
Health	6499.76	84.2%
Journey Quality	1070.62	13.9%

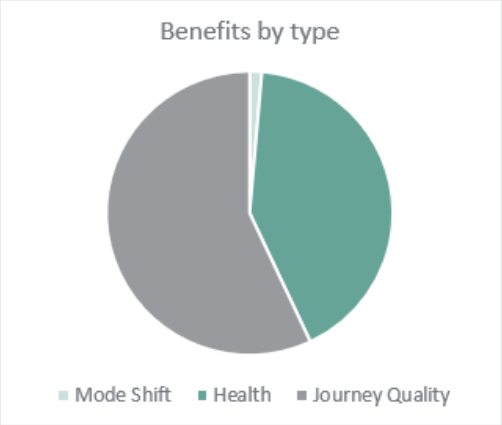


The illustrative case study in WebTAG unit A5.1 uses slightly different assumptions on the valuation of decongestion benefits which result in a higher estimated benefit there. This is due to the specfic nature of the case study and to fully replicate this approach here would have increased the complexity of this tool with no apparent benefit.

Route 8 Low Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	17.19
Infrastructure	0.16
Accident	4.84
Local Air Quality	0.02
Noise	0.32
Greenhouse Gases	0.85
Reduced risk of premature death	499.91
Absenteeism	111.95
Journey Ambience	836.78
Indirect Taxation	-3.17
Government costs	1232.40
Private contribution	0.00
PVB	1468.71
PVC	1232.24
BCR	**1.19**

Benefits by type:		
Mode Shift	20.23	1.4%
Health	611.87	41.7%
Journey Quality	836.78	57.0%



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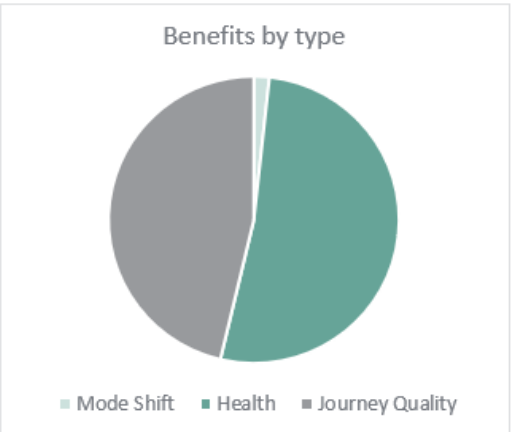
Route 8 High Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	28.51
Infrastructure	0.27
Accident	8.04
Local Air Quality	0.03
Noise	0.54
Greenhouse Gases	1.41
Reduced risk of premature death	829.12
Absenteeism	185.68
Journey Ambience	903.62
Indirect Taxation	-5.25
Government costs	1000.03
Private contribution	0.00
PVB	1951.70
PVC	999.77
BCR	**1.95**

Benefits by type:		
Mode Shift	33.55	1.7%
Health	1014.80	52.0%
Journey Quality	903.62	46.3%

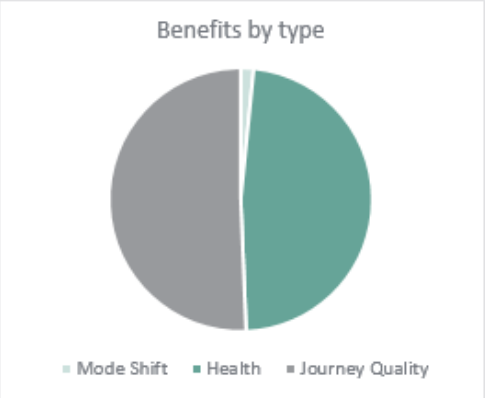


The illustrative case study in WebTAG unit A5.1 uses slightly different assumptions on the valuation of decongestion benefits which result in a higher estimated benefit there. This is due to the specfic nature of the case study and to fully replicate this approach here would have increased the complexity of this tool with no apparent benefit.

Route 9 Low Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	19.50
Infrastructure	0.18
Accident	5.49
Local Air Quality	0.02
Noise	0.37
Greenhouse Gases	0.97
Reduced risk of premature death	566.97
Absenteeism	126.97
Journey Ambience	735.46
Indirect Taxation	-3.59
Government costs	1257.35
Private contribution	0.00
PVB	1452.16
PVC	1257.17
BCR	**1.16**

Benefits by type:		
Mode Shift	22.94	1.6%
Health	693.95	47.8%
Journey Quality	735.46	50.6%

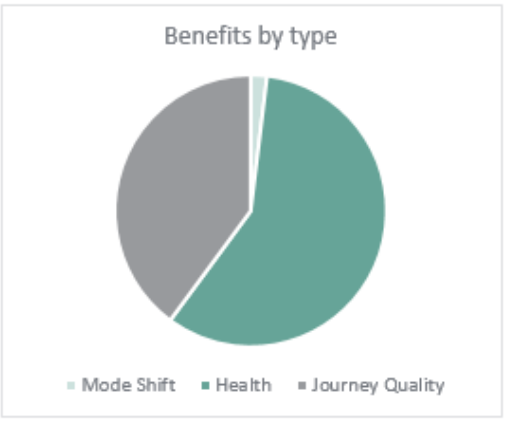


The illustrative case study in WebTAG unit A5.1 uses slightly different assumptions on the valuation of decongestion benefits which result in a higher estimated benefit there. This is due to the specfic nature of the case study and to fully replicate this approach here would have increased the complexity of this tool with no apparent benefit.

Route 9 High Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	32.71
Infrastructure	0.31
Accident	9.22
Local Air Quality	0.04
Noise	0.61
Greenhouse Gases	1.62
Reduced risk of premature death	951.05
Absenteeism	212.99
Journey Ambience	797.82
Indirect Taxation	-6.02
Government costs	909.51
Private contribution	0.00
PVB	2000.03
PVC	909.20
BCR	**2.20**

Benefits by type:		
Mode Shift	38.48	1.9%
Health	1164.04	58.2%
Journey Quality	797.82	39.9%



The illustrative case study in WebTAG unit A5.1 uses slightly different assumptions on the valuation of decongestion benefits which result in a higher estimated benefit there. This is due to the specfic nature of the case study and to fully replicate this approach here would have increased the complexity of this tool with no apparent benefit.

Walking Low Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	55.18
Infrastructure	0.52
Accident	15.55
Local Air Quality	0.06
Noise	1.04
Greenhouse Gases	2.73
Reduced risk of premature death	3075.03
Absenteeism	1077.96
Journey Ambience	0.00
Indirect Taxation	-10.16
Government costs	2382.83
Private contribution	0.00
PVB	4217.39
PVC	2382.32
BCR	**1.77**

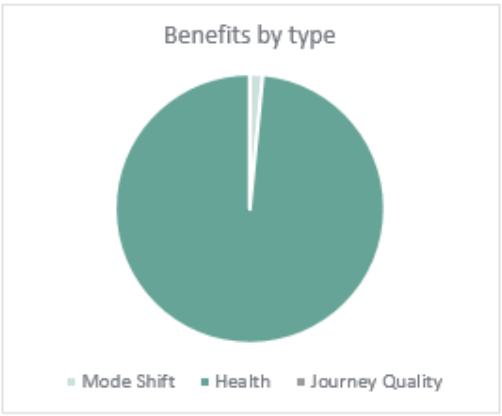
Benefits by type:		
Mode Shift	64.92	1.5%
Health	4152.99	98.5%
Journey Quality	0.00	0.0%

The illustrative case study in WebTAG unit A5.1 uses slightly different assumptions on the valuation of decongestion benefits which result in a higher estimated benefit there. This is due to the specfic nature of the case study and to fully replicate this approach here would have increased the complexity of this tool with no apparent benefit.

Walking High Scenario AMCB tab results following AMAT assessment.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	111.69
Infrastructure	1.05
Accident	31.47
Local Air Quality	0.13
Noise	2.10
Greenhouse Gases	5.53
Reduced risk of premature death	6223.91
Absenteeism	2181.82
Journey Ambience	0.00
Indirect Taxation	-20.57
Government costs	1774.83
Private contribution	0.00
PVB	8536.07
PVC	1773.78
BCR	**4.81**

Benefits by type:		
Mode Shift	131.39	1.5%
Health	8405.73	98.5%
Journey Quality	0.00	0.0%



The illustrative case study in WebTAG unit A5.1 uses slightly different assumptions on the valuation of decongestion benefits which result in a higher estimated benefit there. This is due to the specfic nature of the case study and to fully replicate this approach here would have increased the complexity of this tool with no apparent benefit.