Epsom & Ewell Local Cycling & Walking Infrastructure Plan

SURREY COUNTY COUNCIL & EPSOM & EWELL BOROUGH COUNCIL

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04						
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Figure 1. Crossing on West Hill in Epsom

Executive Summary

Executive Summary

AtkinsRéalis has been commissioned by Surrey County Council (SCC) to work in partnership with Epsom & Ewell Borough Council (EEBC) to develop a Local Cycling and Walking Infrastructure Plan (LCWIP) for the Borough.

An LCWIP is a key transport planning document that has been defined by the Department for Transport (DfT), which aims to support an uptake in the number of people walking, wheeling and cycling by delivering improved facilities for existing active travel users whilst also encouraging mode shift by attracting new users.

The Epsom & Ewell LCWIP outlines a long-term plan (10+ years) to enhance active travel in the Borough. It has considered the full extent of Epsom & Ewell, with an emphasis on links to key trip attractors and destinations that would help encourage a greater mode share for walking, wheeling and cycling within the Borough.

The main outputs for an LCWIP are network plans for key walking and cycling corridors, with a prioritised programme of infrastructure improvements for higher priority areas. This LCWIP report documents the development of these key outputs.

This LCWIP report is the first step in the process for identifying priorities for future active travel investment. Future stages will examine potential schemes in more detail and, if appropriate, advance them through subsequent design and delivery stages as funding is available.

The primary objective for the LCWIP is to increase the number of people walking, wheeling and cycling in the Borough, particularly for short utility journeys. This includes aims to:

- Make walking, wheeling and cycling safe, attractive, convenient, and accessible modes of transport for everyone, regardless of age, and ability.
- Expand the existing cycle network and establish an extensive, continuous active travel network for the Borough.
- Improve access and connectivity to key destinations, such as local high streets and commercial areas, schools, employment areas, and public transport services.
- Increase the number of people walking, wheeling and cycling in the Borough and support modal shift, particularly for short utility journeys.
- Foster a high quality of life in Epsom and Ewell for its residents, visitors, and workers by supporting a wide range of social, economic, health, and environmental aspirations.

Furthermore, as presented later in the report, Epsom & Ewell is one of a number of LCWIPs being developed in Surrey, some Borough/district-wide and some town-wide. It is paramount that there is effective coordination between them so that a continuous network of cycle corridors, as well as walking corridors, is developed across Surrey.

Methodology

In order to meet the objectives of the LCWIP, the project was divided into key tasks identified below and presented within Figure 2. The structure of the report follows the process set out by DfT including 6 stages:

- Stage 1: Determining Scope
- Stage 2: Gathering Information
  - Review of previous studies, strategies and guidance.
  - Background data analysis.
- Stages 3 & 4: Network Planning for Cycling & Network Planning for Walking
  - Draft active travel network development.
  - Stakeholder engagement to refine the draft proposed network.
- Stage 5: Prioritising Improvements
  - Prioritisation of a 'Phase 1' corridors/areas using a multi-criteria assessment framework (MCAF).
  - Site visits and formal of assessments (for the Phase 1 areas) using standardised tools - Walking Route Audit Tool (WRAT) and Route Selection Tool (RST).
  - Identification of potential interventions for the Phase 1 areas.
  - Further stakeholder engagement to review the proposed interventions.
  - Programme prioritisation and cost estimating.
- Stage 6: Integration and Application

Further information on each task is presented in Section 1. Introduction on page 13.

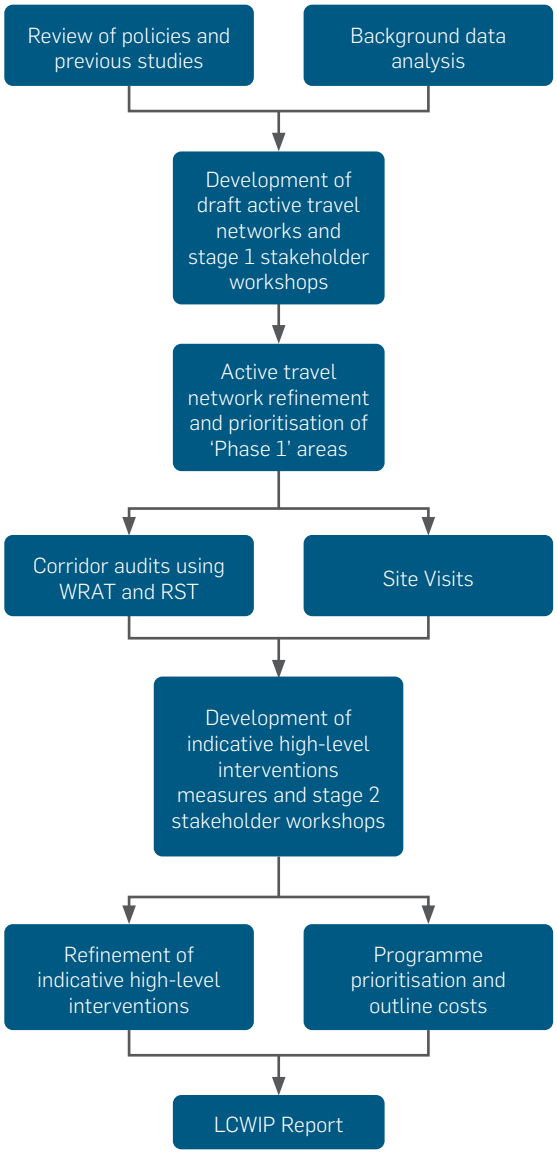


Figure 2. LCWIP process overview

LCWIP Vision and Strategy

The overarching vision behind the LCWIP is one which supports strong and sustainable growth for Epsom & Ewell and a high quality of life through investment in active travel and an enhanced public realm.

The proposed high-level interventions seek to increase the number of people walking, wheeling and cycling for short journeys or as part of a longer journey, thus reducing the number of short car trips. This is important to promote health and well-being, reduce congestion and pollution, achieve climate change targets, provide inclusive travel options, and improve the economic vitality of the Borough and its local high streets whilst also balancing the needs of the historic environment.

Good design is vital to the successful delivery of facilities that encourage more people to walk, wheel or cycle and achieve the full benefits of a scheme.

The LCWIP approach and proposals strive to reflect the high aspirations of the DfT's design guidance - Cycle Infrastructure Design (LTN 1/20) and Inclusive Mobility. It incorporates best practice guidance and aims to address the five key design principles of effective walking and cycling infrastructure:[1]

- Coherent
- Direct
- Safe
- Comfortable
- Attractive

In accordance with LTN 1/20, Inclusive Mobility and other key guidance, the high-level interventions proposed in the LCWIP seek to provide infrastructure that is accessible to all and meet the needs of vulnerable pedestrians and local people. The proposed high-level interventions aim to comply with the Public Sector Equality Duty (from The Equality Act 2010) which may require reasonable adjustments to the built environment and key principles would be added in terms of adaptability, gradient, context sensitive and inclusivity.

Ultimately, the LCWIP strategy looks to identify short as well as long term solutions that could be applied across the Borough.

1 Department for Transport, Cycle Infrastructure Design (LTN 1/20).

Stakeholder Engagement

Early engagement was a key element of the LCWIP as it ensured that the views and knowledge of local residents and stakeholders were taken into account. At the outset of the study, public input on existing issues and desired improvements related to walking, wheeling and cycling was obtained through the Cycle Infrastructure Map Viewer and the Commonplace website.

During the study, two sets of workshops were held with representatives from SCC, EEBC, Sustrans, external stakeholders (e.g., local cycling and walking groups, local business community, schools), local elected members (EEBC / SCC councillors) and representatives of the neighbouring areas (officers from Mole Valley, Reigate and Banstead, London Borough of Sutton and Royal Borough of Kingston Upon Thames). The first phase of workshops provided feedback on existing issues and the identification of draft walking and cycling networks. The second set of workshops reviewed the initial indicative high-level interventions as to the type of infrastructure improvements that could be provided for the prioritised corridors and core walking zones. A summary of the engagement activities is provided in 4. Stakeholder Early Engagement on page 69.

Walking and Cycle Network identification

Working with SCC and EEBC, key findings from the review of previous studies, data analysis and stakeholder engagement sessions were used to inform the development of the walking and cycling networks selection process.

The assessment process involved two stages. Firstly, an 'aspirational-list' was developed using both qualitative and quantitative information to identify a comprehensive active travel network and focus areas across the Borough. The cycle elements included strategic corridors linking key destinations and population centres. The 'core walking zones' (CWZs) focused on identified areas with high propensity for walking and / or wheeling in the Borough, primarily around town/neighbourhood centres and local high streets/commercial areas. The output is the aspirational networks for walking, wheeling and cycling in Epsom and Ewell, which included 15 CWZs and 51 cycle corridors (see Figure 3 on page 10).

The second stage of the LCWIP utilised a multi-criteria assessment framework (MCAF) and stakeholder input to prioritise the aspirational network and select a 'short list' for further analysis as part of the LCWIP. These 'Phase 1' corridors/CWZs were selected for development of initial high-level proposals for infrastructure improvements, which includes six cycle corridors and three CWZs, as shown in Figure 4 on page 11.

Corridors/CWZs not prioritised for the development of the first set of interventions (Phase 1) are part of the aspirational network (referred to as Phases 2 and 3) and may be developed at a later stage.

Indicative high-level interventions

The high-level proposals for walking and cycling reflect the aims of SCC and EEBC.

Across Epsom and Ewell, there are a variety of barriers that discourage walking, wheeling and cycling, such as physical severance caused by railways or proximity to high traffic flows and speeds. A lack of or inadequate facilities can cause residents and visitors to rely on private transport, thus over stretching the already congested road network. Commercial areas and other key destinations could be better linked to foster economic and social vitality and cohesion in the area, supporting places where people would like to spend time.

The LCWIP strategy seeks to address these issues with the development of a local cycling and walking plan that is innovative, aspirational, and deliverable, creating a network that truly prioritises pedestrian and cyclist movement and aims to integrate with other adjacent areas and schemes.

For the Phase 1 areas, a high-level package of potential interventions was identified that incorporates current best practice, providing short and long term concepts that could be further developed and implemented. The proposals aim to meet design guidance from the DfT's LTN 1/20, Inclusive Mobility and Healthy Streets for Surrey in order to leverage future funding opportunities from DfT for active travel.

Prioritisation

Following development of the proposed interventions, the Phase 1 walking areas and cycle corridors were prioritised to help guide future scheme development and implementation.

The prioritisation process included criteria related to stakeholder input, potential demand, quality of the existing facilities and access. These categories were intended to reflect the potential demand of each corridor, the potential feasibility of the proposed schemes, the potential of the improvements to encourage new walking, wheeling and cycling trips, and the degree to which the corridors/areas foster pedestrian and cycle access to key destinations.

Costing

Indicative outline costs were provided for the identified high-level interventions. These estimates are reflective of the early development stage and are intended to provide a very indicative, rough order-of-magnitude cost only. The figures also reflect the diversity of the proposals which seek to meet LTN 1/20 guidance and subsequently vary significantly in terms of size and complexity. Indicative costs vary from approximately £6.8 million to £17.8 million for the cycle corridors and from approximately £15.4 million to £18.5 million for the CWZs.[1]

The costs for each area and mode (walking, wheeling and cycling) were evaluated separately. This method provided a stand alone cost for each cycle corridor and CWZ and allows the proposals to be considered independently.

Next Steps

The LCWIP report is the first stage in the process for investment for active travel in the Epsom and Ewell. The end-to-end process is outlined below:

- **Stage 1 - Plan (LCWIP Report)**
- Stage 2 - Feasibility
- Stage 3 - Business case / secure funding
- Stage 4 - Delivery

The LCWIP report should be used to support the case for further stages of assessment, design, and stakeholder engagement and to secure funding to progress improvements for the corridors identified. As an LCWIP is intended to facilitate a long-term approach to developing active travel proposals over a period of approximately 10+ years, all of the corridors identified within the active travel network maps are recommended for further consideration at an appropriate time in the life of the LCWIP implementation. The LCWIP outputs should also be integrated into local planning and transport policies, strategies and delivery plans, as per the DfT guidance.

The next stage of LCWIP implementation will be to advance the Phase 1 high-level infrastructure proposals to feasibility assessment and design.

This will allow a more detailed review of individual corridors or interventions, evaluation of constraints, and refinement of the proposed design measures. The feasibility stage will also include a broader stakeholder and public consultation process, enabling local input to help further shape the proposals.

During this process, and subsequent design phases, stakeholder engagement and consultation will continue to be a key element of developing high-quality and attractive corridors for local users and visitors. The progression of these schemes, either as a work package or individual schemes, will likely be subject to external factors such as funding applications or potential inter-dependencies with other proposals within the local area.

The LCWIP should be viewed as a 'living document' and reviewed and updated periodically to reflect evolving needs and opportunities. This could be in response to significant changes in local circumstances, such as the publication of new policies or strategies. Additional active travel opportunities may also be identified and incorporated into the LCWIP in response to major new development sites and as walking, wheeling and cycling networks mature and expand. SCC will be responsible for providing updates on the LCWIP document following agreement from EEBC, and engagement with local members accordingly.

1 High level costs applicable to this study only, review of costs required as proposals progress to future design stages(feasibility /preliminary design).

Cycling and Walking Aspirational Networks

Figure 3 illustrates the aspirational cycling and walking networks identified through the LCWIP, including the cycle corridors and core walking zones. A multi-criteria assessment and stakeholder input was used to categorise the network into three phases and prioritise which areas to investigate further first.

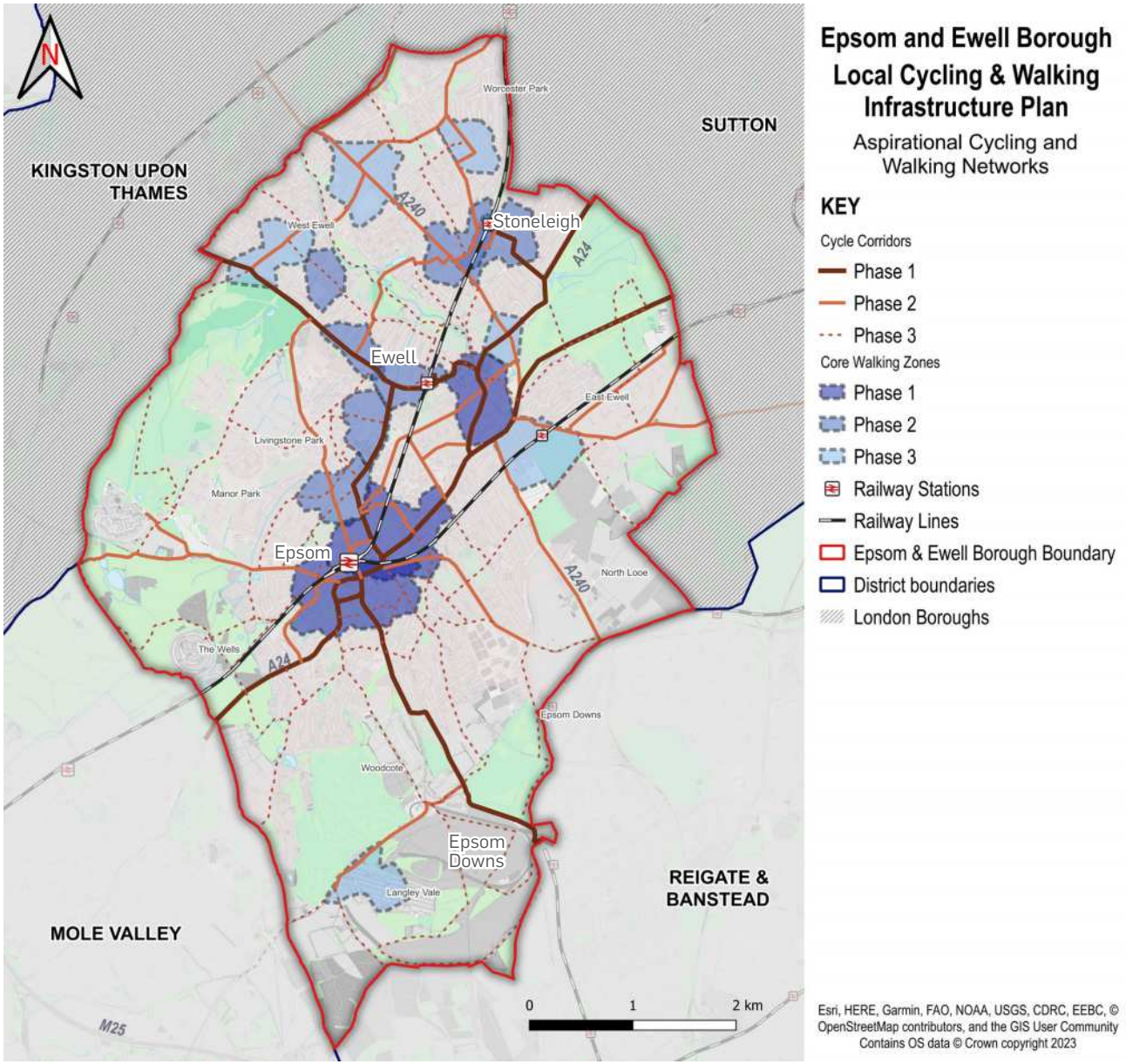


Figure 3. Epsom & Ewell LCWIP aspirational cycling network

Phase 1 Walking Areas and Cycle corridors

Figure 4 highlights the Phase 1 elements of the network, for which the LCWIP developed high-level proposals to improve facilities for cycling and walking. The Phase 1 areas included:

Phase 1 Cycle Corridors:

1. A24 Dorking Road (Ashtead to Epsom Town Centre)
3. A24 Epsom Town Centre to Sutton
4. Epsom Town Centre to Epsom Downs
6. Hook Road - Longmead Road
8. Chessington Road
11. A24 Ewell to Nonsuch Park

Phase 1 Core Walking Zones:

4. Ewell Centre
11. Epsom Town Centre (north)
12. Epsom Town Centre (south)

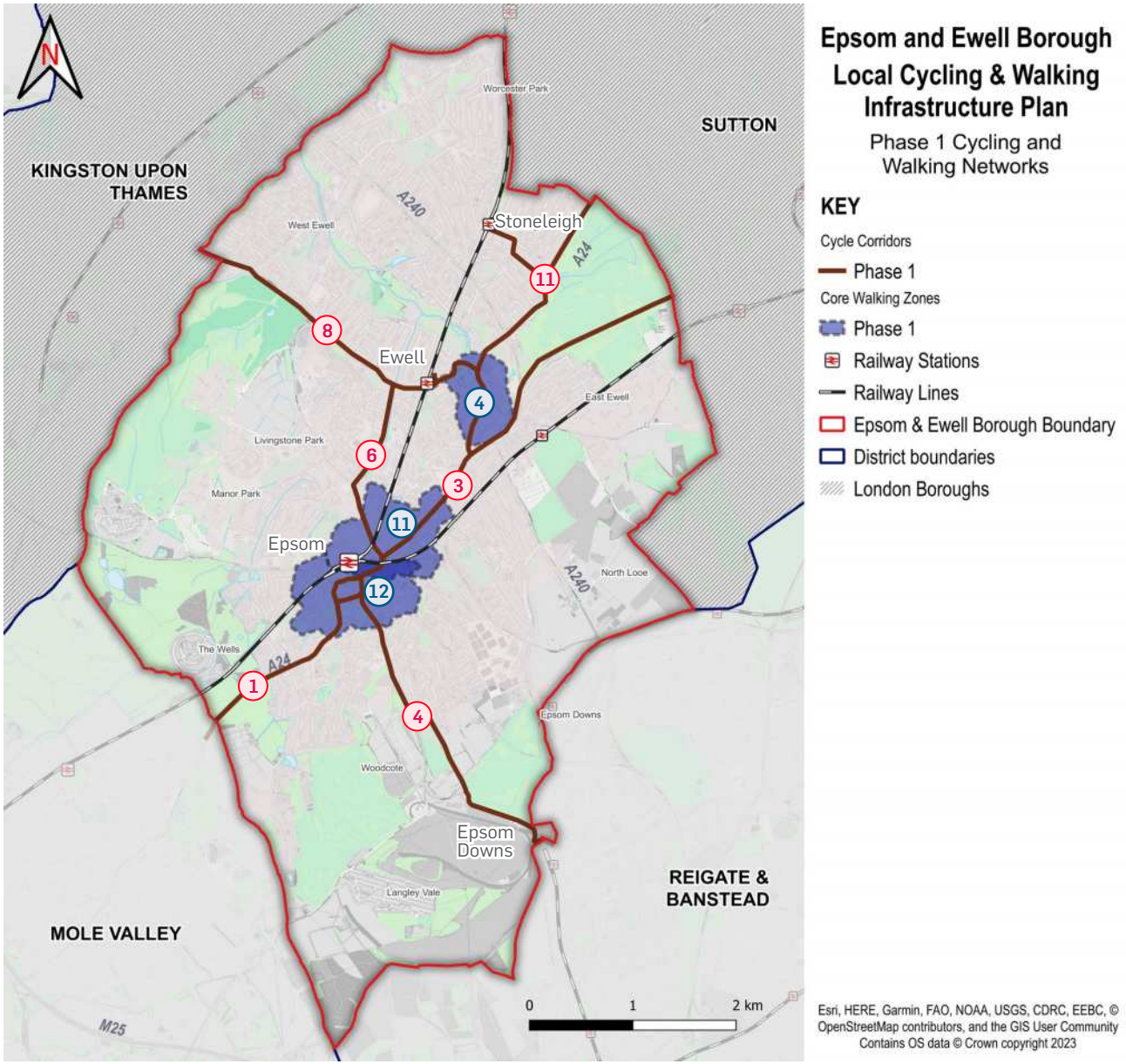


Figure 4. Epsom and Ewell LCWIP Phase 1 cycle corridors and core walking zones

Figure 5. Chessington Road at local shops

1. Introduction

Approach

LCWIP Vision and Strategy

Report Structure

Approach

AtkinsRéalis has been commissioned by Surrey County Council (SCC) to work in partnership with Epsom & Ewell Borough Council (EEBC) to develop a Local Cycling and Walking Infrastructure Plan (LCWIP) for the Borough. The geographic scope is the entirety of the Borough, as shown in Figure 6.

The study approach follows Department for Transport (DfT) guidance[1] for an LCWIP, the core outputs of which are:

- Network plans for walking and cycling which identify key corridors and areas for further development.
- Prioritised programme of improvements for future investment.
- LCWIP report that sets out the underlying analysis carried out and provides a narrative which supports the identified improvements and network.

The proposed measures identified in the LCWIP are also intended to complement existing plans and networks for active travel, as well as align with adopted policy.

The LCWIP aims to support the following key objectives:

- Increase the number of people walking, wheeling and cycling in the Borough and support modal shift, particularly for short utility journeys.
- Make walking, wheeling and cycling safe, attractive, convenient and accessible modes of transport for everyone, regardless of age, and ability.
- Expand the existing cycle network and establish a comprehensive active travel network.
- Enhance accessibility and connectivity to key destinations, such as local high streets, schools, employment areas, and public transport services.

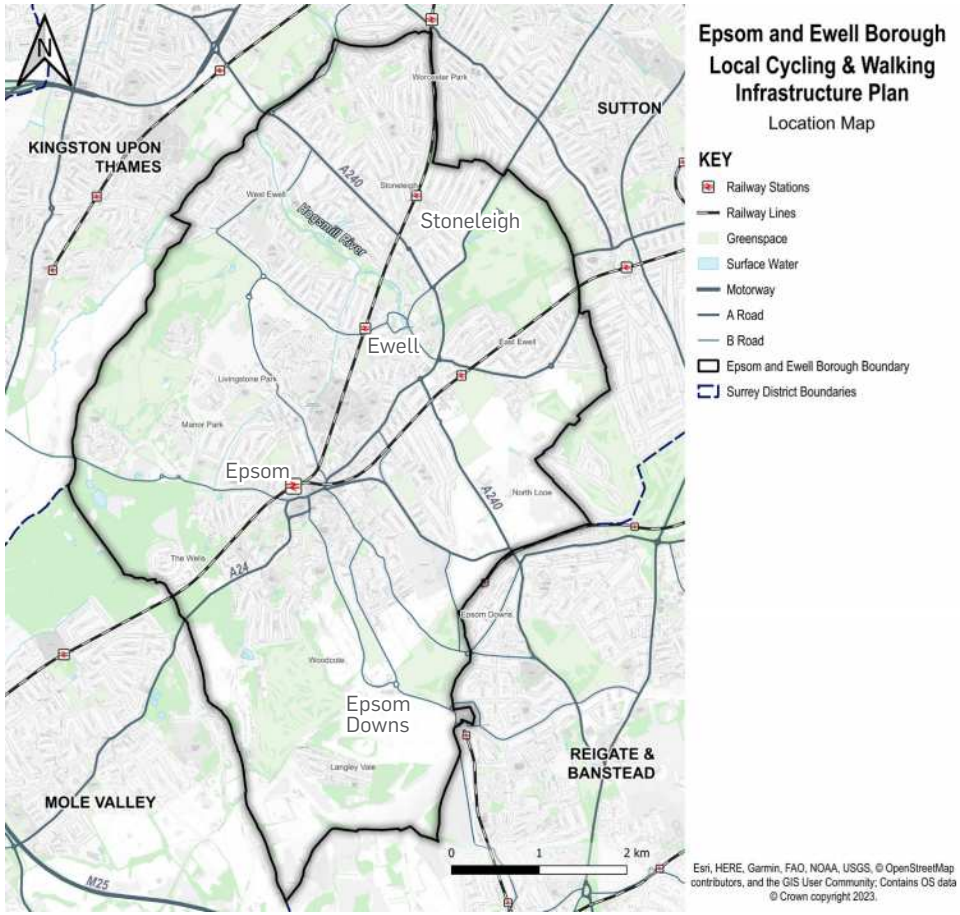


Figure 6. Epsom and Ewell LCWIP study area

[1]Local Cycling and Walking Infrastructure plan, Technical guidance for local authorities, DfT (2017)

Methodology

This report is structured around the stages of the LCWIP process:

» Stage 1: Determining the Scope
» Stage 2: Data Gathering
» Stage 3: Network Planning for Cycling
» Stage 4: Network Planning for Walking
» Stage 5: Prioritising Improvements
» Stage 6: Integration and Application

The project was divided into the following main tasks, as summarised below and illustrated in Figure 7 on page 16:

1. Previous Studies Review (Stage 2): AtkinsRéalis reviewed previous studies related to walking, wheeling and cycling in Epsom and Ewell as well as previous/planned design proposals for active travel schemes, as detailed in the scope of work and identified by officers from the SCC/EEBC project team. Additionally national, county-wide and local policies related to transportation, walking, cycling, and public health were reviewed so that the LCWIP aligns with the objectives of these policies.
2. Data Analysis (Stage 2): AtkinsRéalis also analysed and mapped a number of spatial and behavioural datasets, such as key destinations, pedestrian and cyclist activity and local networks, collision data, key barriers and severance, online public comments, Census data and commuting patterns.
3. Development of Draft Networks (Stage 3 & Stage 4): Draft network maps for key cycling corridors and core walking zones were developed based on the findings from the review of previous studies and data analysis. These draft maps were subsequently refined through engagement with both internal (SCC and EEBC officers) and external stakeholder groups (user groups), as well as local elected members and officers from neighbouring Boroughs/districts. Early engagement in the preparation of this LCWIP has ensured that local knowledge was incorporated into the development of the proposals.
4. Network Refinement and Prioritisation (Stage 5): Following the refinement of the active travel network maps, a multi-criteria assessment framework (MCAF) was undertaken to identify and prioritise the top six scoring corridors for cycling and top three scoring walking zones[2]. These were identified as the 'Phase 1' elements of the active travel networks for advancement through the remainder of the LCWIP process. The MCAF considered each of the individual corridors and core walking zones against a number of metrics, such as: active travel demand, the potential to deliver a high-quality and inclusive corridor, safety issues that could be addressed, and connections to other active travel corridors/core walking zones.
5. Audits and Site Visits (Stage 5): Following the identification of the Phase 1 cycle corridors and core walking zones, site visits were undertaken to audit the existing condition and identify opportunities for improvements. The audits utilised the DfT audit tools for an LCWIP, known as the Walking Route Audit Tool (WRAT) and Route Selection Tool (RST). These tools are used to audit corridors against key metrics for active travel such as attractiveness, directness, comfort, and safety.
6. Draft High-Level Proposed Interventions (Stage 5): The audits were subsequently used to inform the development of high-level proposals for infrastructure improvements for each of the Phase 1 corridors and core walking zones. This process also benefited from the early stakeholder engagement undertaken in Task 3 and the issues identified within the initial data analysis.

   A second round of stakeholder engagement was undertaken to review the draft proposals for high-level interventions. This provided an opportunity for stakeholders to feed into the early development process by providing feedback on the types of interventions being proposed, key additional opportunities for improvements, as well as issues to consider during further development of the proposals in the future stage of design (feasibility).
7. High-Level Proposed Interventions Refinement, Costings, and Prioritisation Programme (Stage 5): The feedback from the early stakeholder engagement process was subsequently reviewed to refine the draft high-level proposals for infrastructure improvements and also ensure that feedback was captured for taking forward into the future feasibility stage. After refining the proposals, the final activities within the LCWIP study included additional WRAT and RST assessments to review the potential quality of the corridors following the proposed interventions. High-level cost and programme estimates reflective of the early development stage were also prepared.
8. LCWIP Report: Outputs of the above tasks were compiled to form this LCWIP report.

2 Number of prioritised Phase 1 cycling corridors and Phase 1 core walking zones was agreed following discussions with SCC and EEBC officers.

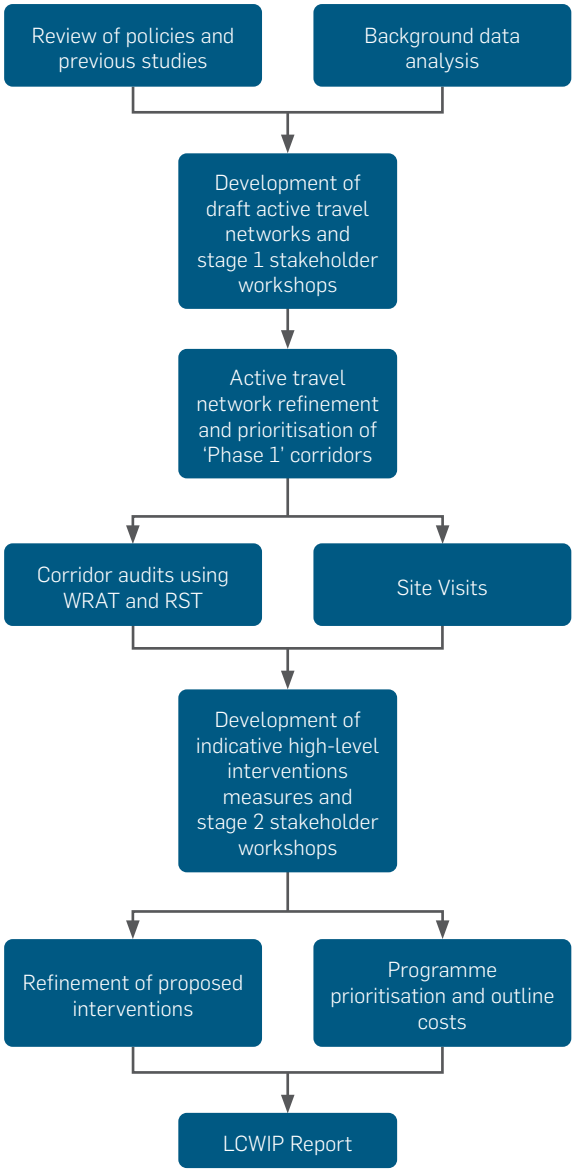


Figure 7. Study methodology

Sustrans and Peer Review

Sustrans has contributed to the development of the LCWIP, acting as a 'critical friend' and feedback on study outputs. These activities were undertaken at key project milestones including the following:

- Review of the approach and methodology, and participating in early stakeholder engagement.
- Review of the initial proposed cycle network and core walking zones, including a check and review against DfT guidance.
- Audit of a corridor to benchmark, identify potential improvement measures and quality assure against AtkinsRéalis own quality assurance process (see Appendix 7: Sustrans Cycle Corridor 5 Review on page 214).
- Review of the first draft LCWIP report including recommendations commensurate with LTN 1/20 guidance.

Next Steps

The LCWIP report is the first stage in the process for investment in active travel in the Borough and Surrey more broadly. The end-to-end process is outlined below:

- **Stage 1 - Plan (LCWIP Report)**
- Stage 2 - Feasibility
- Stage 3 - Business case / secure funding
- Stage 4 - Delivery

The LCWIP report should be used to support the case for further stages of assessment, design, and stakeholder engagement and to secure funding to progress improvements for the corridors identified.

As an LCWIP is intended to facilitate a long-term approach to developing active travel proposals over a period of approximately 10 years, all of the corridors and core walking zones identified within the active travel network maps are recommended for further consideration at an appropriate time in the life of the LCWIP implementation. The LCWIP outputs should also be integrated into local planning and transport policies, strategies and delivery plans, as per the DfT guidance.

The next stage of LCWIP implementation will be to advance the Phase 1 proposed high-level infrastructure improvements to feasibility assessment and design. This would allow a more detailed review of individual corridors and respective interventions, evaluation of constraints, and refinement of the proposed design measures. During this process, and subsequent design phases, stakeholder engagement would continue to be a key element of developing high-quality and attractive corridors for local users. The progression of these schemes, either as a work package or individual schemes, would likely be subject to external factors such as funding applications or potential inter-dependencies with other proposals within the local area.

The LCWIP should be viewed as a 'living document' and reviewed and updated periodically to reflect evolving needs and opportunities.

LCWIP Vision and Strategy

The overarching vision and objective of the LCWIP is to facilitate modal shift and increase the number of people choosing to walk, wheel and cycle for short journeys or as part of a longer journey (e.g., combined with public transport), particularly for utility trips. The LCWIP proposals also seek to support a variety of other objectives of Surrey County Council (SCC) and Epsom & Ewell (EEBC), such as:

- Achieving climate change and low-carbon targets.
- Strong and sustainable growth.
- Reducing short car journeys.
- Promoting health and well-being.
- Reducing congestion and pollution.
- Providing inclusive travel options.
- Improving the economic vitality of the Borough.
- Supporting a high quality of life for all residents.

Across the Borough, there are a variety of barriers that discourage walking, wheeling and cycling, such as physical severance caused by railways and proximity to high traffic flows and speeds. Inadequate corridors, or a lack of them, can bring residents and visitors to rely on private transport, thus leading to increased volumes of short car trips and congestion within Town Centres and other areas of high demand.

Additionally, local high street areas can benefit from a regeneration process and creating spaces where people enjoy spending time, which can subsequently support the economic and social vitality for the area.

Good design is vital to the successful delivery of facilities to encourage modal shift. The design strategy aims to address these issues with the development of attractive Borough-wide walking, wheeling and cycling infrastructure that prioritises people walking, wheeling and cycling.

To support the vision, the design approach incorporates best practice guidance and aims to address accessibility[1] and the five key design principles of effective walking, wheeling and cycling infrastructure:[2]

- Coherent
- Direct
- Safe
- Comfortable
- Attractive

In accordance to LTN 1/20, Inclusive Mobility and other key guidance, the high-level interventions proposed in the LCWIP seek to provide infrastructure that is accessible to all and meet the needs of vulnerable pedestrians and local people. The proposed high-level interventions aim to comply with the Public Sector Equality Duty (from The Equality Act 2010) which may require reasonable adjustments to the built environment and key principles would be added in terms of adaptability, gradient, context sensitive and inclusivity.

Ultimately, the LCWIP strategy looks to identify short as well as long term solutions that could be applied across the Borough.

The full extent of the design principles and best practice is detailed in the Cycling and Walking Network Proposals sections on page 92 and page 136, respectively.

1 Department for Transport, Inclusive Mobility.
2 Department for Transport, Cycle Infrastructure Design (LTN 1/20).

Report Structure

The report is structured into the following sections:

- **Executive Summary**: Presents a summary of the study process and the key outputs: selected core walking zones and cycle corridors.
- **Introduction**: Summarises the project aims, methodology and design approach.
- **Policy & Previous Study Context**: Summarises the policy and strategy context of the LCWIP, including walking and cycling strategies and previous proposals for active travel related schemes.
- **Evidence Base / Background Data**: Information used to support the choice of potential walking and cycle corridors are introduced, such as key destinations, Census data, collision data, and propensity to cycle tool (PCT) forecast flows.
- **Stakeholder Early Engagement**: Meetings with stakeholders took place on nine occasions: a early engagement briefing on the scope of the LCWIP for the local members, four times during the selection of corridors and a further four times to receive feedback on the proposed high-level infrastructure improvements. This section summarises the meetings, with stakeholder comments included in the Appendices section.
- **Cycle Network Development:** Summarises the optioneering process used for the selection of the cycle corridors, including the aspirational network and the Phase 1 corridors.
- **Cycle Network Proposals**: This section presents guiding principles for cycling, accompanied by images of best practice examples, followed by an overview of the proposed high-level infrastructure improvements for the Phase 1 cycle corridors.
- **Walking Network Development**: In this section, the optioneering process used for the selection of core walking zones (CWZs) is presented, including the aspirational network and the Phase 1 CWZs.
- **Walking Network Proposals**: This section includes guiding principles for walking, accompanied by images of best practice examples, followed by an overview of the proposed high-level infrastructure improvements for the Phase 1 CWZs.
- **Corridor Prioritisation and Costings**: Based on a multi-criteria framework (MCAF), this section presents a prioritised programme of infrastructure improvements and high-level, indicative costs for each cycle corridor and CWZ.
- **Conclusions**: This section considers the findings from the LCWIP and the next steps.
- **Appendices**: In this last section, complementary data is presented such as walking and cycle audits and stakeholder engagement responses.

2. Policy & Previous Study Context

Introduction

National Policies

Regional Policies

Local Policies

Neighbouring Policies

Relevant Studies and Projects

Summary of Key Findings

Introduction

The Epsom & Ewell Local Cycling and Walking Infrastructure Plan (LCWIP) is supported and informed by existing and emerging policies, previous and on-going studies, and existing scheme proposals. Many of the proposals included in this study build upon their findings and recommendations.

To that end, this section reviews previous work relevant to the LCWIP, in so far as they inform the:

- Policy context of the LCWIP.
- Understanding and identification of key trip attractors and destinations.
- Identification of preferred walking and cycling corridors, existing issues, deficiencies and opportunities.
- Development of a programme of infrastructure improvements.

National Policies

DfT and ATE's Cycling and Walking Investment Strategy 2 (2022)

The Cycling and Walking Investment Strategy (CWIS1, 2017) has been updated, with the Cycling and Walking Investment Strategy 2 (CWIS2), setting out updated objectives and investments for active travel in England between April 2021 and March 2025. CWIS2 sets out the following ambition, which maintains the aim put forward in CWIS1:

'To make walking and cycling the natural choices for shorter journeys, or as part of a longer journey by 2040'.

Building on CWIS1 and Gear Change (Figure 8), CWIS2 sets out updated objectives up to 2025, to:

- Increase the percentage of short journeys in towns and cities that are walked or cycled from 41% in 2018 - 2019 to 46% in 2025.
- Increase walking activity, where walking activity is measured as the total number of walking stages per person per year, to 365 stages per person per year in 2025.
- Double cycling, where cycling activity is measured as the estimated total number of cycling stages made each year, from 0.8 billion stages in 2013 to 1.6 billion stages in 2025.
- Increase the percentage of children aged 5 to 10 who usually walk to school from 49% in 2014 to 55% in 2025.

CWIS2 also promotes two longer-term objectives, aligning with the DfT's Gear Change, Transport De-carbonisation Plans and HM Government's Net Zero Strategy, to:

- Increase the percentage of short journeys in towns and cities that are walked or cycled to 50% in 2030 and to 55% in 2035.
- Deliver a world-class cycling and walking network in England by 2040.

CWIS2 outlines investment principles to achieve the objectives and encourage everyone to walk, wheel and cycle. Central to this is a long-term investment approach to deliver high-quality infrastructure, supported by the development and delivery of LCWIPs, adherence to DfT's Cycle Infrastructure Design Guidance (LTN 1/20), and a revised Manual for Streets.

The development of the Epsom and Ewell Borough LCWIP follows the aspirations of the CWIS2 objectives and targets at a local level.

DfT's De-carbonising Transport: A Better, Greener Britain (2021)

The Transport De-carbonisation Plan (TDP) sets out a series of actions to de-carbonise transport by 2050 and deliver against the UK Government's carbon budgets, focusing on 'in use' greenhouse gas (GHG) emissions from transport.

The TDP retains the six strategic priorities identified in 'De-carbonising Transport: Setting the Challenge', and outlines a range of measures to support these priorities. Related to active travel, these reiterate many of the actions and commitments of the CWIS and Gear Change, including:

- Investing £2 billion in walking and cycling over five years with the aim that half of all journeys in towns and cities will be cycled or walked by 2030.
- Delivering a world class cycling and walking network in England by 2040.
- Creation of Active Travel England (ATE) to promote walking and cycling and act as statutory consultee in the planning process.
- Funding for electric cycle trials.

The Epsom and Ewell LCWIP is a fundamental element of the national policy strategy, and identifying active travel network improvements at the local level.

Figure 8. Gear Change and LTN 1/20 documents. Source: DfT

DfT's Gear Change & Cycle Infrastructure Design (LTN 1/20) (2020)

In 2020, the DfT published Gear Change and its updated Cycle Infrastructure Design (Local Transport Note 1/20). Both publications advance the DfT's ambitions for a step-change in the provision of cycle infrastructure, a modal shift to cycling nationally, and establishing cycling as a form of mass transit. This supports issues related to public health, well-being, the economy and local business, climate change, the environment and air quality, and congestion.

Gear Change outlines four key themes to achieve a step-change in cycling:

- Better streets for cycling and people.
- Cycling at the heart of decision making.
- Empowering and encouraging Local Authorities.
- Enabling people to cycle and protecting them when they do.

LTN 1/20 provides a refresh of national cycle infrastructure design guidance, reflective of latest best practices. It is intended to support the delivery of the high-quality infrastructure necessary to achieve the ambitions of the CWIS2 and Gear Change. Inclusive cycling is an underlying theme, so that people of all ages and abilities are considered and empowered to take up cycling.

As with the CWIS2, development of the Epsom and Ewell LCWIP is central to achieving the ambitions of Gear Change locally. LTN 1/20 is integrated into the LCWIP process, establishing the design aspirations of schemes identified as part of the LCWIP.

DfT's De-carbonising Transport: Setting the Challenge (2020)

The strategy sets out the evidence and DfT's vision for the de-carbonisation of the transport system. Transport is the largest contributor to UK domestic greenhouse gas emissions, contributing around 34% of all carbon dioxide emissions in 2019.

The strategy identifies six strategic priorities:

- Accelerating modal shift to public and active transport.
- De-carbonisation of road vehicles.
- De-carbonising how we get our goods.
- Place-based solutions.
- UK as a hub for green transport technology and innovation.
- Reducing carbon in a global economy.

Development of the Epsom and Ewell LCWIP is aligned with accelerating the shift to active modes and supports place-based solutions.

DfT's Inclusive Transport Strategy: Achieving Equal Access for Disabled People (2018)

The Inclusive Transport Strategy was published in 2018 with an ambition to deliver a transport system that enables disabled people to access and use it confidently. This report highlights a need to consider the requirements of all kinds of disabilities, such as cognitive or sensory impairments, permanent nerve damage, back conditions, and visual impairment, amongst others.

Beyond improving public transport access to better accommodate disabled passengers, it aims to promote developments of a wide range of inclusive physical transport structures, including:

- Development of an inclusive pedestrian environment to enable disabled people to move around freely.
- Pedestrian infrastructure should support access to other modes of transport, such as railways and buses.
- If using a cycle, whether as a mobility aid or not, disabled people should be able to use inclusive cycle infrastructure to support their journey.
- If travelling to a hospital, a disabled person should have a route from their home to the hospital that is accessible without needing a car.

Inclusive design principles are integral to active travel and should be incorporated into design development in future, as key walking and cycling routes identified in the LCWIP are advanced for infrastructure improvements.

DfT's LCWIP Technical Guidance (2017)

To assist local authorities, the DfT published guidance which broadly outlines the core elements and tasks that should be considered when developing an LCWIP. The methodology is intended to be flexible and adaptable to a given local authority's context, geographic scope, and resources. The study approach used for the Epsom and Ewell LCWIP reflects the DfT guidance.

DfT's Manual for Streets (2010 & 2007)

Manual for Streets (MfS) is the UK Government guidance for street design practitioners. It is comprised of MfS1 (2007) which explains how to design, construct, adopt and maintain new and existing residential streets, and MfS2 (2010) which expands on the design advice in MfS1 to include how to plan and improve busy urban and rural streets. Both documents provide useful information on designing less motor traffic-centric streets and their aim is to promote designs that meet the needs of pedestrians and cyclists.

Regional Policies

Surrey County Council Local Transport Plan (LTP4) (2022)

Surrey's LTP4 sets the vision for the transport system in Surrey up to 2032 and beyond. It marks a step change for transport in Surrey and is closely aligned with SCC's Climate Change Strategy and Surrey's commitment to achieving net zero carbon emissions by 2050.

The vision of LTP4 is: "*A future-ready transport system that allows Surrey to lead the UK in achieving a low-carbon, economically prosperous, healthy and inclusive county with excellent quality of life for all residents, whilst seeking to enhance both the built and natural environments.*" The objectives of the LTP4 include to enable a greener future; to grow a sustainable economy, so that everyone can benefit; to empower communities; and, to tackle health inequality.

Shifting travel aims to follow the sustainable travel hierarchy, prioritising walking, wheeling and cycling over less sustainable modes through the delivery of facilities which make active travel more convenient, pleasant, and safe, see Figure 10 on page 24.

Key policy areas in LTP4 that are particularly pertinent to the LCWIP include:

- Planning for place: Plan, design and improve local neighbourhoods to reduce the number and length of car trips.
- Active travel and personal mobility: Prioritising walking and cycling to improve the health of the county – this policy area includes the sustainable transport hierarchy, which prioritises walking and cycling over less sustainable modes. The aim is to shift more journeys to sustainable modes by providing facilities to encourage many more journeys to be made actively (i.e., walking, wheeling, cycling).
- Public/Shared Transport: Working with operators to improve journeys on public and shared transport. This includes reviewing opportunities to improve the walking and cycling networks that provide access to public transport services, with the aim of making them more direct, safer, easier to negotiate and more attractive to all sectors of the population.
- Demand Management for Cars: Introducing measures to shift the priority from vehicles to active travel.
- Demand management for good vehicles: Introducing measures to reduce pollution caused by delivery vehicles.
- Efficient Network Management: Managing the efficiency of the highway network to minimise the impact on people and places.
- Supporting Behaviour Change: Raising awareness to encourage more walking, cycling and use of public transport and electric vehicles.
- Protecting the Environment: Identifying and avoiding the impacts proposals may have on the environment wherever possible.
- Digital connectivity: Promoting and encouraging access to high-quality digital connectivity for all the people.
- Promoting Zero Emissions Vehicles (ZEVs): By raising awareness of the benefits of Electric Vehicles to increase uptake.

Figure 9. Surrey CC LTP4 homepage. Source: SCC website https://www.surreycc.gov.uk/roads-and-transport/policies-plans-consultations/transport-plan/policy-areas

Development of the Epsom & Ewell LCWIP is critical to achieve LTP4 objectives. The LCWIP identifies potential infrastructure measures to encourage a modal shift to active travel, a shift to public transport by improving access to these services, and behavioural change. It also supports 'planning for place' and place making strategies of LTP4 which avoid the need to travel.

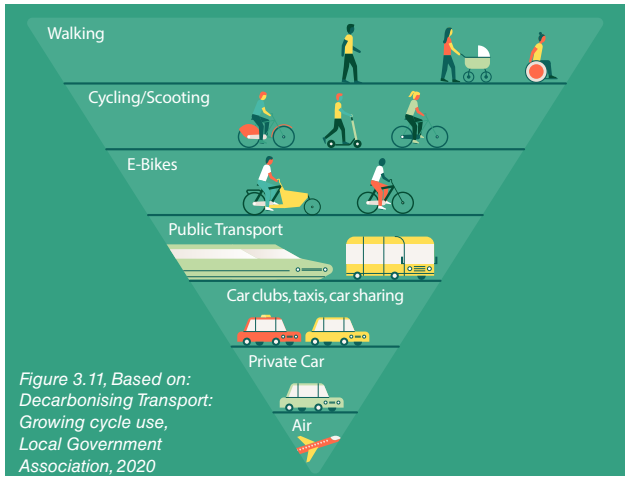


Figure 10. LTP4 - Sustainable travel hierarchy: The sustainable travel hierarchy ranges from walking as the most sustainable travel mode, through to air travel as the least sustainable. Figure 3.11 from the LTP4 illustrates the types of travel option at each level. Source: SCC LTP4

Surrey's Climate Change Strategy (2020)

Surrey's Climate Change Strategy sets out Surrey County Council's commitment to tackle climate change and support the UK's target of achieving net zero carbon emissions by 2050. It provides a joint framework for collaborative action on climate change across Surrey's local authorities and other partners.

The strategy sets a target of a 60% emissions reduction in the transport sector by 2035, and identifies the following ambition for the transport sector: *"Deliver and promote an integrated, accessible, affordable and reliable public and active (walking or cycling) transport system across the County, thereby reducing journeys and improving local air quality for improved health and well-being of our residents."*

Figure 11. Surrey's Climate Change Strategy document. Source: SCC

Development and implementation of LCWIPs throughout Surrey is one of the actions of the Climate Change Strategy. Delivery of the Epsom & Ewell LCWIP provides plans to deliver high quality infrastructure to support and encourage modal shift to active travel options, and hence support achieving the Climate Strategy targets and ambitions.

Surrey Cycle Strategy (2014)

The Surrey Cycling Strategy was developed as part of the Surrey Transport Plan (LTP3) and sets out Surrey County Council's aim and approach for cycling in Surrey for the period to 2026. The aim of the strategy is 'more people in Surrey cycling, more safely.'

A core objective relevant to the LCWIP is to 'improve infrastructure to make cycling a safe, attractive and convenient mode of transport for people of all ages and levels of confidence.' The strategy presents principles by which cycling infrastructure should be designed and delivered, as follows: Inclusivity; Safety and security; Comfortable and well maintained; Continuous; and, Go where people want to go.

The above are consistent with the aims of the LCWIP and with the recent LTN 1/20 guidance. The core design principles are considered as part of the network development and identification of infrastructure improvements as part of the Epsom & Ewell LCWIP.

SCC are currently developing an Active Travel Strategy in line with their LTP4. The strategy will consider walking, wheeling, cycling and scooting, and will highlight the role of cycling in relation to SCC's Climate Change Strategy. The strategy will align with the DfT's Gear Change policy.

Right of Way Improvement Plan (RoWIP) (2014)

The Rights of Way Improvement Plan (RoWIP) was developed as part of the Surrey Transport Plan (LTP3). It identifies measures related to the management of and improvements to the local rights of way network, to meet the Government's aim of better provision for walkers, people cycling, equestrians and people with mobility difficulties.

The RoWIP identifies five objectives:

- To improve accessibility to services, facilities and the wider countryside along rights of way.
- To improve connectivity of rights of way and to reduce severance.
- To improve the quality of the public right of way network.
- To increase recreational enjoyment.
- To secure coordinated implementation of the RoWIP with the available resources.

The RoWIP helps to facilitate improvements that can contribute to improved public health and well-being, help to reduce emissions, and reduce congestion. Improvements to the rights of way network are integrated with other Surrey plans and strategies, including the Cycle Strategy.

There are 3,444km of rights of way across Surrey, of which over 65.5km is in Epsom & Ewell. This off-road network is a key component of the broader active travel network, providing opportunities to improve network connectivity and more direct links for pedestrians and cyclists.

The Epsom & Ewell LCWIP promotes and adopts the core objectives of the RoWIP, particularly improving accessibility and connectivity and reducing severance as part of the identified walking and cycling corridors. Development of the LCWIP supports more attractive walking and cycling corridors to connect leisure, residential and employment areas.

The RoWIP is currently being updated, and a public consultation was held in early 2024.

Surrey Future

Surrey Future brings together Surrey's Local Authorities and business leaders to agree the investment priorities to support the county's economy. It considers how to manage planned growth sustainably, both in Surrey and on its borders. As part of Surrey Future, the following plans have been developed: Surrey Community Vision 2030, Surrey 2050 Place Ambition (2019) and Surrey Infrastructure Study (2017).

Surrey Community Vision 2030

The Vision sets out an aim for people in Surrey to 'live healthy and fulfilling lives'. This could be supported through a modal shift towards cycling and walking. The aims and objectives of this LCWIP therefore align with and support this aim put forward in the Surrey Community Vision 2030.

Surrey 2050 Place Ambition version 2 (2023)

Surrey's 2050 Place Ambition sets out the collective, long term ambition of Surrey local authorities to achieve "good growth". It sets out a clear and coherent narrative about what Surrey's strategic partners want to collectively achieve over the next 30 years in terms of "good growth" but never have the challenges to deliver this been so great.

The 2050 Place Ambition vision is for a county of well-functioning and connected places, with healthy communities and a high quality of life. It defines good growth for Surrey as:

- Is sustainable, focusing on the places where people both live and work or locations where appropriate investment and interventions will enhance sustainability.
- Supports overall improvements to the physical and mental health and well-being of our residents.
- Is supported by the necessary infrastructure investment - including investment in natural capital and nature recovery.
- Delivers high quality design in our buildings and public realm.
- Increases resilience and flexibility in the local economy.
- Delivers buildings and infrastructure ready for a zero-carbon future and builds resilience to the impacts of climate change and flooding.
- Is planned and delivered at a local level while recognising that this will inevitably extend at times across administrative boundaries.

The Epsom & Ewell LCWIP supports the ambitions for 'good growth' through the development and promotion of high-quality active travel networks. This would support improved local access and connectivity, enhancing the sense of place within communities, and health and environmental benefits.

Surrey Infrastructure Study (2017)

The Surrey Infrastructure Study (SIS) pre-dates the Infrastructure Plan and presents a technical evidence base of Surrey's infrastructure needs to 2031. It presents an overview of growth patterns and the infrastructure projects needed to support such growth, their costs, how much funding has already been secured or is expected toward their delivery and the funding gap for the period up to 2031. It considers education, health and social care, community, green infrastructure, utility, transport, flood defences and emergency services.

Within the context of active travel and the Epsom & Ewell LCWIP, the SIS notes that high levels of cycle ownership in Surrey indicate significant suppressed demand for cycling. However, there are a number of issues and challenges, including:

- The need to equip different road users with the skills to share the road safely.
- The challenge of achieving cycle infrastructure segregation on narrow, congested roads.
- A series of walking and cycling improvements from the provision of new cycle corridors to the widening of footways are required across all local authorities within Surrey in Town Centres and at busy junctions, not only to enhance connections for pedestrians and cyclists but to also improve access to public transport.

The development of this LCWIP helps to address this need. Improving access to public transport, particularly Epsom Railway Station, is a key factor in identifying proposed walking and cycle corridors.

A New Rail Strategy for Surrey (2021)

A New Rail Strategy for Surrey was published by Surrey County Council in 2021. This new strategy sets out how rail can contribute to a greener future, growing a sustainable economy, empowering communities, and tackling health inequality.

Five strategic aims which the railway network can assist in delivering over the next 30 years are as follows:

- Achieving transport de-carbonisation.
- Responding to change in the rail sector.
- Encouraging good growth and a sustainable economy.
- Increasing access for all.
- Developing an attractive, high-quality railway network.

These strategic aims, combined with an assessment of feasibility and acceptability, have been used to identify a core set of interventions which Surrey County Council can champion through influencing stakeholders, directly supporting schemes and monitoring delivery. The strategy has identified a need for a renewed focus on improving stations to benefit local communities and utilise their potential for supporting sustainable local economic growth.

The Epsom & Ewell LCWIP supports these aims through improving access to railway stations by walking and cycling, incorporating the railway network into the improved cycling and walking networks across the Borough.

Surrey County Council Sustainable Modes of Travel to School Strategy

Surrey County Council have produced a Sustainable Modes of Travel to School Strategy which aligns with and contributes towards the LTP4, specifically in terms of delivering the 'shift' and 'improve' principles detailed in the local transport plan.

The strategy will be delivered according to three key themes:

» Promotion: highlighting the benefits of sustainable travel.
» Skills and knowledge: providing training and education to improve children's and parents' confidence and ability to travel sustainably and safely.
» Improving the journey: developing infrastructure and services in support of sustainable modes.

The strategy seeks to deliver several benefits including building children's confidence in travelling to school, daily physical activity, road and pedestrian safety, improved air quality and reduced congestion outside schools.

The strategy will be delivered via a number of initiatives and training available to schools provided by Surrey County Council's Safer Travel Team. These initiatives include Modeshift Stars; Feet First: Walking Training; and, Bikeability Cycle Training.

The Epsom & Ewell LCWIP supports the development and promotion of high-quality active travel networks, which could support parents and children in travelling to school via sustainable modes.

Healthy Streets for Surrey (2023)

Surrey County Council's Healthy Streets for Surrey aims to create streets which are safe, green, and resilient in line with the ambitions of Community Vision for Surrey 2030. The Healthy Streets for Surrey design code provides developers and other professionals planning for Surrey a reference to relevant national and local guidance and policies.

The code provides context-specific guidance on street design for Surrey and builds on existing national guidance including the National Planning Policy Framework (NPPF), the National Model Design Code (NMDC) and Manual for Streets 1 and 2 and the forthcoming update.

Healthy Streets for Surrey sets out a number of core principles:

» A clear hierarchy of users, prioritising pedestrians, then cyclists, public transport, commercial vehicles/taxis, above private vehicles (see Figure 10 on page 24).
» Cycling and walking networks with direct, attractive and safe routes, linking to existing roads and local services.
» Streets should have green elements, public spaces, and make use of existing natural features.

The guidance highlights the need to develop a coherent network of infrastructure across Surrey, for example through funding agreements such as Section 106 and the Community Infrastructure Levy (CIL). The guidance emphasises the need for any new proposals to align with LCWIPs, any relevant local Supplementary Planning Document (SPD), and Borough or Neighbourhood Plans, to ensure the delivery of a coherent infrastructure network.

The Healthy Streets for Surrey design code sets out requirements and guidance relating to:

» General layout principles.
» Carriageway and junction design.
» Pedestrian and pavement design.
» Street furniture, lighting and signage.
» Vehicle parking.
» Cycling (follows LTP4 and LTN 1/20)
» Public transport.

The Epsom & Ewell LCWIP supports the hierarchy of users promoted in the Healthy Streets for Surrey guidance and supports the development of a coherent, attractive active travel network for the Borough. For the prioritised walking and cycling corridors in the LCWIP, proposed interventions aim to improve safety for road users, following the Healthy Streets for Surrey guidelines alongside national policies. The LCWIP itself ultimately becomes a key strategy document referenced by Healthy Streets for Surrey, for consideration and integration in future development proposals.

Surrey LCWIPs

The Epsom and Ewell LCWIP is part of Surrey's broader LCWIP programme to develop LCWIPs county-wide (see Figure 12):

LCWIPs have been completed or are in development in two neighbouring Surrey districts. These have been considered during development of the Epsom and Ewell LCWIP to provide broader cycle network connectivity across political boundaries.

Neighbouring Surrey districts with LCWIPs completed or in progress (as of June 2024) include:

» Mole Valley – Completed and adopted.
» Reigate and Banstead – Completed and adopted.

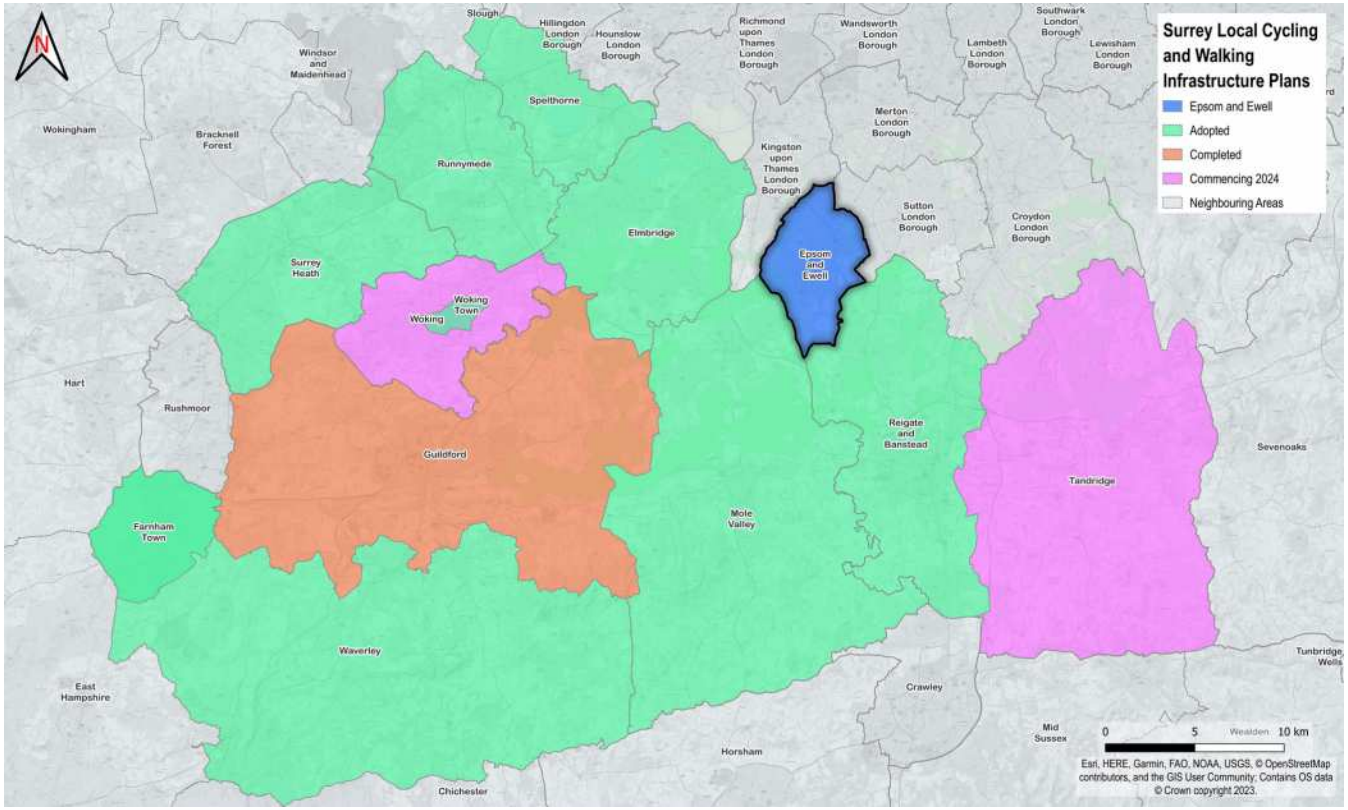


Figure 12. Status of Surrey's Boroughs and districts LCWIPs

Local Policies

The Current Epsom and Ewell Local Development Framework

The current Development Plan for Epsom and Ewell comprises of a number of documents known collectively as a 'Local Development Framework' including The Core Strategy 2007, Development Management Policies 2015 and Plan E (as well as the Surrey Minerals and Waste Plan). The Core Strategy contains the vision for Epsom and Ewell until the adoption of a new Local Plan (which is currently emerging). The current vision for the Borough envisaged by 2022 that the Borough be an economically strong and a good place to live, work and visit.

To achieve this, the Local Plan sets out 16 Core Strategic Policies. Seven core strategic policies are directly relevant in relation to the LCWIP including:

- Creating sustainable communities in the Borough.
- Conserving and enhancing open space and landscape character.
- Conserving and enhancing the quality of the built environment.
- Providing for housing and employment development.
- Meeting community needs.
- Supporting Epsom Town Centre and Local Centres.
- Managing transport and travel.

The Epsom & Ewell LCWIP helps to address the enhancement of the pedestrian environment in the Town Centre, by identifying a priority active travel network and identifying opportunities for sustainable and active transport and improving access to key destinations, such as the Epsom Town Centre and Epsom Railway Station. This reflects the work on the Epsom Town Centre Masterplan.

The three strategic development locations identified (West Park, St Ebba's and Horton B) have been fully developed since the publication of the framework.

The framework also notes higher than average car ownership (1.37 cars per household vs national average of 1.1 (Census 2001)) and traffic congestion concerns as motivating a reduction in the Borough's reliance car travel. The LCWIP is critical to achieving this objective and identifies potential infrastructure measures to encourage a modal shift to active travel, and to public transport through improving access to these services, and behavioural change.

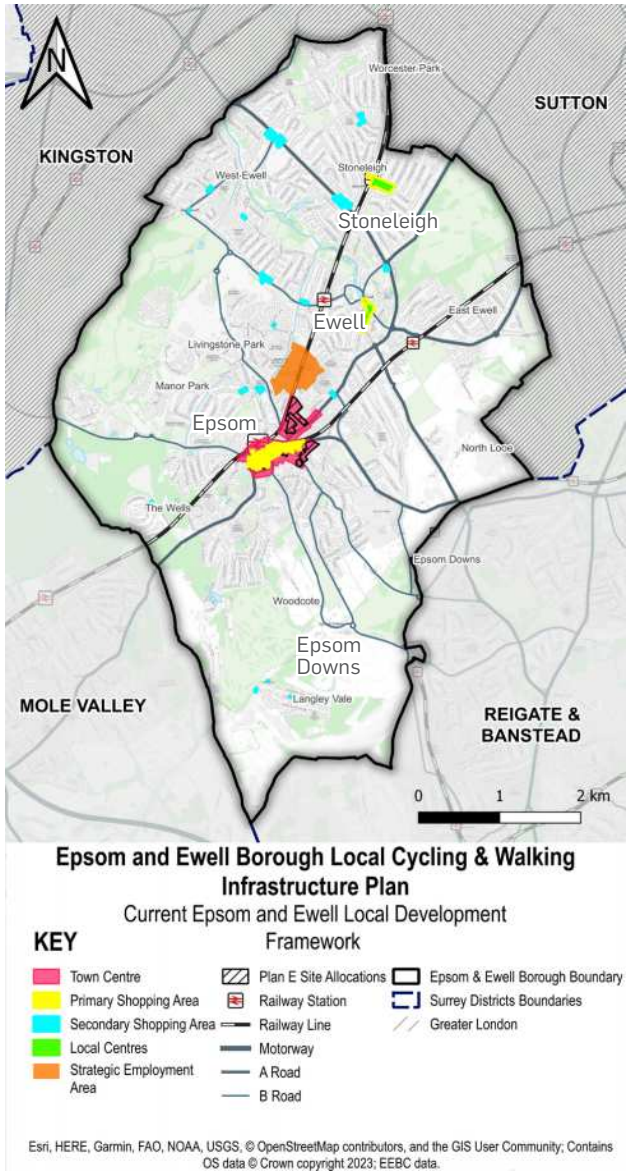


Figure 13. Epsom and Ewell Local Development Framework 2007-2022. Source EEBC

Plan E - Epsom Town Centre Highway and Public Realm Improvement Scheme

Plan E - Epsom Town Centre Highway and Public Realm Improvement Scheme was submitted to the Coast to Capital Local Enterprise Partnership (LEP) by Surrey Council. In 2014, the Coast to Capital LEP was allocated a portion of the Local Growth Fund for the development and delivery of transport infrastructure schemes. Plan E intends to manage congestion on the A24 in Epsom Town Centre through multiple interventions.

Plan E improvements include:

- Reconfiguration of South Street to two-way running.
- Reconfiguration of junction with South Street / West Street / High Street (West) and junction with South Street / Ashley Avenue junction to provide improved pedestrian crossing facilities.
- Improved crossings and widened footways at 'Spread Eagle' junction.
- Improved walking measures including wayfinding and pedestrian crossings.
- Town Centre cycling measures including additional parking facilities at key destinations, including Derby Square and the Parade.
- Signed cycle route along Worple Road, Heathcote Road and Laburnham Road.

The Epsom and Ewell LCWIP considered the interventions outlined in Epsom Plan E when developing walking and cycling networks.

Emerging Epsom and Ewell Local Plan 2022-2040 (2023 Consultation Draft)

A new Local Plan for Epsom & Ewell is being prepared and public consultation on a draft Local Plan (Regulation 18) was undertaken in February 2023, which sets out the vision for the Borough for period 2022 to 2040. The council is currently preparing the next version of the Local Plan, the Proposed Submission Local Plan (Regulation 19) that will be subject to further public consultation before being submitted to the government. The draft Local Plan (Regulation 18) sets out the following vision:

"In 2040 Epsom and Ewell will continue to provide a high quality of life and be an attractive place to live, work and visit."

To support this vision, nine strategic objectives are defined in the emerging Local Plan:

1. Provide a sustainable level of housing growth.
2. Enhance the vitality and viability of Epsom Town Centre and the Local centres.
3. Provide a sustainable level of economic growth to ensure that local people of all ages can find employment and remain in the Borough.
4. Ensure that development is supported by the necessary physical, social and green infrastructure.
5. Maximise opportunities for those living, visiting, working and studying in the Borough to access the diverse green infrastructure network.
6. Ensure that developments do not have a detrimental impact on the Borough's environmental assets and all new developments provide opportunities for biodiversity net gains.
7. Support measures that prioritise active and sustainable travel modes including improved facilities for pedestrians and cyclists and improvements to public transport.
8. Deliver high quality and sustainable buildings and places that integrate into their surroundings and respond to local heritage.
9. Support action on climate change and reduction of the Borough's carbon emissions, aiding the transition to net zero.

Within the infrastructure delivery section, strategies for walking and cycling in the Borough are set out in Strategic Policy 18 (S18): Transport, which includes delivery of sustainable transport network which:

- Promotes safe accessibility and movement which prioritises the access needs of pedestrians and cyclists.
- Protects and enhances pedestrian and cycle access routes.
- Improves existing walking and cycling routes to local facilities, services, bus stops and railway stations.

The LCWIP broadly supports the strategic objectives of the emerging Local Plan through the development and promotion of a high-quality active travel network. It is particularly aligned with objective seven and S18, and identifies potential improvements to key active travel corridors in the Borough, encouraging walking and cycling for short journeys.

The Draft Local Plan identifies nine proposed strategic allocation sites which are shown in Figure 14.

During development of the LCWIP, the location of potential site allocations helps inform the development of the cycling and walking network plans, so that the network appropriately accommodates potential future growth. Lastly, the LCWIP should be used to help inform the development process and requirements for developer contributions, with new development supporting improvement measures to the priority cycling and walking corridors and/or linking to or expanding the active travel networks.

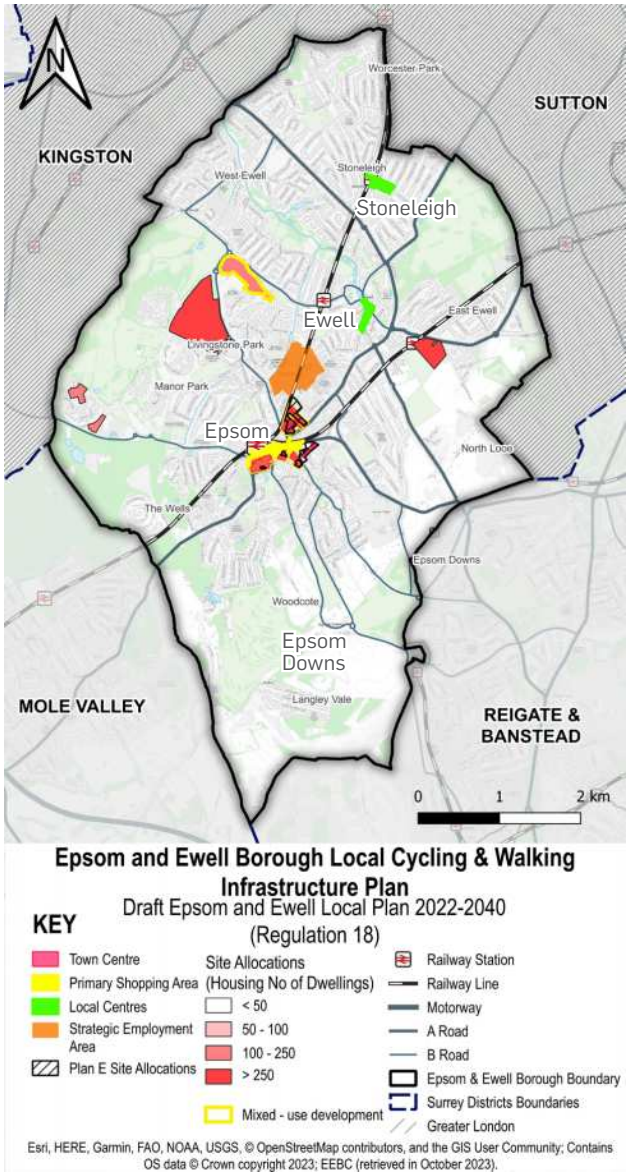


Figure 14. Draft Epsom and Ewell Local Plan 2022-2040. (Regulation 18) Source of data EEBC (retrieved in October 2023)

Epsom Town Centre Masterplan (DRAFT)

Epsom and Ewell Borough Council developed their Epsom Town Centre Masterplan which sets out a vision for Epsom Town Centre up to 2040.

Within the 'Public Realm & Sustainable Transport' chapter several high-level concept designs of projects that could be delivered in Epsom Town Centre are identified, which if feasible to implement would improve the active travel provision, targeting the A24 (Ashley Avenue, Ashley Road, High Street, Church Street and East Street) and the junctions along this route.

Proposed interventions include:

- Ashley Avenue:
  - Simplified pedestrian crossings.
  - Widened footways and improved pedestrian access.
- Ashley Road:
  - Widened footways on both sides of the road.
  - Widened pavement by bus stop.
  - Pedestrian phase on northern arm.
- High Street:
  - Pedestrian prioritisation with simplified crossings at Church Street and Ashley Road junctions.
  - New 'Super crossing' adjacent to Epsom Square.
  - Widened footways and 'spill-out' space for retail units.
  - Provision for cycle lanes on High Street.

  - Partial pedestrianisation of Upper High Street with managed vehicular access.
- Church Street/East Street:
  - 'Super crossing' at Hook Road junction.
  - Pedestrian prioritisation with simplified crossings at Adelphi Road junction.
  - Widened footway and improved cycle connectivity along East Street.

The 'Opportunity Sites' section explores options for opportunity site development, which have informed the emerging Local Plan (2022-2040). This section identifies the following four sites:

- Ashley Centre and Global House – providing approximately 70 homes.
- Hook Road Car Park and SGN Site providing approximately:
  - 640 new homes;
  - 400 student rooms, and;
  - A performing arts centre.
- Town Hall, Hope Lodge and Epsom Clinic – providing approximately 90 homes.
- Depot Road – providing approximately 100 homes and a new decked car park.

The location of opportunity sites helps to inform the development of the cycling and walking network plans in the LCWIP. The LCWIP should be used to inform the development process and requirements for developer contributions, with new developments supporting improvement measures to cycling and walking corridors and/or expanding the active travel networks.

These are outlined further in the Relevant Studies and Projects section.

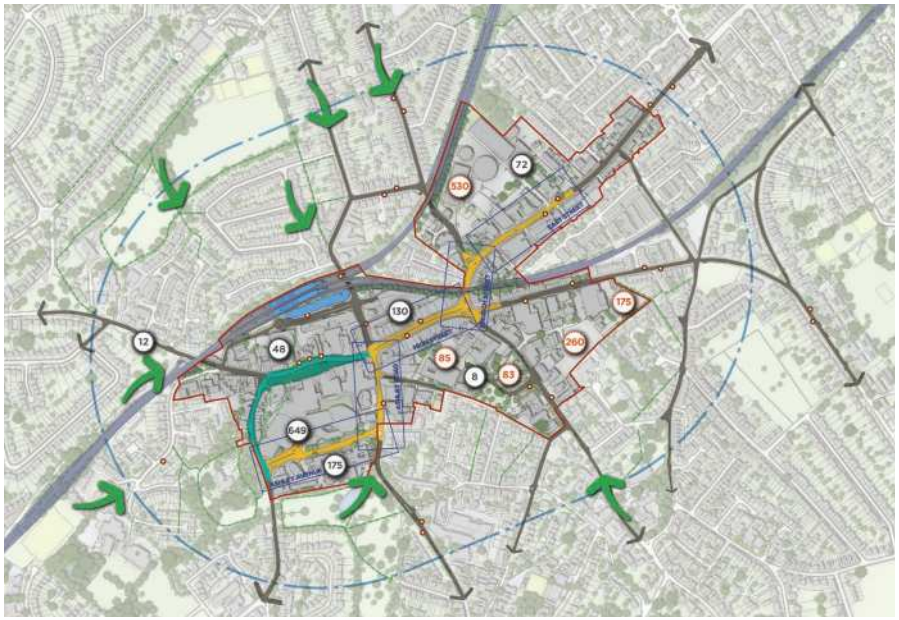


Figure 16. Epsom Town Centre Masterplan. Source: EEBC

Air Quality Management Areas

There is one air quality management area (AQMA) within Epsom and Ewell:

- Ewell AQMA: Ewell High Street between the junction with Spring Street and Dorset House car park.

The AQMAs are areas which are unlikely to meet national air quality objectives and therefore where there is a need to improve the air quality in future. Encouraging a shift to active travel modes in these areas through walking and cycling infrastructure improvements could support the objectives of the AQMAs.

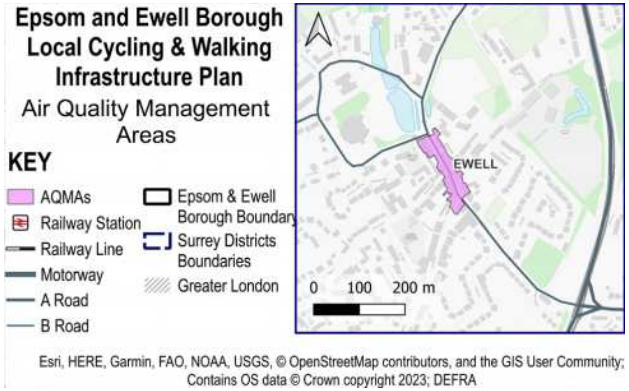


Figure 15. Air Quality Management Areas in Epsom and Ewell. Source: DEFRA

Epsom and Ewell Borough Council Climate Change Action Plan (2019)

Epsom and Ewell Borough Council developed their Climate Change Action Plan in 2020, setting a target of becoming carbon neutral by 2035. The plan sets out a range of measures to reduce the Council's own emissions as well as promoting good practice throughout the Borough.

This action plan focuses on six key themes which in turn detail the actions that can be taken to drive progress to becoming carbon neutral. These are:

- Council leadership and influencing others.
- Council buildings and energy use.
- Council transport and switching to lower polluting vehicles.
- Improvements to the environment.
- Tackling and minimising waste.
- Use of technology and information systems.

Theme 3 encourages more sustainable transport options for visiting the Town Centre and trips to schools. These objectives align with the emerging Local Plan (2022-2040) and the Surrey County Council Sustainable Modes of Travel to School Strategy (see page 27). During the development of the LCWIP, the location of local centres and schools helped to inform the development of the cycling and walking network plans.

School Travel Plans (2019)

School Travel Plans have been produced by Surrey County Council and the Modeshift STARS Centre of Excellence for The Vale Primary School, Epsom and Ewell High School, Epsom Primary School and St Martin's CofE (Aided) Schools.

Averaged between the four schools, the mode shares of staff and students for travelling to/from school is as follows:

- Walking - 47%
- Car – 24%
- Cycling/scooter - 13%
- Public bus - 8%
- Park and stride - 6%
- Car share – 2%
- Train - 1%

Whilst precise targets vary by school, all School Travel Plans target an increase in mode share of walking and cycling. The largest of these schools, Epsom and Ewell High School, identifies the lack of cycling infrastructure on routes to school, and express their concerns around cycle safety. The development of the LCWIP helps to address this need for improved active travel infrastructure. Improving access to schools is a key factor in identifying walking and cycle corridors.

Brownfield Land Register (2023)

The Epsom and Ewell Brownfield Land Register sets out details of previously developed sites that are considered suitable for residential development. Twenty sites are identified and are primarily concentrated in Epsom Town Centre and along East Street.

The next stage is for the Council to progress onto Part 2 of the Brownfield Land Register. Part 2 allows local planning authorities to select sites from Part 1 and grant Permission in Principle (PIP) for housing-led development, after undertaking necessary publicity, notification, and consultation. As of June 2024, the council has not put any sites on Part 2 of the register.

The location of Brownfield sites helped inform the development of the cycling and walking network plans in the LCWIP. Although these tend to be smaller scale sites, they provide an indication of locations for potential future growth and development opportunities in the Borough.

Neighbouring Policies

Surrey

Local Cycling and Walking Plans

Cycling and walking policies have been adopted across Surrey and neighbouring authorities. These plans were considered during the development of the Epsom and Ewell LCWIP to ensure there is a coherent strategy for developing the regional walking and cycling network across political boundaries.

The following list details the status of LCWIPs in Surrey (see Figure 12 on page 28) that adjoin Epsom and Ewell:

- Mole Valley LCWIP – completed and adopted. The A24 Epsom Road is an important route connecting Epsom and Ewell for walking and cycling identified in the Mole Valley LCWIP.
- Reigate and Banstead LCWIP – completed and adopted. The Reigate and Banstead LCWIP proposed improvements to walking and cycling networks in areas neighbouring Epsom and Ewell including Banstead, Tadworth and Tattenham Corner.

The LCWIP considered the proposals outlined in neighbouring LCWIPs to deliver a cohesive walking and cycling network.

Greater London

Greater London Local Implementation Plans (LIPs)

The neighbouring London Boroughs of Sutton and Kingston have published Local Implementation Plans (LIPs). An LIP sets out how the Mayor of London's Transport Strategy will be implemented at a local level; all London Boroughs are required to develop, and implement an LIP.

Kingston Local Implementation Plan (2019)

The Kingston LIP proposes improvements to Tolworth Roundabout, including enhancements to cycling and walking provision, improved access to Tolworth Broadway and to Kingston Town Centre. The proposed scheme connects to Epsom and Ewell, with a new cycling and walking provision along Jubilee Way in Kingston

Sutton Local implementation Plan (2019)

The proposed cycling network of the London Borough of Sutton includes a link through Epsom and Ewell. This proposal travels through Nonsuch Park between A24 (London Road) and A232 (Ewell Road). The LIP also proposes a Quietway (since re-branded by TfL to Cycleway) between Sutton and Worcester Park.

The LCWIP considered the proposals outlined in these neighbouring LIPs to deliver a cohesive walking and cycling network.

DRAFT Kingston Cycle Network Plan 2018 – 2027

The Draft Kingston Cycle Network Plan 2018-2027 sets out a vision for the Royal Borough of Kingston's cycle network. The Network Plan proposes interventions regarding Improvements to cycling infrastructure at five locations, which are of relevance to Epsom and Ewell:

- Malden Road: improve connectivity from north areas of the district towards New Malden.
- Ewell Road/Kingston Road: improve connectivity from Epsom and Ewell district boundary towards Tolworth and Kingston.
- Jubilee Way: improve connectivity to Hook, Tolworth and the employment area on Cox Lane
- Moor Lane: improve connectivity to Chessington and Chessington North Railway Station.
- Rushett Lane: improve connectivity to Oxford. In this case, the Network Plan proposes interventions on existing SUP.

The Epsom and Ewell LCWIP considered the proposals outlined in the Network Plan to deliver a cohesive walking and cycling network.

London Cancer Hub Walking and Cycling Improvements

Sutton Council have secured a £14.1 million from the Government's Levelling Up Fund to improve transport to The London Cancer Hub (LCH) in the London Borough of Sutton. The London Cancer Hub is currently under development on the site of the Royal Marsden Hospital in Belmont and is set bring 13,000 new jobs to the area. Plans call for an increased rail service frequency along the line between Epsom Downs and Sutton and improvements to cycling and walking infrastructure between Belmont Station and the London Cancer Hub. The Epsom and Ewell LCWIP considered the increased trips generated by the London Cancer hub and potential improved service along the Epsom Downs Branch railway line when developing the cycling and walking networks.

London Outer Orbital Path (LOOP)

The London Outer Orbital Path, or LOOP, is a walking route broadly following the Greater London boundary. The route is split into 24 sections, with sections 7 and 8 passing through Epsom and Ewell. From the north, the LOOP enters Epsom and Ewell on Royal Avenue before passing through the Hogsmill Open Space, Ewell Village and Nonsuch Park and heading out of the Borough and towards Sutton. The LOOP also features branches connecting Ewell East and Ewell West railway stations. Potential interventions in the Epsom and Ewell LCWIP may wish to consider incorporating these proposals.

Ultra Low Emission Zone (ULEZ)

The Ultra Low Emission Zone (ULEZ) is an emissions standard based charge is applied to non-compliant road vehicles in Greater London. On 29th August 2023, ULEZ was expanded to include all London Boroughs, including the Boroughs of Kingston and Sutton which neighbour Epsom and Ewell.

ULEZ expansion is likely to increase the number of journeys taken using active modes between Epsom and Ewell and Greater London. The LCWIP considered connections to destinations in Greater London when proposing improved active travel infrastructure.

Relevant Studies and Projects

The section includes a summary of relevant studies and projects previously developed by Surrey County Council and Epsom and Ewell Borough Council and are related to active travel and public highway. All these proposals were assessed and, if possible, included in the LCWIP.

Ashley Avenue & Ashley Road Improvements

The Epsom and Ewell Local Development Framework (2007-2022) proposes the reinstatement of two-way traffic along Ashley Avenue and Ashley Road. The associated Plan E Infrastructure Delivery Plan indicates removal of a significant proportion of unnecessary through-traffic from Ashley Avenue, which may aid the delivery of pedestrian and cycle routes as part of the LCWIP.

Ewell Village Plans

During summer 2023, and winter 2024, Surrey County Council undertook widespread community engagement on proposals to improve Ewell Village. Options presented aimed to address the following concerns from residents:

- High traffic volume.
- On-street parking is causing congestion, meanwhile car parks are underused.
- Speeding traffic through the village.
- Narrow and uneven paving makes some areas unsafe, especially for those with mobility issues/ disabilities.
- Village would benefit from more greenery, particularly on the high street.
- A lack of safe places to cross makes it unsafe for children to walk to school.

Three design proposals were developed for the High Street and engaged on in summer 2023:

- Option A – Pedestrian and Cyclist Priority with Bus Only Carriageway.
- Option B –Pedestrianisation of the High Street.
- Option C – Southbound bus and vehicular traffic permitted only.

Following analysis of the summer 2023 engagement, options were then refined ahead of further engagement in 2024, with three options for the High Street engaged on in early 2024:

- Option B –Pedestrianisation of the High Street.
- Option E – High Street Improvements with traffic access retained.
- Option F – No Change.

Further to the second round of community engagement in early 2024, SCC has reviewed the analysis and has since chosen to proceed with Option E. It is envisaged that works could commence in early 2026. The proposals outlined in this LCWIP complement the improvements proposed in Ewell.

Epsom and Banstead Sustainable Transport Package

The package is a joint project by Reigate and Banstead Borough Council, Epsom and Ewell Borough Council, Southern Railway, Metrobus and Transport for London. It consists of a set of proposals to improve accessibility and safety of walking, wheeling and cycling between Epsom, Banstead, Nork, Burgh Heath and Preston.

The measures include:

- Improved routes for pedestrians and cyclists that are wide, well surfaced and well lit.
- Safe road crossing facilities for pedestrians and cyclists.
- Cycle routes that are continuous and separated from busy traffic.
- Better walking and cycle facilities at Banstead Railway Station.

The scheme's business case submission to the Coast to Capital Local Enterprise Partnership (C2C) in 2017 failed to secure funding from the Local Growth Deal. Surrey County Council has expressed a desire to re-submit a funding bid should additional Growth Deal funding becomes available.

Local Street Improvement Programme (LSIP)

As part of a multi-year delivery program, Surrey County Council are seeking to develop Local Street Improvement (LSI) zones across the county. The LSIP aims to plan, design and create safer, healthier and more attractive local environments that encourage more walking, wheeling and riding and increase opportunities to live and work locally.

Surrey County Council is proposing a tiered approach to LSI zones, as follows:

» Tier 1 – Softer measures:
  – Reducing the posted speed limit to 20mph.
  – 20mph entry point signs, Vehicle Activated Signs (VAS).
  – Variable Messaging Signs (VMS).
  – 20mph roundels and repeater signs.
  – Streetscape de-cluttering.
» Tier 2 – Intermediate measures:
  – Traffic calming measures.
  – Priority movements.
  – One-way traffic routing.
  – Modal filters.
  – Parking restrictions.
  – Pocket parks.
  – Sustainable urban drainage systems.
  – Controlled parking zones.
» Tier 3 – Hard measures.
  – Time-restricted road access points (School Streets).
  – Low-traffic neighbourhood measures (point closures, banned turning movements).
  – Junction improvements.
  – Parklets or pocket parks.
  – Public realm improvements.

As of October 2023, the draft LSIP covering Epsom and Ewell identified 18 potential areas for local street improvements.

The LSIP will complement the LCWIP proposals by improving the sense of place, walkability and cycling conditions on local streets. This will help improve linkages and 'last mile' connections between the more strategic corridors identified in the LCWIP and local destinations and residential areas.

Church Street, Epsom - Traffic Calming Measures

This project by SCC aims to address the issues of motorists failing to stop for pedestrians and a relatively high frequency of casualties on two of the three zebra crossings on Church Road, Epsom.

Proposals include:

» Introducing raised tables at two existing zebra crossings (nearest Depot Road and Pitt Road).
» Upgrading the existing beacons and signs.

The Epsom and Ewell LCWIP complements the improvements proposed in the Church Street traffic calming measures.

Stoneleigh Placemaking Project

Network Rail has begun a major access improvement project at Stoneleigh Station. The proposed scheme aims to deliver step and obstacle free access for Stoneleigh Station and those crossing the railway by Summer 2024.

To coincide with this project Surrey County Council have proposed several concept ideas on both sides of Stoneleigh Station.

West Side – Station Approach

Concept ideas include addition of a raised table and pedestrian crossing on Stoneleigh Park Road and addition of cycle parking.

East side – The Broadway Stoneleigh

Concept ideas include:

» Create a pedestrian town square, improve cycle parking provision and reduce the size of the carriage way, install end on parking and install wide raised pedestrian crossings next to the station.
» Increase pedestrian pavement width, introduce wide raised pedestrian crossings to slow traffic speed, and reconfigure parking to be perpendicular parking while increasing planting and greening at the central section. And;
» Introduce raised pedestrian crossings and reconfigure street furniture at the southern end of the section.

The LCWIP considers access to Stoneleigh Station, cycling and walking movement through Stoneleigh Broadway and East-West connectivity across the railway line.

Epsom & Ewell Road Safety Working Group

Meetings of the Epsom & Ewell Safety Working Group are held every six-months in each of Surrey's 11 districts/Boroughs. They comprise of SCC officers from the Road Safety and Highways Engagement Teams, and Surrey Police Road Safety & Traffic Management Officers. The Working Group identifies safety issues and potential priorities for future schemes/improvements. Input from an officer of the Working Group during the LCWIP early engagement process ensured the LCWIP Phase 1 areas capture potential safety improvement schemes identified by the Working Group.

Thames Down Link

The Thames Downs Link links the Thames Path at Kingston upon Thames to the North Downs Way at Westhumble. It is a 15 mile walking route using mainly public rights of way, with some sections along pavements in urban areas. The route enters the Borough from the north with the London LOOP, before diverging and running alongside Bonesgate Stream in the west of the Borough and towards Ashtead and Dorking.

Round The Borough Hike and Bike

The Round the Borough Hike and Bike is an off-road route approximately 20 miles long which broadly follows the Borough perimeter. The route joins up green spaces in Epsom and Ewell including the Epsom Downs, Epsom Common Local Nature Reserve (LNR), Nonsuch Park, the Hogsmill LNR and Horton Country Park LNR.

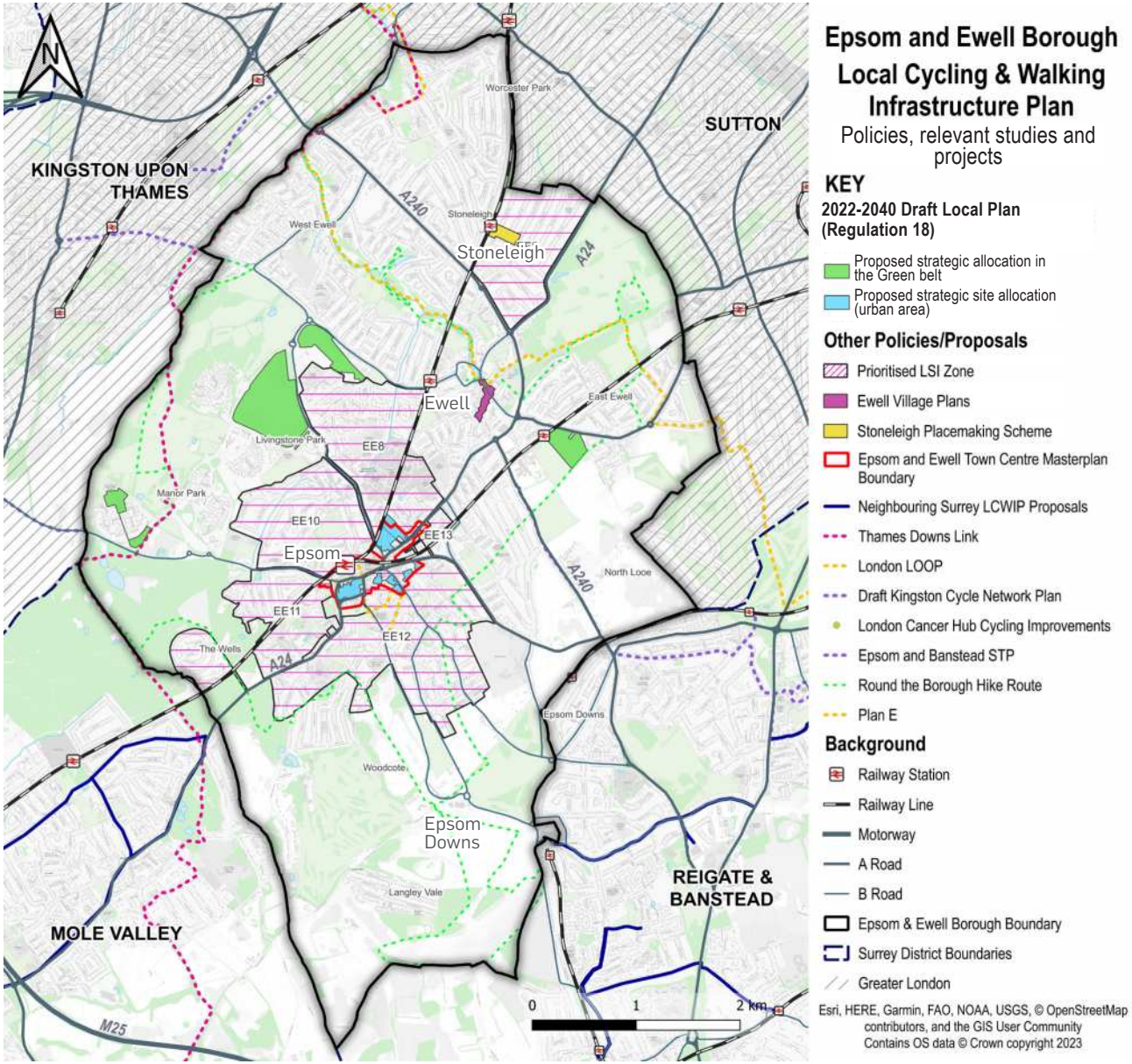


Figure 17. Policies, relevant studies and projects in Epsom and Ewell

Summary of Key Findings

National, regional and local policies emphasising on active travel to promote a shift to sustainable and active modes and reduce the reliance on private motorised transport.

In line with policies at the national level, Surrey County Council have set out a series of plans and strategies to inform development and transport within the context of a climate emergency. The Surrey Transport Plan (LTP4), adopted in July 2022, presents the plan for Surrey's transport network from 2022 onwards, and outlines 4 key objectives to achieve net zero carbon emissions, sustainable growth, connected communities, clear air and excellent quality of life. This sits alongside Surrey County Council's Climate Change Strategy (2020) which sets a target of reducing carbon emissions by 60% within the transport sector. The objective of the LCWIP is a direct response to Government efforts to reduce carbon emissions.

At Borough level, the Epsom and Ewell Local Development Framework 2007-2022 and the Emerging Epsom and Ewell Local Plan 2022-2040 set out the spatial vision for Epsom and Ewell and outline the strategic policies which inform land use and development. The Local Plan is aligned to the transport strategy to support mode shift to alternative modes of transport and reduce car traffic. The emerging Local Plan sets out a number of transport schemes and proposed development allocations which were considered in the development of this LCWIP.

There are several sustainable and active travel schemes identified in the Borough, particularly in Epsom Town Centre and Ewell Village. This LCWIP considered and complements these proposals, seeking to support the development of an interconnected network across the Borough.

Figure 18. Entrance to Madans Walk south of Rosebery Park

3. Evidence Base

Introduction

Relevant Data

Summary of Key Findings

Introduction

AtkinsRéalis developed an evidence base for the Epsom & Ewell LCWIP, by compiling and reviewing a range of existing spatial data. Different datasets have helped to provide an understanding of existing and potential demand, issues, and barriers for active travel on the existing local network. Where appropriate, the data was mapped to overlay different pieces of information. This approach informed the identification of key cycle corridors and core walking zones, which is discussed in page 74 and page 122 respectively. The analysis included the following data sets:

- Key destinations.
- Existing walking and cycling infrastructure.
- Public transport.
- Demographics, such as resident and workplace population, and access to a car/van.
- Indices of multiple deprivation.
- Future developments.
- Commuting patterns.
- Barriers and topography.
- Propensity to Cycle Tool (PCT).
- Collision data.
- Public suggestions for active travel provisions.
- Strava cycling trip data.
- Crime data.
- Cycle infrastructure prioritisation toolkit.

This chapter documents and summarises the data review.

Relevant Data

Key Destinations

Key destinations within Epsom and Ewell were mapped to identify locations or clusters that could potentially attract walking or cycling utility and/or leisure trips (see Figure 19 on page 43). These included:

- Educational establishments (nursery, primary, secondary and post-16 schools).
- Attractions/sites of interest.
- Medical facilities (hospitals, GP surgeries and pharmacies).
- Commercial and high street areas.
- Railway stations.
- Parks, public spaces and recreation grounds.

To support future demand and local growth, opportunities for future development were also considered as part of the LCWIP. Key strategic sites are included in the emerging Local Plan (which at the time of the development of the LCWIP is under consultation), which provides the local policy framework for the Borough against which planning applications are being assessed.

The local high streets and convenient access to local shops, services, etc. is also central to the 'Planning for Place' policy area of SCC's adopted Local Transport Plan 4 (LTP4).

Several retail centres were identified including Epsom Town Centre, Ewell and Stoneleigh Village Centres and other commercial centres. These locations are particularly important from the perspective of walking, wheeling and cycling, as they are conducive towards active travel being compact areas, serving a mix of destination types and trip purposes throughout the day. These are often short trips, which could easily be made by walking, wheeling or cycling.

Railway stations are another important destination. Improved active travel links can provide a sustainable and low carbon means of completing 'first and last' miles of journeys, to/from a railway station. Improved walking, wheeling and cycling links would also facilitate mode shift via linked-trips with public transport and commuting to London, Leatherhead, Sutton, and other regional hubs. All four railway stations in the Borough, Epsom, Ewell East, Ewell West and Stoneleigh, are located close to the high street areas making first and last mile linkages between the stations and residential areas or Town Centres via active travel convenient.

Key destinations tend to be more concentrated in the centre and north of the Borough, encompassing Epsom Town, Ewell and Stoneleigh Villages. Epsom and Ewell are the major destinations, with several employment sites.

Furthermore, key leisure destinations are included in the outskirts of the urban area that attract high number of visitors from Epsom and from neighbouring areas.

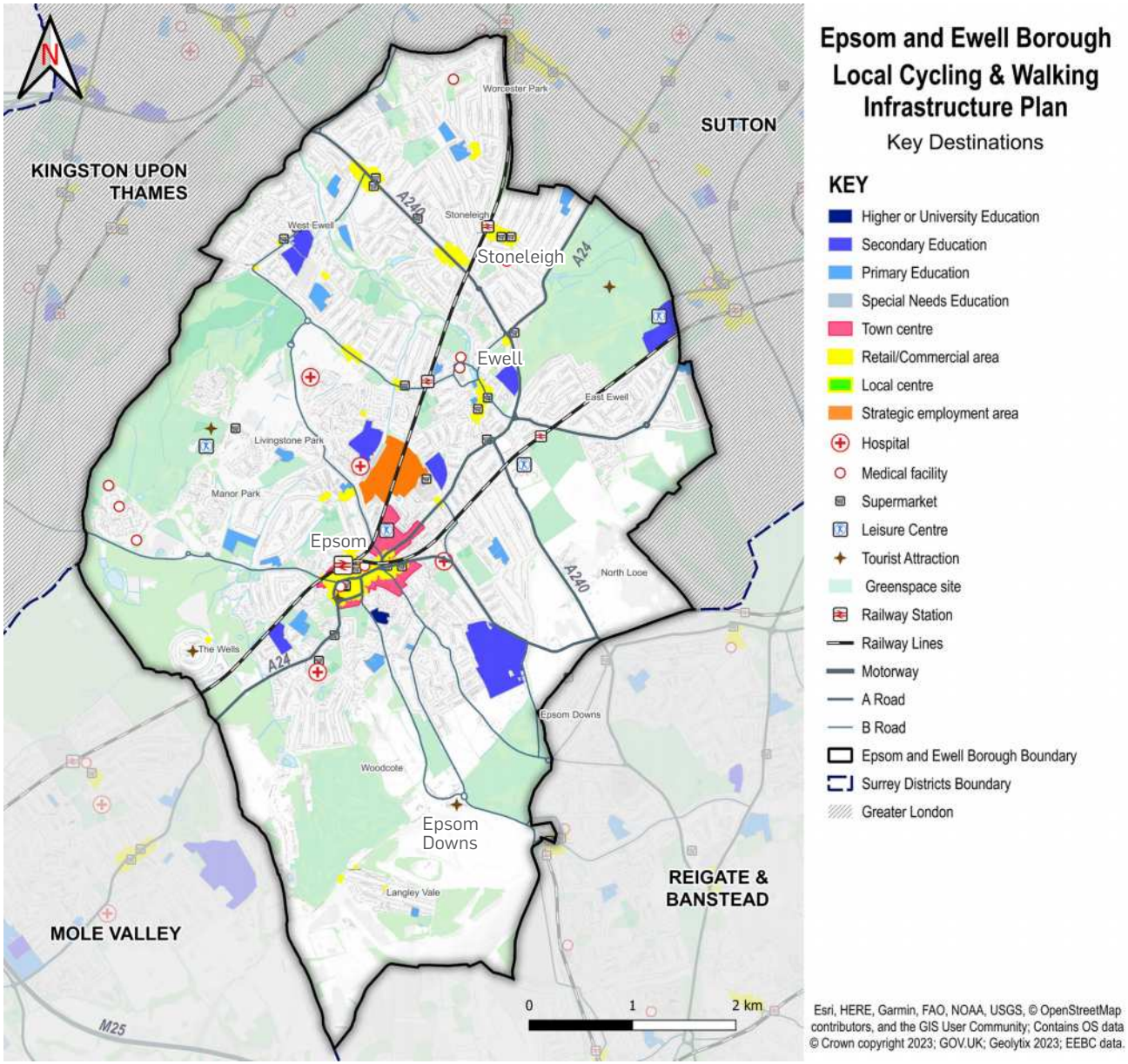


Figure 19. Key Origins and Destinations in Epsom and Ewell

Existing Walking and Cycling Infrastructure

Existing walking and cycling infrastructure within Epsom and Ewell provides a potential foundation upon which to improve and expand the walking and cycling network through the LCWIP.

Information on existing cycling infrastructure is provided through the online SCC Cycle Facilities Map. There is a mix of facility types and corridors across the Borough as shown in Figure 20. Several existing corridors include:

- A greenway network through rural areas, including Epsom Common, Langley Vale and Nonsuch Park.
- Along Christ Church Road and Horton Road in West Epsom.
- Along Longmead Road between Epsom and Ewell.
- Along East Street between Epsom Town Centre and Kiln Lane.

Existing cycle facilities typically reflect earlier design guidance, and generally are not aligned with recent LTN 1/20 guidance. There are several proposed schemes to expand or improve the cycle network, as referenced in Section 2. Policy & Previous Study Context. Connectivity to the existing and proposed facilities, and/or improvements to these facilities, were considered as part of the LCWIP network development.

In addition to the road network, there are over 63km of footpaths and bridleways in Epsom and Ewell on the public rights-of-way (PRoW) network. This creates a large off-road network across the Borough and is part of the area's draw for leisure activities.

Various typologies of cycle infrastructure and their extents are shown in Table 1. Similarly, various types of PRoW present within Epsom and Ewell and their extents are shown in Table 2.

Table 1. Typology and lengths of various cycling facilities in Epsom and Ewell.

Facility	Length (km)
Greenway	8.5
Cycle track	14
Cycle lane	1.8
Signed advisory route	0.6
Bridleway	26.2
Total	**51.1**

Table 2. Typology and lengths of public rights of way in Epsom & Ewell

Public Rights of Way (PRoW)	Length (km)
Bridleway	26.2
Footpath	36.9
Total	**63.1**

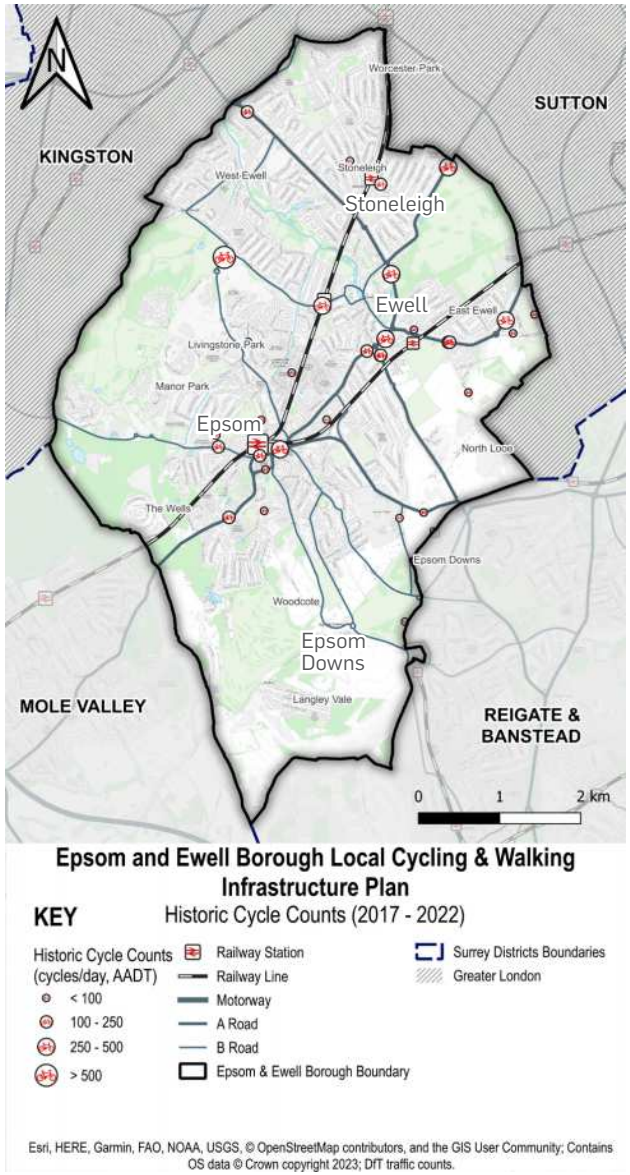


Figure 20. Historic cycle counts in Epsom and Ewell

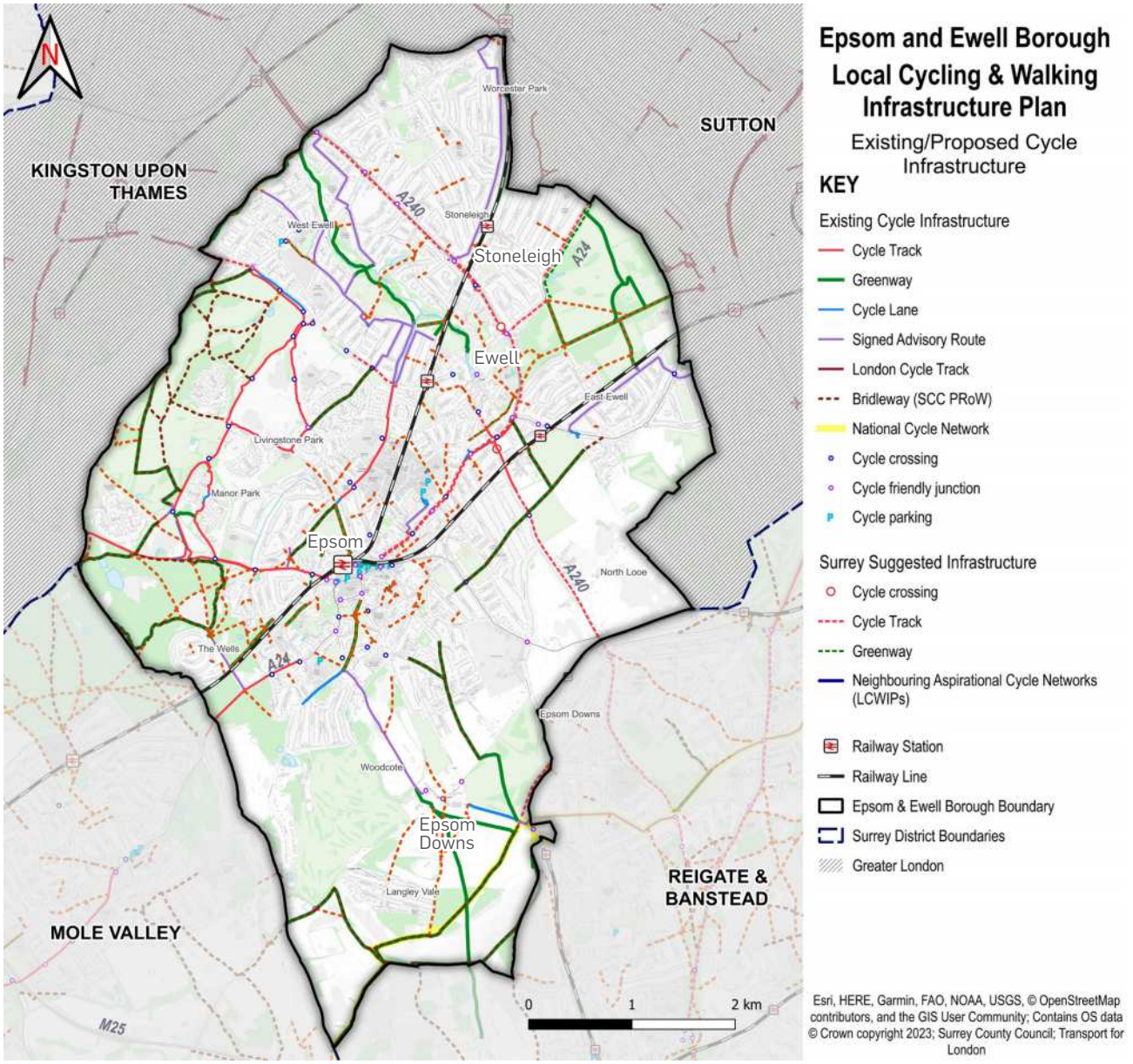
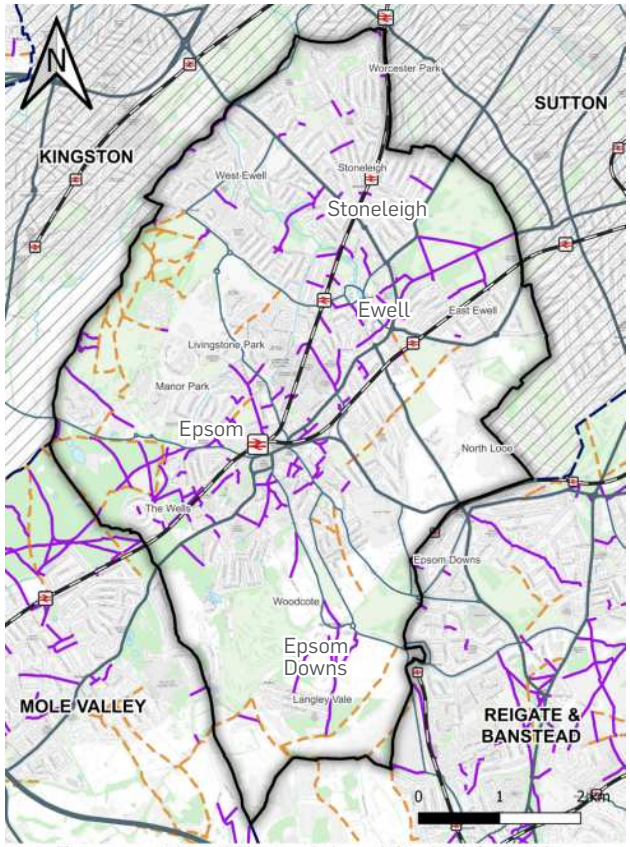


Figure 21. Existing cycling infrastructure in Epsom and Ewell



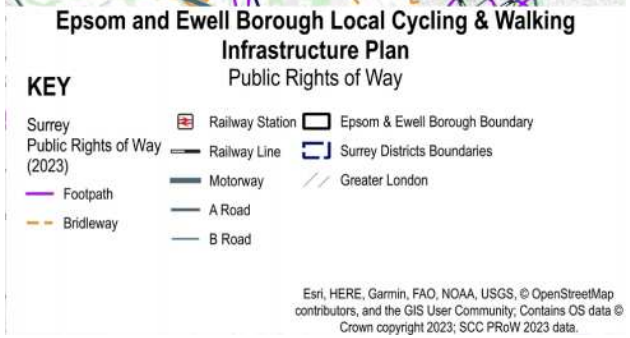


Figure 22. Existing public rights of way and public trails in Epsom and Ewell

Public Transport

The local public transport network in Epsom and Ewell includes two railway lines and several bus corridors. They are mostly concentrated in the north and east of the Borough.

Walking, wheeling and cycling are important first/last mile travel options to/from the railway stations and bus stops, and so connections to the stations was a consideration in development of the LCWIP network. High-quality cycle parking were proposed to be provided at the stations.

Bus Network

Figure 23 illustrates the extent of the local bus network, highlighting corridors available, frequency of services and stops. Analysis reveals that there is a good provision of bus services between the main centres of Epsom, Ewell and Stoneleigh, with connections to neighbouring Boroughs. However, availability in comparison in rural areas is limited and infrequent. This could be due to the lower population densities in these areas, which creates less demand and viability for a commercial bus service. The limited bus network in rural areas can potentially increase the extent of car ownership, as residents become more dependent on personal transport for accessing services and facilities, rather than public transport.

Bus stop locations indicate areas of demand of short walking trips, thus linking bus passengers with surrounding residential areas or key destinations and were considered during the development of the LCWIP.

Railway Network

Epsom and Ewell has four railway stations, namely Epsom, Ewell East, Ewell West and Stoneleigh. These railway stations are key destinations as they provide opportunities for sustainable longer distance travel beyond the Borough, including into Greater London and link with walking, wheeling and cycling corridors.

The Southern and South Western Railway networks pass through the Borough, providing sub-hourly services to Leatherhead to the south and London to the north. There is no railway line in the south-eastern half of the Borough, however, there is a railway line in the adjacent Reigate and Banstead Borough which provides services to the villages in the suburban area of the Borough. Another railway line serves Chessington in the Royal Borough of Kingston upon Thames, which is in walking distance to the urban areas on the north and west of the Borough.

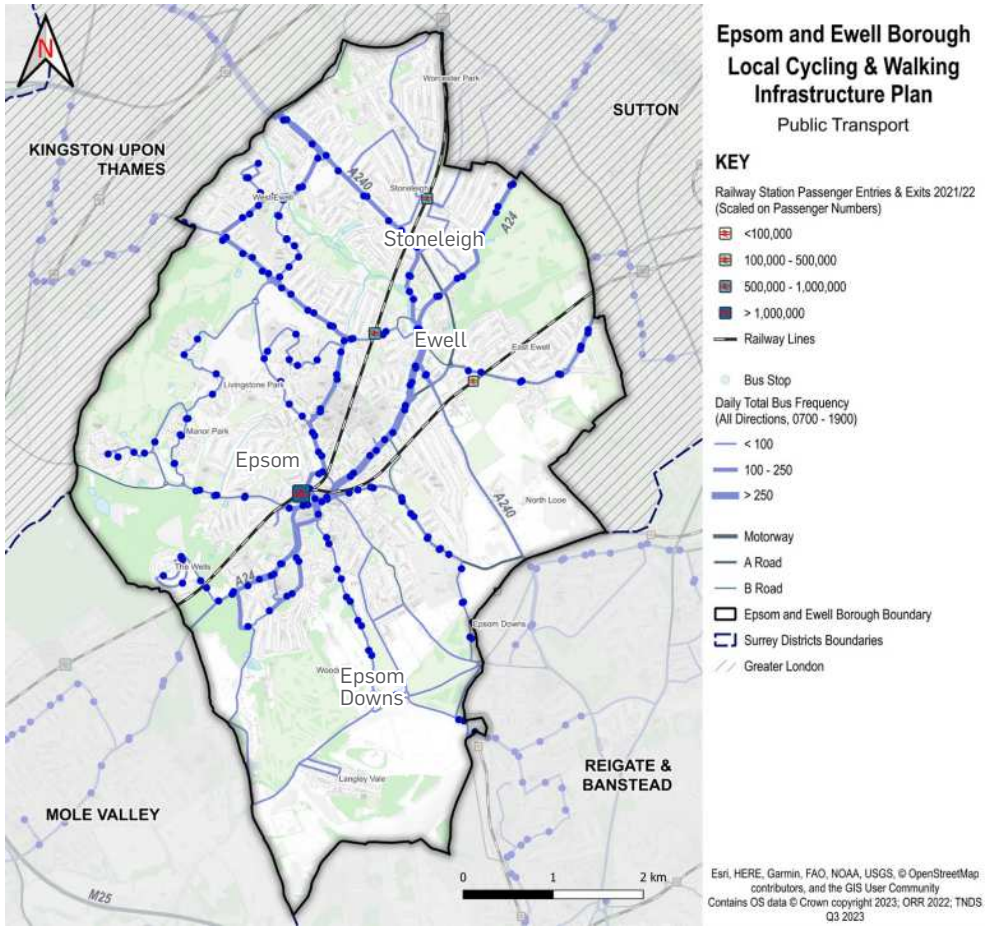


Figure 23. Public transport network in Epsom and Ewell

Population and Workplace Population Data

Population data can provide a proxy for potential demand for walking, wheeling and cycling trips. As many trips begin or end at home, higher population densities can indicate a higher propensity for walking, wheeling and cycling trips. Higher densities can also indicate a more conducive environment for walking, wheeling and cycling, and a more compact built-up area.

Based on the 2021 Census, the population in Epsom and Ewell is 80,900, an increase of 7.8% from 2011, slightly higher compared to other areas in Surrey and England.

As illustrated in Figure 24 on page 48 the residential population of Epsom and Ewell, according to the 2021 Census, is concentrated in two areas:

» Surrounding Epsom Town Centre.
» North of the Borough including West Ewell, Stoneleigh and Worcester Park.

The density of these areas suggests an opportunity for short utility trips to be undertaken via walking or cycling in the Borough and illustrates the largely urban character of much of Epsom and Ewell.

Figure 24 on page 48 illustrates the workplace population density[1], which is indicative of key employment hubs in the area and another key input into the identification of walking and cycling networks. The larger employment areas are again focused around Epsom Town Centre.

Census 2021 was undertaken during Covid-19 lockdown restrictions. Therefore a large percentage of the population was recorded as 'working from home'.

1 The workplace population is an estimation of the population working in an area. It includes usual residents aged 16 to 74 whose usual place of work is in the area and is based on the 2021 Census data. People who work mainly at or from home or do not have a fixed place of work are included in their area of their usual residence.

Table 3. Population data for Epsom & Ewell (Source - ONS Census 2021)

Area	2011 Census	2021 Census	% Change	Population Density[1]
Epsom & Ewell	86,144	80,900	7.8%	2,375
Neighbouring Boroughs[2]	573,400	615,900	7.4%	3,192
Surrey County	1,132,390	1,203,100	6.2%	724
England	53,012,456	56,489,800	6.6%	434

1 Usual residents per km^2.
2 London Borough of Kingston upon Thames, London Borough of Sutton, Mole Valley and Reigate and Banstead.

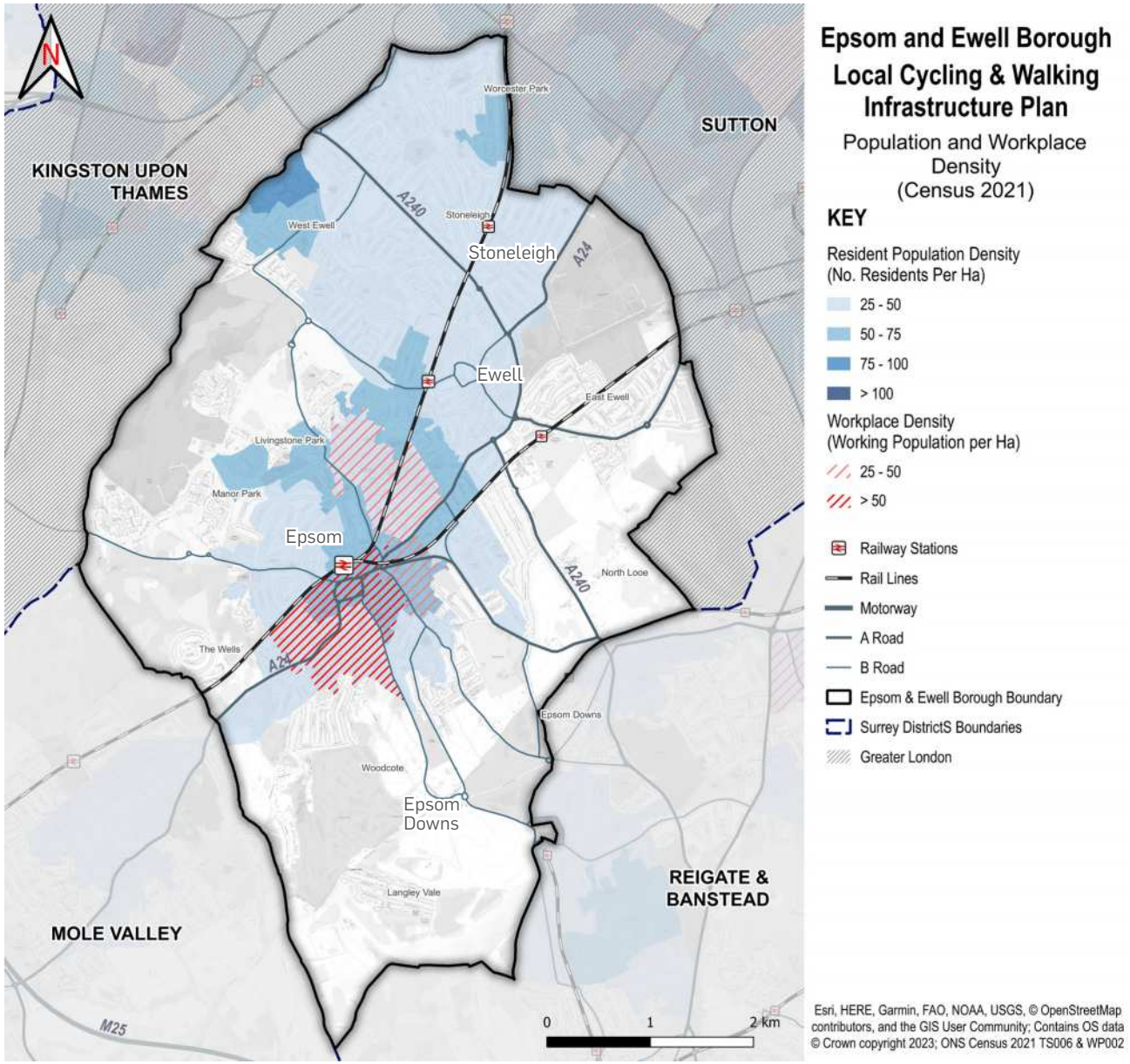


Figure 24. Resident population density in Epsom and Ewell

Car / Van Availability

Car / van availability is relatively low throughout Epsom & Ewell compared to Surrey. It has a higher percentage (14.3%) of households who do not have access to a car or van, compared to 12.7% in the whole of Surrey[1]. Pockets of lower car availability (75-85% of households) are generally located in the more built-up areas of the Borough, such as Epsom Town Centre and northern parts of West Ewell (see Figure 25). The dense urban environment and the proximity of the borough to London and TfL services may affect the decision for the resident to not obtain a car in the area. Therefore improvements to active means of transport are important.

Indices of Multiple Deprivation

The Indices of Multiple Deprivation (IMD) is a measure of relative deprivation for small areas / neighbourhoods in England. It measures income, employment, health, education, crime, living environment and barriers to housing and services. The information was used for the identification of under served areas featuring greater deprivation and therefore what areas may benefit the most from walking and cycle corridor improvements.

The areas of Livingstone Park and West Ewell fall within the top three most deprived deciles in Epsom and Ewell. Most of the Borough is in the bottom half of the IMD (6th - 10th deciles), which suggests low deprivation levels. The IMD within Epsom and Ewell is shown in Figure 26.

1 2021 Census, RM008 - Car or van availability

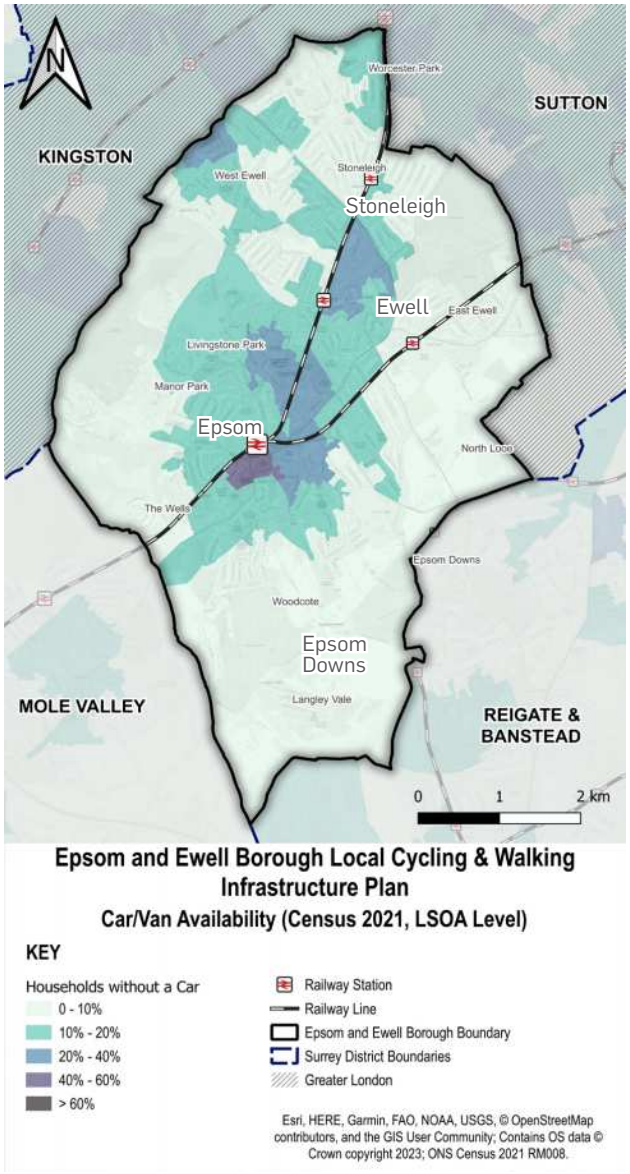


Figure 25. Car or van availability in Epsom and Ewell

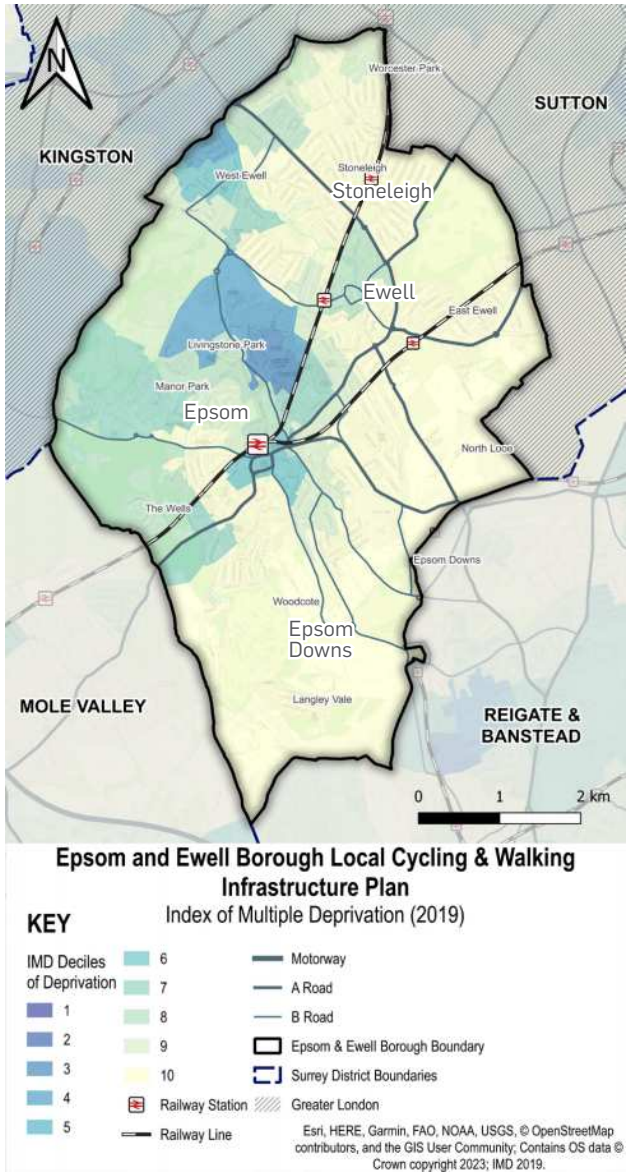


Figure 26. Indices of Multiple Deprivation in Epsom and Ewell

Future Developments

To support future walking, wheeling and cycling demand and local growth, opportunities for potential developments were considered as part of the LCWIP. It is important to understand where future developments are likely to take place, so that appropriate transport infrastructure including active travel can be provided.

The Emerging Epsom and Ewell Local Plan 2022-2040 (2023 Regulation 18 Consultation Draft) has identified proposed strategic sites for future residential developments across the Borough. These sites are highlighted in Figure 27.

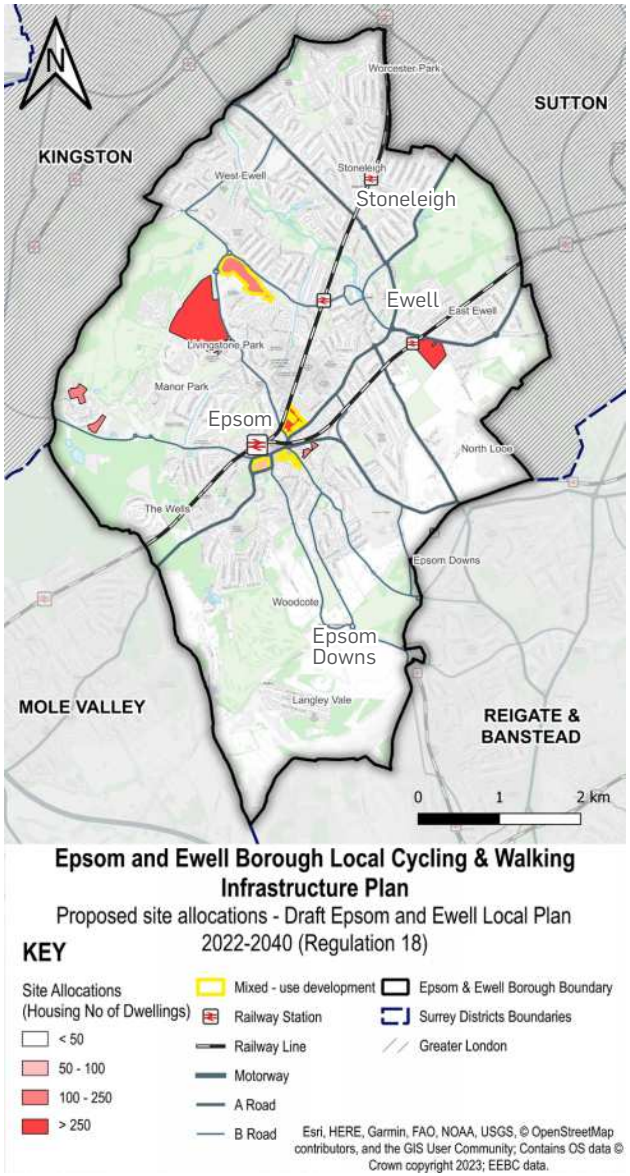


Figure 27. Draft Local Plan Proposed site allocations

Commuting Patterns

The 2011 Census data provides information on the main commuting inflows and outflows to/from Epsom and Ewell, which is shown in Figure 29 on page 52. While the data is now over 10 years old, it still provides a snapshot of travel patterns in the Borough. The neighbouring Boroughs of Mole Valley, Reigate and Banstead, Royal Borough of Kingston upon Thames, and London Borough of Sutton feature as the top 4 inflows and are among the top 6 outflows. This highlights the importance of inter-Borough connectivity when developing the cycle (primarily) network. The largest commuter outflow, Westminster and the City of London is largely served by railway services. This reiterates the importance of providing high-quality walking, wheeling and cycling links to/from railway stations, to encourage active travel/public transport trips.

According to the 2021 Census 39,222 people who live in Epsom and Ewell are in full/part-time employment. Almost 45% works from home (Census 2021 took place during COVID-19 lockdown restrictions and people were asked to work from home where possible), 34% use a car to travel to work (either as a driver or passenger) and only 6% and 2% walk or cycle to work.

However, the distance travelled is short, with 29.5% of all trips being shorter than 10km (a distance that is cyclable) and 8.4% of these trips shorter than 2km (walking distance). This suggests that a large percentage of people are using their cars to travel to work when they could potentially shift to active travel modes.

Table 4 presents a comparison of the mode and distance travelled to work between 2011 and 2021 Census data. The table shows a decrease in all mode shares and trip distances, which is likely attributable to the increase in home-working as a result of COVID-19 lockdown restrictions.

Figure 28 illustrates the top commuter inflow/ outflows from Epsom and Ewell. The top four commuting inflows are the Boroughs immediately neighbouring Epsom and Ewell. Other top commuter inflow origins are from other Greater London and Surrey Boroughs. The largest outflow destination is Central London, including the Cities of London and Westminster. This highlights a need for active travel links to railway stations, with rail likely to be a popular travel mode for this outflow. Other top commuter outflows are primarily surrounding Greater London and Surrey Boroughs.

Census	Residents in employment	Mode Share (Commuting)			Trip Distance		
		% Walk	% Cycle	% Car/van	< 2km	2-5 km	5-10 km
2021	39,911	6.4%	1.7%	34.2%	8.4%	11.1%	10.0%
2011	38,005	7.8%	2.4%	49.7%	13.0%	15.7%	16.7%

Table 4. Method travelled to work and the distance travelled to work in Census 2021 and the comparison to 2011 Census data in Epsom and Ewell (Source: Office of National Statistics)

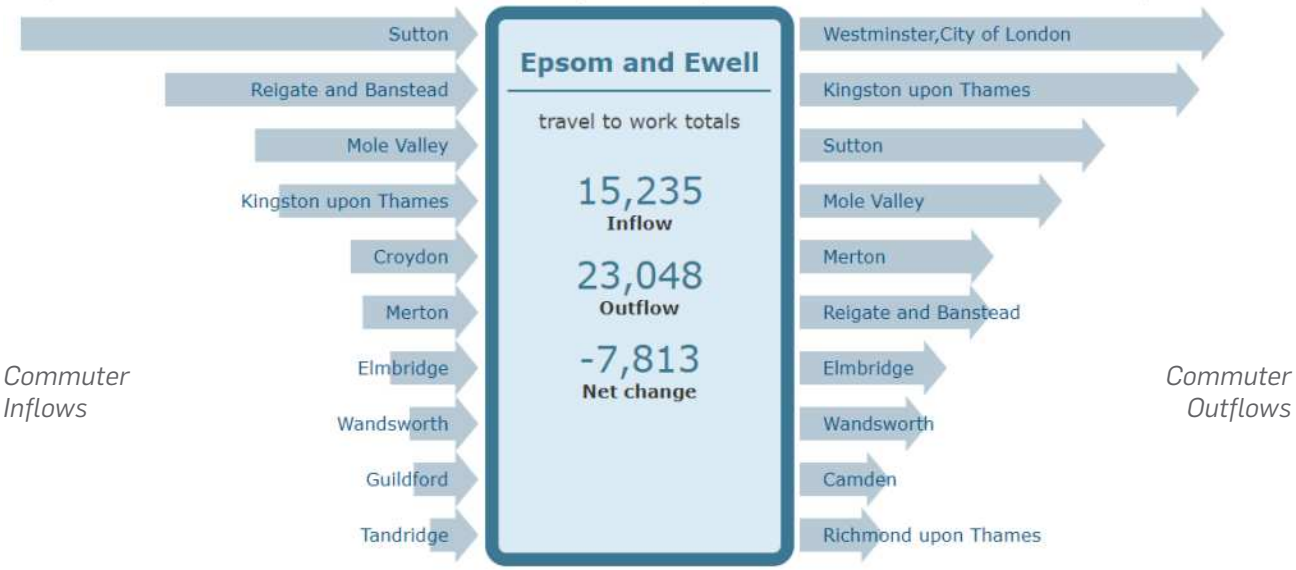


Figure 28. Top commuter inflows and outflows from Epsom and Ewell (source: Method of travel to work, 2001 Census (source: https://www.nomisweb.co.uk/)

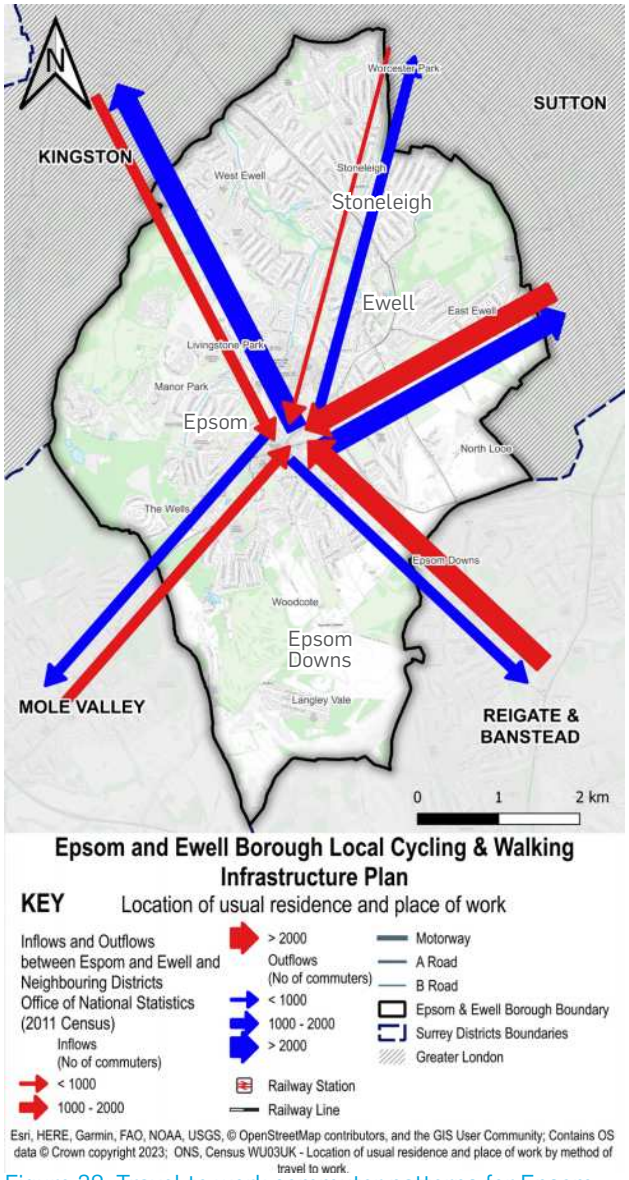


Figure 29. Travel to work commuter patterns for Epsom and Ewell, illustrating the highest inflows and outflows (source: https://www.nomisweb.co.uk/)

Barriers and Constraints

Severance, defined as features limiting peoples' ability or desire to move in an area, is a barrier to mobility in Epsom and Ewell, particularly for active travel modes. Severance issues can create longer journeys, making them less attractive to be made by foot or by cycle. Issues that contribute to severance in Epsom and Ewell are illustrated in Figure 30, including:

- The A24 and A240 are dual carriageways that sever local street networks and create barriers to active travel due to high traffic speeds and wide carriageways. The latter is a key barrier between Stoneleigh and Ewell. The improved provision of integrated cycling, wheeling and pedestrian facilities and crossing points are expected to reduce severance. These roads carry more than 10,000 vehicles/day for their entire lengths. LTN 1//20 advises that for this level of flow and speed, a physical separation between cyclists and motor vehicles is required.
- The two railway lines that traverse the Borough sever the local road network and funnel traffic for all modes to a limited number of crossing points. The related severance issues are most apparent along the Epsom to Waterloo railway line between Epsom and Worcester Park stations which features eight pedestrian crossings over the 5.5km stretch (average distance between available crossings ~700m).
- The limited number of crossings along the Hogsmill River also serves as a constraint to active travel in the north of the Borough. This is particularly relevant to north-south journeys and journeys to and from Stoneleigh.
- Topography is generally not a constraint in Epsom and Ewell. The terrain is relatively flat in built-up areas, making cycling an attractive option. There are steeper gradients in the south of the Borough, which may pose a constraint to travel to areas including Langley Vale and to neighbouring Reigate and Banstead. Topography is detailed further in the following section and in Figure 30.
- Within the built urban environment, there are many common constraints which affect current levels of walking, wheeling and cycling and the potential to provide quality infrastructure for active travel. Narrow streets within built-up areas often have limited existing provision and limited scope to widen footways or provide dedicated cycle facilities without significant change to motor vehicle circulation. Competing needs for public highway space also affects the quality of the environment. For example, footway parking can impede access for some users. Management of kerbside activity (e.g., servicing requirements, on-street parking), particularly in high street areas, can also impact pedestrian comfort and the attractiveness of the area.

Topography

Topography can act as a major barrier to physical activity and active travel. Hilly terrain can discourage uptake in cycling due to the additional energy and fitness required to pedal uphill. Pedestrian movements are also restricted along hilly areas, especially for people with disabilities, as they require more effort and wider facilities to make their journey. Local topography can also constrain the road network and limit options for improvement measures which are physically possible without substantial earthworks and costs. The growing availability of e-bikes, however, can help overcome the barrier of hilliness by reducing the physical effort required.

As illustrated in the contour map in Figure 30, the less-populated southern half of the Borough is very hilly. Particular constraints include Langley Vale and Woodcote, along with the eastern parts of the Borough like North Looe estate. However, potential travel demand for active travel trips is relatively low in these areas due to a low population density and fewer key destinations. The terrain is relatively flat in built-up areas in the centre and north of the Borough, making cycling an attractive option.

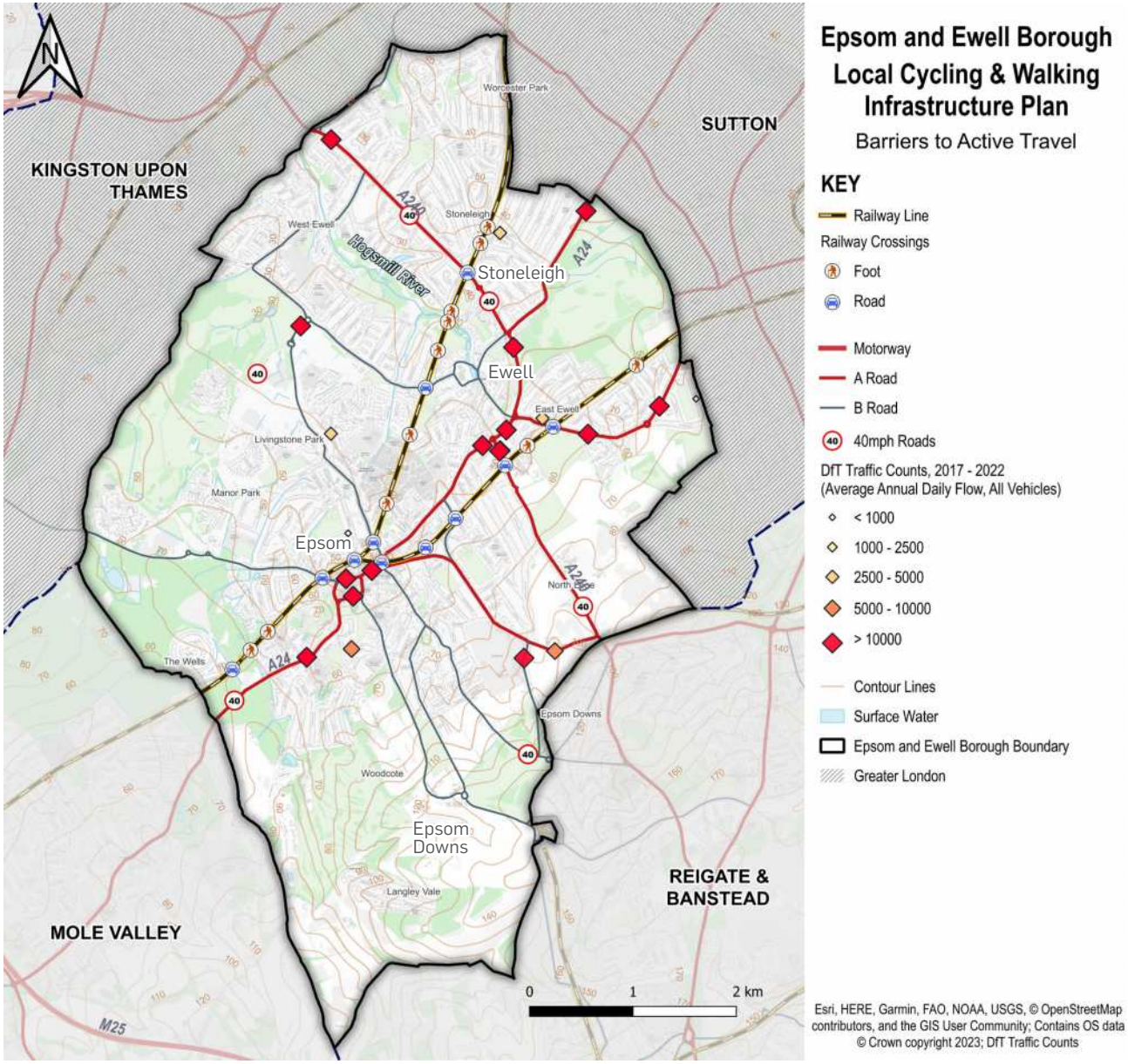


Figure 30. Barriers and constraints to walking, wheeling and cycling

Propensity to Cycle

The Propensity to Cycle Tool (PCT) is an online tool and dataset designed to assist with the strategic planning of cycling networks. It illustrates an indicative current and potential future distribution of cycle trips to work and to school based on different growth scenarios. The model identifies preferred 'fast' and 'quieter' cycle routes between origin and destinations pairs, and assigns trips to these routes. 'Fast' routes are based primarily on the shortest distance (i.e., most direct route), while 'quieter' routes also consider motor vehicle traffic volumes. The topography of a route is also a key factor considered within the model when estimating the propensity for cycling.

The Epsom and Ewell LCWIP PCT analysis was conducted using data downloaded in November 2023. The following data categories were utilised for the analysis:

- Geography: Lower Super Output Area (LSOA) geography was selected because it provides greater specificity of origin/destination pairs within the study area.
- Growth Scenario: 'Go Dutch' was selected to reflect the high aspirations of the LCWIP for a step-change in levels of cycling. The 'Go Dutch' scenario models the potential for growth in cycling as a function of trip distance and topography, plus a number of socio-demographic and geographical characteristics. This reflects the proportion of commuters that would be expected to cycle if all areas of England and Wales had the same infrastructure and cycling culture as the Netherlands, where approximately 28% of trips are made by cycle.
- Direct Desire Lines: Direct point-to-point desire lines in the PCT (desire lines between Lower Layer Super Output Areas [LSOAs] and Middle Layer Super Output Areas [MSOAs]) were reviewed to identify desire lines with higher levels of potential demand. The PCT model then applied these desire lines to the actual network, and the outputs were analysed as described below.
- Most Cycled Network Links: The PCT aggregates all 'fast' route trips to provide a total of cycle flows along each link in the network. Commuter and school flows, however, are disaggregated and viewed independently. Cycle flows were categorised as high, medium, and low to illustrate the preferred routes (i.e., highest flows) and identify an initial cycle network with coverage across Epsom and Ewell. This is the key output of the PCT utilised from the PCT analysis.

The following sections summarise the analysis of the journey to work and journey to school[1] PCT data. However, it is important to note that commuting and education only account for 28% of all trips.[2] Therefore, the available data is only representative of a small percentage of overall trips and potential demand for cycling.

1 Based on 2011 National School Census (NSC) of all state-funded primary and secondary schools in England.

2 2019 National Travel Survey, Table NTS0409a. Commuting accounts for 15% of all trips, education/escort to education 13% of all trips

PCT Commuter Flows - Desire Lines

The direct point-to-point desire lines in the PCT between home and work were reviewed to understand the commuter trips in the Borough with greatest potential for increased cycle usage. The straight lines based on number of commuters per day of origin/destination (O/D) pairs are illustrated in Figure 33 (MSOA pairs) and Figure 34 (LSOA pairs) and the key outcomes of this analysis are:

- The top MSOA and LSOA - O/D pairs indicate one key centre of O/D: Epsom Town Centre.
- Distribution of shorter trips between areas of Epsom, particularly outer residential areas and Epsom Town Centre.
- Epsom Town Centre creates high demand from trips from the northern areas of the Borough, including Ewell, Stoneleigh and West Ewell villages and West Ewell.
- Connection between the residential areas in the centre and north of Borough for shorter distances are indicated, however, there is very poor connectivity.

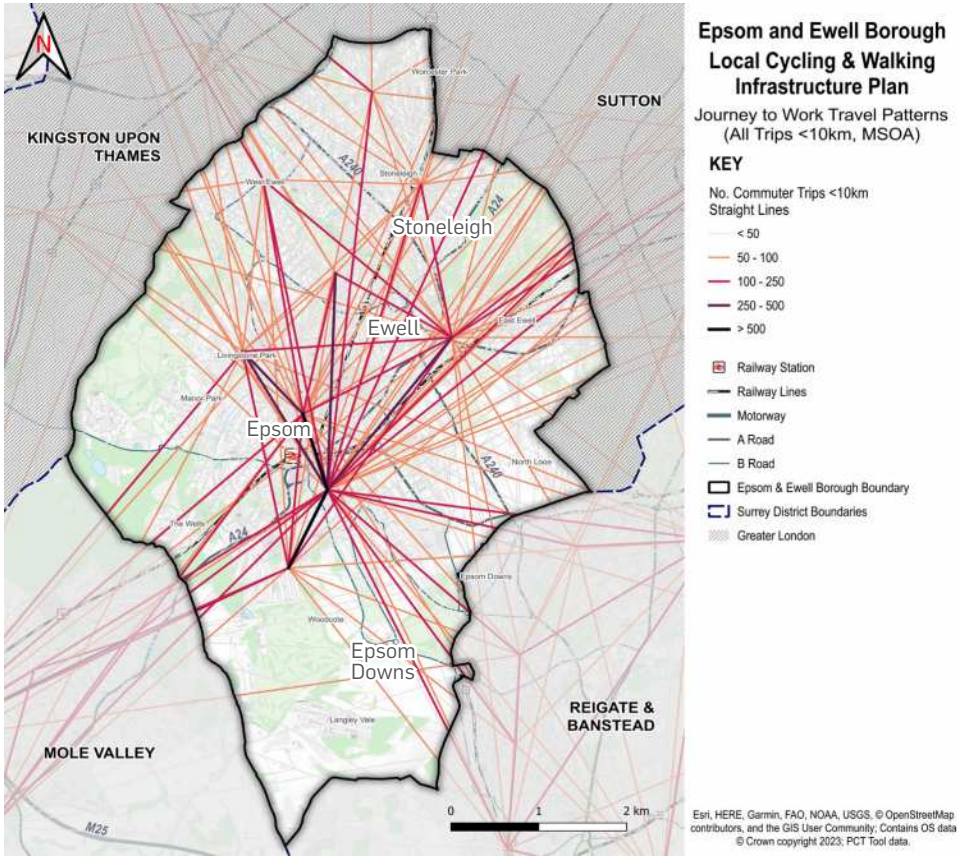


Figure 31. Journey to work - Desire Lines for Middle Layer Super Output Areas (MSOA) in Epsom and Ewell

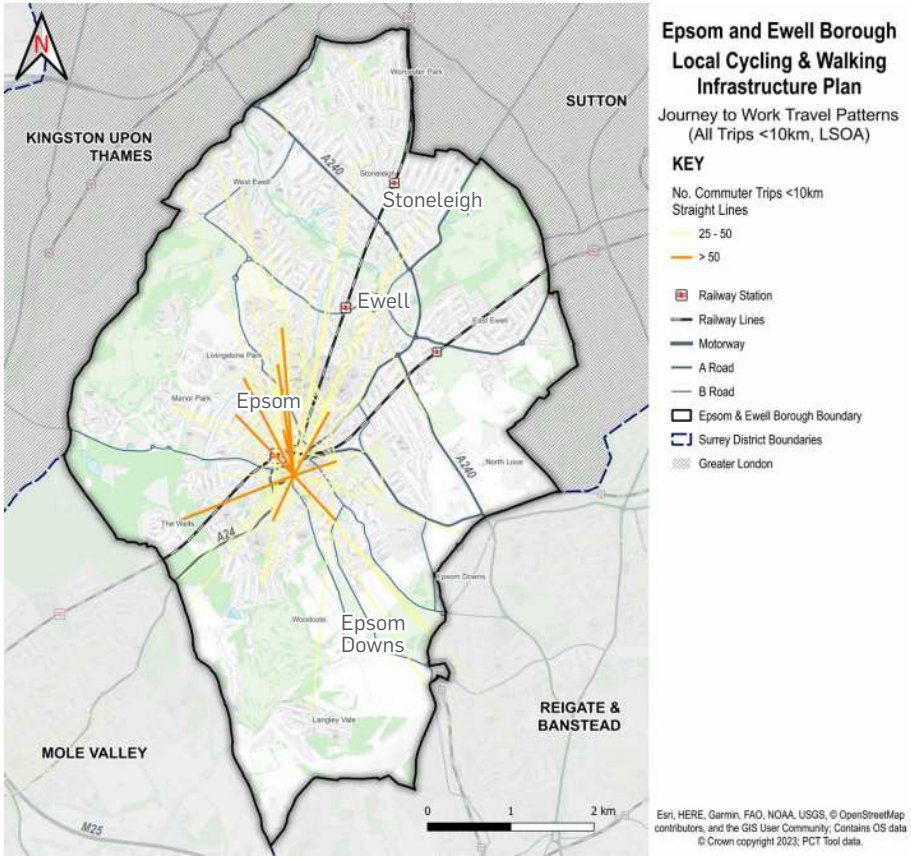


Figure 32. Journey to work - Desire Lines for Lower Layer Super Output Areas (LSOA) in Epsom and Ewell

PCT Commuter Mode Share

Based on the 2011 Census, cycle mode share for commuting was low across the Borough - typically less than 5% as illustrated in Figure 33. The LSOAs with the highest percentages can be observed near Blenheim High School and in the north-west of the Borough, close to the border with the Royal Borough of Kingston upon Thames. Similarly, the level of cycle flows is low across the Borough.

Indicative key corridors with relatively high flows include:

- A24 throughout the Borough, from the border with Mole Valley to the London Borough of Sutton.
- Temple Road, connecting Epsom Town Centre to West Ewell.
- Chessington Road, connecting Chessington (London Borough of Kingston upon Thames) and Ewell.
- Epsom Road and Ewell High Street in Ewell.

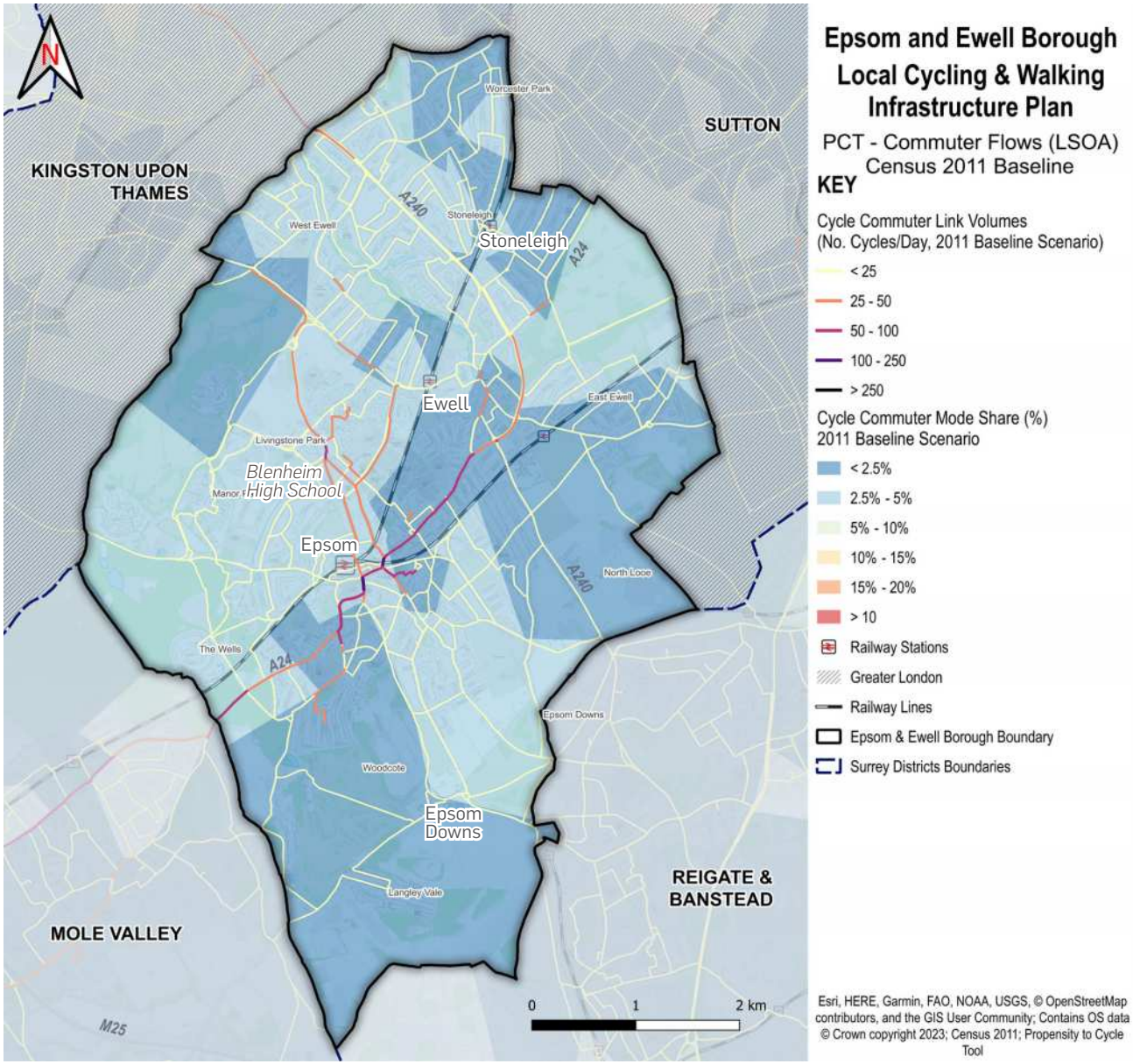


Figure 33. Journey to work - cycling mode share based on 2011 Census data

PCT Commuter Flows - Go Dutch Scenario

Routes with the highest relative propensity for cycling in Epsom and Ewell based on journey to work data from the PCT 'Go Dutch scenario' are illustrated in Figure 34. Areas with higher population densities, primarily in the centre and north of the Borough, in Epsom, Ewell and Stoneleigh as well as in the southwest near Ashtead in Mole Valley have higher propensity for cycling trips. The remainder of the Borough has comparatively lower cycle flows.

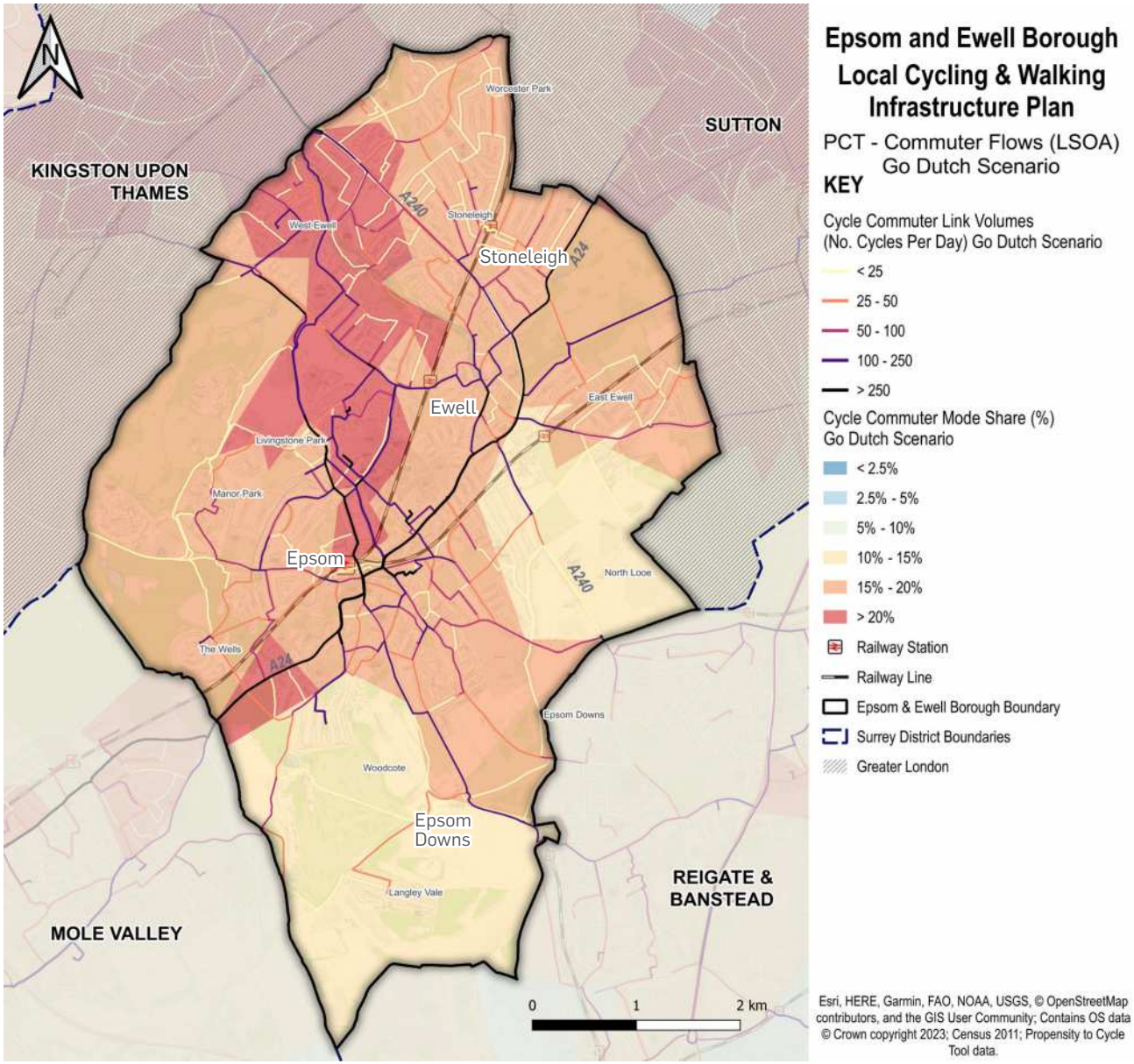


Figure 34. PCT daily commuter cycle flows, 'Go Dutch' scenario

PCT School Trip Mode Share

Based on the 2011 PCT baseline, cycle mode share for trips to school varies within Epsom and Ewell and is generally less than 10%, with exceptions of The Epsom Wells (links to Ashtead), and West Ewell (in proximity to Danetree School). As with the commuter data, the PCT school data indicates a higher propensity of cycling to school in the centre and north of the Borough. The local road network surrounding Blenheim High School, Glyn School and Rosebery Schools show higher cycle flows Figure 35.

In the Go Dutch scenario, estimated daily journeys to school cycle are illustrated in Figure 36. The higher propensity for cycle trips to school are again concentrated in the urban areas, in the centre and north of the Borough. These include the following areas:

» Surrounding Glyn School, including Hessle Grove, West Gardens, The Kingsway, The Rise and West Street.

» Longmead Road and Chessington Road between Ewell Village and Blenheim High School.

» White Horse Road and Dorking Road between Epsom Town Centre and Rosebery School.

» Ruxley Lane for connections to Epsom & Ewell High School and West Ewell Primary School.

Further routes are highlighted on the Go Dutch scenario map that illustrate potential connections within the Borough and connection between the neighbouring areas.

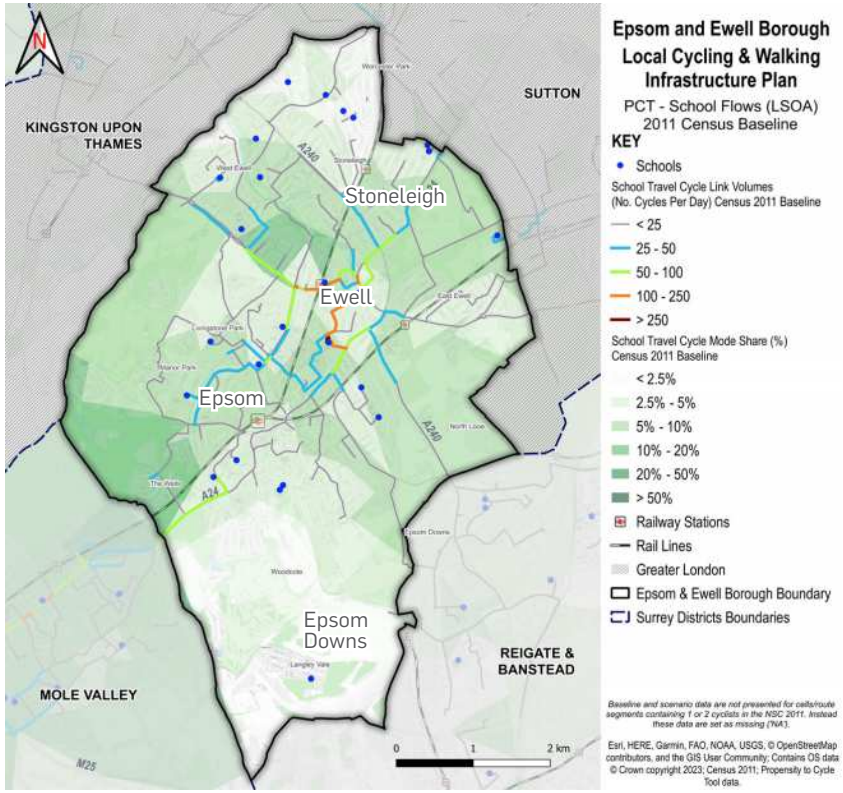


Figure 35. PCT school flows - cycling mode share based on 2011 Census data

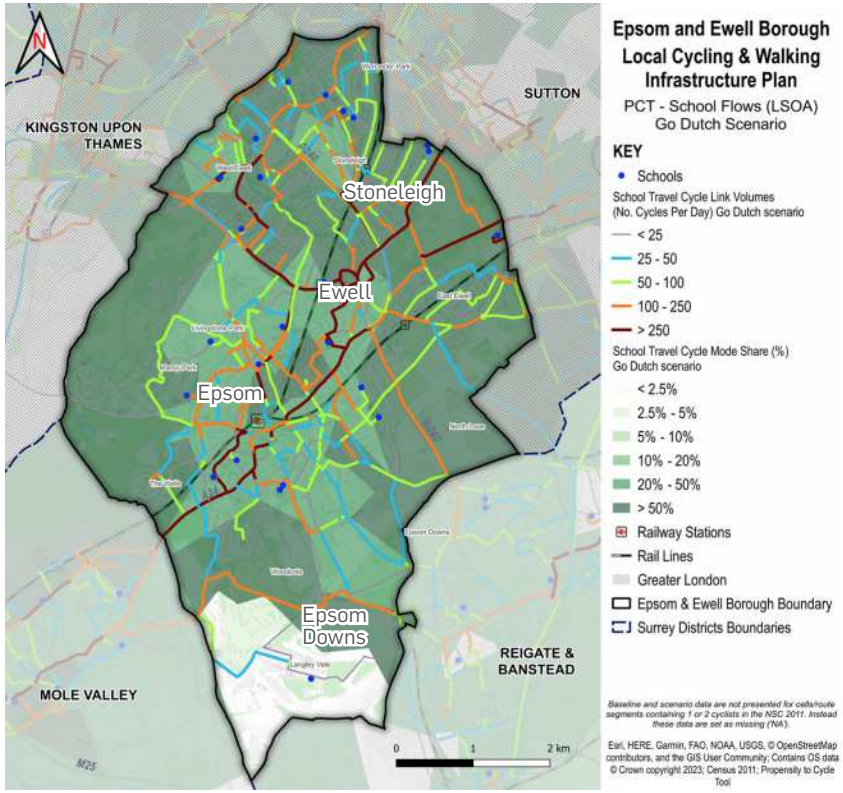


Figure 36. PCT school flows - cycling mode of share based on 'Go Dutch' scenario

PCT Short Trip Opportunities

The PCT data also identifies where short commuter trips are currently made by car (Driver or car passenger) based on 2011 Census journey to work data. Figure 37 and Figure 38, illustrate commuter trips less than 10km and 2km made by private car which originate and/or end in Epsom and Ewell. This highlights trips that are within an easy cycling (5km) and walking (2km) distance and opportunities to encourage mode shift by providing improved walking and cycle infrastructure.

Areas with a higher number of short commuter trips made by car tend to be:

- A24 between Ewell and Ashtead, including Epsom Town Centre.
- Between Epsom Town Centre and Tattenham Corner, including Ashley Road and Burgh Heath Road.
- Between Epsom Town Centre and West Ewell, including Temple Road, Hook Road and Longmead Road.
- Between Ewell and Stoneleigh, including London Road and Briarwood Road.

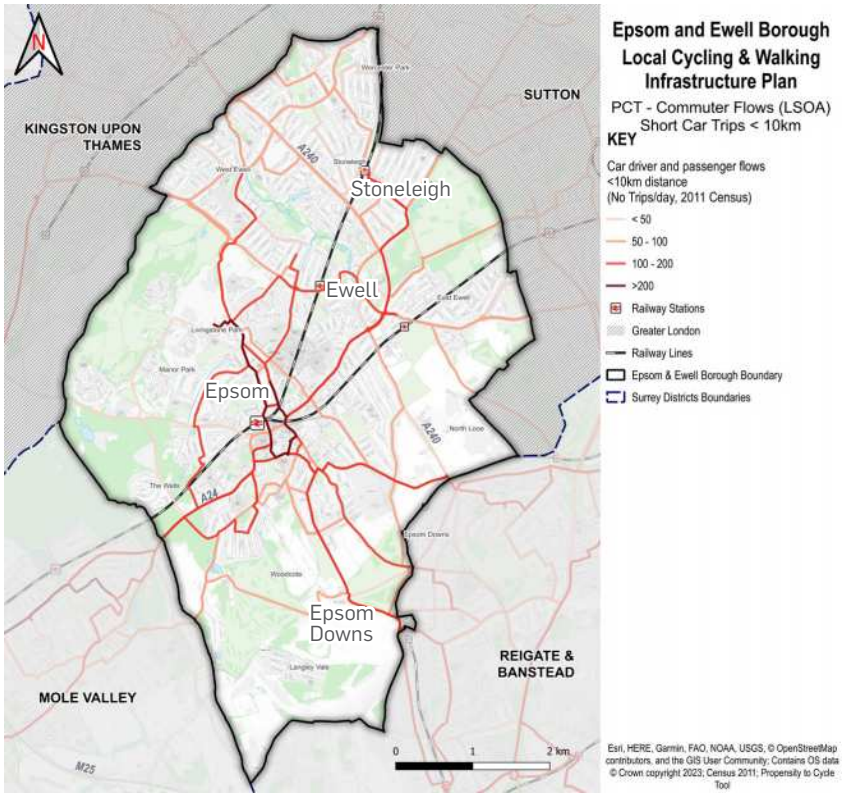


Figure 37. Commuter trips made by car (driver or passenger) ≤ 10km (PCT data, 2011 Census scenario)

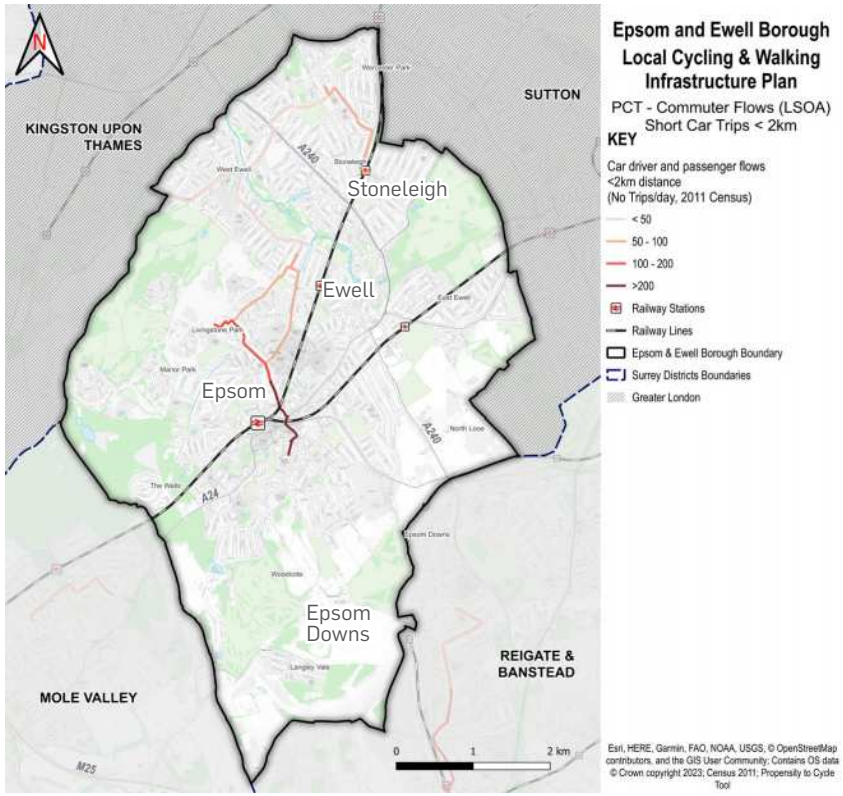


Figure 38. Commuter trips made by car (driver or passenger) ≤ 2km (PCT data, 2011 Census scenario)

PCT Walking Commuter Trips

The walking trips, under 2km which originate and/or end in Epsom and Ewell are shown in Figure 39. Areas with higher number of walking trips are in/around densely populated areas of the Borough such as Epsom, Ewell and Stoneleigh.

Walking commuter trips are predominantly to/from railway stations and through retail areas, high streets and local commercial areas, as these are key destinations, including for employment.

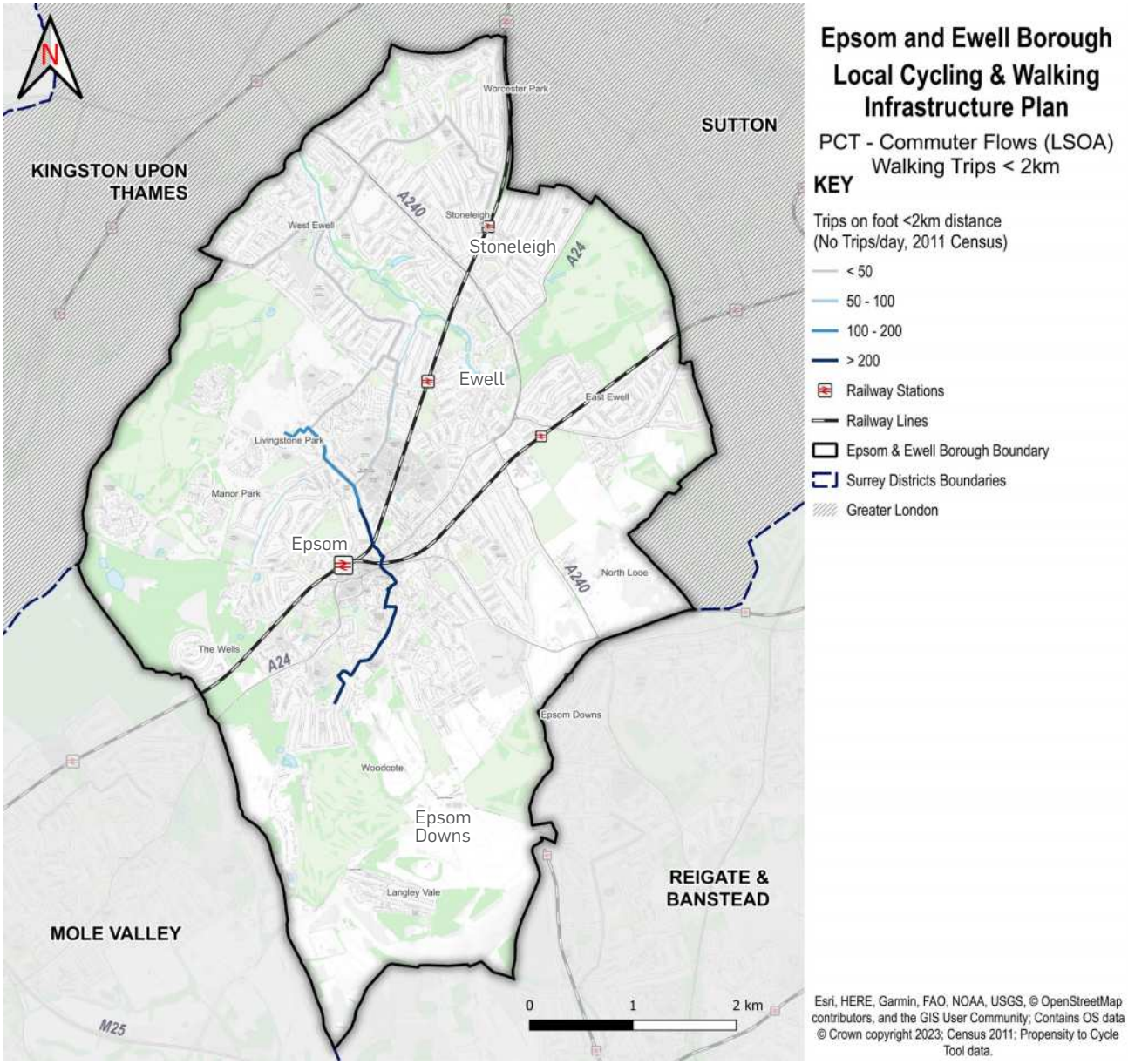


Figure 39. Walking Trips <2km (PCT data, 2011 Census scenario)

Collision Data

As part of the LCWIP, a high-level review of collision data (September 2018 - August 2023) involving pedestrians and cyclists was undertaken. This data was used to identify hotspots of collisions within the Borough. The project team are aware that many 'near misses' and possibly minor collisions, are not reported. At sections in the local highway network where more people tend to walk and cycle, it is more likely for collision involving pedestrians and cyclists to occur. The collision data provided an understanding of where collisions are occurring and corridors that could benefit from safety improvements as part of an LCWIP scheme.

Surrey has one of the highest numbers of cycle collisions in the UK in comparison with other counties. 80% of casualties[1] are in built-up areas, 71% take place on a weekday and 20% occur during the commute to/from work[2].

The locations and severity of pedestrian collisions are shown in Figure 40 on page 62. The serious collisions tended to occur along the main road network (A and B roads), with clusters of serious incidents appearing near Epsom Town Centre and Ewell Village. During the five-year assessment period, there were 126 pedestrian casualties and 93 casualties involving people cycling in Epsom and Ewell.

The locations and severity of cyclist collisions are shown in Figure 41 on page 62. As with the pedestrian collisions, clustering of the cycling collisions along the main road network is apparent. Main roads include:

- B248 between Chessington and Horton Park
- Horton Lane between Horton Park and West Park Road.
- A24 between Epsom Hospital and the Borough boundary near Wells Road.
- Woodcote Green Road and Wilmerhatch Lane between A24 and the RAC club.

Table 5. Pedestrian and cyclist casualties, by severity and year

	Severity	2018	2019	2020	2021	2022	2023	Total (2018-2023)	Avg/Yr (2018-2023)
Pedestrian casualties	Fatal	0	1	0	1	0	0	2	1
	Serious	4	10	8	10	9	7	48	8
	Slight	3	21	11	15	13	13	76	12.67
	Total	7	32	19	26	22	20	126	21.67
Cyclist casualties	Fatal	0	0	0	2	0	0	2	2
	Serious	6	9	11	9	5	3	43	7.17
	Slight	10	17	13	17	10	6	73	12.17
	Total	16	26	24	28	15	9	118	19.67

1 Casualties include those killed, seriously injured and slightly injured.
2 http://casualties.level123.uk/docs/comparegb/ data from the last 15 years

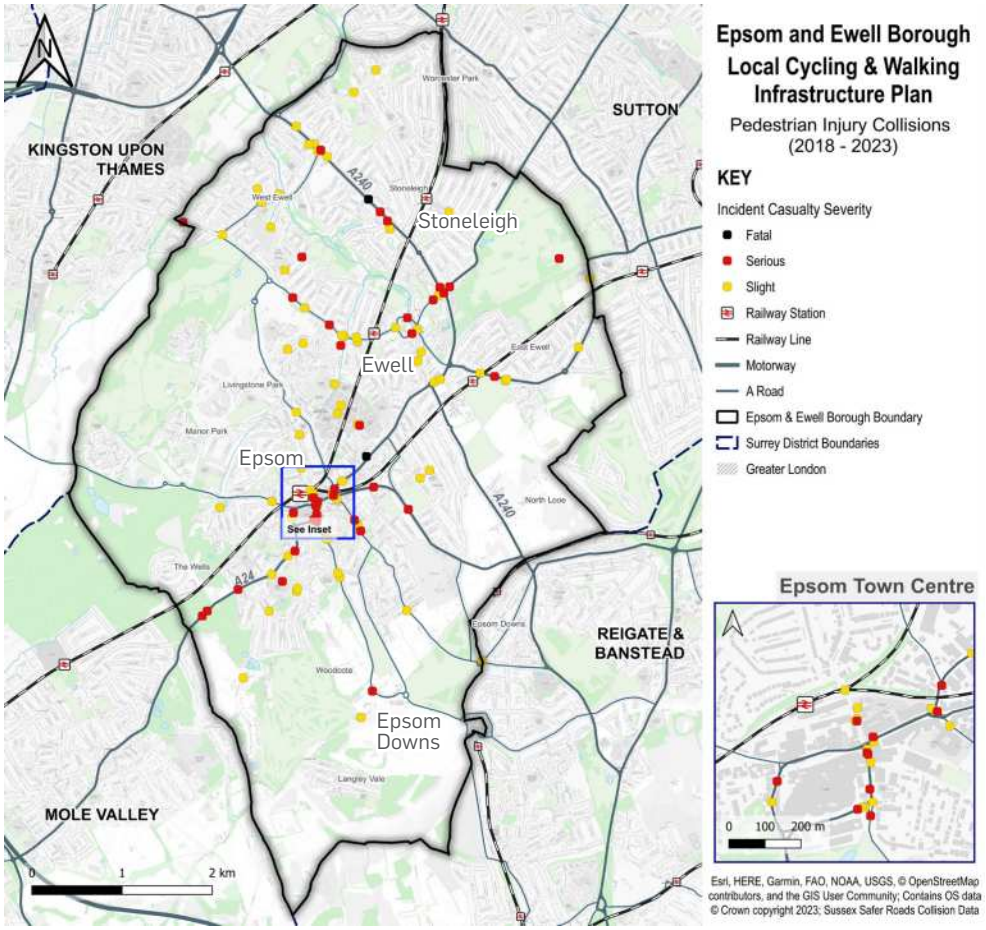


Figure 40. Pedestrian collisions, by severity

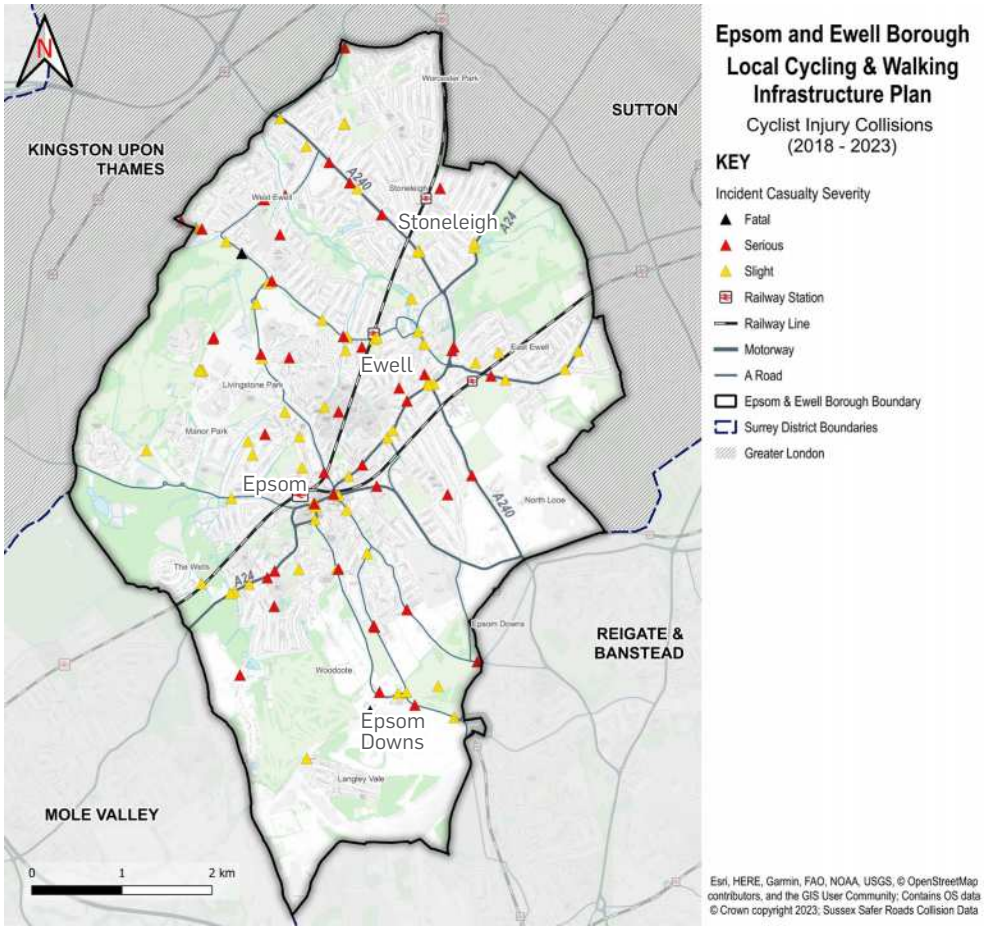


Figure 41. Cyclist collisions, by severity

Public suggestions for active travel provisions

Several online platforms have been used to gather input from the public about their suggestions for active travel improvements and existing issues. These include the following platforms:

Surrey LCWIP Commonplace Map[1]

Launched by SCC in summer 2020 in response to the COVID-19 pandemic, the Surrey LCWIP Commonplace website used the Commonplace platform to gather suggestions for active travel improvements and to support social distancing and encourage mode shift. In May 2021, the website was adapted for the Surrey LCWIPs. In October 2023 it was re-publicised to gather additional comments for the Epsom and Ewell LCWIP. Between June 2020 and October 2023, 344 suggestions were received.

Maps illustrating the location and frequency/ relative popularity of pedestrian and cycling comments are provided in Figure 42, and Figure 43, respectively.

Among respondents who commented on cycling issues, the majority reported negative experiences, with a few reporting positive or neutral experiences, and recommendations for improvements. The key sections of roads where more issues have been reported are in Epsom Town Centre along the High Street, West Hill railway bridge, Woodcote Green Road and Ashley Road.

Respondents mentioned absence of crossing facilities, lack of cycle parking and exposure to road traffic as the main challenges to cycling. Suggestions include the provision of a dedicated cycle track, widening of existing shared use paths (to avoid conflicts with pedestrians), improving path surfaces, providing adequate lighting and adding traffic calming measures.

Similarly, respondents who have commented on walking issues have also given negative responses highlighting issues such as a lack of wayfinding, safe crossing facilities, high traffic speeds, poor safety perception and narrow footways. Key areas where walking issues have been highlighted include Newbury Gardens in Stoneleigh, Longmead Road and Ewell Village. Notably, Newbury Gardens and Longmead Road serve as key access routes to local schools.

Some of the more common/popular comments and suggestions included:

- Improvement of the walking, wheeling and cycling environment through urban centres, including Epsom Town Centre and Ewell Village.
- Provision of a safer footway in several locations such as the Ashley Road, Old Malden Lane and West Hill.
- Improvement of pedestrian safety in areas in proximity of schools, including Newbury Gardens and Longmead Road.

Widen My Path

Similar to the Surrey COVID-19 Transport Map, 'Widen My Path' is a website launched by Cycle Streets during the COVID-19 pandemic as a tool to collect suggestions from the general public throughout the UK for active travel improvements. A total of 163 suggestions within Epsom and Ewell were received up to 27 October 2023. A map illustrating the location of comments is shown in Figure 43.

Some recurring comments from participants were focused on footway improvements, improvement of crossing provision, changes to parking provision and installation of modal filters.

Some specific comments from participants include providing wide, continuous and resurfaced active travel paths through Epsom Town Centre and Ewell Village, along Old Malden Lane, along West Hill, and along A24 London Road.

1 https://surreylcwip.commonplace.is/

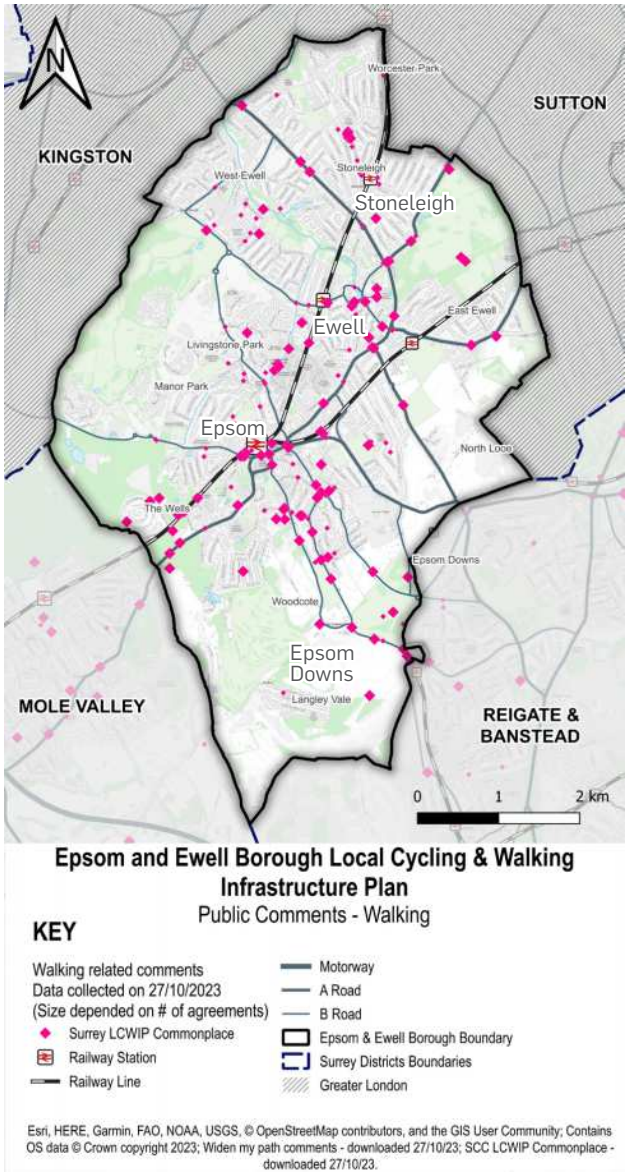


Figure 42. SCC LCWIP Commonplace Survey Map comments related to pedestrian issues

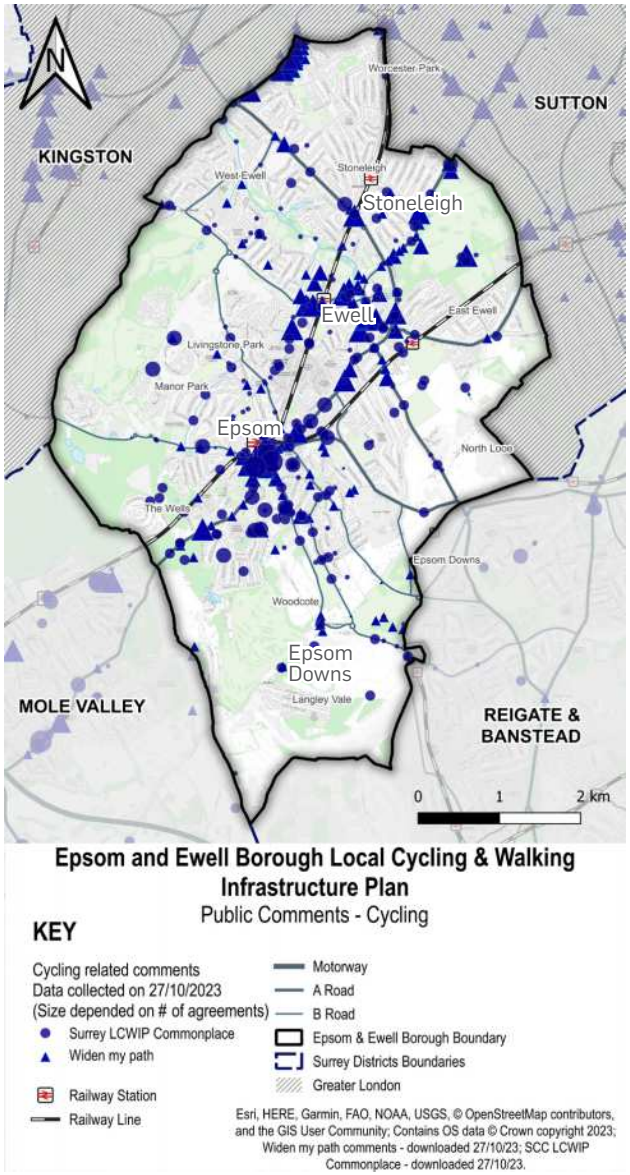


Figure 43. SCC LCWIP Commonplace Survey Map comments related to cycling issues

Strava data

Strava is a mobile and internet-based application for tracking various activities (i.e., cycling, running, etc..). The data presented represents trips recorded by users of Strava's app. Although the data tends to be skewed towards leisure/recreational trips, rather than utility trips, it provides a snapshot of preferred routes that supplement the commuter trips provided in the PCT analysis.

Strava Cycle Data

Strava data for cycling trips are shown in Figure 44. The Strava data (based on 2022) highlights A24, Christ Church Road and Chessington Road as popular routes. Notably, there is high demand in the sparsely populated south of the Borough including Headley Road, Langley Vale Road, Tattenham Corner Road and Wilmerhatch Lane. The low population of this area may be attributed to leisure/ sport cycling activity.

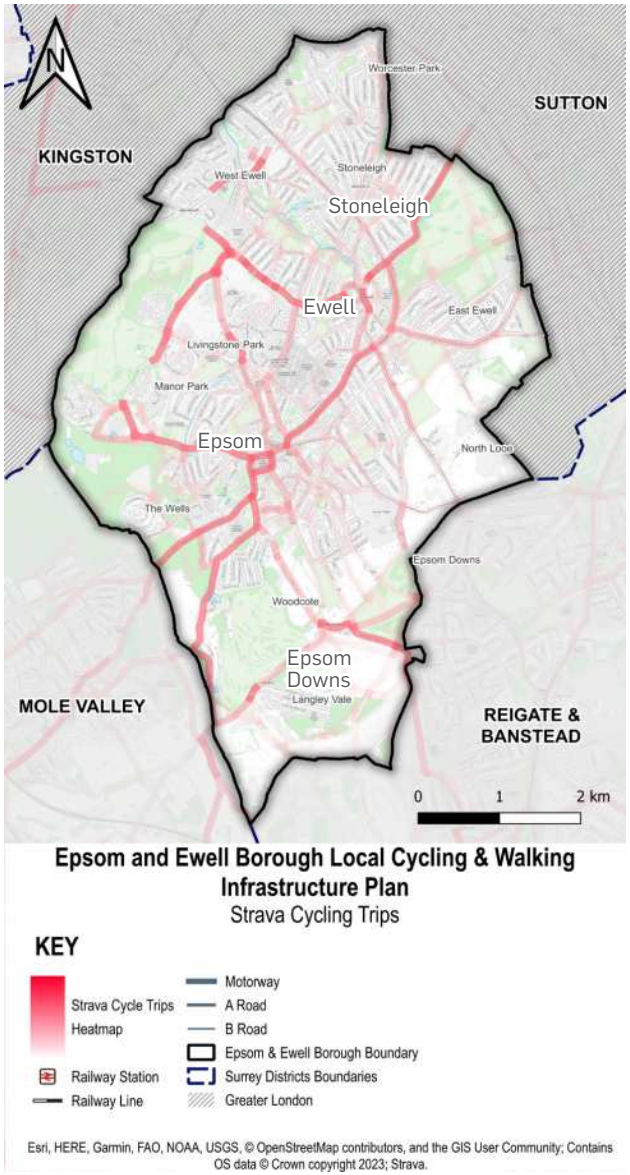


Figure 44. Strava cycling heatmap. Source: Strava.com

Cycling Infrastructure Prioritisation Toolkit

The Cycling Infrastructure Prioritisation Toolkit (CyIPT) is a collection of tools aiming to provide an evidence-base for prioritisation of transport infrastructure that would get more people cycling.[1]

CyIPT uses the PCT to provide data on the existing and future cycling flows on each road. This data is in turn taken from the 2011 Census commuting flow data. It should be noted that:

» CyIPT is biased towards commuter cycling due to using the PCT data.
» CyIPT has a 2011 view of travel patterns which is used for existing travel and as a baseline for predicting future demand.

Figure 45 displays three key layers:

» The existing cycleways layer provides an approximation of where cycling infrastructure exists currently and may be used to identify gaps in the existing network.
» The top ranked new cycleways layer is the primary result of the analysis, providing a list of roads that have high cycling potential, a minimum threshold length and spare space. These may be strong candidates for the creation new cycleways.
» The cohesive network layer is intended to show what a joined-up cycle network could look like considering new cycleways achieved by either closing roads to vehicle traffic or creating one-way streets. The layer is designed to guide long term planning, alongside pre-existing plans.

The top routes, cohesive networks and existing cycleways within Epsom and Ewell, identified through the CyIPT tool are shown in Figure 45. As indicated, the top ranked new cycleway is the A24 between the boundary with the London Borough of Sutton and Epsom Town Centre. The tool identifies the A24 between Epsom Town Centre and Ashtead in Mole Valley as a cohesive network. Additionally, the tool highlights an additional cohesive network in Ewell Village Centre, between Ewell bypass and West Ewell along Chessington Road and along Hook Road.

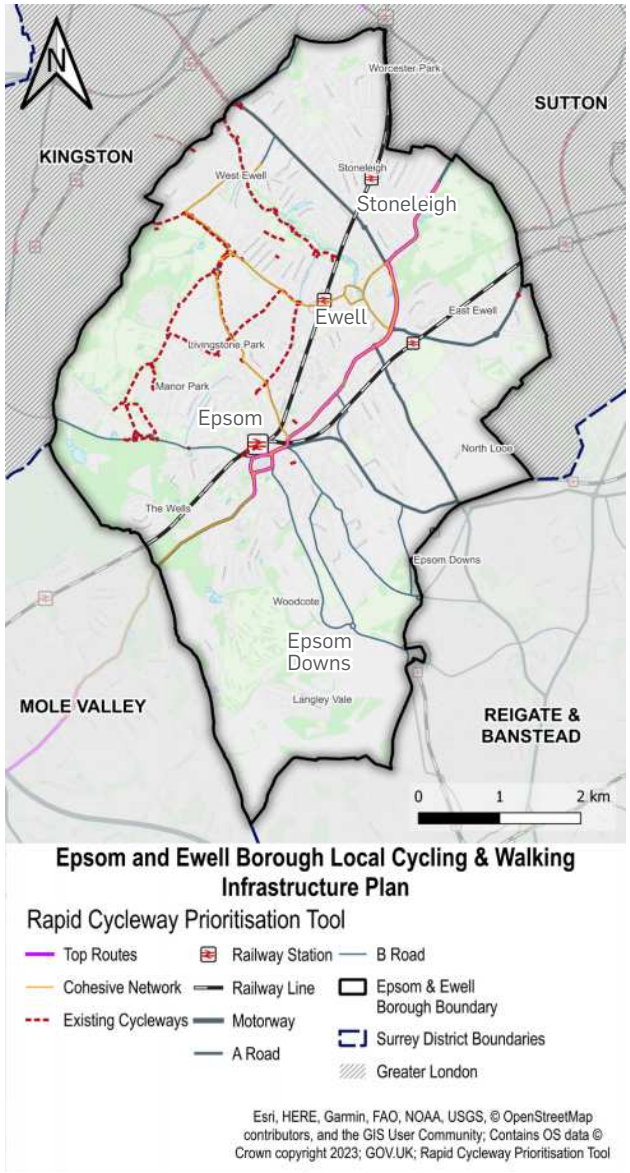


Figure 45. Cycling Infrastructure Prioritisation Toolkit illustrating the top routes, cohesive networks and existing cycleways

1 https://www.cyipt.bike/

Summary of Key Findings

The evidence base review provided a wealth of data and information related to walking, wheeling and cycling in Epsom and Ewell, which were used to inform the identification of key cycle corridors and walking areas. Some of the key findings are:

- Urbanisation patterns in Epsom and Ewell are concentrated in the centre and north of the Borough (encompassing Epsom Town, Ewell and Stoneleigh Villages), as illustrated in the population data and locations of key destinations. The higher population density and proximity of trip attractors/key destination leads to a higher propensity for walking, wheeling and cycling in these areas of the Borough, as shown by the PCT data.
- There is good provision of public transport services in the built-up centres and north of Epsom and Ewell. There are frequent bus services between key destinations, as well as four railway stations. These railway stations providing opportunities for sustainable long-distance travel and connections with walking and cycling corridors. Commuting data also endorses the importance of connections with neighbouring Boroughs, and the large population commuting to central London highlights the importance of access to railway stations as part of an active travel infra structure.
- There are several physical barriers that sever active travel networks, including the A24 and A240 roads, with high traffic speeds and wide crossings acting as a barrier to active travel. A lack of crossing provision of railway lines, particularly between Worcester Park and Epsom railway stations, also sever linkages, forcing users onto a limited number of crossing points.
- Topography is a minor barrier to cycling primarily in the south of the Borough. Additionally, while hilliness can be an appealing characteristic for recreational cycling, it can also deter potential cycle journeys or new people from cycling.
- The PCT indicates a relatively high propensity for cycling in Epsom and Ewell, both for commuter and school trips. Propensity is highest in the north-west of the Borough, close to the border with the Royal Borough of Kingston upon Thames.
- Analysis of collision data indicates that the highest occurrences of cycle and pedestrian collisions are in the Epsom Town Centre, again reflective of urbanisation patterns. A high number of collisions along the key vehicular corridors highlight the importance of shifting from private cars to sustainable modes of transport, and improved facilities along the key desire lines.
- A number of online public engagement tools captured existing public input on active travel issues and suggestions. Clusters of comments appeared in the Epsom Town Centre and Ewell Village areas, Newbury Gardens in Stoneleigh, Ashley Road, Old Malden Lane and West Hill.

Figure 46. Cheam Road on the approach to Ewell Railway Station

4. Stakeholder Early Engagement

Introduction

Stakeholder Workshops

Other Engagement Activities

Introduction

Stakeholder engagement is a key element of the LCWIP as it ensures that the views and knowledge of local residents and stakeholders are taken into account. Early engagement activities undertaken during the LCWIP included:

- A series of stakeholder workshops at two key points during development of the LCWIP.
- Public engagement via an online survey.
- Introductory briefing for local members.
- Other project meetings.

The engagement activities are summarised in the following sections.

Stakeholder Workshops

During the study two phases of workshops were held. Each phase involved meeting with four separate audiences: internal stakeholders (officers from Surrey County Council and Epsom and Ewell Borough Council), external stakeholders (such as representatives from walking and cycle groups, business groups, and Sustrans), local members from Epsom and Ewell Borough Council, Surrey County Council, and officers from neighbouring Boroughs (Reigate and Banstead, Mole Valley, Kingston-upon-Thames and Sutton).

The Stage 1 workshop presented the existing constraints and the initial identification of core walking zones and cycle corridors. The Stage 2 workshop reviewed the proposed infrastructure interventions.

Stakeholder comments provided important feedback throughout each stage of the study. Comments were taken on board to refine the CWZ and cycle corridor selection and the proposed intervention measures.

Stage 1 Stakeholder Workshops

During the first phase of the LCWIP, stakeholder workshops were held in November / December 2023. In total 27 participants (excluding AtkinsRéalis and SCC / EEBC core project teams) attended the Stage 1 workshops.

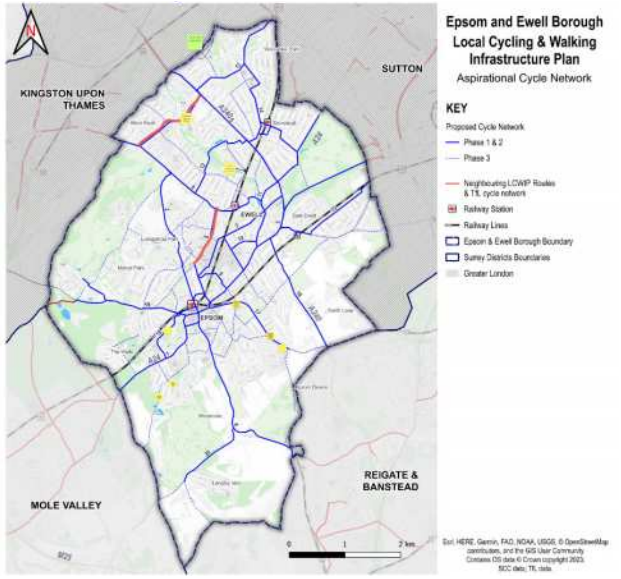
The workshop was divided into three main parts. The first included a presentation of the objectives of the LCWIP, the project and work concluded so far (data collected), the second part a presentation of the proposed cycle network, and the third part included a presentation of the identified CWZs. After the presentation of the cycle and walking networks, there was an interactive session where participants' comments were added to the draft network maps (Figure 47 on page 71).

Participants were also asked to vote for their top five cycle corridors and top three CWZs. The results of the poll were subsequently incorporated into the multi-criteria assessment framework process[1] in order to select the Phase 1 areas to be advanced to the second phase of the LCWIP.

1 See Multi-Criteria Assessment Framework on page 86 and Multi-Criteria Assessment Framework on page 131

Local stakeholders were generally in agreement with the proposed aspirational networks, and most changes were in reference to specific alignments of the cycle corridors, improved connections between areas and amendments to the extents of the identified CWZs. Five cycle corridor alignments were refined following comments and three core walking zones were extended to cover nearby schools. Additional feedback from the stakeholders involved information of the existing issues along the corridors and the CWZs, and opportunities for connections.

Aspirational Cycle Network



Aspirational Walking Network

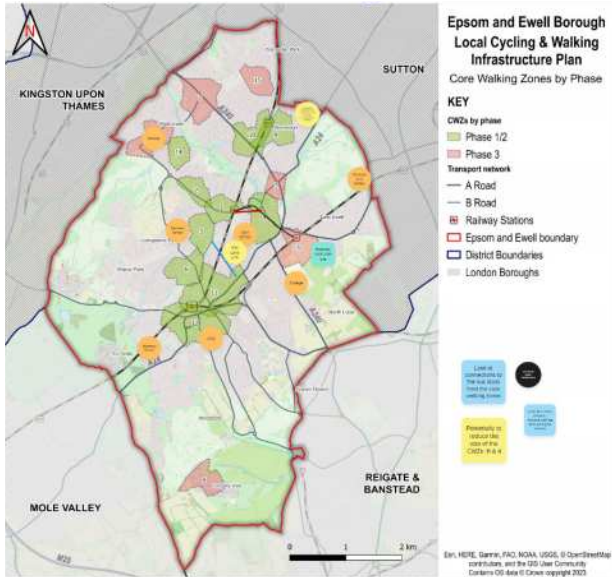


Figure 47. Snapshots from the interactive map used during the Stage 1 engagement workshops

Phase 2 Stakeholder Workshops

During the second phase of the LCWIP, stakeholder workshops were held in late March and April 2024. The invitee lists were very similar to the ones for the Phase 1 workshops, although additional external stakeholders were also included since the areas with proposed interventions were more targeted at this phase of the LCWIP. In total 28 participants (excluding AtkinsRéalis and SCC / EEBC core project teams) attended the Phase 2 workshops.

The workshop was divided into two main parts. The first included an update for the key stakeholders for the progress of the study since the previous workshops and presentation of the prioritisation process for the walking and cycling networks. The second part a presentation on the proposed high-level infrastructure improvements for the prioritised cycle corridors and CWZs. After the presentation of the cycle and walking proposals, there was an interactive session where participants provided feedback on the potential improvement measures.

The proposed interventions for both the cycle corridors and CWZs were subsequently refined, following stakeholder comments. A log of stakeholder comments regarding the initial proposals is provided in Appendix 6: Stakeholder Comments on high-level proposals for infrastructure improvements The comments and feedback may help inform next stages of scheme development.

Other Engagement Activities

Public Engagement

Early public engagement was carried out via a number of web-based surveys, including SCC's LCWIP Commonplace survey and Widen My Path public survey platform (see Public suggestions for active travel provisions on page 63). The surveys were opened to the public during the COVID-19 pandemic and AtkinsRéalis processed the available data up to the end of 2023.

The interactive sites allowed the public to leave comments about deficiencies and desired improvements related to walking, cycling and other issues. The information was used to help identify the proposed walking and cycling networks.

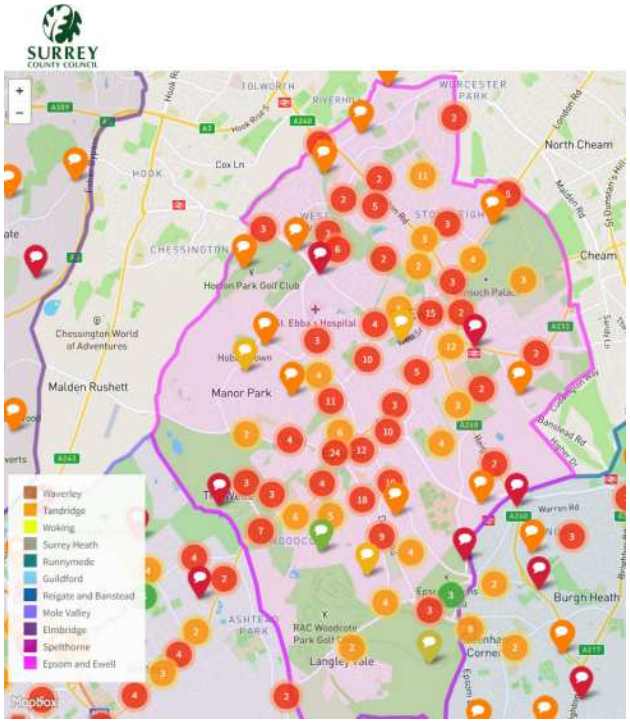


Figure 48. SCC LCWIP Commonplace map (source: https://surreylcwip.commonplace.is/comments)

Member Briefing

An online briefing for local EEBC and SCC members was held on 2 November to introduce the Epsom and Ewell LCWIP at the start of the study process. The briefing provided an overview of the LCWIP process, objectives, key outputs, and programme. It also provided an overview of the Surrey-wide LCWIP programme and how the LCWIP fits into broader policy objectives (e.g., LTP4 and Climate Change Strategy) and active travel scheme development and funding opportunities.

Other Meetings

Throughout the development of the LCWIP, fortnightly meetings took place with the SCC and EEBC project team to review, discuss, and provide feedback on the direction of the study, cycle and walking network proposals, and potential interventions.

5. Cycle Network Development

Introduction

Development of the Aspirational List

Identification of Phase 1 Cycle Corridors

Introduction

This chapter summarises the identification of the cycle network for the Epsom & Ewell Borough LCWIP.

The primary aim of the proposed network is to identify strategic cycling corridors, connecting neighbourhoods both to each other and to clusters of key destinations (e.g. Town Centres, schools, railway stations, etc..). Additionally, local links were identified to connect the strategic corridors to residential areas (origins) and key destinations and enhance cycle network connectivity. This is illustrated in the schematic in Figure 49.

Development of the cycle network had two key stages:

» Development of the 'aspirational network', which identified key cycle corridors in the Borough. In total, 51 corridors were initially identified and 22 selected for further assessment.
» Selection of a 'short list', which prioritised six corridors as 'Phase 1' for further assessment and initial high-level proposals for infrastructure improvements development as part of the LCWIP. [1]

The remaining corridors (categorised as Phase 2 and Phase 3) may be developed in future, as part of future workstreams or as other funding opportunities arise.

Development of the Aspirational List

Epsom and Ewell has high potential for growth in the amount of people cycling. The dense urban environment and the relatively close proximity between towns and to key destinations allows many types of short trips (e.g., commuting, school, shopping, leisure, etc..) to be easily be made by cycle. However, the cycling infrastructure in the Borough generally does not offer enough protection and cycling is not an attractive option to support new or less confident cyclists (when cycling with traffic). Consequently, short trips into Town Centres, railway stations, schools, and leisure assets are often made by private car.

A key barrier to cycling at present is the inconsistent quality, accessibility and continuity of the cycling network, as well as a convoluted and unsafe gyratory system for cyclists in Epsom Town Centre. In order to identify and close the gaps, a network of preferred corridors has been defined drawing on the analysis from the existing data. The background information included mapping trip origins and destinations, identifying desire lines for cycle movement, and review of PCT flows and key movement patterns.

The development of the cycling aspect of the Epsom & Ewell LCWIP focused on identification of a cycling network map, detailing key corridors for further development, as per the DfT's LCWIP technical guidance.

Development of the cycle network considers potential usage by both conventional pedal cycles and e-bikes, the latter of which would extend the range of cycle trips.

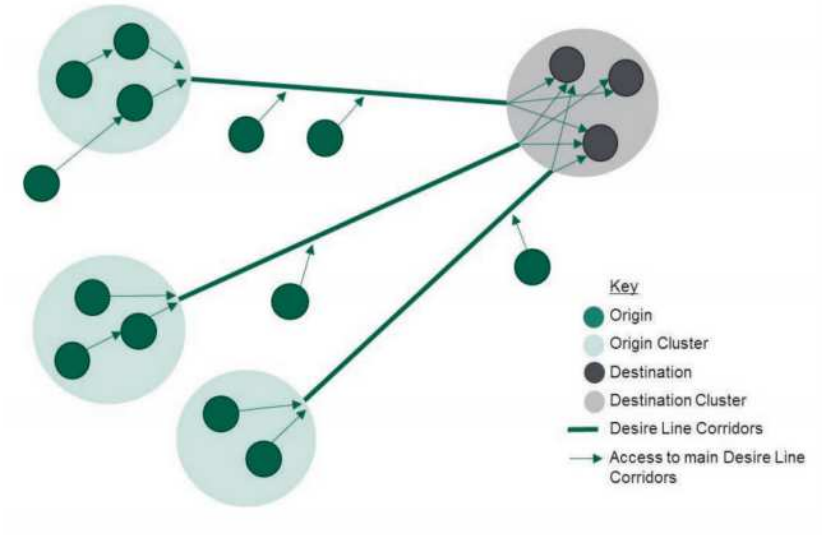


Figure 49. Clusters of trip origins and destinations and desire lines connecting them (DfT LCWIP Technical Guidance).

1 While the proposals are focused around these areas they also provide examples of the type of improvements that can be implemented district-wide.

Identification of Cycling Corridors

In Epsom & Ewell and more widely in Surrey, there is a wealth of background information that can inform cycling an understanding of travel patterns, propensity for cycling, and highlight areas in need of improvement. The aim of this analysis is to meet the goal of significant mode shift to more sustainable travel. The target is short trips and utility trips such as school travel and commuting, as well as access to Town Centres and leisure areas. This an allow active and sustainable travel habits to appeal to the residents of the Borough.

Clusters of key destinations

The first step for the cycle network development was to identify the key trip origins and destinations in the study area. The data gathered in the background analysis identified and mapped key trip attractors, including:

- Educational facilities (primary schools, secondary schools and higher education facilities).
- Hospitals.
- Doctor surgeries.
- Leisure centres.
- Tourist attractions.
- Railway stations.
- Retail areas.
- Employment sites.
- Development sites.
- Areas with high population density.
- Areas with high workplace population density.

The mapping of trip attractors indicated the locations of key clusters across the study area, which represent groups of trip attractors within close proximity to each other. The clusters were categorised based on the relative concentration or number of trip attractors, as strategic, primary, and secondary. Additionally, clusters were identified in the neighbouring areas, such as urban centres or key destinations outside the Borough which affect the travel patterns. The output of this process is shown in Figure 50.

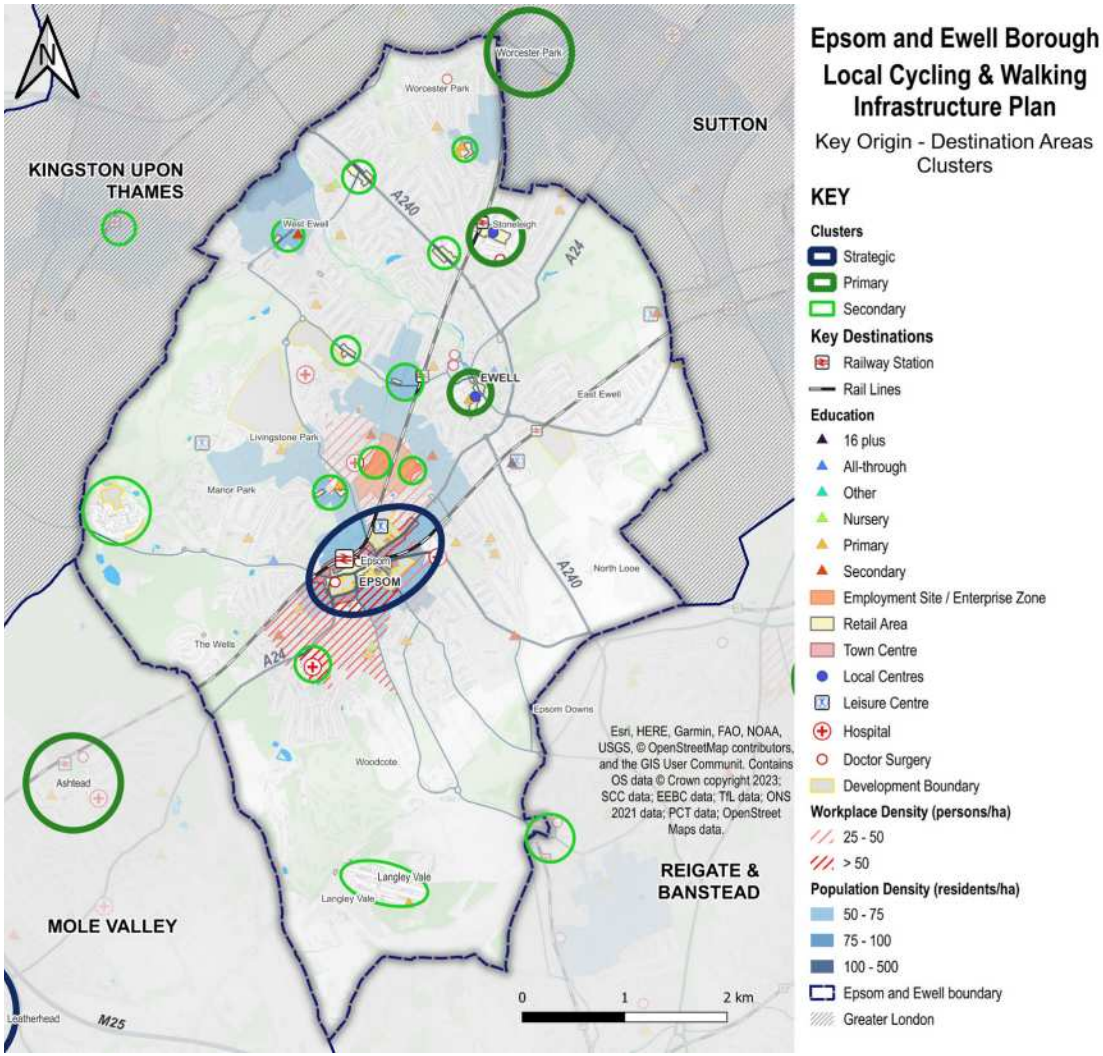


Figure 50. Identification and prioritisation of trip attractor clusters

Key desire lines

Following the mapping of the clusters of origins and destinations within the study area, the main desire lines for all trips between those clusters were identified. These indicate the key movement patterns which corridors in the cycle network should aim to support. The data gathered in the previous steps and local knowledge from SCC and EEBC officers informed the development of the desire lines.

The Propensity to Cycle Tool (PCT) was utilised to obtain data based on the 2011 Census Travel To Work trips. Straight lines between the Middle Super Output Areas (MSOAs) were mapped for all methods of travel, indicating the number of commuters between each MSOA pair. Trip distance was limited to 10km to capture a large sample size of origin/destination pairs, while also keeping the MSOA pairs within a reasonable cyclable distance[1]. Trips were categorised based on the nature of the commuter flows.

Additionally, links between each of the clusters were mapped to help identify potential desire lines between the key cluster areas. These links were then categorised based on the distance between destinations as shorter trips which would have higher propensity for mode shift. Trip distance was limited to 10km.

Figure 51 illustrates the output from mapping desire lines for connections between clusters and existing commuter patterns.

1 10km is equivalent to approximately 37 minutes cycling at 10mph (16kph)

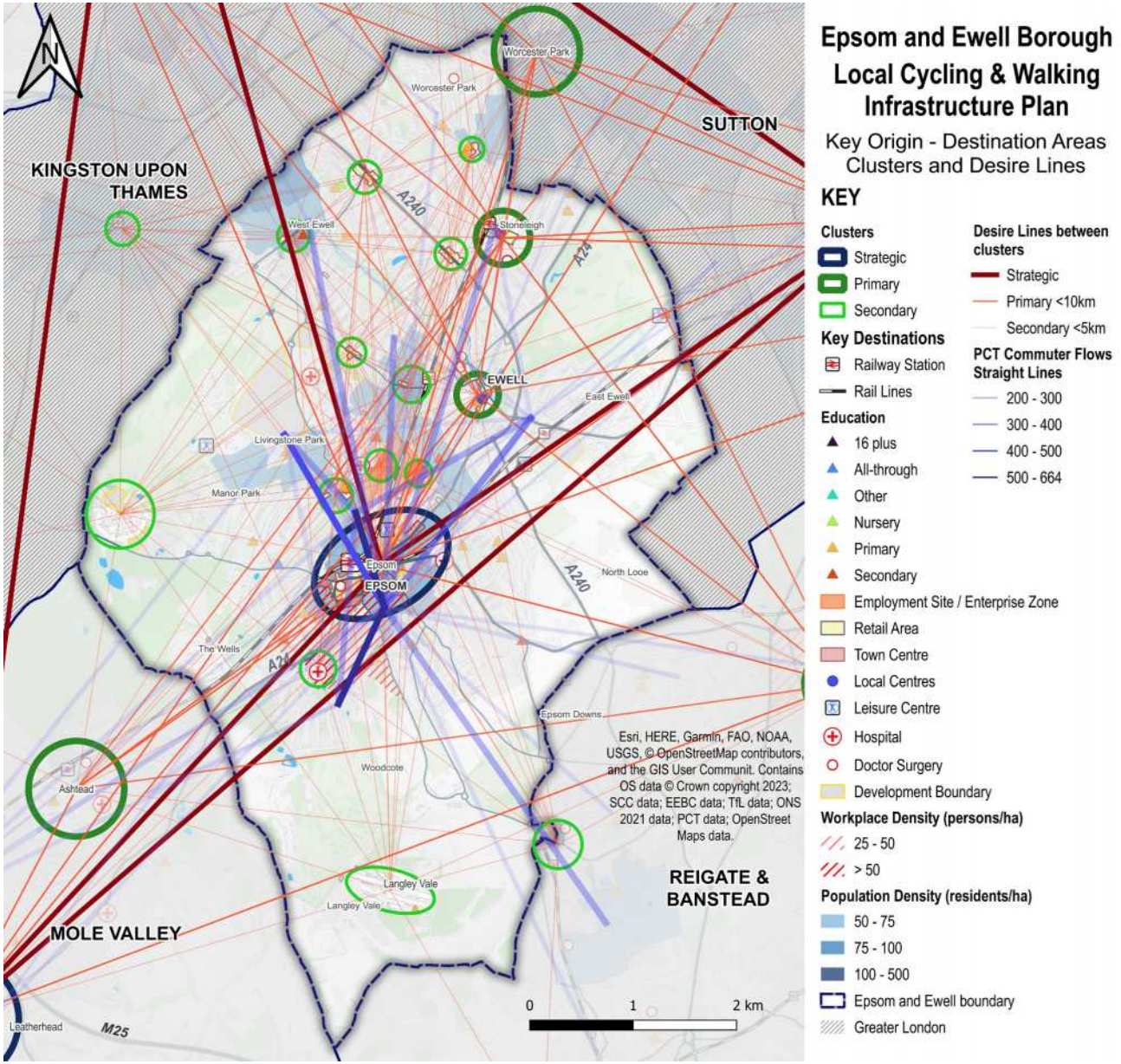


Figure 51. Straight lines between MSOAs and between the clusters to inform the desire lines for the cycle network. The width and colour intensity of the desire lines indicate potential higher demand

Based on the clusters and commuter flow patterns (see Commuting Patterns on page 50), the information was distilled to identify the key desire lines across the study area, as shown in Figure 52. The desire lines were classified based on the concentration of commuter flows across the area, the type of clusters/destinations they serve, and observations from other components of the data gathering analysis. Strategic clusters are linked via strategic corridors, primary clusters are linked to strategic clusters via primary corridors and so on.

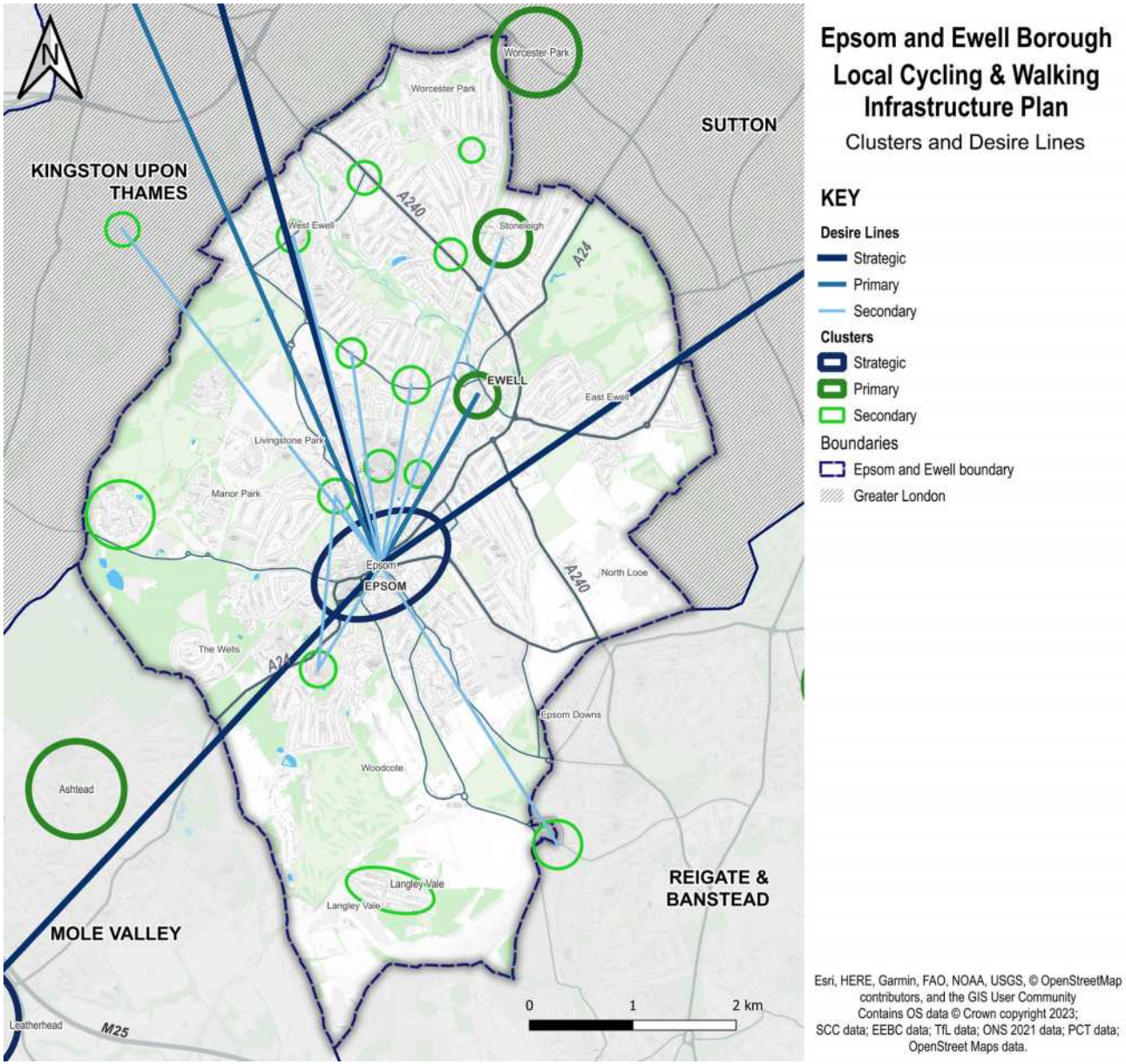


Figure 52. Key desire lines between the selected clusters

Identification of the Cycle Network

The methodology used to identify key links in the study area involved the gradual overlaying of the following information to create a qualitative 'Heat Map' (see Figure 53) where the overlap of relevant criteria suggests locations where infrastructure improvements could provide the greatest level of service, connectivity, and safety benefits.

The following data was considered for the identification of the preliminary cycle network:

- Key trip origins: such as denser residential areas and planned developments.
- Key trip attractors: railway stations, retail centres, and local commercial areas, schools, employment areas, parks, and others, along with their catchment areas (i.e. 5-minute cycle catchment areas).
- Indices of Multiple Deprivation and areas of low car-ownership (targeting areas of higher deprivation and lower car ownership, which would benefit from cycle improvements).
- Propensity to Cycle Tool: highlighting areas with important cycle commuter and school flows, using the E-bike scenario.
- Origin-destination data: highlighting the corridors, origins, and destinations of short motor vehicle commuter trips (<5km) which could reasonably be replaced by cycling trips.
- Cycle Collision points for the latest five years of available data.
- Geolocated public suggestions for active travel improvements, including from Widen My Path and Surrey's LCWIP interactive map
- Existing and proposed cycle facilities.

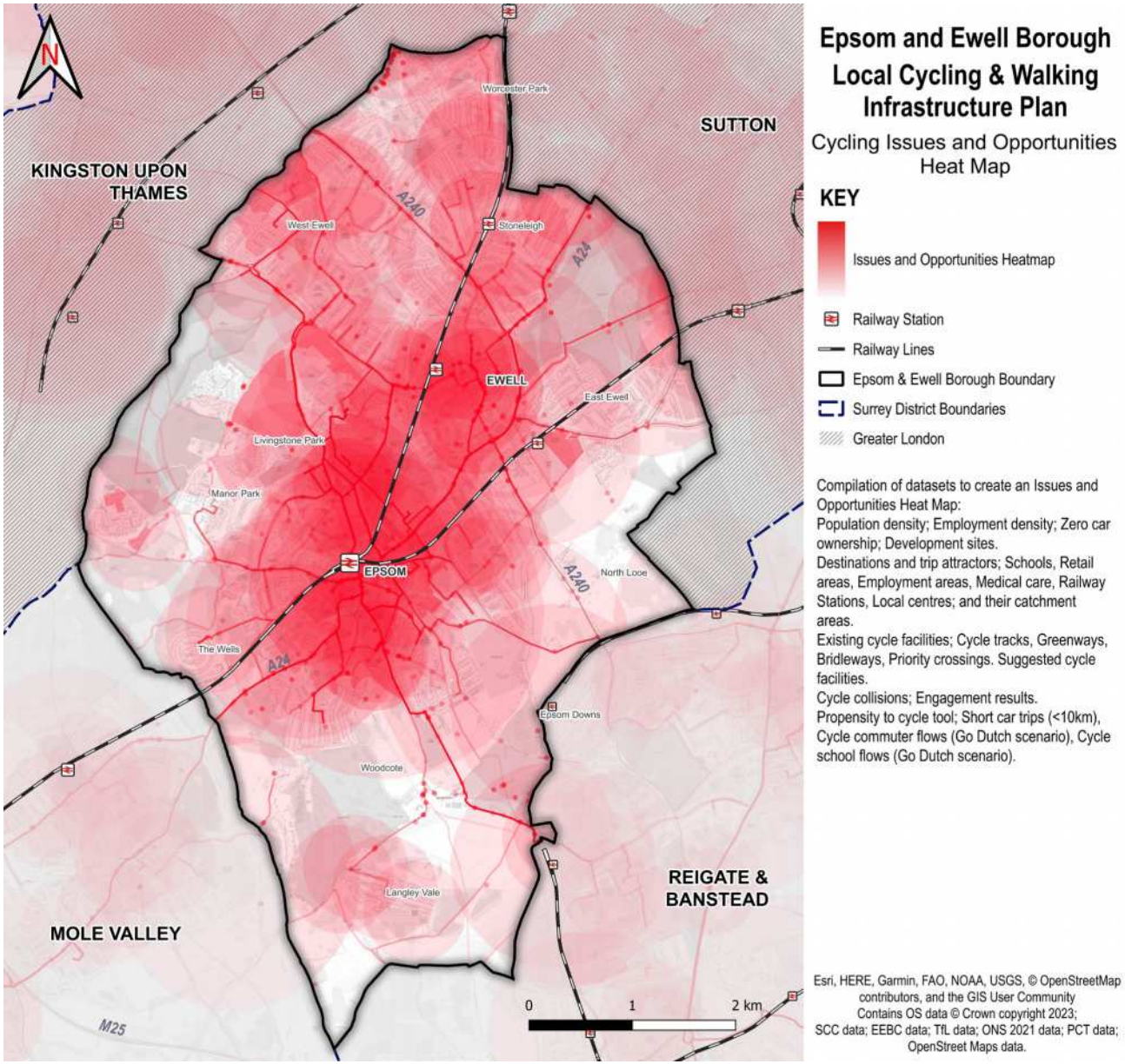


Figure 53. 'Heat Map' showing data elements overlaid to show concentration of issues and opportunities.

Mapping and overlaying these datasets, areas in higher intensity colour indicate a potential higher demand for utility cycling trips or where there is higher potential for mode shift or new users. The cycle network was selected along the road network to align with these areas, forming an initial draft cycle network. This assessment provides an initial indication of possible corridors between key origins and destinations. With further development of the LCWIP, in latter stages, further investigations would be undertaken as to whether the proposed alignments could be made compliant with LTN 1/20 and therefore whether alternative corridors also needed to be investigated.

The sections of the road network indicated with higher intensity colour were selected to form the first draft of the proposed cycle network. The identified clusters overlaid with the desire lines were used to identify the cycle corridors that could be included in the aspirational network for cycling (Figure 54).

A filtering process was applied to identify the key corridors using the desire lines to trace the road network through the outcome of the 'X-Ray' map. The identified potential cycle corridors were selected to provide connections between all clusters.

Parallel corridors, that served similar areas were assessed using Google Street View to estimate the available widths for potential infrastructures and the ones with higher potential were selected to be included in the aspirational list.

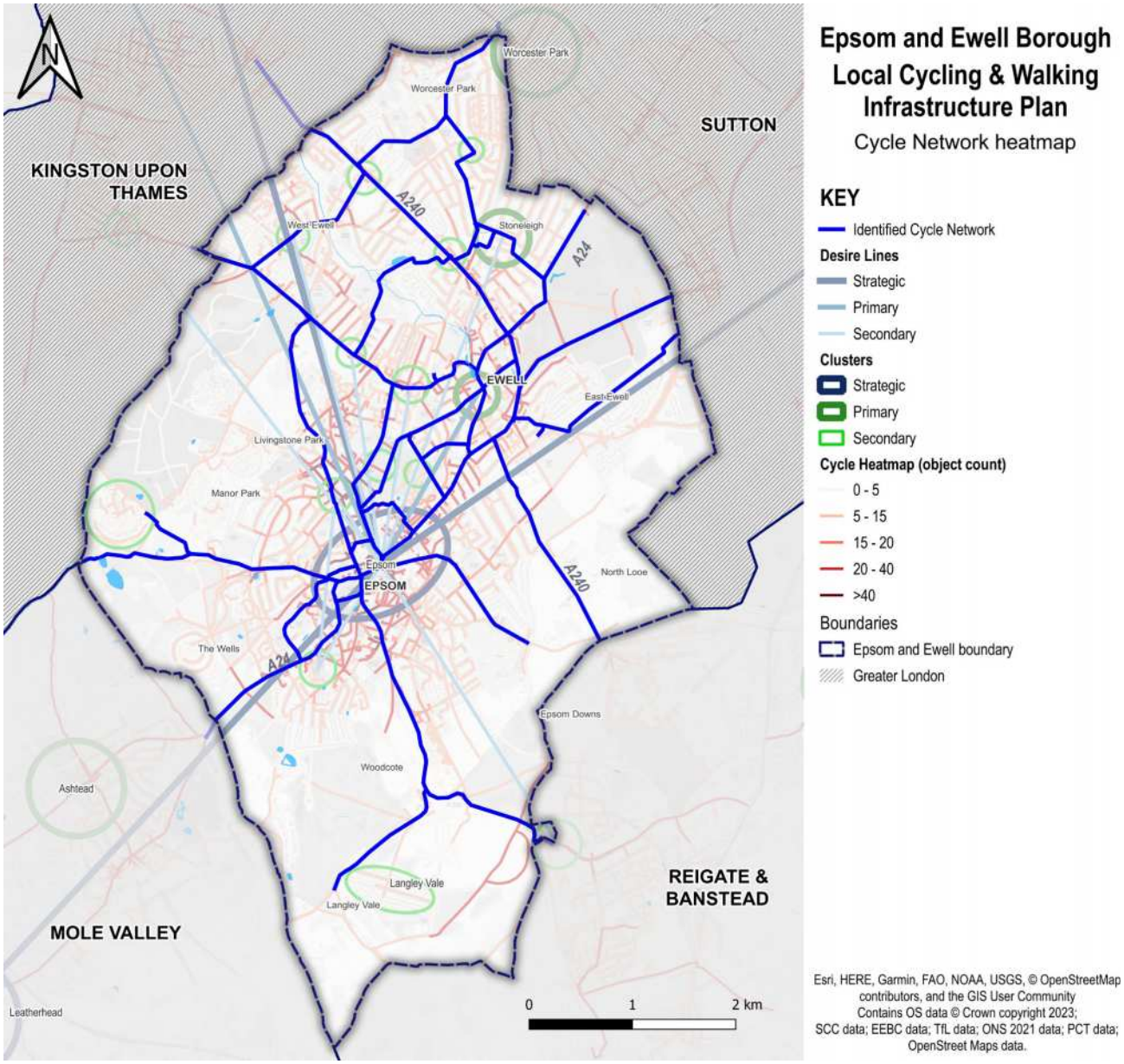


Figure 54. 'X-Ray Map' highlighting areas to consider as primary cycling corridors and the initial network (blue lines).

The proposed cycle network was divided into different corridors which were identified and mapped as discrete features in the network using key destinations and existing cycle facilities to mark the two ends of each corridor. Each corridor was selected to be approximately 5-8km in length, which corresponds to a relatively easy cyclable distance. It was also intended to facilitate more manageable design and implementation in future, in a way that each corridor/section can be treated and progressed as individual schemes as opportunities arise.

Based on the data and evidence base compiled, potential demand and propensity for short, utility cycling trips is highest in the west and the north areas of the Borough, which has a denser population and more compact, urban development patterns. Hence, the identified cycle network is also denser in this area.

Aspirational Cycle Network

The proposed network is distributed across the Borough and provides connections with existing and proposed facilities outside the Epsom & Ewell Borough boundary.

This identified cycle network has been refined and prioritised, drawing on data analysis, stakeholder input[2] and desktop investigations to create a core aspirational cycle network, as shown in Figure 51. The network includes 22 corridors categorised as Phase 1/Phase 2[3], plus an additional 26 corridors/links categorised as Phase 3[4] for future consideration and additional links to enhance network connectivity.

The phasing categories are intended to assist with the prioritisation process, whereby the Phase 1 & 2 corridors were carried forward for further prioritisation. These reflect a higher propensity for cycle trips based on the data analysis undertaken and described previously. Phase 3 cycle corridors are retained as part of the aspirational network for future consideration as opportunities arise.

Below is a list of the 22 Phase 1 and 2 cycle corridors illustrated in Figure 55. Aspirational cycle network on page 81.

1. A24 Dorking Road (Ashtead to Epsom Town Centre)
2. B284 Epsom Town Centre to Chessington
3. A24 Epsom Town Centre to Sutton
4. Epsom Town Centre to Epsom Downs
5. Epsom By-pass
6. Hook Road - Longmead Road
7. Longmead Industrial Estate to Ewell
8. Chessington Road
9. Longmead Industrial Estate
10. Fairview Road path
11. Stoneleigh link and A24 Ewell to Nonsuch Park
12. Hogsmill Open Space
13. Ruxley Lane to Worcester Park
14. Stoneleigh
15. Ewell East to Nonsuch Park
16. Reigate Road
17. Epsom Town Centre to Epsom College (via A2022)
18. Station Approach to Dorking Road
19. Epsom Town Centre to Epsom Common
20. Langley Vale Road
21. Cheam Road to Belmont RS
48. Old Malden Lane

2 The proposed corridors were presented to local stakeholders during the early engagement workshops and amended following received comments that reflect the local needs and potential demand. Additional more aspirational proposals from the local stakeholders, were included in the aspirational list for cycle as Phase 3 cycle corridors.

3 Phase 1 & Phase 2 corridors are part of the aspirational cycle network and would be prioritised for improvements in the 10-year plan SCC has set out. They would be assessed in the next step of this study to be prioritised for infrastructure improvements. Phase 1 corridors would be further assessed and initial high-level proposals for infrastructure improvements are developed as part of this LCWIP. Phase 2 would be developed as opportunities arise.

4 Cycle corridors providing connections to future developments and with lower propensity for utility trips are classified as Phase 3. These are potential cycle corridors included in the aspirational network for future consideration as opportunities arise (>10-year plan) and were not included in the assessment for the next steps, i.e. identification of the short list, corridors to progress in design as part of this study.

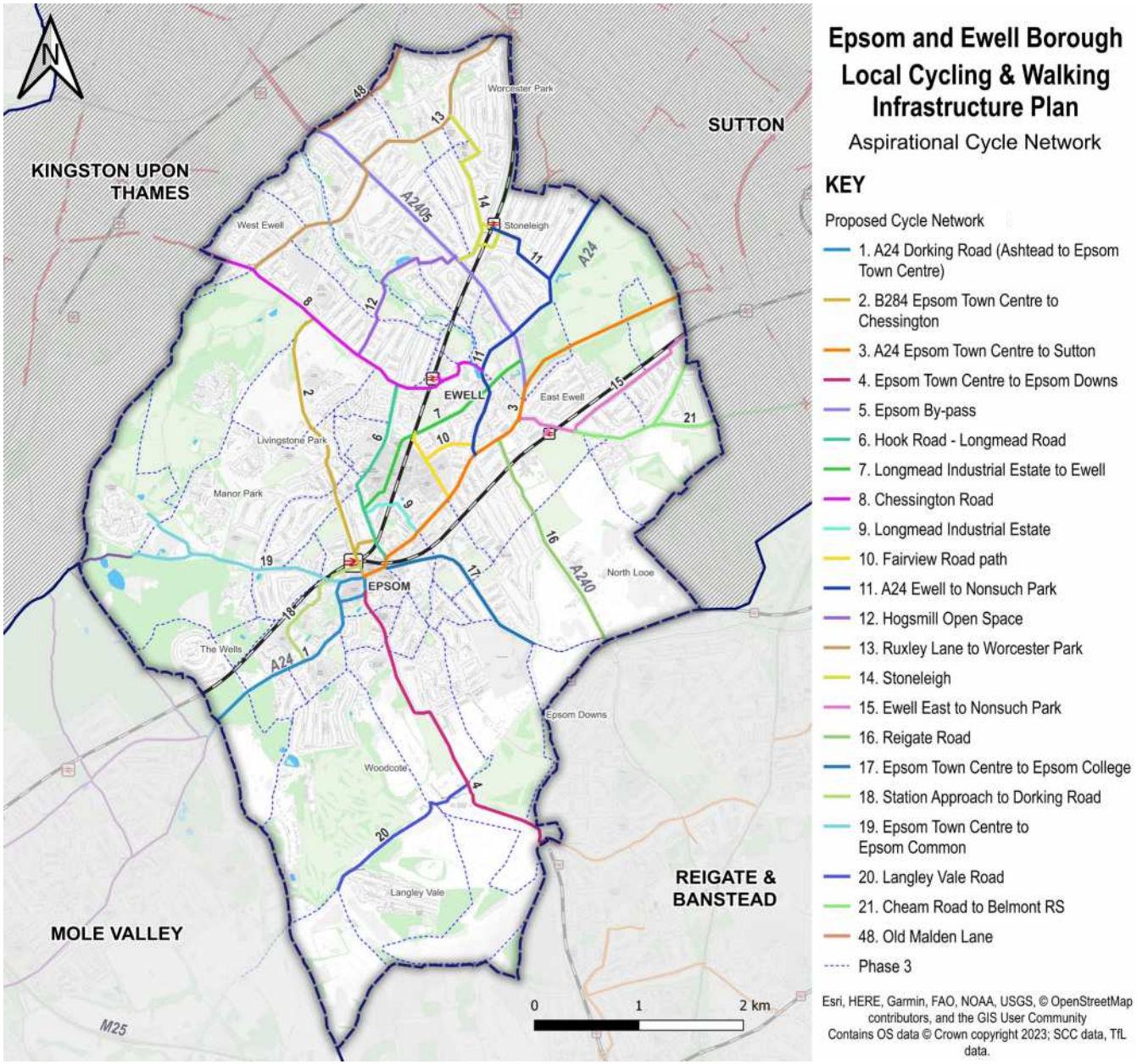


Figure 55. Aspirational cycle network

Table 6 on the following pages lists the Phase 1 and 2 cycle corridors comprising the aspirational list (Phase 3 corridors are excluded). Some of the corridors overlap with existing cycle facilities[5]. The intention for these corridors is to improve the quality to a high and accessible standard. Additionally, information is provided on the key destinations served, connections to other aspirational corridors, PCT commuter flows (go-Dutch scenario), PCT school flows (go-Dutch scenario) and cycle collisions.

5 Existing cycle facilities should be included in the aspirational network as the existing facilities may not reflect the latest best practice for cycle infrastructure design and so not support the aspiration for growth in levels of cycling.

Table 6. Summary of Aspirational Cycle Network (Phase 1 and 2 Corridors)

(ID.) Cycle Corridor	Length (km)	Description
1. A24 Dorking Road (Ashtead to Epsom Town Centre)	2.8	This corridor links Epsom Town Centre to Ashtead at the boundary of Epsom & Ewell and Mole Valley District. The alignment of this corridor includes the Town Centre Gyratory and Dorking Road in the South East of the Borough. Dorking Road, which makes up the majority of this corridor, is a single carriageway road with a mix of residential and semi-rural sections. Near to the Borough boundary, there are shared use footways adjacent to the carriageway. PCT figures highlight a potential cyclist demand of circa 350 daily commuter trips along Dorking Road. 5 collisions resulting in cyclist casualties were recorded in the latest 5-year period.
2. B284 Epsom Town Centre to Chessington	4.4	This corridor extends from the boundary of Epsom & Ewell Borough, between Chessington (in Kingston Upon Thames) to Epsom Town Centre via Chessington Road and Hook Road. This corridor mainly consists of off-carriageway shared use paths along single-carriageway roads (with the exception of a section of dual-carriageway running between Ruxley Lane and Hook Road Roundabout); close to Epsom Town Centre the corridor follows off-street cycle paths adjacent to Court Recreation Ground. This corridor links with corridors suggested in this LCWIP, including CC8 towards Ewell West and CC13. There were 13 collisions which involved cyclists in the latest 5-year period. Sections of Hook Road have a PCT demand in the range from 300 – 450 daily commuter trips, the highest of the network.
3: A24 Epsom Town Centre to Sutton	2.7	This corridor links Epsom Town Centre to the boundary of the Borough with Cheam, in the London Borough of Sutton, providing links to Nonsuch School and Glyn School as well as Nonsuch Park. The alignment consists of a mix of off-road paths within Nonsuch Park, dual carriageway sections along Ewell By-Pass and single carriageway running along Epsom Road and East Street. There is wide shared use paths along East Street which facilitate cyclists travelling into Epsom Town Centre. Epsom Road and East Street have a potential demand of circa 700 daily commuter trips. Along the corridor, a total of 10 cyclist collisions were reported.
4. Epsom Town Centre to Epsom Downs	3.6	This corridor connects Epsom Town Centre to Epsom Downs Racecourse and Tattenham Corner via B290 Ashley Road/Tattenham Corner Road. Ashley Road is single carriageway running with adjacent footway up to Epsom Downs Racecourse. This corridor has a PCT commuter demand circa 120 daily trips. There were two cyclist collisions identified on this corridor in the latest 5-year period.

(ID.) Cycle Corridor	Length (km)	Description
5. Epsom Bypass	4.5	This corridor follows the alignment of the A240 Kingston Road/A24 Ewell By-Pass extending from Tolworth in Kingston upon Thames to the junction with Cheam Road, North of Ewell East station. The corridor intersects with many corridors proposed in this LCWIP including 11, 12, 13 & 14, and linking with corridor 3 and 15 at the southern extent. Cycle Demand is predicted as high as 250 daily commuting users, there were 10 recorded cyclist collisions on this corridor in the last 5-year period.
6. Hook Road - Longmead Road	1.9	This corridor runs from Chessington Road to Epsom Town Centre along Longmead Road and Hook Road, passing Blenheim High School on it. Both roads along this section are single-carriageway residential roads, there is some footway along Longmead Road with wide separation from the Carriageway (C.20m separation). Demand for cycling, according to PCT is in the range of circa200 daily commuters. There were 4 cyclist collisions recorded in the latest 5-year period.
7. Longmead Industrial Estate to Ewell	2.2	This corridor links Ewell and Epsom, passing through the Longmead Industrial Estate, West Street and Church Street. This corridor follows a mix of residential streets, Industrial estate roads and public footpaths, with crossing over the railway to the south of Ewell West Station via an existing footbridge. One serious incident involving a cyclist occurred within Longmead Industrial Estate between 2018-2023.
8. Chessington Road	2.2	This corridor follows the Chessington Road between Ewell West and Bourne Hall Park to the Hook Road Roundabout some 2km West. Chessington Road is a two-way, single carriageway with footways on both sides. There were 8 recorded cyclist collisions between 2018-2023, the corridor has a PCT commuter demand circa 150 cyclists along Chessington Road.
9. Longmead Industrial Estate	0.7	This short corridor provides a link between Hook Road and East Street away from heavily trafficked corridors through the use of a mix of quieter residential streets and footpaths. This corridor uses an underpass to cross the railway. This section provides a connection between Longmead Industrial Estate and East Street, for access into Epsom Town Centre.
10. Fairview Road Path	1.2	This corridor runs along existing cycle corridors backing onto residential roads to the North of Epsom as well as along The Kingsway, a minor residential street. The corridor passes Glyn School and connects to the existing Footbridge by Larby Place. 1 cyclist collision was reported on this corridor. No PCT demand data was available along this section although it provides a valuable link away from main corridors.

(ID.) Cycle Corridor	Length (km)	Description
11. A24 Ewell to Nonsuch Park	2.8	This corridor connects Ewell and Nonsuch Park, running between the Ewell By-Pass, south of Ewell Town, to London Road, north of Nonsuch Park. An additional spur is added on the corridor to provide a connection between Nonsuch Park and Stoneleigh local centre and the railway station. London Road is a single-carriageway main corridor, containing wide footways, while the Broadway in Stoneleigh offers a wide space with frequent on-street parking. PCT identifies a demand for circa 250-300 daily commuter trips along London Road. There were 6 recorded cyclist collisions in the latest 5-year period.
12. Hogsmill Open Space	1.7	This corridor crosses the Hogsmill River, running between the northern extent at Kingston Road to Chessington Road. The corridor contains a mix of residential streets and off-road footpaths connecting Stoneleigh to Ewell as a quiet, low traffic corridor. There were no recorded cyclist collisions along this corridor.
13. Ruxley Lane to Worcester Park	3.8	This corridor follows the length of Ruxley Lane and Salisbury Road from the Southern Extent at the junction with Chessington Road to Worcester Park in Kingston Upon Thames. The North of Ruxley Lane widens to dual-carriageway running, although actual 2-lane operation is often limited due to parked cars. Salisbury Road is a single-carriageway residential street, with access to Auriol Park and Cuddington Primary. Three schools are situated on or close to Ruxley Lane, including Epsom & Ewell High School, West Ewell Primary and Riverview C of E. Cycle demand from PCT shows demand circa 100 daily commuter trips along sections of Ruxley Lane. There were 5 recorded collisions involving a cyclist casualty in the last 5-year period.
14. Stoneleigh	3.0	This corridor contains a number of sections within Stoneleigh Village, linking Salisbury Road and proposed corridor 13 to Stoneleigh Railway Station and Kingston Road (Corridor 5). The corridor uses a mix of low-traffic, residential streets with options to cross the railway at the footbridge at Stoneleigh Station or via the Underpass, circa 200m South of the station.
15. Ewell East to Nonsuch Park	2.1	This corridor connects Ewell East to Nonsuch Park. The corridor follows Queensmead Avenue and Holmwood Avenue which are low-traffic residential streets, passing underneath the railway, using public footpaths and bridleways through Warren Farm and Nonsuch Park. This corridor connects with proposed corridor 3 which follows The Avenue within Nonsuch Park. This corridor has a high potential for school cycle demand where circa 200 daily trips are expected on the corridor adjacent to Nonsuch Park.
16. Reigate Road	2.2	This corridor follows the alignment of Reigate Road between Ewell By-Pass and the Borough boundary with Reigate and Banstead District, near to Epsom Downs Railway Station. Reigate Road is a semi-rural single-carriageway road with footway on one side of the carriageway, separated by grass verge. This corridor passes NESCOT college, situated directly off Reigate Road.

(ID.) Cycle Corridor	Length (km)	Description
17. Epsom Town Centre to Epsom College (via A2022)	1.8	This corridor joins Epsom Town Centre to Epsom College following the alignment of Upper High Street / Alexandra Road. Cycle demand has a potential of circa 150-200 daily commuter trips close to Epsom Town Centre along Upper High Street. The corridor has a potential school cycle demand of 125 daily trips close to the college, there was 1 recorded serious cycle collision along Reigate Road in the period 2018-2023.
18. Station Approach to Dorking Road	1.4	This corridor links Epsom Town Centre and Dorking Road using lower traffic volume residential streets including West Street and Rosebank and White Horse Drive. Between Rosebank and White Horse Drive the corridor utilises the existing off-road cycle path. This corridor passes two schools including Rosebery and St Josephs. This corridor has a high school cycle potential of circa 300 daily trips and no cyclist collisions were recorded in the last 5 years.
19. Epsom Town Centre to Epsom Common	5.1	This corridor extends westbound out of Epsom Town Centre using Epsom and Ashtead Common to reach Malden Rushett. The corridor follows the alignment of Christ Church Road out of Epsom, joining Bridleway 29 through the commons for the western section.
20. Langley Vale Road	1.4	This corridor follows the alignment of Langley Vale Road, North of Epsom Downs to the boundary with Mole Valley District. Langley Vale Road is single carriageway. This corridor is considered semi-rural owing to its location adjacent to the Downs. This section contained a fatal cyclist collision in the last 5-year period. PCT figure suggest a daily commuting demand of ~8 cyclists/day on this corridor.
21. Cheam Road to Belmont Railway Station	4.2	This corridor links East Ewell to Belmont and Nonsuch High School with the eastern extent in Belmont within Greater London and the Borough of Sutton. The corridor alignment is situated primarily on single-carriageway A-roads, with the leg to Belmont additionally utilising off-street cycle paths close to the station.
22. Old Malden Lane	1.2	This corridor is made up of Worcester Park Road and Old Malden Lane, located in the North-East of the Borough, situated on the boundary with Kingston Upon Thames. These roads are single-carriageway, residential roads. Old Malden Lane provides access to facilities to the North in Kingston Upon Thames yet does not contain any footway or cycle provision. This corridor witnessed two cyclist casualty collisions in the past 5 years and was identified to have a PCT demand of 20 daily cycle trips.

Identification of Phase 1 Cycle Corridors

Multi-Criteria Assessment Framework

Once the aspirational cycle network was identified, an assessment of Phase 1 / Phase 2 corridors was undertaken. This utilised both qualitative and quantitative criteria to provide an initial prioritisation of the network and identify a first phase of corridors to progress within the LCWIP for development of high-level proposals for infrastructure improvements.

A multi-criteria assessment framework (MCAF) was developed to identify the Phase 1 ('short list') cycle corridors, utilising various data inputs from the evidence base previously gathered. In combination, the MCAF criteria aim to help identify and prioritise corridors with both a higher relative propensity for cycle trips and corridors with a greater relative potential to benefit from improvements (i.e., areas 'in need' or with lower quality existing cycling environment).

The criteria were categorised in five main groupings:

- **Access -** reflects the number of key destinations along or in close proximity to the corridor (within a 10 minute cycle), to which cycle access would be improved, such as local high streets, railway stations, and schools. A higher number of destinations would indicate a greater propensity for utility cycle trips and therefore a higher score. This criteria had a weighting of 30% in the overall score.
- **Potential Demand -** this is based on the DfT's Propensity to Cycle Tool (PCT) flows and the development sites proposed by the Epsom and Ewell Local Plan. The high aspirational scenarios were used for both schools' flows (Go Dutch scenario) and commuter flows (eBike scenario). A higher score indicates higher potential demand. Additionally, the number of dwellings proposed by the Local Plan was used to estimate the future demand. This had a weighting of 30% in the overall score.
- **Cycle Network -** this includes the centrality of the corridor to the broader cycle network (i.e., how many connections it provides to the rest of the proposed aspirational LCWIP network, equivalent networks developed by SCC, RBK and LBS). It also includes the extent to which a proposed corridor has some form of existing cycle provision (either greenway/bridleway or cycle track, based on SCC Cycle Facilities map data and PRoW information), regardless of the quality. This criterion is intended to give a higher score to corridors which may have minimal existing cycle facilities and therefore may have a greater benefit, rather than improving existing facilities to LTN 1/20 standards. The category also includes the number of collisions involving cyclists per km along the corridor. A higher rate would suggest a greater need or benefit from cycle interventions. This criteria had a weighting of 15% in the overall score.
- **Deliverability -** This criterion aims to characterise the potential feasibility of significant improvements to a corridor, based on cursory, desktop check of potential constraints (e.g., width constraints). Low scores indicate potentially major barriers or constraints to providing high quality cycle facilities. Scoring was based on comments from the workshops and a cursory review via StreetView imagery. As the team has not been to site prior to the exercise, this category has a lower weighting than the others, at 10%.
- **Stakeholder Input -** This criteria considered feedback from the Stage 1 stakeholder workshops, considering comments and the results of a workshop poll. Additionally, comments from 'Surrey LCWIP Commonplace' and 'Widen my Path' platforms were also considered. High scores indicate a relatively high number of issues/comments noted by the public and known support for the corridor. This had a weighting of 15% in the overall score.

Each criterion was scored on a scale from 1 (low) to 3 (high). The total score for each category was also given a weighting in addition to above. The intent of this weighting was to give a higher significance to factors relating to Access and Demand, which utilised more quantitative data and suggest the potential usage of each proposed corridor. A lower weighting was given to qualitative criteria.

The MCAF criteria for the selection of the Phase 1 cycle corridor short list and their weightings are listed in Table 7.

Table 7. Cycling network MCAF criteria

Category	Criterion	Cycle Corridors Rating
Access[1] (30%)	Core walking zones served by corridor[2] within 10 min walk	1 : < 3 CWZs 2 : < 6 CWZs 3 : ≥ 6 CWZs
	Railway Station Access within 400m of cycle corridor	0 : none; 2 : 1 station within 400m of corridor 3 : 2 stations within 400m of corridor
	Number of Schools[3] within 400m of cycle corridor	1 : < 1 2 : < 1.5 3 : ≥ 1.5
Demand [4](30%)	PCT School Flows[5] - Go Dutch scenario	1 : < 300 daily trips 2 : < 600 daily trips 3 : ≥ 300 daily trips
	PCT Commuter Flows[3] - eBike scenario	1 : < 250 daily trips 2 : < 500 daily trips 3 : ≥ 500 daily trips
	Development Areas within 400m	1 : < 250 housing units 2 : < 500 housing units 3 : ≥ 500 housing units
Cycle network (15%)	Contributes to improved cycling network[6]	1 : < 1 2 : < 2 3 : ≥ 2
	% of corridor with existing cycle facility[7]	1 : ≥ 50 2 : < 50% 3 : < 25%
	Pedal cycle collision rate along corridor	1 : < 1.5/km; 2 : < 3/km; 3 : ≥ 3/km (#collisions per km)
Deliverability (10%)	Potential ease of implementation	1 : likely major constraints, such as limited public highway 2 : potential significant constraints, expected interface with complex environments (e.g. Town Centres) 3 : localised constraints and potential for improvements within the existing kerb lines
Stakeholder input (15%)	Public Comments (from Commonplace & Widen my path)	1 : < 15/km 2 : < 30/km 3 : ≥ 30/km (# comments and agreements per km)
	Stakeholder feedback (early engagement workshop 1)	1 : < 2 2 : < 3 3 : ≥ 3

1 Access criteria were assessed using a 10-minute buffer around the Core Walking Zone.
2 Scores the number of the identified CWZs in the aspirational list for walking (see Aspirational list of Core Walking Zones on page 126) served by the corridor.
3 Each corridor is scored depending on the number of schools, weighted depending on the level of education (ages of pupils using the corridor): 30% Primary schools, 50% Secondary schools, 20% Special needs schools for all ages.
4 Population within 10-minute buffer around the Core Walking Zone.
5 The highest recorded number of flows along the corridor on PCT.
6 Number of links to other segments of proposed LCWIP network, including Phase 3 cycle corridors of the proposed Epsom and Ewell LCWIP, and the aspirational networks for Mole Valley, Reigate and Banstead, London Borough of Sutton and Royal Borough of Kingston.
7 Intended to give a higher score to corridors without existing cycle facilities, regardless of quality of provision; based on SCC Cycle Facilities mapping and facilities designated as 'greenway' or 'cycle track', and Public Rights of Way designated as 'bridleways'.

Phase 1 Cycle Corridors

The MCAF outlined in the methodology above was applied to the aspirational cycle network. Using the criteria, the following short-list of cycle corridors was identified and agreed with the project steering group[1,2] listed in numbering order (the MCAF scoring and output is provided in Appendix 1: Multi-Criteria Assessment Framework (MCAF) for reference):

- **1. A24 Dorking Road (Ashtead to Epsom Town Centre)**
- **3: A24 Epsom Town Centre to Sutton**
- **4. Epsom Town Centre to Epsom Downs**
- **6. Hook Road - Longmead Road**
- **8. Chessington Road**
- **11. A24 Ewell to Nonsuch Park and Stoneleigh link**

The highest ranked cycle corridors in the Borough are concentrated in the main conurbation areas as there is a higher concentration of key destinations and a denser urban environment which generates higher potential flows.

The six Phase 1 cycle corridors were advanced through the remainder of the Epsom and Ewell LCWIP activities, including review of existing conditions and development of high-level proposals for infrastructure improvements.

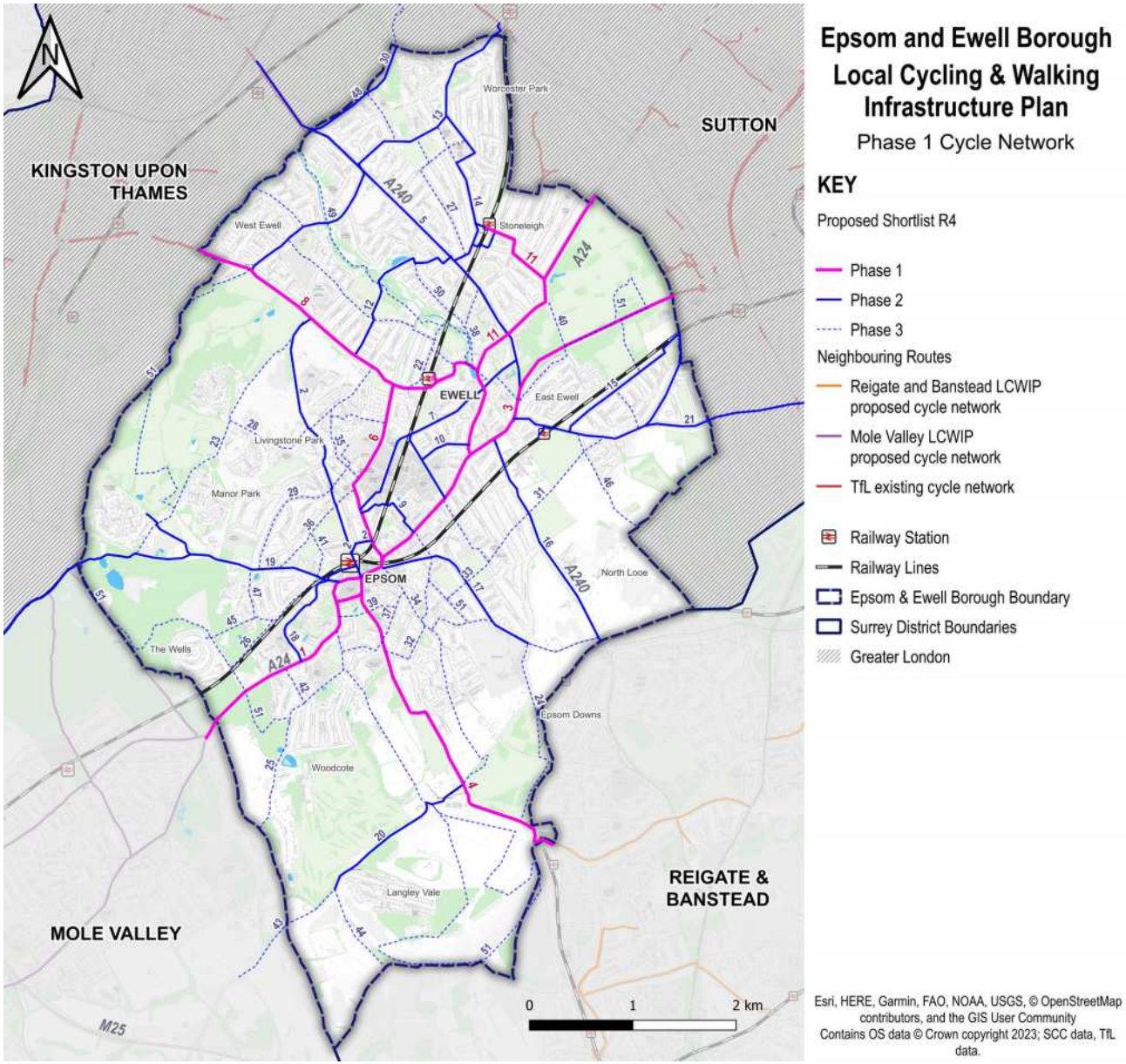


Figure 56. Phase 1 and 2 Cycle Corridors

1 It was agreed with SCC and EEBC that six cycle corridors are be prioritised for the next steps of the LCWIP.

2 Two cycle corridors (#2 and #5) scored high in the MCAF however it was agreed to excluded them as they have existing infrastructure and due to feasibility concerns. See Appendix 1: Multi-Criteria Assessment Framework (MCAF) on page 184 for further details.

Cycle Corridor Audits

Once the Phase 1 corridors were identified, they were assessed using the DfT's Route Selection Tool (RST)[3]. The assessment provided a baseline for existing conditions and helped identify existing deficiencies and key issues in the area. The results are presented in Assessment of Proposals on page 118.The corridors were also cycled in January 2024 to observe the existing condition and review potential opportunities and constraints.

Figure 57. Off road path on Longmead Road

3 The RST is a framework for providing a high level assessment of a cycle corridor, covering the key parameters of directness, gradient, safety, connectivity, and comfort.

Figure 58. The Broadway in Stoneleigh

6. Cycle Network Proposals

Design Tools / Best Practice Examples

Phase 1 Proposed Cycling Interventions

Assessment of Proposals

Design Tools / Best Practice Examples

Introduction

This chapter outlines potential infrastructure measures to enhance the Phase 1 corridors identified in the previous chapter. The following sections summarise design guidance considered during development of the proposed infrastructure improvements for cycling.

Core Design Principles

Potential improvements for cycling were developed following a set of desired core design principles, informed by LTN 1/20[1]. These have been identified to make cycling more attractive and encourage more users to make journeys within the Borough by cycle.

Directness

Cycle corridors which serve key origins and destinations directly - and preferably more direct than the route a private motor vehicle would take.

Comfort

Cycle corridors that are comfortable to use with a surfacing that is smooth, minimal stopping and starting, avoiding steep gradients, and a width that supports the expected volume of cyclists whilst also considering other road users.

Safety

Cycle infrastructure must be safe, but should also be perceived as safe so that more people feel able to cycle.

Coherence

Cycle networks should be planned and implemented to enable users to reach their desired destinations easily, should be easy to navigate and be of a consistent high quality.

Attractiveness

Cycle corridors should provide an environment that is welcoming for users so that cycling can be an enjoyable activity and contribute to public realm enhancements.

Accessibility and Inclusive Design

Facilities for cycling should provide equal access for disabled people and ensure that streets meet the requirements for all users. "*Infrastructure must be accessible to all and the needs of vulnerable pedestrians and local people must be considered early in the process to ensure schemes are supported locally in the long term, ensuring the design of infrastructure is accessible to all.*" (LTN 1/20).

1 Local Transport Note 1/20 (DfT 2020), section 1.5

Guiding Principles

To facilitate these cycling improvements they should consider several general principles, which can be applied throughout Epsom and Ewell. Examples of infrastructures that support these principles are shown below.

» **Cycle facility typology** - The type of cycle facility appropriate for a given street is highly dependent on its context, including vehicle flows and speeds, carriageway space, surrounding development, and general character. However, selection of an appropriate cycle facility should follow the cycle design principles of segregation from traffic or low traffic speeds/volumes. See Figure 59 from LTN 1/20 providing the guidance for suitability of the facilities depending on the vehicular flows and speeds on the road network.

» **Shared use facilities should generally be avoided**[2] - On urban streets, cyclists should be physically separated from pedestrians and should not share space with pedestrians. Conversion of existing footways to shared use should only be considered when options that reallocate carriageway or other (e.g. verge) space have been rejected as unworkable. Shared use may be considered in some contexts, such as along interurban and arterial roads where pedestrian flows are low, at and around junctions where cyclists are generally moving at a slow speed, where a length of shared use may be acceptable to maintain continuity of a cycle route, or where high cycle and high pedestrian flows occur at different times of day.

» **Access to schools** - Safe cycle corridors are essential to encourage more children to cycle to school. Several primary cycle corridors seek to accomplish this, while additional secondary corridors may be developed in future.

» **Lower traffic speeds** - High vehicle speeds reduce comfort and safety for people cycling. Motor vehicle speeds of 20mph or lower are preferred to minimise speed differential with people cycling. Design elements such as vertical deflection (e.g. raised tables/raised junctions) or horizontal deflection (e.g. kerb build-outs, tight kerb radii, priority working) may be used, to support the desired vehicle speeds and create an environment where the speed limit is self-regulating. Traffic calming measures should also consider design elements to mitigate impacts on people cycling,

» **Reduce motor vehicle flows** - Strategies to reduce motor vehicle flows (e.g. local access only restrictions, time restrictions, or modal filters) should be considered on cycle corridors where segregation is not feasible and create a more attractive cycle corridor.

» **Junction and crossing improvements** - Improvements should seek to enhance priority and visibility for people cycling at junctions, improving safety and continuity of the cycle corridor. At uncontrolled junctions and side road crossings, improvements should seek to reduce motor vehicle speeds (e.g., tighten junctions, reduce bellmouth at side roads, and/or increase vehicle deflection at roundabouts).

Figure 4.1: Appropriate protection from motor traffic on highways

Speed Limit[1]	Motor Traffic Flow (pcu/24 hour)[2]	Protected Space for Cycling			Cycle Lane (mandatory/ advisory)	Mixed Traffic
		Fully Kerbed Cycle Track	Stepped Cycle Track	Light Segregation		
20 mph[3]	0					
	2000					
	4000					
	6000+					
30 mph	0					
	2000					
	4000					
	6000+					
40 mph	Any					
50+ mph	Any					

Provision suitable for most people

Provision not suitable for all people and will exclude some potential users and/or have safety concerns

Provision suitable for few people and will exclude most potential users and/or have safety concerns

Notes:
1. If the 85th percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow
3. In rural areas achieving speeds of 20mph may be difficult, and so shared routes with speeds of up to 30mph will be generally acceptable with motor vehicle flows of up to 1,000 pcu per day

Figure 59. Appropriate protection from motor vehicles for cycle facilities, LTN 1/20 (DfT 2020)

2 Shared use facilities are generally not favoured by either pedestrians or cyclists, particularly when flows are high. It can create particular difficulties for visually impaired people. Actual conflict may be rare, but the interactions between people moving at different speeds can be perceived to be unsafe and inaccessible, particularly by vulnerable pedestrians. This adversely affects the comfort of both types of user, as well as directness for the cyclist.(LTN 1/20, section 6.5)

- **Review on-street parking** - On-street parking provisions can create potential conflict points between people cycling and motor vehicles, particularly where there is a high parking turnover. Conflicts can arise from either vehicles entering/leaving a parking space, or opening of vehicle doors, or when parking obstructs visibility. Reducing parking could free carriageway space to be reallocated for active uses, such as improvements for people walking, wheeling, or cycling. Where parking is retained, providing parking on raised pads can provide wider, more flexible footway space and encourage slower speeds by reducing the carriageway width. To inform further design development, parking surveys would be undertaken to estimate the demand for parking and consider the need for alternative parking locations.
- **Wayfinding** - Good sight lines and visibility of destinations and of cycle corridors are important elements that affect how easy a corridor is to navigate, how many people cycling use the corridor, and perceived personal security. Wayfinding signage should be used to aid navigation and encourage use of the designated corridors. Appropriate signage can improve confidence in using the corridor and encourage more cycling trips, particularly for those unfamiliar with the area. Signage that includes a distance and estimated travel time can also help avoid overestimating the time it takes to make a trip by cycle, encouraging increased cycle use for short journeys. A consistent wayfinding system should be applied on cycle corridors throughout the county.
- **Secure cycle parking** - Offer a variety of cycle parking to improve convenience and security, including parking facilities for non-standard cycles, such as cargo bikes or bikes with trailers.
- **Green buffers -** Where possible, provide green buffers between motor vehicle traffic and people cycling and walking. This increases safety and comfort, and provides opportunities for planting or sustainable drainage systems (SuDs). Minimum width of the buffer is dependent on traffic speeds, as per LTN 1/20. (Refer to Share Use Path image on the following page).
- **Context sensitive design** - Improvements should complement and enhance the character of urban and rural environments. The high-level proposals for infrastructure improvements developed in the LCWIP should be suitable for the setting, and design guidance should be adapted to fit the local context and space constraints. Particular attention should be paid to the treatment of heritage assets.
- **Adaptability** - Improvements should be developed to accommodate all types of users, and potential growth in the numbers of people cycling.
- **Compete with motor vehicle journey times.** By considering the alignment of the corridor and the nature of the interventions it can help to promote the mode of travel as an equal to motorised modes.
- **Continuity of typology.** Cycle routes should be continuous and coherent. Frequent change of cycling infrastructure typology can cause delay to travel and discourage potential users who are not willing to switch between multiple infrastructure types.
- **Design Guidance** - As proposed cycle improvements are advanced, design stages should utilise the latest best practice design guidance and standards available at the time, such as:
  - Cycle Infrastructure Design (LTN 1/20).
  - Manual for Streets (DfT) / Manual for Streets 2 (Chartered Institution of Highways & Transportation)[3].
  - Inclusive Mobility (DfT).
  - Healthy Streets for Surrey.
  - ATE Scheme Review tools.

The following pages provide examples of types of cycle infrastructure facilities[4] that could be considered in the Epsom and Ewell LCWIP proposals, as referenced in next section.

3 Updated Manual for Streets anticipated in late 2024.
4 All photos copyrighted to AtkinsRéalis.

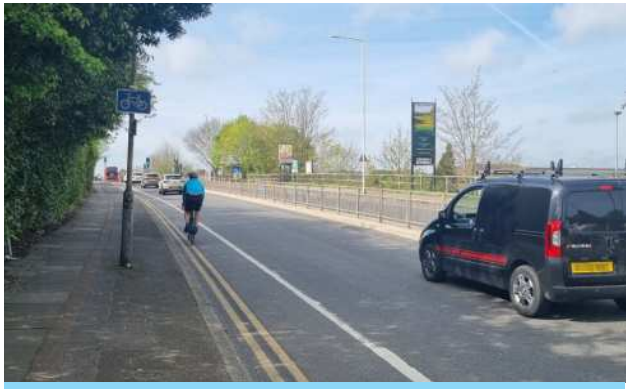
Example Infrastructure - Cycling

Segregated Cycle Lane / Cycle Track
Provides raised, physical separation between people cycling and motor vehicles, providing a more comfortable, more attractive, and safer facility for people cycling of all ages and abilities. A segregated cycle track can be one-way or two-way and can be used to accommodate contraflow cycling on one-way streets. Side road treatments are required to provide continuity of the facility and priority at junctions

Off-carriageway Cycle Track
Motorised-traffic free corridors away from the highway can form important links for everyday trips. They are attractive to those who prefer to avoid traffic and can provide more direct corridor options than the road network. They need to be designed and maintained to a high quality, particularly in terms of surfacing, accessibility, clearance of vegetation, and lighting. Segregation between pedestrians and cyclists is preferred where feasible.

Shared Use Path
Provides an off-carriageway facility shared with people walking and wheeling. While segregated from motor vehicles, conflicts between people walking, wheeling and cycling may arise, depending on the relative flows of each. If space allows, light segregation may be considered to encourage separation of people walking and cycling (e.g., raised trapezoidal strip). Side road treatments are required to provide continuity of the facility and priority at junctions.

Lightly Segregated Cycle Lane
Provides some physical barrier from motor vehicles to improve comfort for people cycling. May be applicable where space constraints limit segregation options. Types of segregation could include kerbing, bollards (as shown above), planters, or armadillo humps / orcas. Side road treatments are required to provide continuity of the facility and priority at junctions.

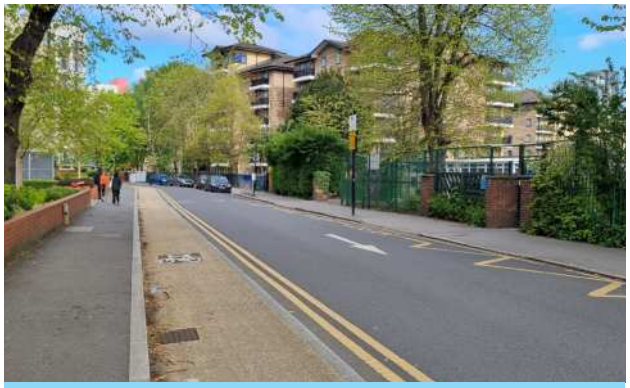


Mandatory Cycle Lane
Provides a dedicated space for people cycling within the carriageway, separated by road markings only. Motor vehicles are not permitted to enter the cycle lane.

Advisory Cycle Lane
Delineates an area intended for cyclists within the carriageway where the street is too narrow to accommodate dedicated cycle facilities. Advisory lanes should only be used when limitations on the overall space available mean that motor vehicles will sometimes need to enter the cycle lane.

Example Infrastructure - Cycling

'Dutch-Style' Cycle Street Facilities
Seeks to prioritise people cycling over motor vehicles. Elements may include advisory cycle lanes to delineate space for people cycling, 20mph speed limit, and removal of the centre line to narrow the apparent space for motorists and prioritise the outside of the carriageway for people cycling. The design elements should make it understood that the streets are principally for cycling.



Contraflow Cycle Lane
Improves the convenience, directness, and attractiveness of cycling by accommodating contraflow cycling on one-way streets, shortening cycle trips and improving cycle access. Contraflow cycle lanes may be segregated or non-segregated, depending on context and available width.

Side Road Entry Treatment
Encourages motorists to reduce speeds, indicates pedestrian and cycle activity, and encourages driver compliance with the (updated) Highway Code. Also enhances priority for people walking, wheeling and cycling and makes the side road crossing easier and more convenient for people by maintaining the continuity of the corridor at footway level.

Quiet Mixed Traffic Street / Quietway
Where traffic flows are light and speeds are low, people cycling are likely to be able to cycle on-carriageway without segregation. Traffic calming and/or traffic management measures may be required to reduce traffic speeds and/or flows to provide appropriate conditions for an inclusive and attractive facility.

Pedestrian/Cycle Priority Street
Reduces vehicle dominance of the street and prioritises people walking, wheeling and cycling. Elements may include restricted motor vehicle access, materials/ markings to delineate space for different users, low traffic speeds, or features of a shared space environment.

Cycle Parking
Cycle parking is an essential component of cycle infrastructure. Sufficient capacity, convenient, and secure cycle parking enables people to choose cycling. Proximity to destinations and security concerns can be a factor. Design should consider access for all types of cycles and their passengers.

Example Infrastructure - Cycling

Parallel Crossing
Provides priority for people walking, wheeling, and cycling at a crossing location, minimising the delay for people cycling, improving the directness of the corridor, maintaining separation from pedestrians, and connecting off-carriageway cycle facilities.

Toucan Crossing
Provides a controlled crossing for people walking, wheeling and cycling, improving user comfort and safety, reducing delay at busy streets where there are limited gaps in traffic, and connecting off-carriageway shared use facilities.

Signal-Controlled Cycle Crossing / CYCLOPs Junction
Provides a controlled crossing, segregating cyclists from pedestrians as well as motor vehicles. A 'cycle optimised protected signals' ('CYCLOPS') junction separates people walking, cycling and wheeling from motor vehicles, reducing the risk of conflict between users.

Cycle Wayfinding
Improves the coherence of the cycle network, making it easier for people to navigate and encouraging more trips to be taken by cycle. Signage can also include indicative journey lengths or times. A consistent system should be applied county-wide.

Bus Stop Bypass
Provides a continuous cycle facility around a bus stop, maintaining separation from the carriageway. The island should be wide enough to accommodate the bus stop and people waiting, boarding, and alighting. Pedestrian crossing points should be controlled if cycle traffic speed and flows are high.

Bus Gate
A type of modal filter that allows buses (and /or other vehicles) to move through a road section but prohibits other motor vehicle traffic. It usually permits cycling and operates with ANPR cameras to enforce the access restrictions. Restrictions may be enforced during specific days or times of the day to reduce traffic volumes.

Example Infrastructure - Cycling

Local Street Improvement area
Residential (primarily) areas with features that increase the comfort, safety and accessibility of walking, wheeling and cycling; create space for community facilities; and reduce the dominance of cars resulting in improved safety, air quality and noise pollution to encourage more walking, cycling and social interactions.

Modal Filter
Supports a safer, more attractive environment for walking, wheeling and cycling by reducing motor vehicle traffic and permitting more direct, convenient access by foot or by cycle. Temporary or permanent highway features that may permit access by certain vehicles (e.g., emergency vehicles, buses, blue badge holders).

School Street
Implements timed vehicle access restrictions during school arrival/dismissal times to encourage more pupils to walk and cycle to school and improve the safety, comfort, and attractiveness of these modes. School streets may be configured to permit access by certain vehicles.

Lower Traffic Speeds
Improves safety for all road users and fosters a more comfortable environment for walking, wheeling and cycling. Should be supported by traffic calming measures, as needed, to make the speed limit self-enforcing. An area-wide policy could be considered rather than on a street by street basis.

Phase 1 Proposed Cycling Interventions

Introduction

The following sections present potential high-level interventions to enhance the Phase 1 cycle corridors. The proposed measures are high level and indicate potential interventions for consideration in the next stage of scheme development. They seek to address issues identified during the audit activities, as well as to incorporate proposals from previous studies and comments from early stakeholder engagement.

Indicative potential interventions

The potential interventions for cycling seek to follow DfT's LTN 1/20 design guidance[1]. The overall aim of the LCWIP is to provide a coherent, direct, safe, comfortable, attractive and inclusive cycle network, as outlined in the LTN 1/20 design principles and DfT's Inclusive Mobility guidance[2].

To support LTN 1/20 design principles, examples of considerations in identifying the network and potential infrastructure measures included improved access to schools, retail areas, and other key destinations; potential for segregation from other road users; lower traffic speeds and/or measures to reduce vehicular flows through sensitive areas; opportunities to reallocate road space for pedestrians and cyclists; and junction and crossing improvements. Finally, cycle infrastructure should be inclusive and accessible to everyone, regardless of ability.

The proposed interventions indicate initial suggestions as to the type of cycle infrastructure which may be required. All proposed interventions seek to address issues and deficiencies identified during the audit activities, incorporate comments and issues noted during early stakeholder engagement (workshop #2), as well as to incorporate proposals from previous studies.

Next steps for further development

At this early stage of development of proposals, the interventions for cycling are intended to identify preferred facility typologies, and needs for crossing or junction improvements. All the proposed interventions are subject to further assessment during feasibility planning and design, such as topographic survey, traffic modelling, vehicle swept path analysis, utility survey, availability of land, traffic/speed survey[3], further stakeholder input, ecology survey, as applicable.

Next stages of scheme development would develop the proposals in greater detail and during which further observations, data, and information would be obtained to continually refine and improve the initial proposals.

Audits of the cycle corridors and potential interventions (e.g., Cycling Level of Service, or Active Travel England (ATE) tools) are suggested in future stages to better understand the existing conditions, issues, and constraints and the improvements which are required.

All proposed measures would require further stakeholder engagement in the future stages of design, following further analysis to estimate the impact of the proposals. Wider consultation would also be part of further scheme development.

Some of the desirable locations for active travel improvements may be privately owned and not within SCC's publicly maintained roads. As such, collaborative working with the respective owners would be required to explore opportunities to improve conditions for active travel.

Additionally, consideration should be given during subsequent development phases to review and coordinate future opportunities for integration with other schemes, workstreams or active travel improvements, including those identified within the aspirational LCWIP networks for walking and/or cycling.

1 Department for Transport, Cycle Infrastructure Design (LTN 1/20), section 1.5

2 Department for Transport, Inclusive Mobility, section 1.5.

3 Traffic and speed surveys are required in the future stages of the design to determine if the typology identified for the cycle corridors is suitable for most users (as per LTN 1/20). Additionally pedestrian flow surveys are required to determine the need for segregation between pedestrians and cyclists.

Section outline

The interventions are presented by cycle corridor on the following pages. While these proposals are focused on the Phase 1 corridors, they also provide examples of the types of interventions that can be implemented Borough-wide as needs or opportunities arise.

The Epsom Town Centre gyratory is identified as one of the key priorities for the Borough, as four Phase 1 cycling corridors link to the gyratory. Proposals along the gyratory are presented as a separate section due to the significant constraints in the area and need for a holistic, multi-modal review of opportunities in the Town Centre alongside other workstreams (e.g., Epsom Town Centre Masterplan).

Cycle Network Typology

The proposed cycle facility typologies for the selected for Phase 1 corridors are illustrated in Figure 60 and the list below:

- G. Epsom Town Centre Gyratory options[1].
- 1. A24 Dorking Road (Ashtead to Epsom Town Centre).
- 3. A24 Epsom Town Centre to Sutton.
- 4. Epsom Town Centre to Epsom Downs.
- 6. Hook Road - Longmead Road.
- 8. Chessington Road.
- 11. A24 Ewell to Nonsuch Park and Stoneleigh link.

The proposed facilities reflect the design principles, local aspirations for cycling, and anticipated potential constraints along each route at this initial stage of network planning.

Future design development stages would be required to review constraints and cycle facility options in more detail. The proposed cycle network comprises a mix of facility typologies, indicative of the varying facility contexts and constraints across the Borough. It includes, for example, sections of segregated cycle facilities where there is potential to reallocate space within the public highway or during future developments. In significantly constrained areas.

It includes proposals to improve cycling with mixed traffic, reducing traffic speeds[2], providing advisory cycle lanes, restricting motor vehicle access, tightening side road junctions, providing cycle markings, redesigning streets to enhance cycle and pedestrian priority or by providing alternative route alignments.

In addition to the proposed typologies for cycle interventions there are a number of interventions that are applicable to most routes (as wide-area measures) and are summarised below:

- Introduce 20mph zones with additional improvements for crossings at junctions and further traffic calming measures; to be reviewed in the next stages of design following speed surveys.
- Review and update area-wide wayfinding system. Consider measures such as wayfinding totems at key locations (e.g., railway stations, High Street/town/village centre) to help cyclists (as well as pedestrians) navigate the area, illustrate the locations of local destinations and potential routes between them.
- As part of footway and public realm improvements, consider opportunities to integrate secure cycle parking near local destinations.
- Consider a network of mobility hubs across the area to encourage uptake of active travel modes and support place-making.

1 Each section of the Epsom Gyratory is part of an individual scheme. As previously mentioned, since the gyratory shares specific issues and constraints, options for this area are shown as a whole.

2 Additional measures to support speed limit changes would be investigated in the future stages of scheme development, as necessary, such as traffic calming measures, camera enforcement, reduction of carriageway width, etc..

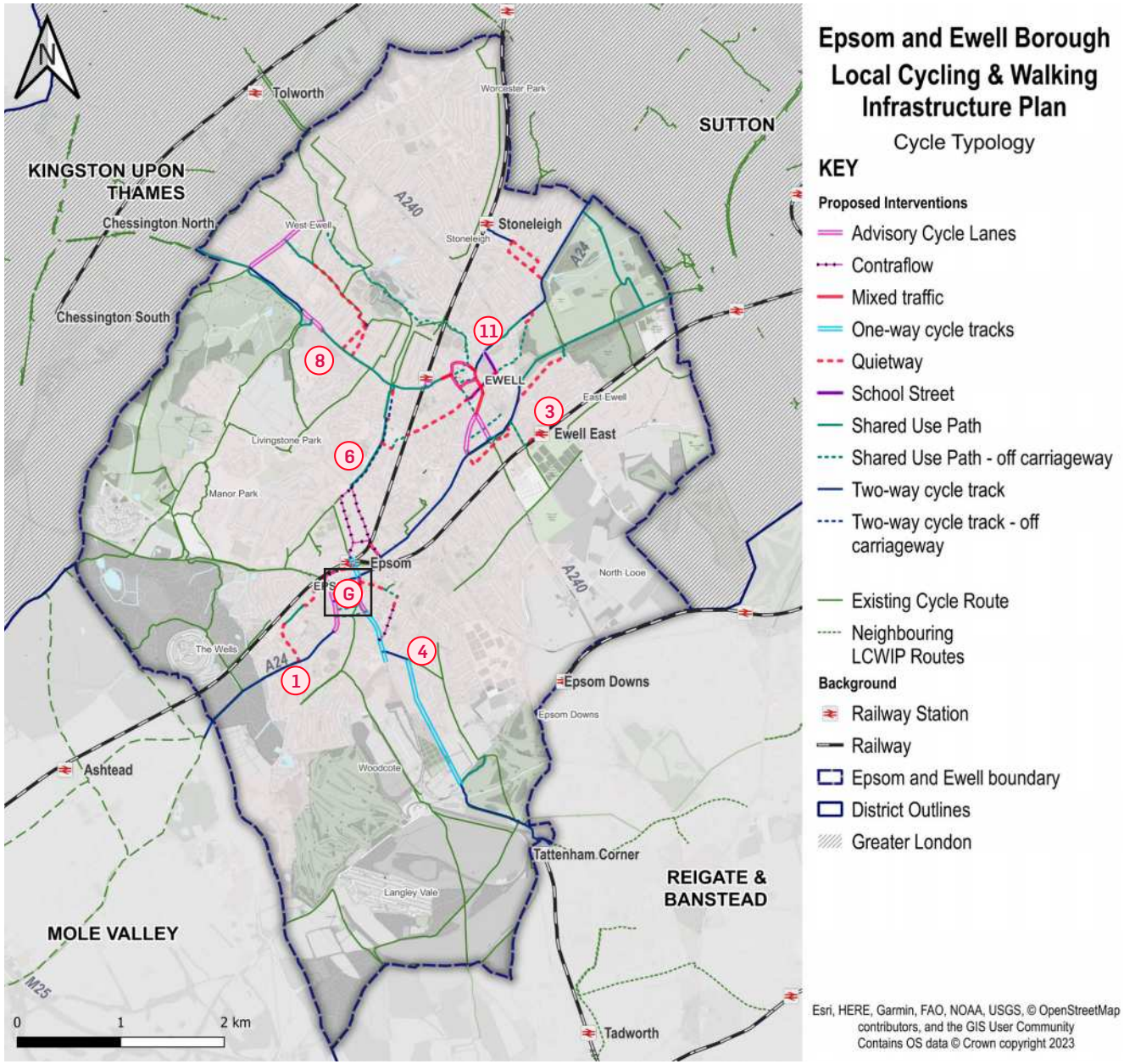


Figure 60. Network map of proposed Phase 1 cycle typologies, with cycle corridor numbers in red.

G. Central Cycle Corridor: Gyratory

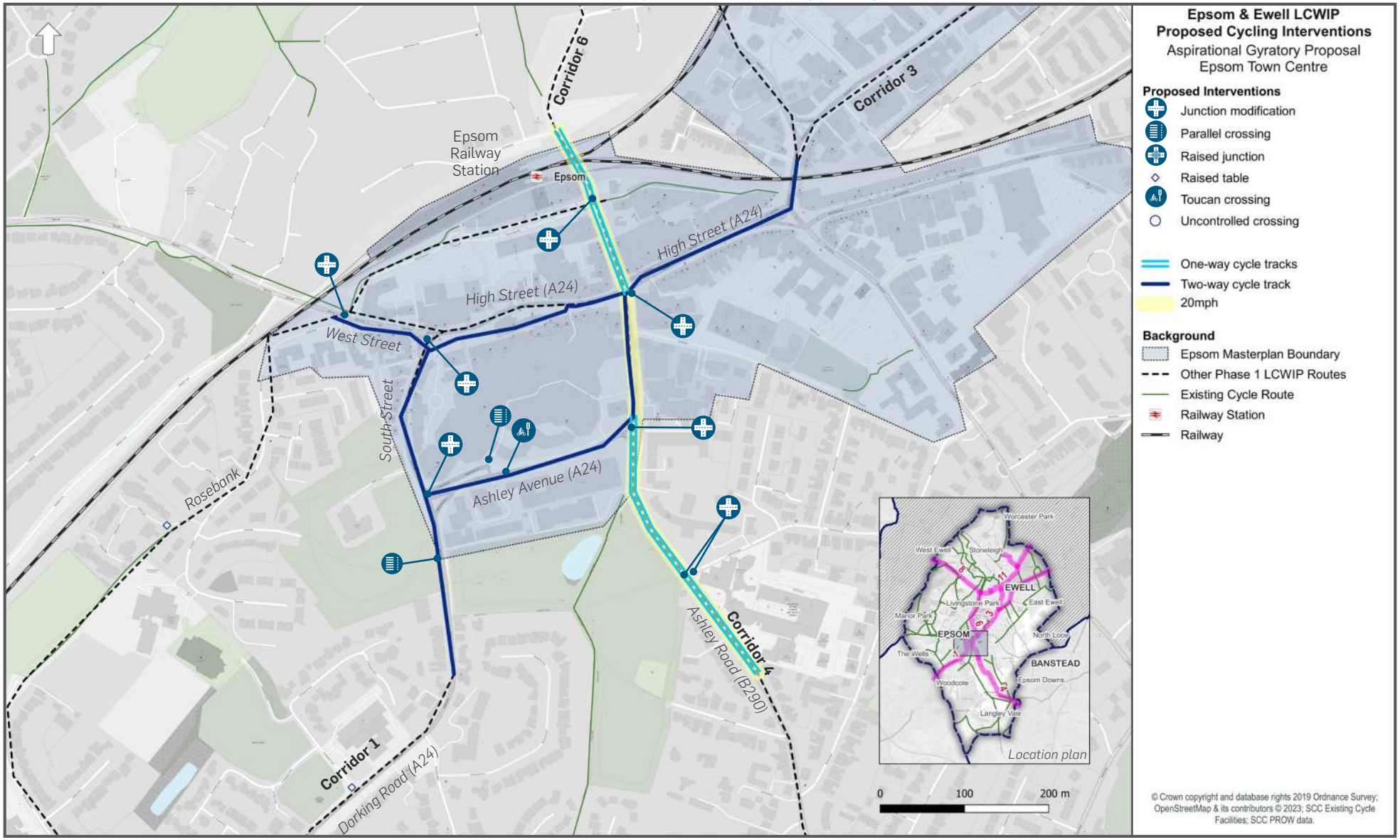


Figure 61. G. Central Cycle Corridor: Epsom Town Centre Gyratory, Aspirational Proposal

G. Central Cycle Corridor: Gyratory

The corridor provides a connection between the main LCWIP cycle corridors in Epsom Town Centre, and consists of key sections of the A24, which has a strategic importance for the general traffic. The corridor serves one railway station, bus interchange, the Town Centre, and leisure, retail, and employment areas.

Promoting and prioritising active travel in and around Epsom Town Centre is one of the aims of this LCWIP. However, the gyratory system presents a significant barrier in achieving these aims due to space constraints in its eastern and western arms, and a lack of usable alternatives for cycling.[1]

For cycling the interventions that could improve the provision for safe facilities would have a significant impact to vehicular flows. Therefore active travel improvements to the gyratory and its immediate approach roads would likely require a holistic, multi-modal movement strategy, also incorporating aspirations of the Epsom Town Centre Master Plan.

There is an aspiration to provide consistent and comprehensive cycling infrastructure in and around the gyratory. This would remove the severance that the gyratory currently creates for active modes.

The aspirational option, shown in Figure 61, seeks to introduce a more transformational approach to Epsom Town Centre, where traffic domination is significantly reduced, and the transport hierarchy is implemented, with pedestrians and cyclists given priority.

Through carriageway space reallocation, dedicated and protected cyclist infrastructure is delivered on three sides of the gyratory. The typology recommended is of two-way cycle tracks using one existing vehicular traffic lane[2].

The gyratory is of strategic importance for movement in the Borough, and further investigation would be required on the impacts of reduced vehicular capacity along the A24, B290 and B280 further away from the Town Centre.

Additionally, alternative alignments to the gyratory sections are described in the individual corridor sections.

Until the recommended multimodal strategy is being considered, a limited impact proposal for the gyratory and the approaches has been discussed with SCC and EEBC. The proposals are described in the Appendix 2: G. Central Cycle Corridor: Gyratory, limited intervention option on page 187.

Figure 62. Ashley Road is a key access route for all modes.

1 There are significant highway constraints at sections of the gyratory, which alongside the high vehicular flows create a hostile environment for active travel.

2 Proposed segregated cycle facilities on Ashley Road should be considered for the continuity of the typology through the gyratory. Footway widening (as part of the CWZ 11 & 12) should be investigated alongside the proposed cycle facilities to accommodate people walking and wheeling. However, at the pinch point along Ashley Road widening is not likely feasible due to space constraints. Aspirational proposals may be considered including land take to ensure walking, wheeling and cycling are improved.

Cycle Corridor 1: Ashtead to Epsom Town Centre

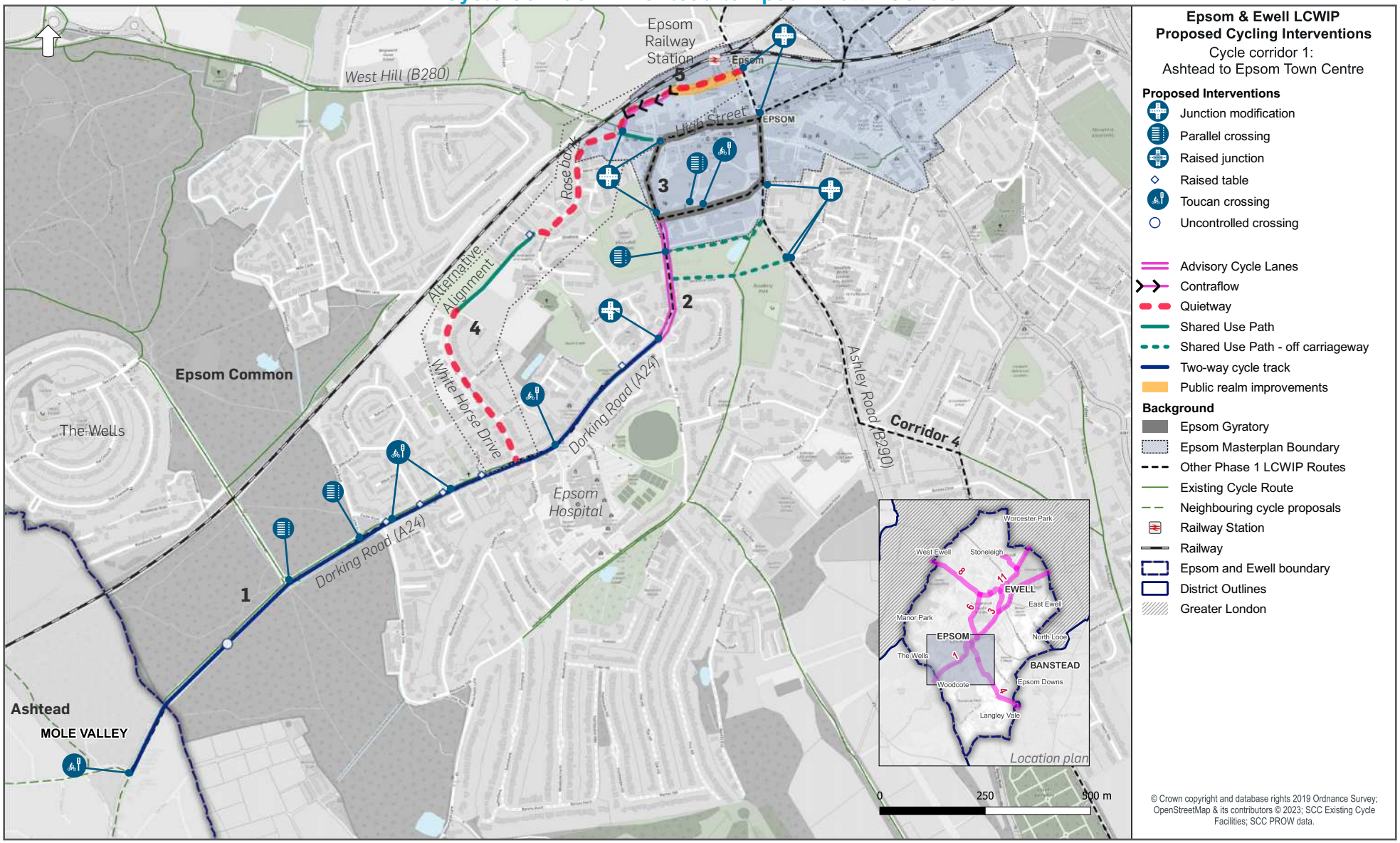


Figure 63. Cycle Corridor 1 : Ashtead to Epsom Town Centre

Cycle Corridor 1: Ashtead to Epsom Town Centre

The corridor provides a connection between Ashtead in Mole Valley, Epsom Town Centre and Epsom Railway Station via the A24 and through an alternative alignment.

The corridor serves one railway station, the Town Centre, Epsom Hospital, and residential areas. The proposed interventions aim to improve the east-west connection within the Borough with an upgrade the existing facilities, and improve access on the Epsom Gyratory. [1]

Indicative Proposed Interventions[2]

1 A24 - Dorking Road: The intervention consists of a two-way cycle track on the northern side of the carriageway. The facility typology is proposed to be either a stepped track or kerb segregation from pedestrians and motor vehicles. The facility would be supplemented by side road priority through raised tables, keeping the cycle track level throughout its length. On busier side roads, such as Wells Road and Castle Street, parallel crossings are proposed to enable active travel priority. Additional improvements in this area include crossing facilities being provided at least every 400m to meet ATE design guidelines, and the rearrangement of bus lay-bys to accommodate the cycle track, potentially relocating existing bus stands.

2 A24 - South Street: The eastern section of Corridor 1, along South Street, is highly constrained due to limited available highway width. This is consistent with the rest of Epsom Gyratory (described in page 103), which is a challenging area. Due to pedestrian improvements, minimal intervention is proposed at this stage. These include advisory lanes through the reduction of lane width, which may not be compliant with ATE / LTN 1/20 guidance due to the high traffic flows in the gyratory.[3] In this section of the route improved crossing provision to connect to off-carriageway routes east of South Street is proposed. An alternative connection is also recommended via a quietway along White Horse Drive (see Intervention 4).

3 A24 - South Street: Interventions for this section are described in page 103, as part of the wider gyratory recommendations.

4 Alternative alignment through White Horse Drive and Rosebank: The alternative from Dorking Road to Epsom Town Centre runs through White Horse Drive, a residential street where vehicle flows and speed are assumed to be low. In this location, a quietway is proposed, linking to an existing shared use path that emerges onto Rosebank. The path may be widened based on forecast pedestrian and cyclist demand. On Rosebank, a raised table is proposed where cyclists on the shared use path rejoin the carriageway. This would provide a greater level of priority for cyclists, and to act as a traffic calming element. It is also recommended that Rosebank connection to West Street is enhanced with signalisation at the West Street/Station Approach junction.

5 Station Approach: provision of contraflow cycling westbound on Station Approach. Cycles would be mixed with traffic in the eastbound direction. Proposals also include urban realm improvements in the station area and removal of guard railing.

Additional interventions along the proposed corridor include wayfinding posts at key junctions and key destinations, secure cycle parking at Epsom Railway Station, and near schools, commercial areas and employment sites.

Figure 64. Existing shared use path between White Horse Drive and Rosebank.

1 See also LCWIP Core Walking Zones 11 & 12: Epsom Town Centre (North & South) proposals for the eastern sections of this area, and Central Corridor - Gyratory for Epsom Town Centre. An alternative alignments (1b) for the eastern section is proposed along the corridor.

2 Sustrans undertook an audit of the corridor to benchmark, identify potential improvement measures and quality assure against AtkinsRéalis own quality assurance process (see Appendix 7: Sustrans Cycle Corridor 5 Review on page 214).

3 ATE criteria allows for advisory facilities under certain conditions. At this stage, it is unclear whether these criteria would be met as peak hour vehicle flows have been estimated at 500-1000 from previous years' traffic surveys.

Cycle Corridor 3: A24 Epsom Town Centre to Sutton

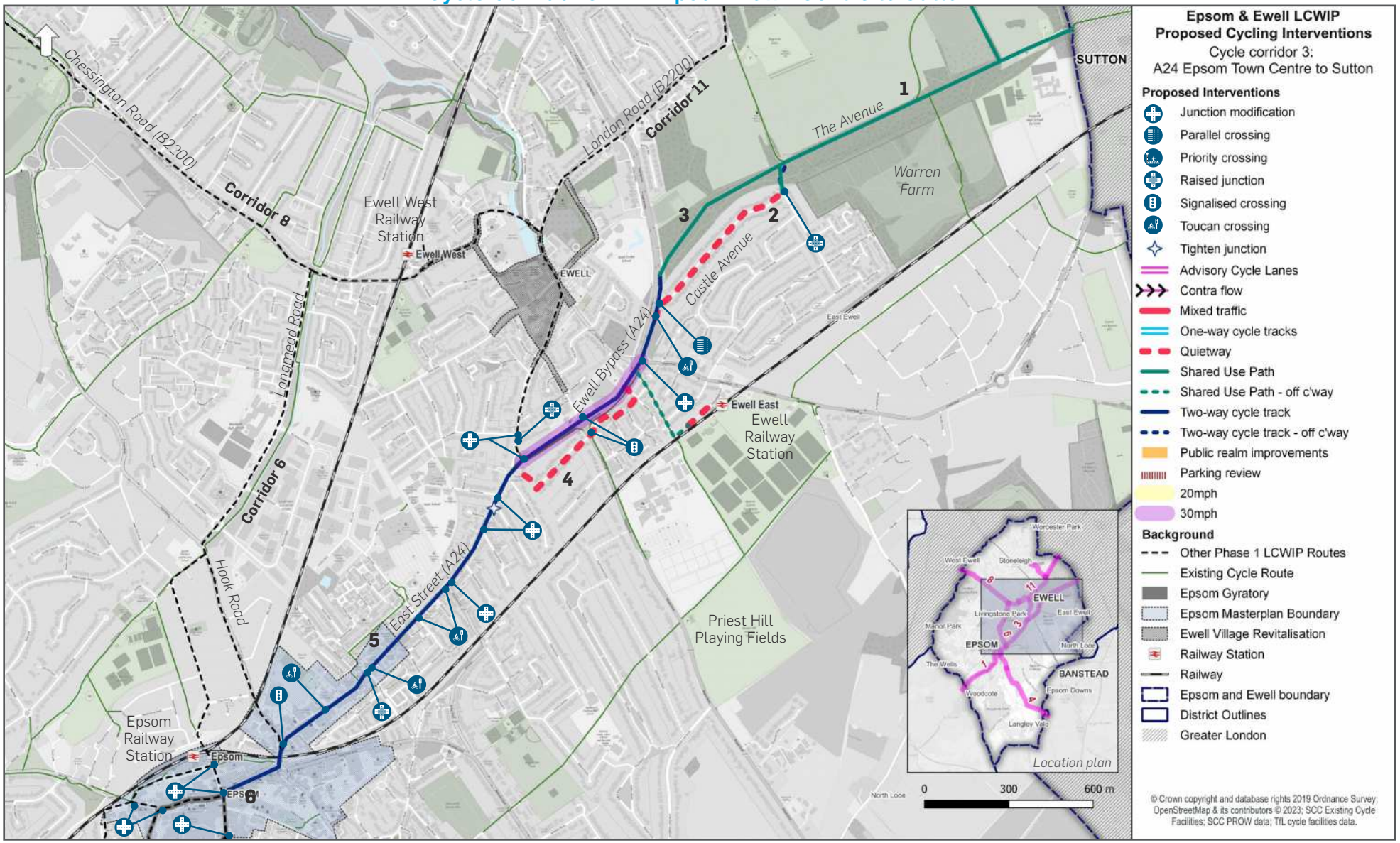


Figure 65. Cycle Corridor 3: A24 Epsom Town Centre to Sutton

Cycle Corridor 3: A24 Epsom Town Centre to Sutton

The corridor extends along the A24 and onto Nonsuch Park and provides a connection between Epsom Town Centre and Cheam (London Borough of Sutton). The corridor serves two railway stations, local commercial centres, employment sites, schools and residential areas and it would link directly to Sutton's existing cycle network. The proposed interventions aim to improve connectivity within the Borough via a key corridor, upgrading the existing facilities to higher standards, and continue the facilities to the east. [1]

Indicative Proposed Interventions

1 The Avenue at Nonsuch Park: This section of the route is an existing shared used path of around 2.5m width, with trodden paths adjacent to it. This indicates that cyclists and other users opt for separate movement, away from the main path, which is popular during the day. The proposal consists of separating those walking and wheeling, from those cycling by providing a dedicated bidirectional cycle track south of the shared use path.

2 Castle Avenue: This residential road is assumed to be low traffic, low speed with significant gradients leading up to Nonsuch Park and The Avenue. The proposal is to provide cycle road markings and potentially traffic calming (if required) in order to improve access to the park.

3 Nonsuch Park (west): An alternative to Castle Avenue, it is recommended a paved surface on the western margins of Nonsuch Park, albeit further investigations would need to take place to determine whether this is feasible in terms of lighting, ecology, drainage and other potential constraints. This alignment would also connect to the bidirectional track on the A24.

4 A24 – Ewell bypass: The A24 is a key arterial road that traverses Epsom and Ewell Borough. This road carries significant traffic volumes, and has a speed limit of 40mph. In order to provide a cycle facility, the facility would need to be fully segregated from traffic and must provide protection at all side roads, many of which are also busy. The proposal is to provide a two-way cycle track on the southern side of the A24, with cycle priority crossings at minor side roads, and signalisation at larger ones, and a reduction in speed limit to 30mph. Alternatively, if the segregated cycle facilities are not feasible, a parallel route via quietways is proposed south of the A24. An additional proposal include a link to Ewell East Railway Station via existing paths and quietway to enhance the connectivity to public transport.

5 A24 – East Street: There are existing cycle facilities along the A24 in this area, which are of variable quality, but mainly consist of shared use paths on the north side of the carriageway, and instances side-road treatments. The aspiration for this area is to provide access for cyclists into Epsom Town from Ewell and into the London Boroughs to the east accommodating both commuter and utility cycling. Visualisations of East Street in the Epsom Masterplan[2] illustrate aspirations for a two-way facility from the Town Centre, and this concept should be extended along the A24, reallocating space from the central hatching of the carriageway.

6 A24 - High Street: Interventions for this section are described in page 103, as part of the wider gyratory recommendations.

Additional proposed interventions along the corridor include wayfinding posts at key junctions and key destinations, secure cycle parking at railway stations, schools, commercial areas and employment sites.

1 See also LCWIP Core Walking Zone 4: Ewell Centre for pedestrian proposals in the Ewell area, north of this corridor.

2 See Epsom Town Centre Masterplan (DRAFT) on page 31

Figure 66. The Avenue, a woodland shared use path.

Cycle Corridor 4: Epsom Town Centre to Epsom Downs

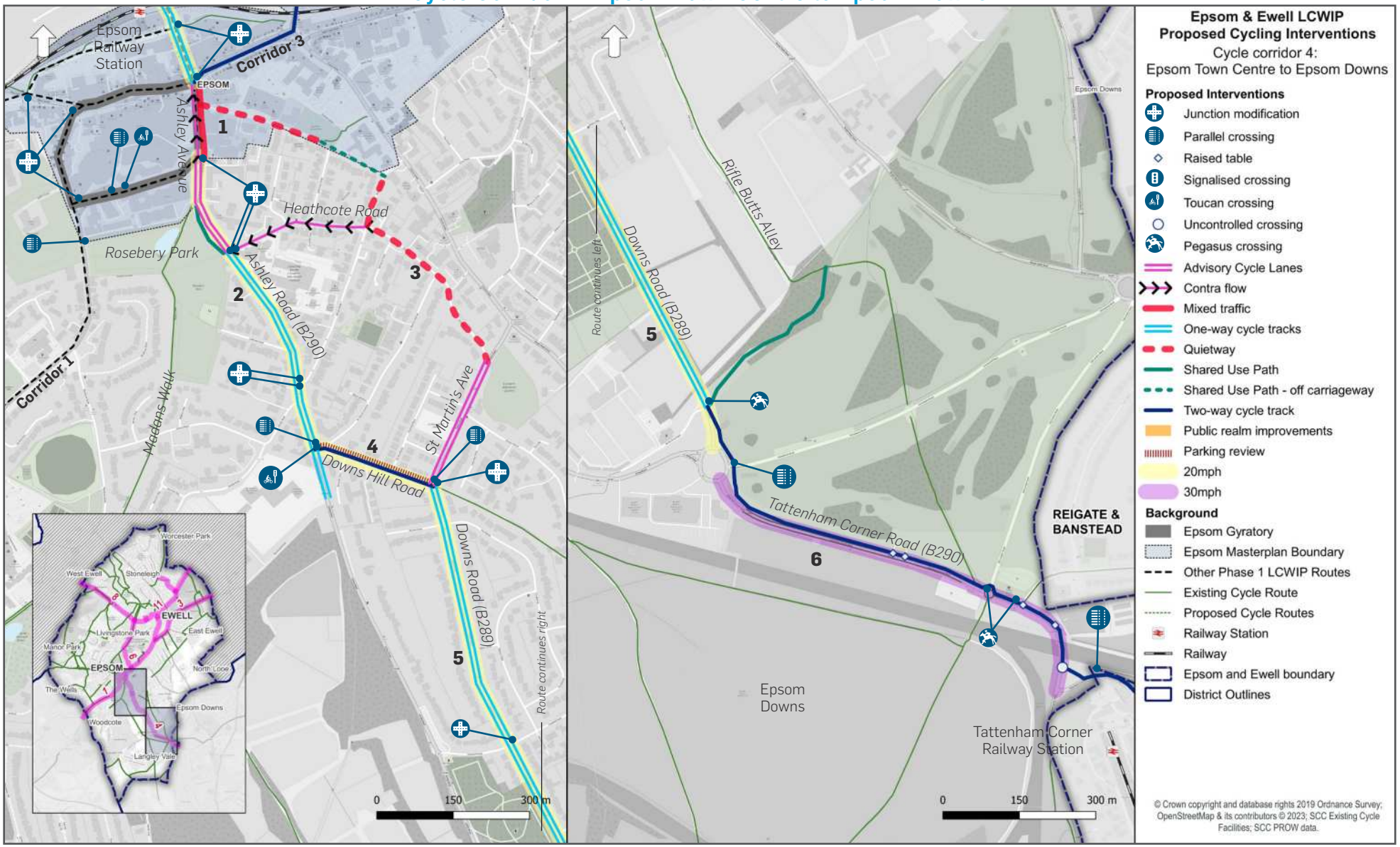


Figure 67. Cycle Corridor 4: Epsom Town Centre to Epsom Downs

Cycle Corridor 4: Epsom Town Centre to Epsom Downs

This corridor connects Tattenham Corner to Epsom Town Centre, linking two railway stations, residential areas, retail centres, and a major employer.[1] Proposals on the approach to the gyratory are included at Section G in page 103. It is an aspiration to provide segregated cycle facilities for Ashley Avenue and Ashley Road in interventions 1-2. As previously discussed, active travel improvements to the gyratory and its immediate approach roads would likely require a holistic, multi-modal movement strategy, also incorporating aspirations of the Epsom Town Centre Master Plan.

Indicative Proposed Interventions

1 Ashley Avenue: Interventions for this section are described in page 103, as part of the wider gyratory recommendations.

2 B290 - Ashley Road: South of the gyratory, the existing advisory cycle lanes are proposed to be retained up to Worple Road, and potentially upgrading to light segregation as available space increases. This proposal does not provide facilities suitable for most users as per ATE / LTN 1/20 guidelines due to high traffic flows and limited highway space[2]. South of Worple Road, one way cycle tracks on each side of the road would provide access to Downs Hill Road and Woodcote Grove.

3 Ashley Road alternatives: Combination of quietways along St Martin's Avenue and Heathcote Road to link to proposed off-road shared use paths on Rosebery Park.

4 Downs Hill Road: Two-way track on the northern edge of the carriageway, reallocating space from existing parking bays.

5 Downs Road: The proposal consists of a speed limit reduction to 20mph and traffic calming such as raised tables. The cycle facility is proposed to be one-way cycle track on each side of the road with light segregation. Parking management and enforcement is suggested for this area to enable space to be relocated for cycling.

6 Tattenham Corner Road: The proposal consists of a speed limit reduction to 30mph, and provision of a two-way cycle track on the northern side of Tattenham Corner Road. It also provides dedicated crossings for cyclists and, in some instances, crossings for equestrians approaching Epsom Racecourse. There is an opportunity to provide a connection to Tattenham Corner Railway Station following alignment via quietways and future cycle corridors as proposed in Reigate and Banstead LCWIP.

Additional interventions along the corridor include wayfinding posts at key junctions and key destinations, secure cycle parking at schools, commercial areas and employment sites.

Figure 68. Ashley Road is highly constrained due to obstacles (mature trees) and limited footway width, restricting the available space for improved cycle proposals in this area.

1 See also LCWIP Core Walking Zones 11 & 12: Epsom Town Centre (North & South) proposals for this area.
2 There is limited space for improved provision for cyclists without impacting vehicular traffic.

Cycle Corridor 6: Hook Road - Longmead Road

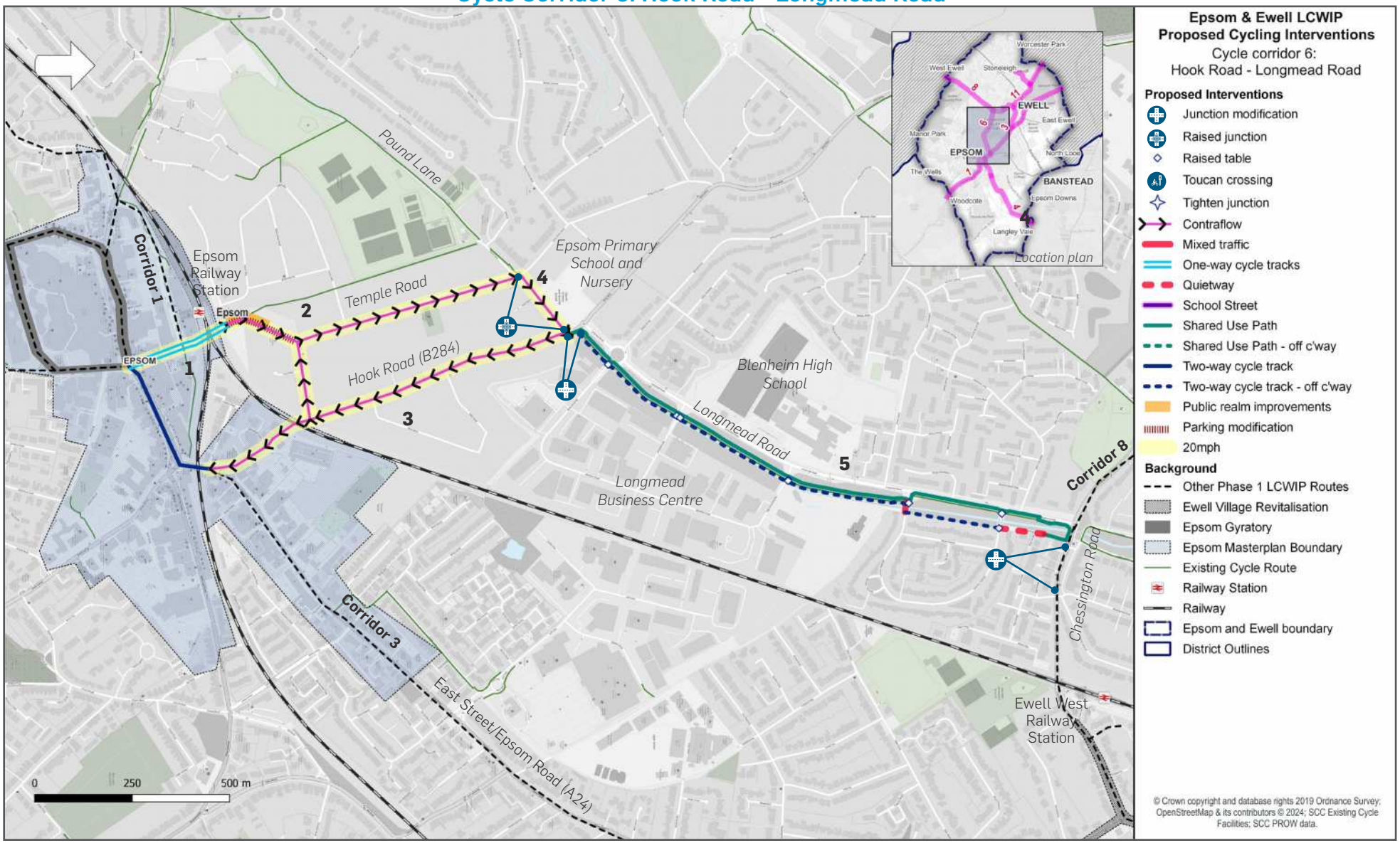


Figure 69. Cycle Corridor 6: Hook Road - Longmead Road *(Note: the cardinal direction of the map is rotated)*

Cycle Corridor 6: Hook Road - Longmead Road

The corridor provides a connection between Epsom Town Centre, the Railway Station, the employment area at Longmead, and Ewell West Railway Station. It serves two railway stations, two shopping parades, schools, and a major employment area. The proposed interventions aim to improve an existing cycle route by upgrading facilities to higher standards.

Additionally, there is also some overlap with Core Walking Zones 11 & 12: Epsom Town Centre (North & South) which have been developed in collaboration with the cycling proposals.

Indicative Proposed Interventions

1 Waterloo Road: The proposal consists of one-way tracks on Waterloo Road. There may be potential space constraints on the southern section of this link, which may require the facilities to transition to contraflow cycling.

2 Temple Road: A contraflow cycle lane would continue north along Temple Road along with the new 20mph speed limit. For the shopping parade, there is an aspiration to improve the area by reducing motor vehicle-dominance. Further, proposals for urban realm improvements would increase its attractiveness and provide better facilities for pedestrians, especially those coming from the public footpath at Temple Close. See also LCWIP Core Walking Zones 11 & 12: Epsom Town Centre (North & South) proposals for other improvements planned for this area.

3 Hook Road: The proposal consists of a one-way system for motor vehicles along Hook Road with an eastbound cycle contraflow facility. Temple Road would also be part of the one-way system, with a westbound cycle contraflow facility, and one-way cycle tracks on Chase Road and Pound Lane to connect both sides of Hook Road and Temple Road.

4 Pound Lane: Raised tables and junction treatments along Pound Lane to introduce traffic calming near Epsom Primary School and Nursery to enhance safety and encourage walking, wheeling, and cycling to school.

5 Longmead Road: Longmead Road proposals involve improvements to the existing shared facilities by either widening the shared use path to accommodate an increase number of users or by providing the separation of the cycle track from the footpath[1], providing a footway level cycle track, and side road priority treatments as well as improvement at adjoining junctions to provide cycle priority (for example raised tables or continuous footways). On the northern end of Longmead Road, it is proposed that the existing footway is widened to allow for shared use designation and avoid the bus stop adjacent to the carriageway. Improvements proposed at the connection with the existing shared use path on Chessington Road, and it is suggested that additional facilities may be introduced to extend the cycle corridor up to the Hogsmill Nature Reserve.

Additional interventions along the corridor to include wayfinding posts at key junctions and key destinations, secure cycle parking in railway stations, schools, commercial areas and employment sites.

Figure 70. Shopping activity along Temple Road being obscured by car parking.

1 A potential alternative is to widen the existing shared use path.

Cycle Corridor 8: Chessington Road

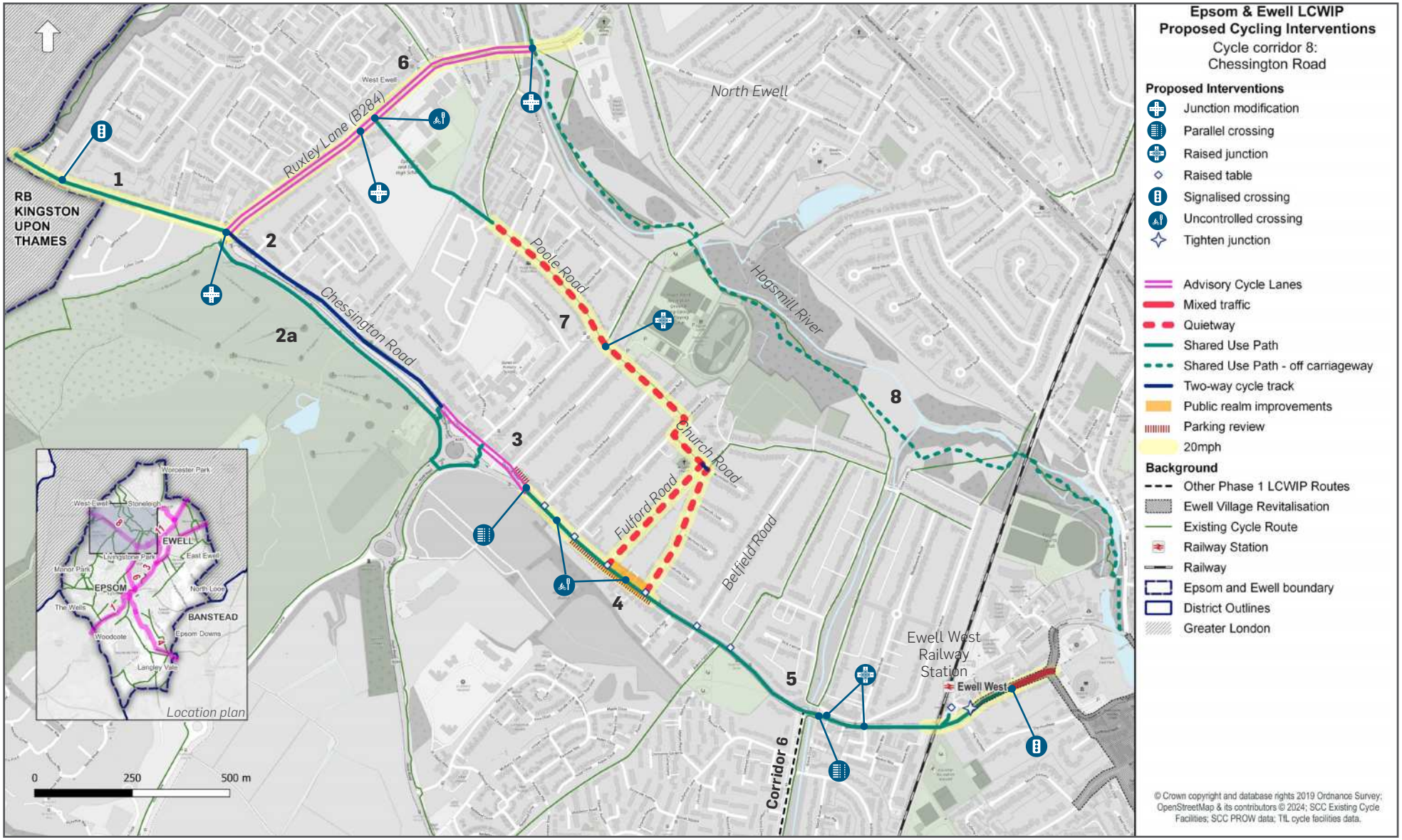


Figure 71. Cycle Corridor 8: Chessington Road

Cycle Corridor 8: Chessington Road

This corridor provides a connection between Ewell Village and the Borough of Kingston-upon-Thames. It serves two local commercial areas, schools, and employment sites. The proposed facilities would provide links to existing cycle facilities on Chessington Road and other off-road paths. [1]

Indicative Proposed Interventions

1 Chessington Road: Near the boundary with Kingston Borough, there is no existing cycling provision, and dedicated cycling facilities are recommended. However, due to space constrains, a shared use path is recommended to be incorporated along the northern footway at this location, or the road should be assessed regarding traffic flows and speed to determine suitability of advisory lanes, as provided across the Borough boundary.

2 B284 – Chessington Road: Two-way cycle track on the north side by reallocating space from green central reservation and the carriageway[2]. Consider removing barriers and designing a smooth transition over the pavement on the eastern end of the section.

a. *Retention of shared use path*: maintain cycle facility alignment along the existing shared use path and improve wayfinding.

1 See also LCWIP Core Walking Zone 4: Ewell Centre proposals for the eastern section of this area.
2 Proposals are subject to topographic surveys and review of on-street parking requirements. Location of the two-way cycle track to be determined in the feasibility stage following topographic, environmental, and arboricultural surveys. Trees to be retained.

3 Chessington Road: This section is a service road for the B2200 and does not have through east-west traffic. Whilst no intervention is required for safer cycling, providing road markings for cycle lanes should help reinforce the continuation of the cycle route.

4 B2200 – Chessington Road Shopping Parade: Introduce public realm improvements including de-cluttering of street furniture, and the relocation of parking bays to widen the existing shared use path. Reduce speed limits to 20mph along shopping area.

5 B2200 – Chessington Road: Assess existing shared use facility and widen to 3m where necessary. This existing facility is of relatively high quality. Segregation between pedestrians and cyclists is preferred at this location, but it is assumed not feasible due to width constraints.[3] Eastern section of route to link to on-carriageway provision due to limited footway width for shared use. Investigate alternative via The Headway to link to Ewell Village, which may require land acquisition on the path for widening.

6 B284 - Ruxley Lane: Provide advisory cycle lanes on either side of the carriageway and introduce lower speed limits to connect to the popular Hogsmill River Path[4].

7 Poole Road/Quietway alternative: Quietway or contraflow cycling with one-way working for traffic alongside Belfield Road. Traffic calming and removing centrelines is recommended though vehicle speeds are likely to be low.[5] Readjustment of connection with Church Road using carriageway section and replacing guard railing with bollards to provide better cycle access. Provide wayfinding throughout the quietway. This alignment can serve those users accessing North Ewell.

8 Hogsmill River Path alternative: This daytime[6] alternative alignment requires surfacing and/or resurfacing in some locations to enable all-weather and year-round cycling. It is also recommended that the length of the path is widened to 3m to achieve greater user comforts as well as providing clearer wayfinding to aid with coherence.

Additional interventions along the corridor include wayfinding posts at key junctions and key destinations, secure cycle parking at schools and commercial areas.

3 Feasibility of scheme and potential for segregation to be investigated in future stage of design.
4 Traffic flows and speeds to be investigated in future stages of design to determine suitability of the facility.
5 To be confirmed during in future stage of design.
6 This path is currently unlit and environmental investigations are required in the future stages of design development to estimate the impact of added lighting in the area.

Figure 72. Cycling along Chessington Road.

Cycle Corridor 11: A24 Ewell to Nonsuch Park - Map 1

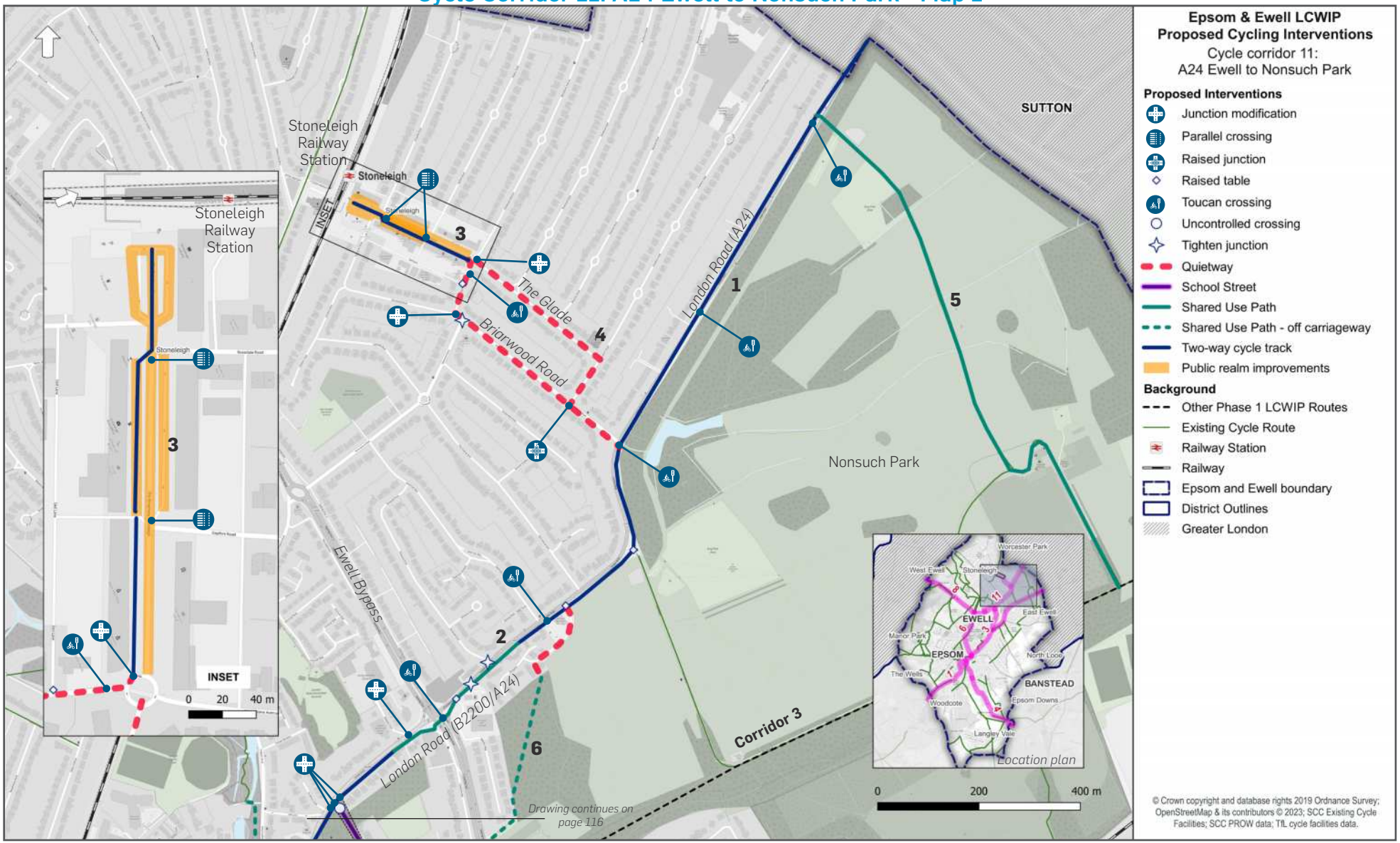


Figure 73. Cycle Corridor 11: A24 Ewell to Nonsuch Park

Cycle Corridor 11: A24 Ewell to Nonsuch Park

The corridor extends along the A24 London Road and onto Ewell Village and provides a connection between Ewell, Sutton and North Cheam (London Borough of Sutton). The corridor serves two railway stations, local commercial centres, schools, leisure and residential areas. The proposed interventions aim to create an improved north-south connection for the Borough and upgrade existing facilities to higher standards.

Additionally, there is some overlap with CWZ 4, which has been developed in collaboration with the cycling proposals. There is also overlap with Ewell Village Revitalisation project (see page 36) of which the proposals for the cycle corridor seek to tie into and complement it accordingly.

Indicative Proposed Interventions

1 A24 - London Road: This typology consists of two-way cycle track on the eastern side of the carriageway, where an informal walking route is currently in place along the verge. This proposal would be supplemented with additional formal crossing provisions in the form of signalised parallel crossings for pedestrians and cyclists. The highway boundary in this area also provides opportunity for footway widening on the northern edge of the carriageway.

2 B2200/A24 - London Road: This section of London Road is much more constrained, with the highway boundary indicating that lanes and footways are, at times, at their minimum recommended widths (as per LTN 1/20 and ATE guidelines), especially on the eastern approach to Ewell-Bypass. Some sections have limited amounts of available space through central hatching, however these are not consistent enough to allow for continuous segregated cycle facility. The proposal is to provide a shared use path to connect to the two-way dedicated facility to the east, and provide an alternative route through south of the A24 (see intervention 6).

3 The Broadway Stoneleigh: There are wider aspirations from SCC to improve the layout of The Broadway, reduce the domination of car-parking in the area, and provide safer crossing opportunities for pedestrians. With this in mind, it is proposed that the southern service road is reallocated to walking and cycling, creating a dedicated space for cycling on the southern side terminating at the roundabout at The Glade. Additional proposals for this area include improved surfacing to reflect the sense of place of the area and to suggest low speeds to allow for safer pedestrian and cycle access throughout, and added green buffers to enhance the segregation between users and improve the local environment.

4 Brianwood Road and The Glade: Dutch treatment, with colour contrast along carriageway and raised junctions to introduce additional traffic calming.

5 Nonsuch Park North/South Link: Better signposting of route for cycling to encourage cycling to Nonsuch High School for Girls. Further improvements for personal safety to be investigated in future stage of design.

6 Quietway option: Alternative quietway route via Bluegates and the Banqueting site to connect to Church Street. This would require a signalised crossing on the A24 for pedestrians and cyclists.

Figure 74. Car-dominated environment at The Broadway Stoneleigh.

Figure 75. A24 London Road has no cycling provision.

Cycle Corridor 11: A24 Ewell to Nonsuch Park - Map 2

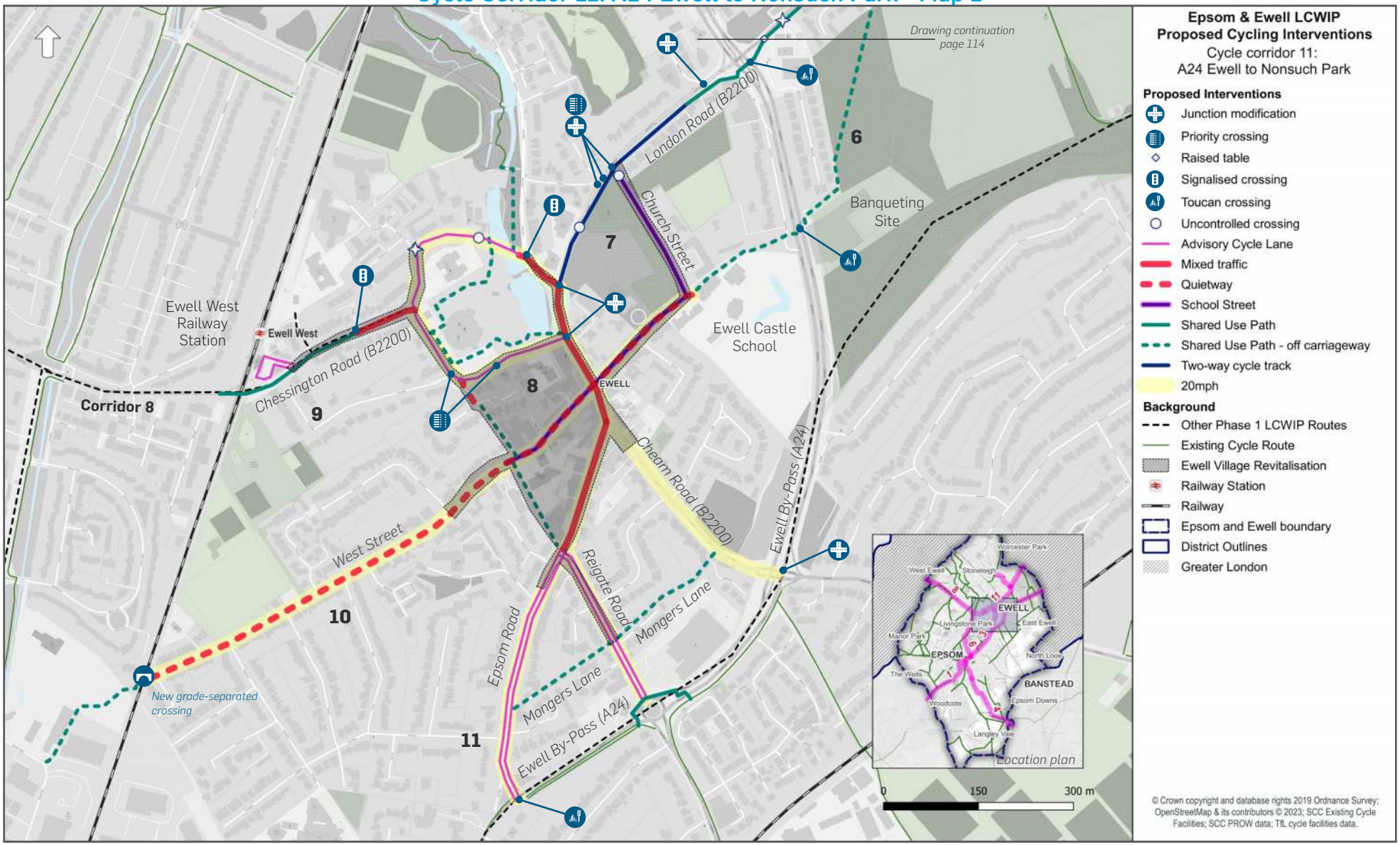


Figure 76. Cycle Corridor 11: A24 Ewell to Nonsuch Park

7 London Road, Ewell: Relocate on-street parking to allow for a two-way cycle track on the southern side to link to the facilities on the A24 and provide raised tables at side streets to increase pedestrian and cyclist priority. Introduce a parallel crossing on the approach to Church Street to provide link to the school.[1]

8 Ewell Village[2]: Proposals for the enhancement of the public realm in Ewell Village are being developed by SCC. These proposals generally improve the sense of place element of the Village, and focus on the pedestrian experience whilst reducing traffic flows and speeds of motor vehicles. The incorporation of these placemaking improvements in Ewell Village could enable mixed traffic cycling and reduce the need to segregate cyclists from general traffic.

9 Ewell West Station and Chessington Road: Mixed traffic provision along eastern end of Chessington Road due to space constraints. Investigate alternative via The Headway to link to Ewell Village, which may require land acquisition on the path for widening. Provide a shared use path on the northern footway of Chessington Road west of The Ridings with a new connections to the station, and provide one-way advisory cycle lanes within the station approach[3]. Investigate introduction of a signalised crossing east of station.

10 West Street: Quietway provision to be considered along West Street to connect to railway crossing. Upgrade grade-separated crossing to be accessible to cyclists and those wheeling to enable a connection with Longmead Road. This proposal is likely to be ATE / LTN 1/20 compliant as traffic flows and speeds are assumed to be low.[4]

11 Epsom Road: Due to limited space at this location, reduce traffic speeds to 20mph and provide traffic calming in order to enable advisory cycle lanes on both sides of the carriageway. Additional improvements to the A24 to enhance the connectivity of the section to the existing facilities.

12 Monger's Lane: Off-carriageway shared use path as an alternative to the High Street east - west corridor.

Additional interventions along the proposed corridor to include wayfinding posts at key junctions and key destinations, secure cycle parking at railway stations, schools, commercial areas and employment sites.

Figure 77. Approach to Ewell West Station on Chessington Road.

Figure 78. Ewell Village

1 Ewell Village Revitalisation Plans propose a zebra crossing at the location, which is recommended to be upgraded to parallel crossing to complement the cycle facilities.

2 Includes proposals on Chessington Road, Spring Street, High Street, West Street, Reigate Road, and Church Street.

3 Flows and speeds are assumed low.

4 To be confirmed during feasibility design stage.

Assessment of Proposals

Following the initial development of high-level proposals for infrastructure improvements, the proposed interventions were assessed using the Route Selection Tool (RST) with the same criteria used for the assessment of the existing state of the corridors.

The RST facilitates a high-level, comprehensive review of existing conditions for people cycling along a corridor based on the key metrics of directness, gradient, safety, connectivity, and comfort. Lower scores suggest a poorer quality corridor, which may benefit from infrastructure interventions (i.e., to improve safety or comfort) or selecting an alternative corridor alignment (i.e., more direct or reduced gradient). The following assumptions were applied in completing the RST assessment:

- Corridors were divided into subsections that were under ≤ 1km in length and reflected consistent characteristics in factors that may impact RST output (such as existing facility type, width, traffic speeds or volumes, etc..).
- Where existing traffic speed data was not available, the existing speed limit was utilised.
- Where existing traffic volume data was not available, professional judgement and best practice was used to categorise the corridor within the RST categories for traffic flows.

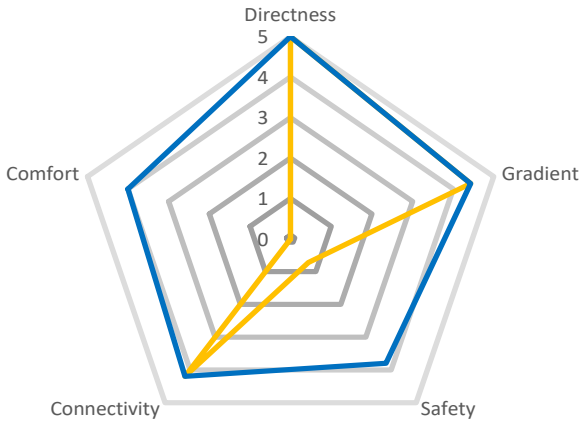
A summary of the results for the Phase 1 corridor proposals is presented in the following tables. A spider diagram is presented below each table illustrating the changes within each category following the proposed interventions.

For each corridor a comparison was made between the existing situation and the potential of the improvements. The RST helps identify which option of the different alignments would have greater potential for LTN 1/20 compliant facilities. This subsequently identifies which option could be promoted for further development.

Every cycle corridor is improved in terms of comfort, and safety, since the interventions are proposing protected cycle facilities (at least in parts). Gradient and connectivity remain the same as the alignments are retained. Cycle Corridor 6 along Hook Road is not significantly improved as the current provision is good.

Table 8. RST results - Cycle Corridors

Cycle Corridor 1. A24 Dorking Road (Ashtead to Epsom Town Centre)	*Existing*	*Potential*
Directness	5.00	5.00
Gradient	4.43	4.43
Safety	0.72	3.79
Connectivity	4.20	4.20
Comfort	0.00	4.00
Total	**14.35**	**21.43**
Improvement (compared to existing)		*7.08 (49.3%)*

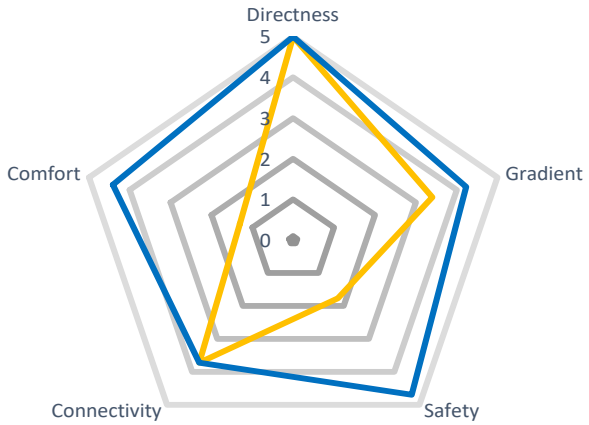


Spider diagram produced in the RST:

Amber colour: Existing scores

Blue colour: Potential scores

Cycle Corridor 3: A24 Epsom Town Centre to Sutton	*Existing*	*Potential*
Directness	5.00	5.00
Gradient	3.41	4.23
Safety	1.77	4.69
Connectivity	3.72	3.72
Comfort	1.30	4.41
Total	**15.20**	**22.06**
Improvement (compared to existing)		*6.86 (45.2%)*

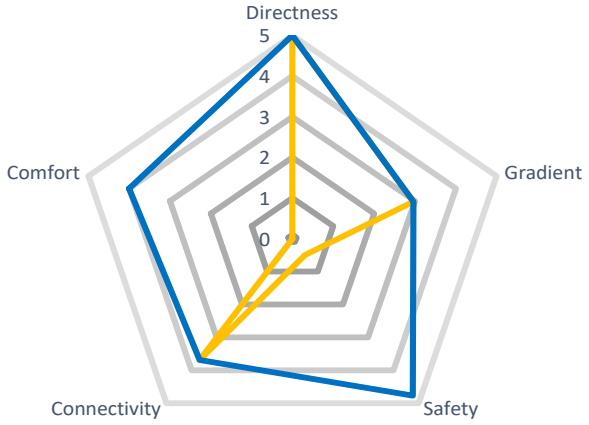


Spider diagram produced in the RST:

Amber colour: Existing scores

Blue colour: Potential scores

Cycle Corridor 4. Epsom Town Centre to Epsom Downs	*Existing*	*Potential*
Directness	5.00	5.00
Gradient	2.96	2.96
Safety	0.49	4.77
Connectivity	3.68	3.68
Comfort	0.00	4.00
Total	**12.14**	**20.42**
Improvement (compared to existing)		*8.28 (68.2%)*

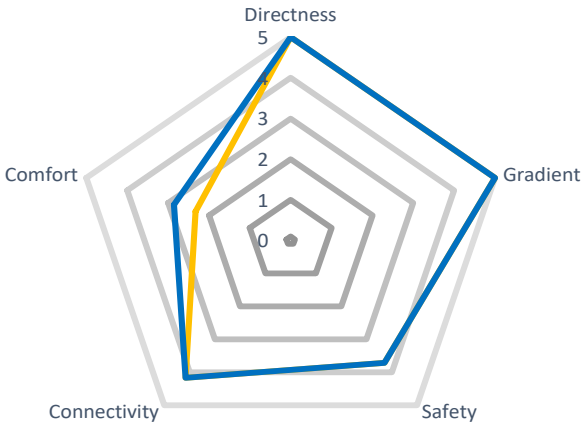


Spider diagram produced in the RST:

Amber colour: Existing scores

Blue colour: Potential scores

Cycle Corridor 6. Hook Road - Longmead Road		
	Existing	*Potential*
Directness	5.00	5.00
Gradient	5.00	5.00
Safety	3.71	3.71
Connectivity	4.16	4.16
Comfort	2.33	2.86
Total	**20.21**	**20.74**
Improvement (compared to existing)		*0.53 (2.6%)*

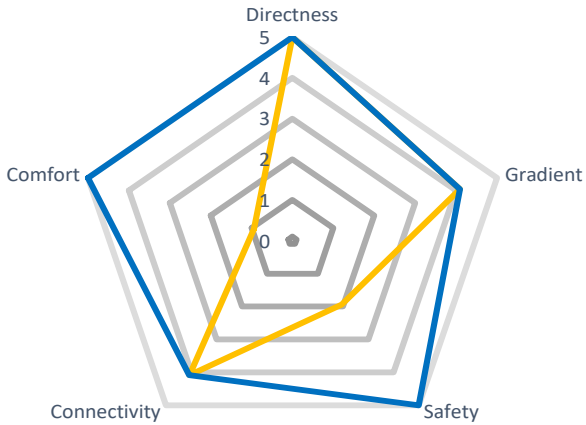


Spider diagram produced in the RST:

Amber colour: Existing scores

Blue colour: Potential scores

Cycle Corridor 8. Chessington Road		
	Existing	*Potential*
Directness	5.00	5.00
Gradient	4.10	4.10
Safety	1.94	5.00
Connectivity	4.08	4.08
Comfort	0.94	5.00
Total	**16.06**	**23.18**
Improvement (compared to existing)		*7.12 (44.3%)*

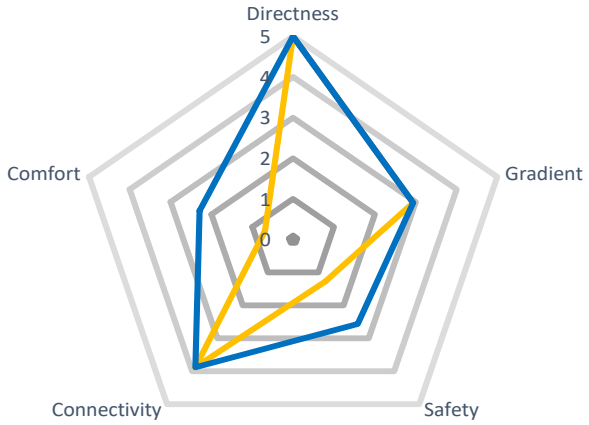


Spider diagram produced in the RST:

Amber colour: Existing scores

Blue colour: Potential scores

Cycle Corridor 11. A24 Ewell to Nonsuch Park and Stoneleigh link		
	Existing	*Potential*
Directness	5.00	5.00
Gradient	2.94	2.94
Safety	1.28	2.56
Connectivity	3.88	3.88
Comfort	0.69	2.29
Total	**13.78**	**16.66**
Improvement (compared to existing)		*2.88 (20.9%)*



Spider diagram produced in the RST:

Amber colour: Existing scores

Blue colour: Potential scores

7. Walking Network Development

Introduction

Development of the Aspirational List

Identification of Phase 1 Core Walking Zones

Introduction

This chapter summarises the identification of the walking network for the Epsom & Ewell LCWIP. The development of the walking network had two key stages:

» Development of the 'aspirational list', which identified key focal areas of pedestrian activity in the Borough. In total, 15 areas were initially identified, and 10 selected as 'primary' (Phase 1 and 2) areas for further consideration.
» Development of a 'short list', which prioritised 3 areas as 'Phase 1' for further assessment and development of high-level proposals for infrastructure improvements as part of the LCWIP.

The remaining areas (categorised as Phase 2 and Phase 3) may be further developed as part of future workstreams or as other funding opportunities arise.

Development of the Aspirational List

The development of the walking network for the Epsom & Ewell LCWIP focused on the identification of 'Core Walking Zones' (CWZs), as per the DfT's LCWIP technical guidance, which is illustrated in Figure 79. The CWZs represent nodes of relatively high pedestrian activity within the Borough, typically consisting of several walking trip generators that are located close together – such as a high street, schools, or employment areas / business parks. CWZs are intended to enhance the pedestrian environment around, as well as from and to, these key trip generators. The CWZs play a significant role in promoting walking and wheeling to key trip attractors, supporting the local economy, and achieving the LCWIP objective of encouraging shorter, utility trips to be made on foot.

A walking network of key core walking zones and corridors has been defined drawing on the analysis from the existing data. The background information identified local destinations, amenities, population centres and movement patterns within the Borough.

Following the identification of the core walking zones, the important pedestrian corridors that serve them from a distance of up to 2km were mapped.

For Epsom and Ewell, the aspirational list of CWZs was developed utilising two main inputs:

» Retail areas within the Borough's towns and local centres: High streets and areas with local commercial activity were selected as the key trip generators, based on the Local Plan identified retail areas.
» Key data collected as part of the Evidence Base (page 41) was analysed to help support the identification and prioritisation of the CWZs across the Borough.

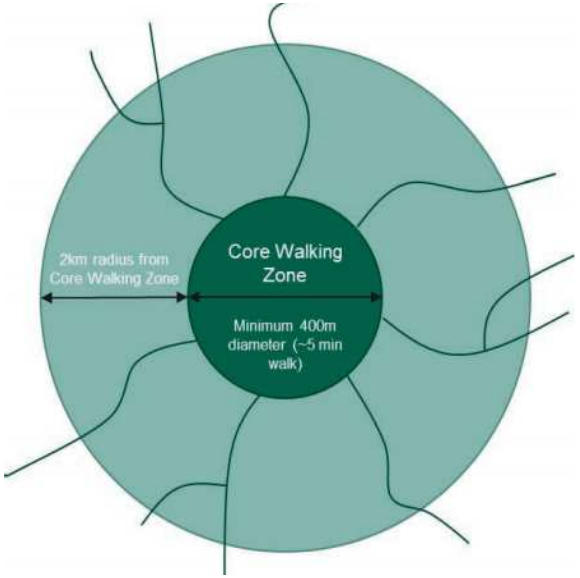


Figure 79. Process of identifying the walking network (DfT, LCWIP - Technical Guidance for Local Authorities)

Identification of Core Walking Zones

High streets and local commercial centres represent key hubs of pedestrian activity, where multiple destinations are found in close proximity, generating and attracting trips of numerous purposes (e.g., shopping, dining, employment, personal business, leisure/social, etc.).

Local high street areas usually benefit from more compact, urban environments and have higher densities of population and employment, thus, increasing the propensity for short, utility walking trips. Focus on these areas would support economic vitality and SCC's 20-minute neighbourhood strategy (LTP4).

The CWZs were then created by drawing 250m isochrones around the key trip attractors within the local centres. This was in keeping with the DfT technical guidance that a CWZ should be a minimum diameter of 400m (approximately 5-minute walk). The extent of the CWZ covers the main commercial area/high street and the key access corridors.

This process identified 15 candidate CWZs, which are shown in Figure 80.

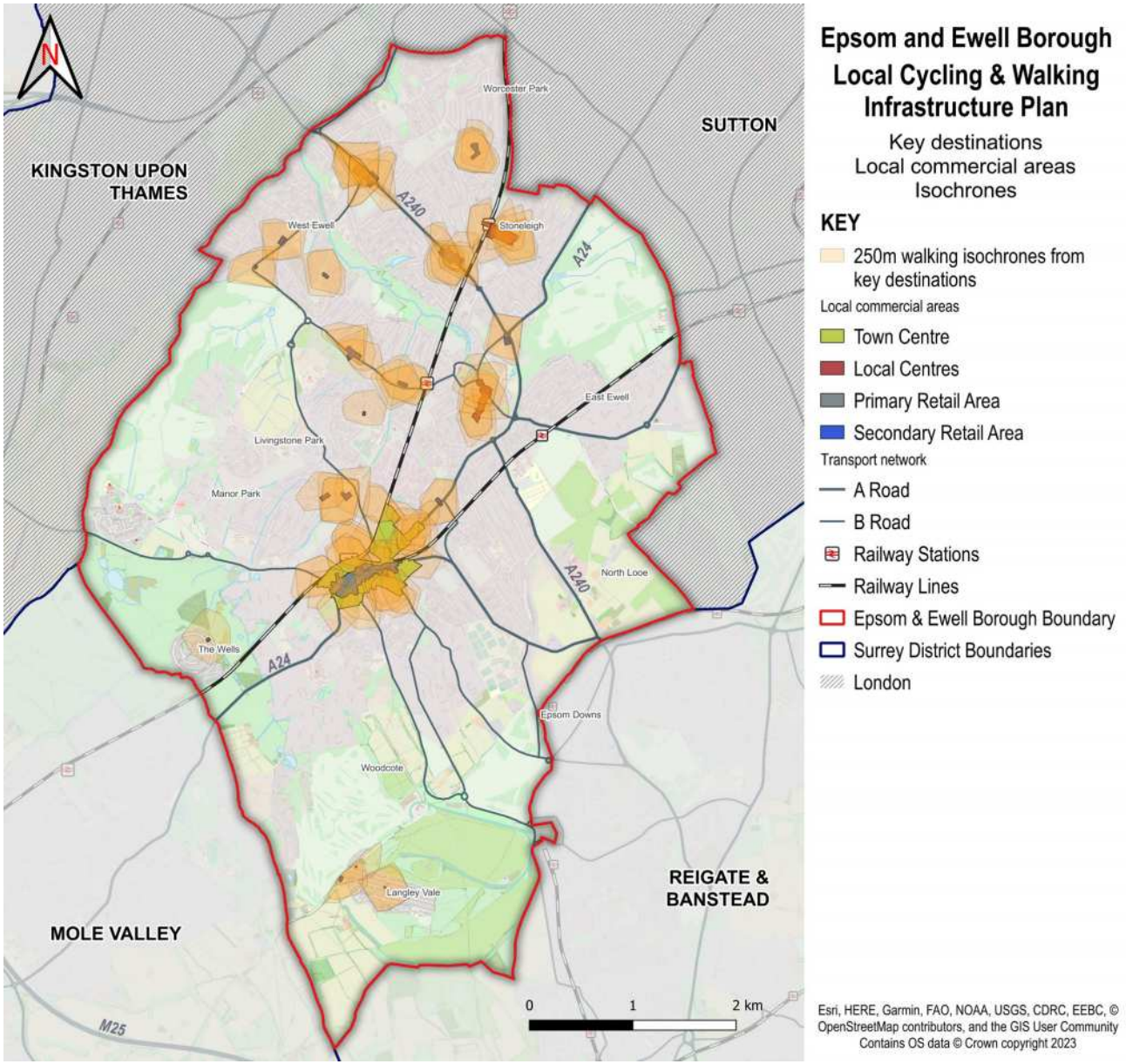


Figure 80. Draft core walking zones

Additional Data Review

The background data compiled and summarised in Section 3. Evidence Base on page 41 was used to create a qualitative 'heatmap' of walking and wheeling issues and opportunities, where the overlap of relevant criteria suggests locations with a higher propensity for walking trips and greater potential benefit from infrastructure interventions. The criteria comprised the following:

- Key destinations and trip attractors (schools, shopping areas, leisure centres, parks, libraries, medical facilities, and their catchment area).
- Travel to work – short trips (using PCT information) with potential for mode shift to walking (<2km).
- Public transport: bus stops (5-min walk distance), railway stations (10-min walk distance).
- Collisions involving pedestrians.
- Public comments related to walking.
- Areas with the highest population density & development areas.
- Areas with the highest employment density & employment areas.
- Zero car ownership.
- Indices of multiple deprivation.
- Public rights of way network.

The output is a qualitative heatmap, shown in Figure 81, where the darker, more intense blue colour indicates greater potential or opportunity for short utility walking trips.

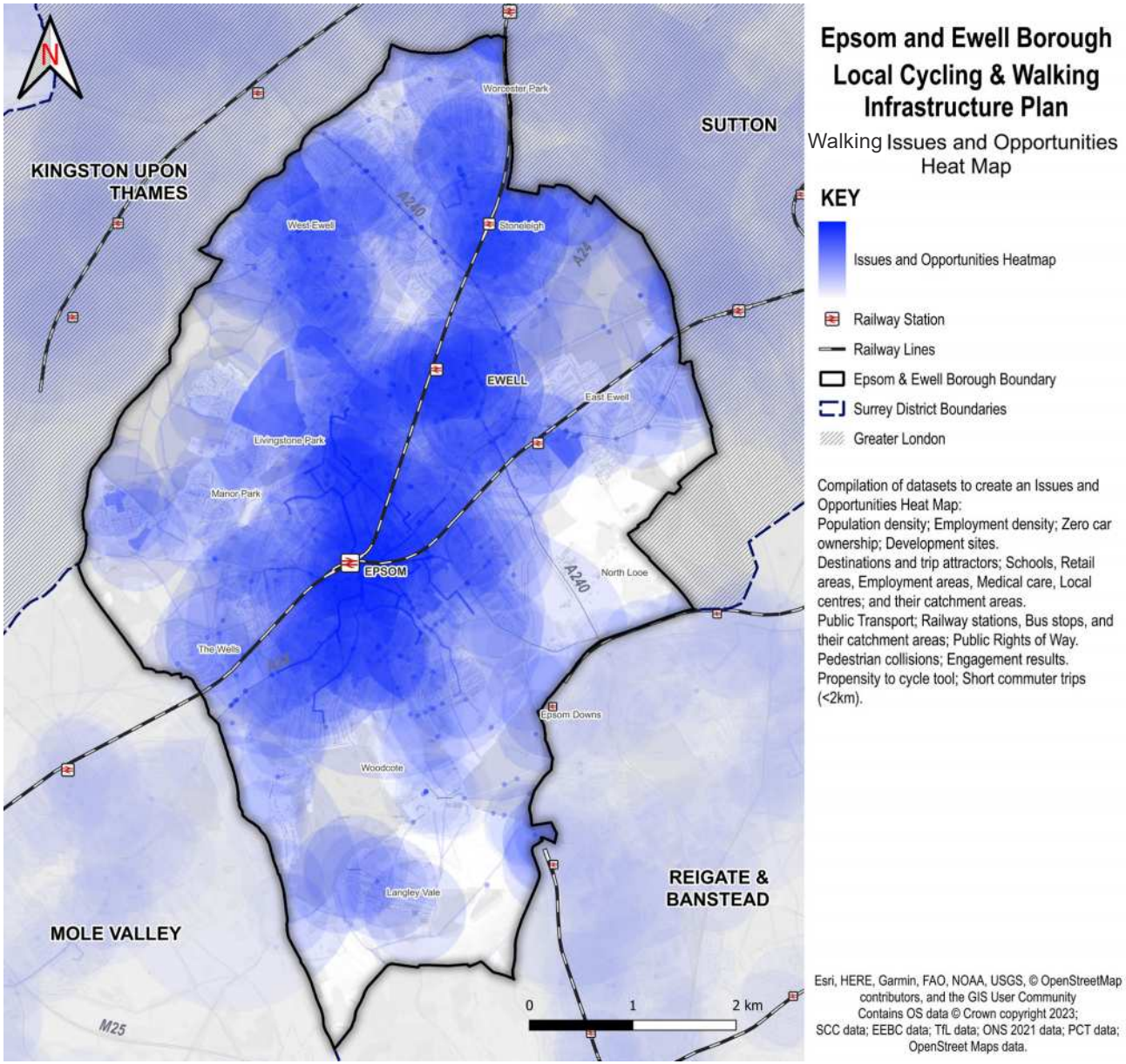


Figure 81. Qualitative heatmap of issues and opportunities

The qualitative issues and opportunities heat map was used to create a quantitative output on a defined grid (50m by 50m). Each tile represents a number of issues and opportunities overlaid in the area. A warmer colour denotes a potential higher demand for utility walking trips or pedestrian improvements.

The initial draft of the CWZs is overlaid with the quantified heat map which supports the preliminary selection of CWZs, with local Town Centres and high street areas broadly aligning with the areas of highest potential benefit across the Borough.

The draft CWZ aspirational list was reviewed with local stakeholders during the first stage of early engagement workshops (see Stage 1 Stakeholder Workshops on page 70). Attendees were generally in agreement with the first draft of CWZs, although emphasised the desire to ensure schools, university and colleges were captured. There were also an aspiration that severance caused by the railway line was addressed, particularly at Kiln Lane and Chessington Road. It was acknowledged that stakeholders were keen to see an east/west link over the railway line at Kiln Lane, of which there have been proposals in the past which have never fully materialised.

The extents of the CWZs were subsequently adjusted to reflect the received comments, as seen in Figure 82.

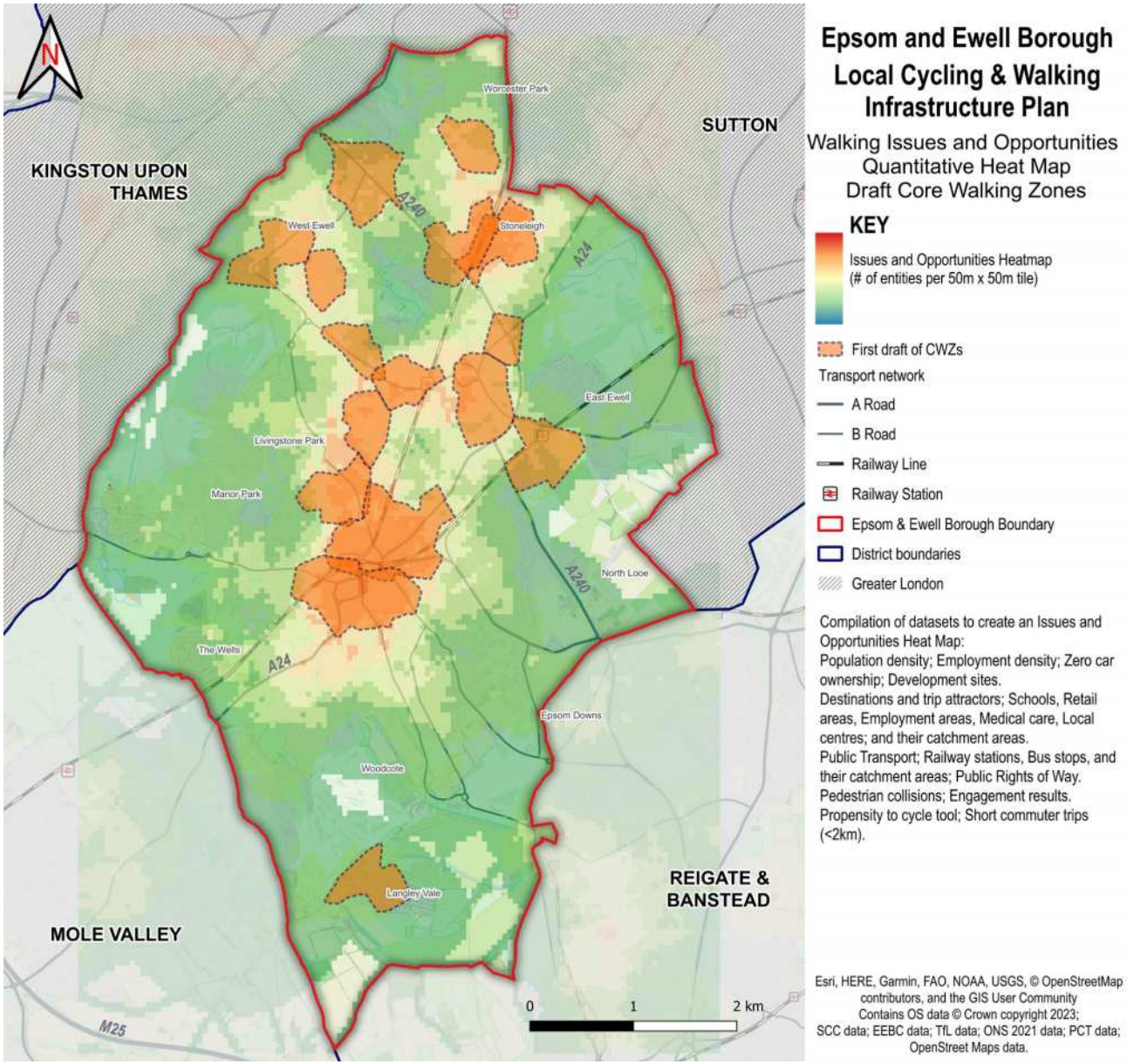


Figure 82. Quantitative 'Heatmap' of issues and opportunities for walking and Identified CWZs

Aspirational list of Core Walking Zones

The phasing categories are intended to assist with the prioritisation process, whereby the Phase 1 & 2 CWZs would be carried forward for further assessment in the next step of the LCWIP and would be prioritised for improvements in a 10-year plan SCC has set out. Nonetheless, all CWZs are retained as part of the aspirational network for future consideration as opportunities arise. Phase 1 CWZs were further assessed and initial high-level proposals for potential infrastructure improvements were developed as part of this LCWIP. Phase 2 CWZs would be developed as opportunities arise.

The quantified heatmap supported the classification of proposed CWZs based on the average score of the grid tiles in the heatmap within each zone. The score of each tile represents the number of entities denoting higher demand for utility walking trips or pedestrian improvements in the area. The average score helped identify the priorities within the Borough boundary. As a result, 11 CWZs were classified as Phase 1/Phase 2 and the eight as Phase 31 were identified[1].

Based on the data and evidence base compiled, potential demand and propensity for short, utility walking trips are highest towards the west and north-west of the Borough, which tends to have a denser population and more compact, urban development patterns. Public comments also tended to be clustered in these areas.

The prioritised CWZs are listed below (by ID number) and shown in Figure 83. Table 9 on the following page provides a summary of each of the Phase 1 / Phase 2 CWZs.

1. Chessington Road (East)
2. Chessington Road (West)
4. Ewell Centre
5. Holymoor Road
6. Hook Road B284
9. Stoneleigh (East)
10. Stoneleigh (West)
11. Epsom Town Centre (North)
12. Epsom Town Centre (South)
14. West Ewell (South)

The Phase 3 Core Walking Zones are listed below:

3. Ewell Bypass A240
7. Kingston Rad A240
8. Langley Vale
13. West Ewell
15. Worcester Park

1 Phase 3 CWZs are included in the aspirational network for future consideration as opportunities arise (>10-year plan) and are not included in the assessment for the next steps.

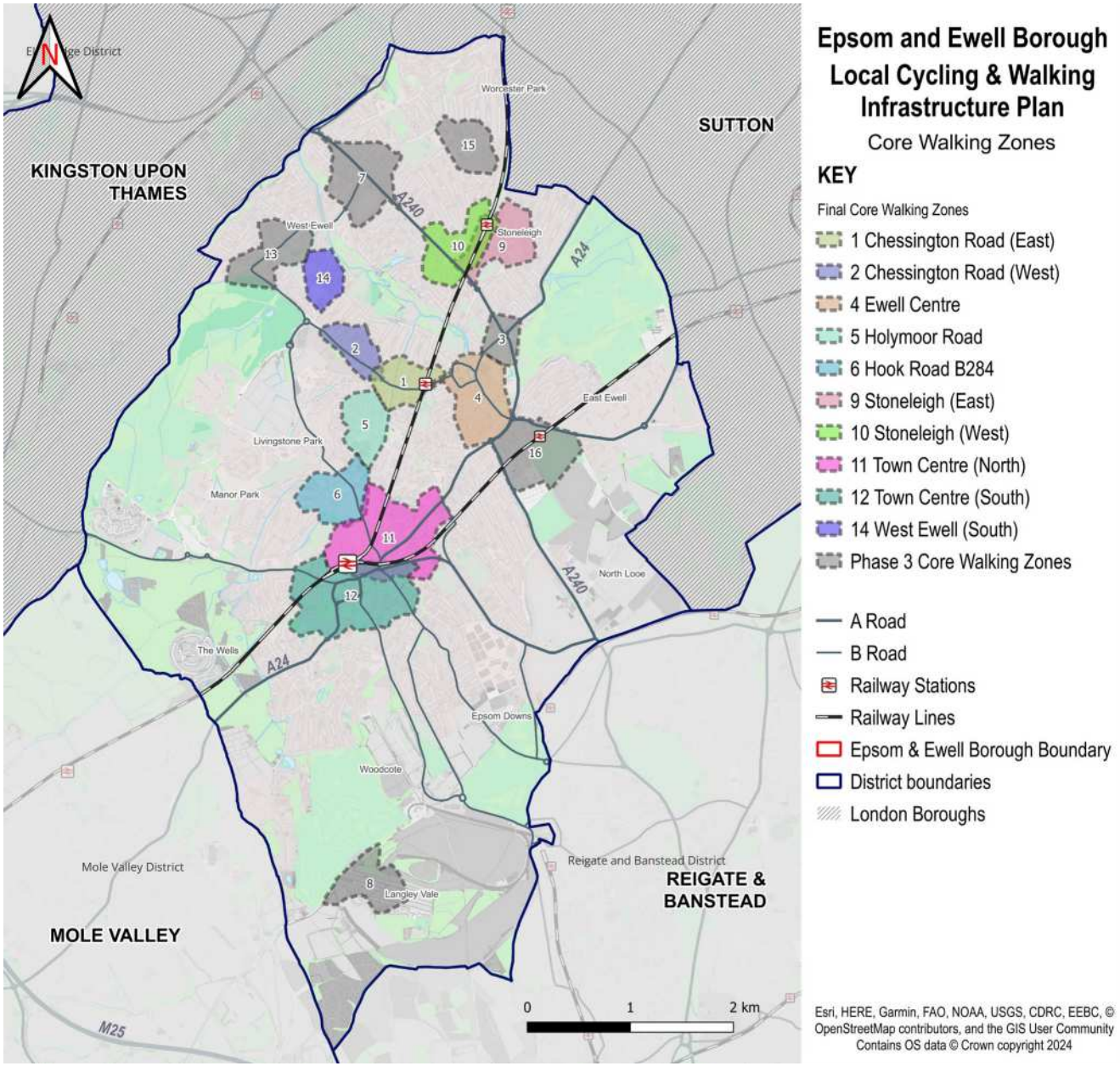


Figure 83. Proposed aspirational network for walking: Phases 1/2 and 3 of Core Walking Zones

Table 9. Summary of Candidate Phase 1 / Phase 2 Core Walking Zones

(ID) Core Walking Zone	Description
1. Chessington Road (East)	The focus of this CWZ is on Chessington Road and Ewell West railway stations. It seeks to capture the demand from the station and reflect the existing flow of pedestrians along Chessington Road, particularly considering its proximity to the retail centre directly to the east. Additionally, there is a local school and retail within the CWZ as well as the existing path running north/south alongside the river.
2. Chessington Road (West)	There is some overlap and similarities with CWZ 1 as it is positioned north-west of it and follows a similar alignment along Chessington Road. The focal point of this CWZ is the retail area along Chessington Road although also recognises the path running south from the junction with Bakers Field Close which provides an important link.
4. Ewell Centre	This CWZ is diverse with multiple land uses which generate demand for people to walk to. At the centre of the zone is the local centre and retail zone which is complimented by three schools located within zone. On the periphery of the zone there is a supermarket, adjacent to the A24 (Ewell Bypass). Bourne Hall and the nearby park are also captured within the CWZ, adjacent to which are two different medical centres. All of these naturally generate demand for people to travel to - and notwithstanding the proximity to Ewell West railway station located to the west of the zone.
5. Holymoor Road	This CWZ is located predominately west of Longmead Road with the focus on Blenheim High School and a small retail centre. Longmead Road is the principal highway in this CWZ heading north/south which also provides wider connectivity to the area.
6. Hook Road B284	Hook Road has a diverse mix land use with two retail centres as well as a medical centre and school. This mix of uses create demand for people to travel to these areas. The area is already well connected with the neighbouring centres. A key feature of the area is the path which follows the Hogsmill River. This provides added connectivity to areas north and south of this location.
9. Stoneleigh (East)	This CWZ runs parallel to the railway line and serves Stoneleigh Railway Station. There is a significant local centre, as identified by the Local Plan, which attracts people to travel for commuting and utility purposes. The CWZ also contains part of Kingston Road within which there is a secondary retail area and a medical centre.
10. Stoneleigh (West)	Akin to CWZ 9, this CWZ also runs parallel to the railway line and serves the station at Stoneleigh. It also covers the area along Kingston Road including a significant retail area. Whilst there is some overlap between this CWZ and CWZ 9, this CWZ does incorporate the local centre located predominantly to the east of the railway station. Whilst there are a number of different trip attractors either side of the railway line, the character of each side is different therefore it was decided to created two distinct CWZ.

(ID) Core Walking Zone	Description
11. Town Centre (North)	There are a significant number of trip attractors within the Town Centre. Due to its large size and slightly different land uses, two CWZs were defined: 11 and 12. The nature of the Town Centre is dominated by retail and the railway station. The railway station is the busiest within the Borough with direct links to London Waterloo and Victoria. Whilst this CWZ is dominated less so by retail, its position in the area does incorporate a leisure centre, medical centre and small retail area. The cumulative effect of these key destinations is that it generates demand for people to travel to and thus provides the basis of this CWZ.
12. Town Centre (South)	Akin to CWZ 11 this CWZ also recognises that the Town Centre is dominated by retail and characterised by the gyratory. Similarly, the zone also incorporates the railway station providing direct access to Central London. Additionally, it also extends outwards from the centre to incorporate a school and retail centres.
14. West Ewell (South)	This CWZ is located directly west of the Hogsmill Open Space through which the river runs which also provides recreational connectivity too. Additionally, the CWZ also incorporates a small retail centre and a primary school. The location of the CWZ is peripheral to Chessington Road which provides connections to the rest of the Borough and beyond.

Identification of Walking Corridors

Following the identification of CWZs, further assessment of the available data was undertaken to identify the key walking corridors within the CWZs and key walking corridors outside of the zones, up to a distance of 2km[1] (corresponding to 30-minute walk).

The walking corridors aim to capture the main 'funnel' routes which provide access to the CWZs. 'Funnels' may be created by severance issues, such as bridges, waterways, or railways, or by the layout of the street network, which channel pedestrian flows (and potentially other modes) to network links to access the CWZ.

Within the corridors leading to popular destinations, e.g., schools, recreational grounds, retail centres, or denser residential areas, and located outside of the main core, were prioritised. Where necessary they were amended to provide better connections to the centre of a respective CWZ. Outside the CWZ, the proposed walking corridors connect different CWZs due to their dense urban environment and to facilitate the accessibility amongst them.

The data assessment, presented as the pedestrian issues and opportunities heatmap, allowed for the identification of the walking corridors (Figure 84). Roads with the highest intensity colour indicate the areas in need for improvements and were selected to align to the walking corridors.

1 As per DfT LCWIP guidance, key walking corridors were identified up to 2km from the centroid of the CWZs.

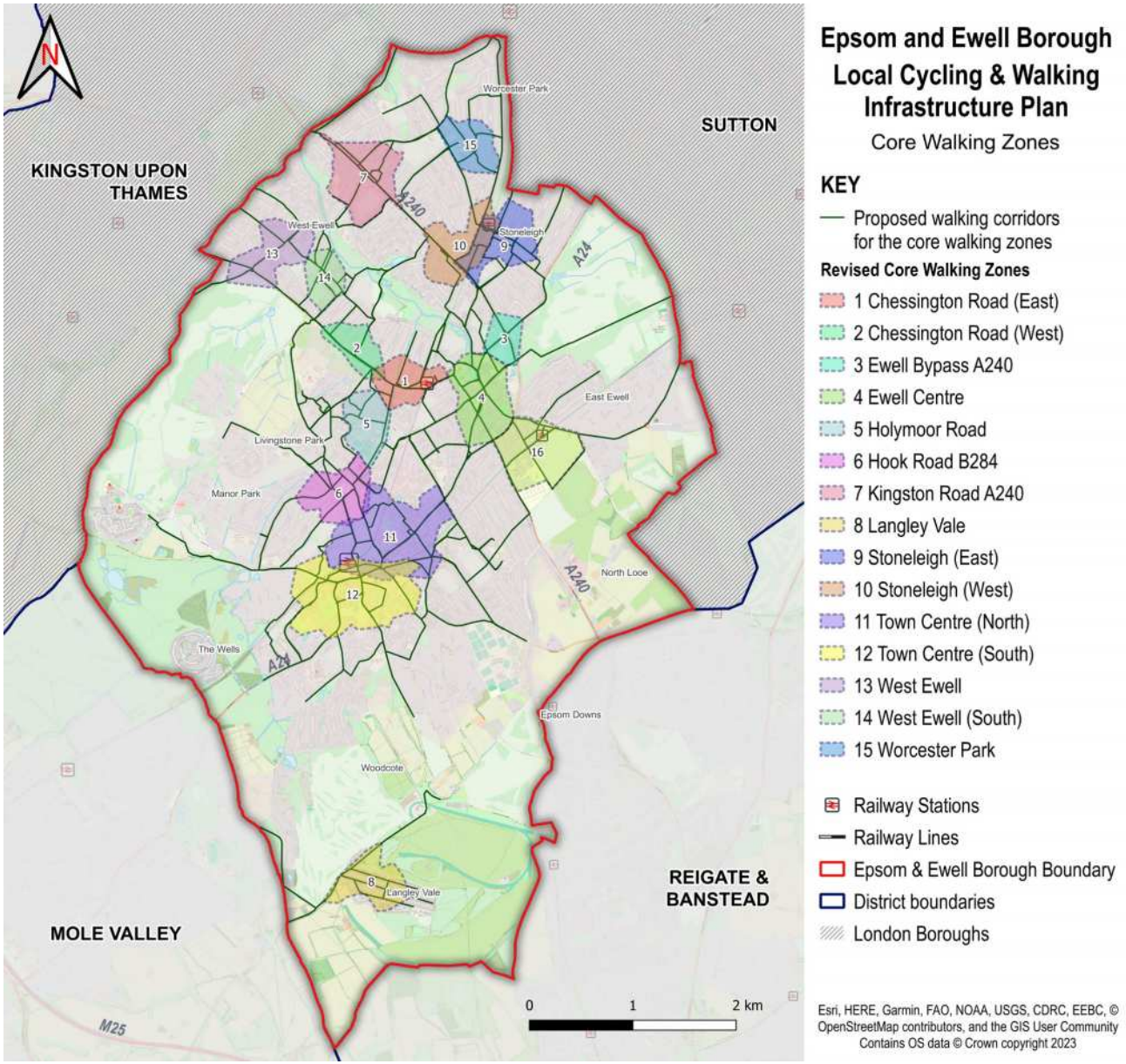


Figure 84. Identified walking corridors

Identification of Phase 1 Core Walking Zones

Multi-Criteria Assessment Framework

A multi-criteria assessment framework (MCAF) was developed to identify the Phase 1 ('short list') Core Walking Zones, utilising various data inputs from the evidence base previously gathered. In combination, the chosen MCAF criteria were intended to identify and prioritise areas with both a higher relative propensity for walking trips and areas with a greater relative potential to benefit from improvements (i.e., areas 'in need' or with lower quality existing pedestrian environment).

The criteria were categorised in five main groupings:

- **Access –** reflects the number of destinations within a 10-minute walk outside of the CWZ, in addition to the local high street itself, including schools, parks, hospitals, bus stops, and railway stations. A higher number of destinations would indicate a greater propensity for walking trips and therefore a higher score. This criteria had a weighting of 30% in the overall score.
- **Potential demand –** this is based on the resident and workplace populations within a 10-minute walk of the CWZ. Additional criterion includes future demand based on the size of the development areas serving the CWZs. A higher population would indicate greater potential demand and propensity for walking trips and therefore a higher score This criteria had a weighting of 30% in the overall score.
- **Existing walking and wheeling quality –** these criteria characterise the existing environment, including speed limit, traffic volumes, and number of collisions involving pedestrians. A 'poorer' environment (e.g., higher speed, higher flows, higher number of collisions) was scored higher to prioritise areas that may be 'car-centric' and/or have potential severance and safety issues, which may therefore have a greater opportunity for or benefit from improvements. This criteria had a weighting of 15% in the overall score.
- **Potential for improvements –** these criteria aim to capture the potential for pedestrian improvements in the area. Lower scores are given to areas in relatively good condition, and which therefore may be a lower priority for improvements. Lower scores are also given to areas with significant constraints where improvements may not be feasible or very difficult. Scoring was based on comments from the workshops and a cursory review via StreetView imagery. As the team has not been to site prior to the exercise, this category has a lower weighting than the others, of 10%.
- **Stakeholder input –** these criteria reflect the relative priority of the different CWZs based on public online input (LCWIP Commonplace survey) and LCWIP stakeholder workshop input (via the workshop surveys). Higher scores indicate a higher number of online comments and/or workshop votes. This criteria had a weighting of 15% in the overall score.

The MCAF criteria for the selection of the Phase 1 CWZs are listed in the table on the following page (Table 10). Each criterion was scored on a scale from 1 (low) to 3 (high). Within each category, the criteria were also given a relative weighting of 1 (low) to 3 (high), allowing some criteria to be weighted more heavily (e.g., access to schools weighted more heavily than other 'access' criteria). The total score for each category was also given a weighting. As with the cycling MCAF, the intent of this weighting was to give a higher significance to factors related to Access and Demand (60% of the total), which utilised more quantitative data and suggest the relative potential usage of each proposed CWZ. A lower weighting was given to the more qualitative criteria. Where applicable, the break-points within each criterion were adjusted to achieve a relatively even scoring distribution.

Table 10. Multi-criteria assessment framework criteria for prioritisation of Core Walking Zone aspiration list

Category	Criterion	CWZ Rating
Access[1] (30%)	Key destinations	1 = < 5 2 = < 10 3 = ≥ 10
	School	1 = < 2 schools 2 = < 4 schools 3 = ≥ 4 schools
	Bus Stops	1 = < 10 2 = < 20 3 = ≥ 20
	Railway Station	0 = none 2 = 1 station within 10min-walk 3 = 1 station within the CWZ
Demand[2] (30%)	Total Resident Population	1 = < 30,000 residents 2 = < 35,000 residents 3 = ≥ 35,000 residents
	Total Workplace Population	1 = < 10,000 people 2 = < 15,000 people 3 = ≥ 15,000 people
	Development Sites	1 = < 500 potential residential units 2 = < 1000 potential residential units 3 = ≥ 1000 potential residential units (# dwelling units)
Existing walking and wheeling quality (15%)	Posted Speed	1 = ≤ 20 mph or off-street 2 = > 30 mph 3 = ≥ 30 mph (for main CWZ corridors)
	Traffic Flows	1 = < 5000 vehicles 2 = < 10000 vehicles 3 = ≥ 10000 vehicles (for main CWZ corridors)
	Collision History	1 = < 3 collisions 2 = < 8 collisions 3 = ≥ 8 collisions
Potential for Improvement (10%)	Potential to improve to a high and accessible standard, relative to existing condition	1 = lower potential 2 = medium potential 3 = higher potential
	Significant constraints or dependencies	1 = significant constraints (e.g. land take, third party works) 2 = constraints typical for a transport improvement 3 = limited constraints
Stakeholder input (15%)	LCWIP Commonplace Input[3]	0 = none 1 = < 8 comments 2 = < 16 comments 3 = ≥ 16 comments
	Stakeholder feedback (early engagement workshop 1)[4]	1 = < 2 votes 2 = < 3 votes 3 = ≥ 3 votes

1 Access criteria were assessed using a 10-minute buffer around the Core Walking Zone
2 Population within 10-minute buffer around the Core Walking Zone
3 Number of items and 'agreements' within the Core Walking Zone
4 Number of votes from workshop surveys

Phase 1 Walking Areas

The MCAF outlined in the methodology above was applied to the Epsom and Ewell Phase 1/2 CWZs. The MCAF scoring and output is provided in Appendix 1: Multi-Criteria Assessment Framework (MCAF) for reference. The selected Phase 1 CWZs are illustrated in Figure 85. Core Walking Zones – Phase 1 Short List and listed below by ranking order (highest score to the lowest score):

- **CWZ 12: Epsom Town Centre (south)**
- **CWZ 11: Epsom Town Centre (north)**
- **CWZ 4: Ewell Centre**

CWZs 12 and 11, located south and north of Epsom Town Centre scored 89.5% and 87.8% respectively against the aforementioned metrics making them the highest scoring core walking zones in the Borough. They were closely followed by CWZ 4 (Ewell Centre) with a score of 84.6%.

These are higher scoring than other core walking zones due to a higher concentration of key destinations and a denser urban environment which generates higher flows. Additionally, the highest scoring CWZs provide connections to the railway stations, as there is demand for the last mile connections on foot.

These therefore comprise the top-scoring CWZs and are shown in Figure 85. They are subsequently advanced as part of the Epsom and Ewell LCWIP including a review of existing conditions with site visits and followed by development of initial high-level proposals for infrastructure improvements.

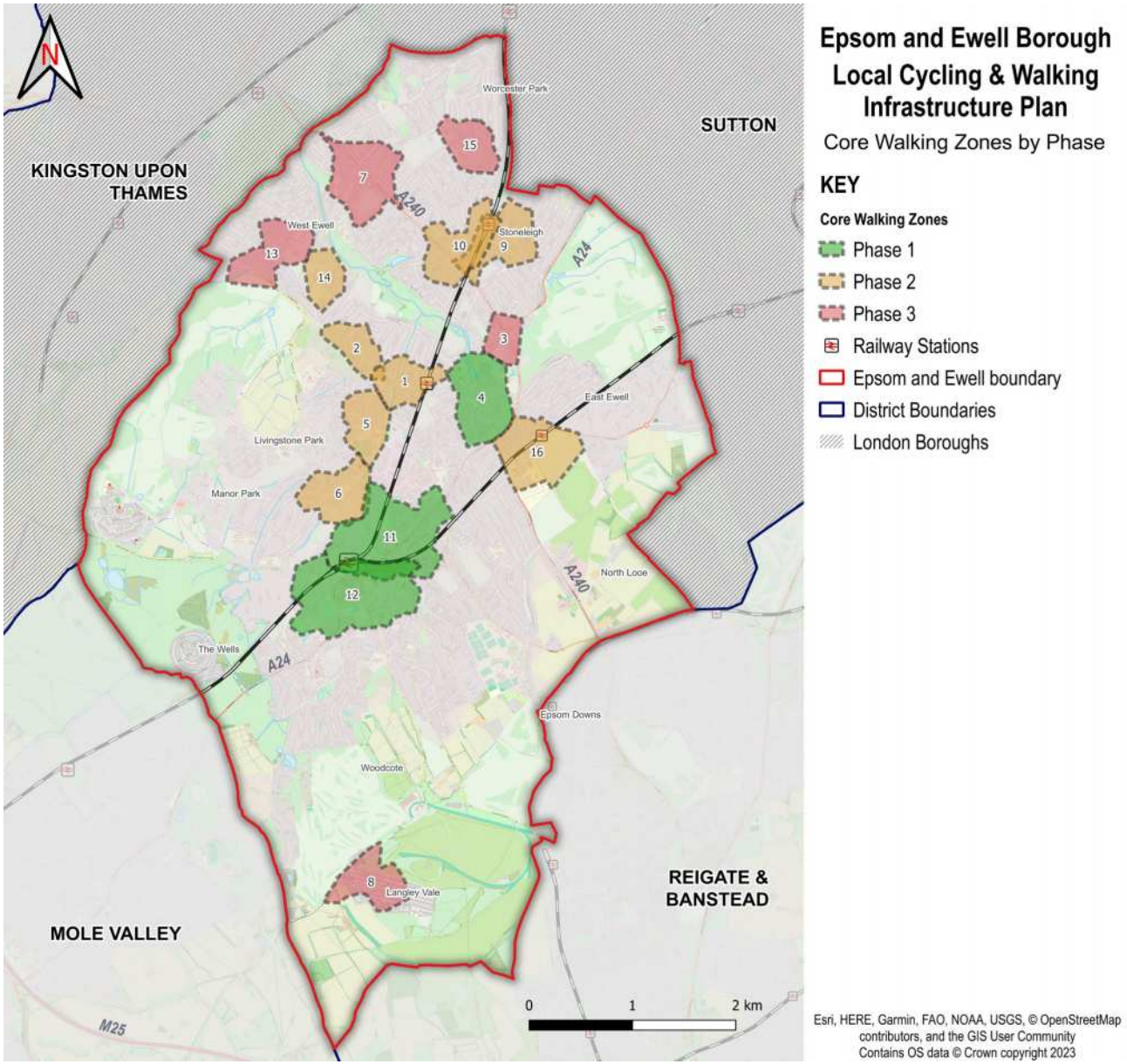


Figure 85. Core Walking Zones – Phase 1 Short List

Walking Corridors Further Refinement

For each Phase 1 CWZ, key corridors up to 2km long were identified. After the initial identification (see Identification of Walking Corridors on page 130), a site visit was undertaken and adjustments were carried out.

The completed plan of Phase 1 CWZs and their respective walking corridors is presented in Figure 86. The three CWZs along with their walking corridors were audited using the DfT's Walking Route Assessment Tool (WRAT)[1]. The assessment provides a baseline for existing conditions and helped identify existing deficiencies and key issues in the area. The CWZs were audited in late 2023 and the results are presented in Appendix 3: Walking Route Assessment Tool (WRAT).

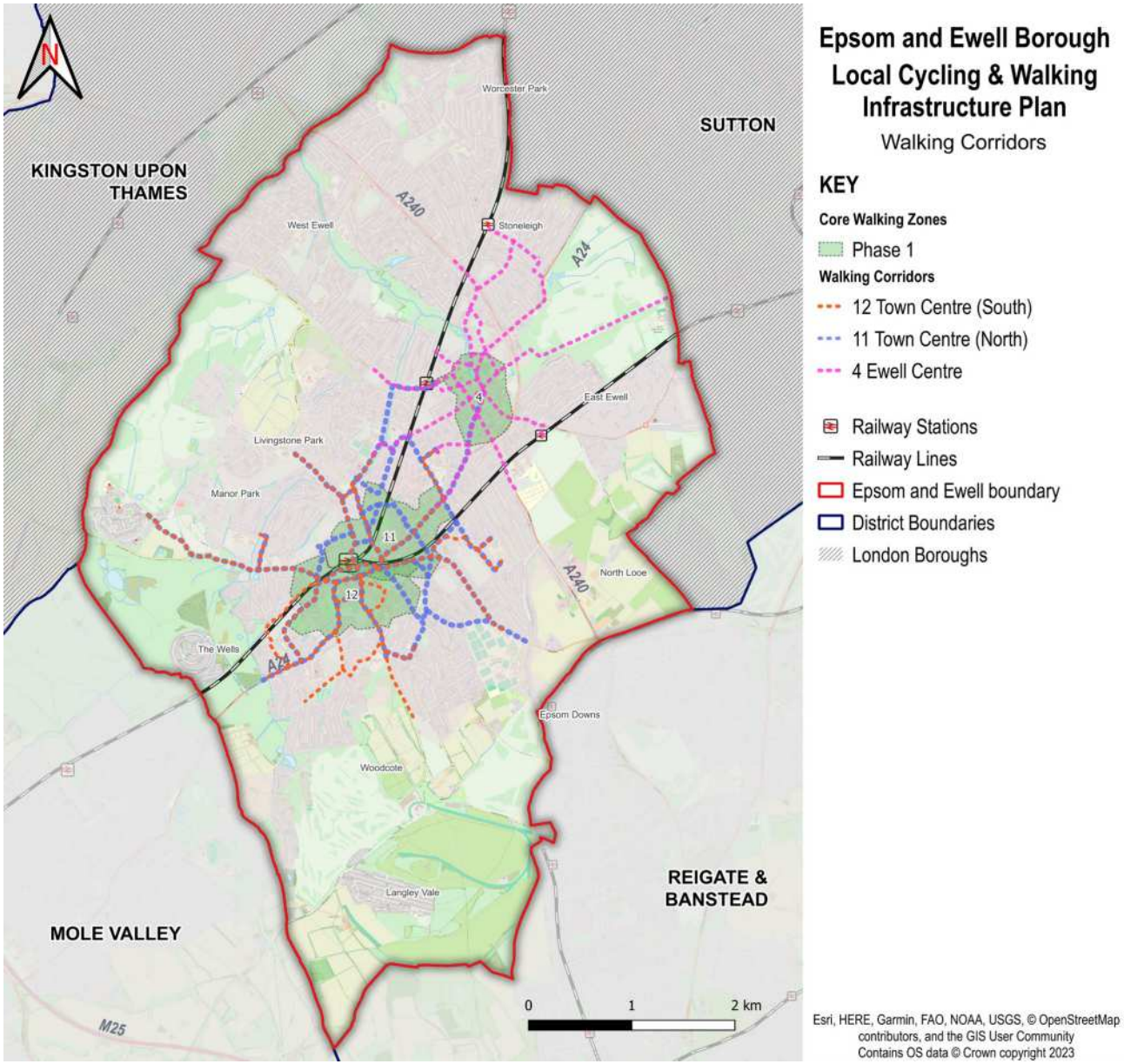


Figure 86. Core Walking Zones – Phase 1 updated walking corridors network

1 The WRAT is a framework for providing a high level assessment of a walking corridor, covering the key parameters of attractiveness, comfort, directness, safety, and coherence.

8. Walking Network Proposals

Design Tools / Best Practice Examples

Phase 1 Proposed Walking Interventions

Assessment of Proposals

Design Tools / Best Practice Examples

This chapter outlines potential infrastructure measures to enhance the Phase 1 core walking zones identified in the previous chapter. The following sections summarise design guidance considered during development of the proposed infrastructure improvements for walking and wheeling.

Core Design Principles

Potential improvements for walking and wheeling were developed following a set of desired core design principles (adapted from LTN 1/20) to encourage more people to make local journeys in Epsom and Ewell walking or wheeling. Not only are these applicable to the primary walking networks of the LCWIP, but also it can be applied further as opportunities arise to improve conditions for walking and wheeling.

Safety

Infrastructure should be safe and improve perceptions of safety for people walking and wheeling to encourage more trips on foot. Safety applies both to interactions with motorised traffic as well as concerns related to personal safety and security.

Directness

Walking and wheeling improvements should seek to accommodate movements along desire lines, provide continuous routes, eliminate unnecessary obstacles, and minimise delays.

Comfort

Walking and wheeling facilities should be fit for purpose, well constructed, and well maintained. They should also support a comfortable environment for people of all ages and abilities.

Coherence

Infrastructure should be legible, intuitive, inclusive, and routes interconnected. It should be easy to navigate and understandable for all users.

Attractiveness

Walking and wheeling infrastructure should enhance the public realm. It should foster a welcoming environment for people walking and wheeling that encourages more trips on foot and reflects the local setting.

Accessibility and Inclusive Design

Walking facilities should provide equal access for disabled people and ensure that streets meet the requirements for all users.

Gradient

Not as critical as for cyclists, but the walking network should provide routes with gentle gradients that make walking trips and wheeling easier for people of all ages and abilities.

When topography of the area is challenging, the facilities provided should be wide and have features to encourage people to choose walking and make them feel welcome.

Guiding Principles

To support the desired outcomes, the walking improvements consider several general principles, which can be applied throughout the Borough. Examples of infrastructure improvements that support these principles are shown on the following pages.

» **Desire lines** - People while walking or wheeling tend to follow the shortest path to a destination, and are likely to bypass or not use facilities that require a notable deviation to the length of their journey. Therefore, improvements should seek to accommodate and enhance movements along preferred desire lines as closely as possible.

» **Access to key destinations** - Safe walking routes are essential to encourage active travel to key trip attractors, such as schools, green areas, commercial areas, business parks, public buildings, and public transport services.

» **Footway width** - The minimum unobstructed footway width for people walking should generally be 2.0m, which facilitates two people in wheelchairs to pass each other comfortably. In areas with higher pedestrian activity minimum footway width is recommended at 3.0m. Additional width should be considered in areas with higher pedestrian activity (Inclusive Mobility / Manual for Streets / Pedestrian comfort levels).

» **Lower traffic speeds** - High vehicle speeds can reduce the attractiveness of a route for people walking and make them feel unsafe. Vehicle speeds of 20mph or lower are generally preferred. Design elements such as vertical deflection (e.g. raised tables/raised junctions) or horizontal deflection (e.g., kerb build-outs, tight kerb radii, priority working) may be used, as appropriate, to support the desired vehicle speeds and create an environment where the speed limit is self-regulating.

» **Pedestrian crossings** - Appropriate crossing facilities should be provided along pedestrian desire lines to maintain the continuity of a walking route, improve safety, and reduce severance. The type of facility would depend on the context of the crossing. At a minimum, crossings should have appropriate tactile paving and dropped kerbs. Additional provisions for uncontrolled crossings could include raised tables, or reduced kerb radii to shorten a crossing and reduce vehicle speed. At locations requiring greater priority for people walking (e.g., locations with higher traffic volumes and/or speeds, or higher pedestrian flows) zebra or signal-controlled crossings may be appropriate.

» **Pedestrian priority** - Where appropriate design measures should seek to enhance pedestrian priority, improving the continuity, directness, and coherence of the primary walking network. Interventions such as side road entry treatments (raised tables and continuous footways), raised carriageway, or use of different materials to highlight pedestrian crossings or delineate space for different users may be considered.

» **Place function of the street -** Streets have functions predominantly associated with either place or movement functions and interventions should therefore seek to balance these appropriately. As the CWZs are generally focused around high street areas, they are likely to have a relatively high place function. Walking-related interventions should consider measures that enhance the place function and thereby encourage pedestrian activity in the area, such as expanding the public realm, providing places to rest, shelter and plantings, and/or reallocating carriageway space to other uses.

» **Wayfinding** - Good sight lines and visibility of destinations and of walking routes are important elements that affect how easy a route is to navigate, how many people use the route, and perceived personal security. Wayfinding signage should be used to aid navigation and encourage use of the designated routes. Appropriate signage can improve confidence in using the route and encourage more walking trips, particularly for those unfamiliar with the area. A consistent wayfinding system should be applied on walking routes throughout the Borough.

» **Context sensitive design** - Improvements should complement and enhance the character of urban and rural environments. The high-level proposals for infrastructure improvements developed in the LCWIP should be suitable for the setting, and design guidance should be adapted to fit the local context and space constraints. Particular attention should be paid to the treatment of heritage assets.

» **Adaptability -** Improvements should be developed to accommodate all types of users and potential growth in the numbers of people walking.

- **Healthy Streets** - Improvements should consider a Healthy Streets approach, which aligns with the Surrey Healthy Streets guidance. This includes proposals which puts people at the centre of how streets and public spaces are designed, managed, and used.
- **Design Guidance** - As proposed walking improvements are advanced, design stages should utilise the latest best practice design guidance and standards available at the time, such as:
  - Inclusive Mobility (Department for Transport)
  - Manual for Streets / Manual for Streets 2 (Chartered Institution of Highways & Transportation)[1]
  - Healthy Streets for Surrey (Surrey County Council)
  - Active Travel England review tools
  - Local Transport Note 1/20 Cycle Infrastructure Design (Department for Transport)

1 At the time of development of this LCWIP report, a revised Manual for Streets is in development by DfT

Example Design Tools - Walking & Wheeling

Uncontrolled Crossing
Provide tactile paving and dropped kerbs at side roads and crossing points following the desire lines where the visibility is good and traffic speeds and flows are appropriate to facilitate pedestrian crossings. A refuge island can be provided if the carriageway width allows, enabling a crossing to be made in stages.

Zebra or Parallel Crossing
Provide priority for people walking, wheeling and cycling at a crossing location, minimising the delay for non-motorised users and improving the directness of the corridor.

Signalised Crossing
Provides a controlled crossing for people walking and wheeling, improving user comfort and safety, reducing delay for non-motorised users at busy streets where there are limited gaps in traffic, and connecting off-carriageway facilities.

Raised Table (Side Road Entry Treatment)
Reinforces the Highway Code 2022 update by enhancing priority for people walking and wheeling and making the side road crossing easier and more convenient by maintaining the continuity of the corridor at footway level. It indicates pedestrian activity, encourages lower traffic speeds, and driver attention. Variations referred to as a continuous footway, blended crossing or Copenhagen crossing, as shown above.

Example Design Tools - Walking & Wheeling

Modal Filter
Supports a safer, more attractive environment for walking, wheeling and cycling by reducing motor vehicle traffic and permitting more direct, convenient access by foot or by cycle. Modal filters may be configured to permit access by certain vehicles (e.g., emergency vehicles, buses, blue badge holders).

Lower Traffic Speeds
Improves safety for all road users and fosters a more comfortable environment for walking and wheeling. Should be supported by traffic calming measures, as needed, to make the speed limit self-enforcing. An area-wide policy could also be considered rather than changes on a street by street basis.

Raised Junction
Similar to the raised table, a raised junction reinforces the updated Highway Code (2022) by enhancing priority for the most vulnerable road users, encourages motorists to reduce speeds at a junction, and also provides uncontrolled crossing facilities at all arms of a junction. Proposals to also consider tightening junctions too.

School Street
Implements timed vehicle access restrictions during school arrival/dismissal times to encourage more pupils to walk and cycle to school and improve the safety, comfort, and attractiveness of these modes. School streets may be configured to permit access by certain vehicles.

Review On-street Parking
Ensures footway width is maintained to accommodate wheelchair users, mobility scooters, or prams. Supports a more attractive, accessible and safer walking and wheeling environment; allows safer and easier informal crossings; and improves visibility.

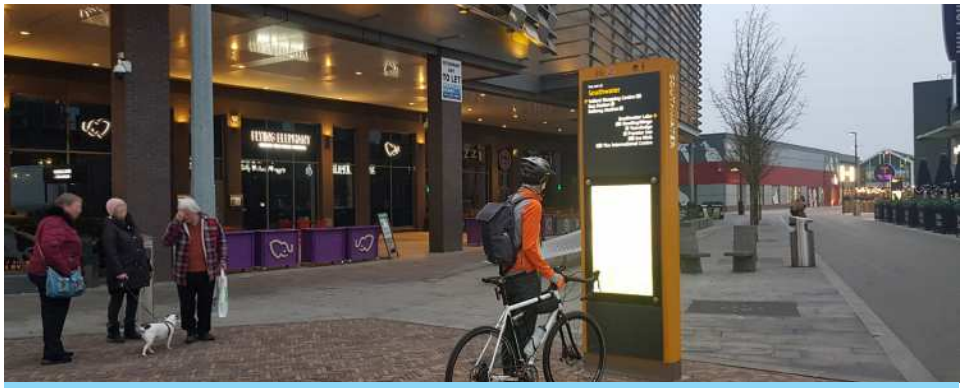
Raised Loading/Parking Pad
Reallocates carriageway space to the footway, providing a wider, more comfortable pedestrian environment. The parking pads may be used for servicing or parking as needed, but allow a more flexible use of space to better accommodate pedestrians and narrow the carriageway.

Example Design Tools - Walking & Wheeling

Public Realm
Public realm interventions enhance the character and sense of place of an area and provide a space for those walking and wheeling whilst considering the function of the area too. Interventions to support public realm improvements could include improvements to landscaping, places to sit/rest, lighting, drainage, surface material and similar. Such places would be free from motor vehicles and dedicated to walking and wheeling.

Local Street Improvement Area
Residential (primarily) areas with features that increase the comfort, safety and accessibility of walking, wheeling and cycling; create space for community facilities; and reduce the dominance of cars resulting in improved safety, air quality and noise pollution to encourage more walking, cycling and social interactions.

Places to Rest
A component of 'Healthy Streets' principles, more specific and localised public realm improvements providing a pedestrian friendly environment with places to sit and rest, shelter opportunities, planters and planting offering shade and enhanced public realm.



Wayfinding System
Improves the coherence of the walking network, making it easier for people to navigate through the area and encouraging more trips to be taken on foot. A consistent system should be applied town/area-wide.

Phase 1 Proposed Walking Interventions

Introduction

The following sections outlines potential infrastructure interventions to enhance the Phase 1 core walking zones as identified in the previous chapter. The proposed interventions are high-level and identify infrastructure improvements for further consideration in future stages of scheme development. Note that significant further work would be needed on each corridor to assess the feasibility of proposed interventions.

Indicative potential interventions

All proposed interventions seek to address issues and deficiencies identified during the audit activities, incorporate comments and issues noted during early stakeholder engagement (workshop #2), as well as to incorporate proposals from previous studies. They aim to be aspirational, ambitious, and reflect the long-term timescales of the LCWIP, seeking to support a step-change in active travel and incorporate recent best practice guidance.

For walking improvements, this includes a range of strategies from relatively minor interventions (e.g., improved dropped kerbs and tactile paving) to new crossings, footway widening, or reconfiguration of the public highway. All proposed measures would be subject to varying levels of future additional analysis, feasibility assessment, and design.

Next steps for further development

As the LCWIP develops during feasibility planning and design, the interventions proposed within the current stage would be subject to further assessment. Examples include topographic surveys, traffic modelling, vehicle swept path analysis, utility surveys, traffic/ speed surveys, assessment of the availability of land, kerbside activity surveys, ecology/ arboricultural surveys, further stakeholder input, etc.., as necessary.

Further observations, data and information would also be obtained to continually refine and improve the initial proposals. Additionally, Active Travel England (ATE) and Healthy Streets assessments would also be undertaken at key points too. Stakeholder engagement would also continue to be a critical component of the next stage of scheme development too.

It is noted that some of the desirable locations for active travel improvements may be owned by third parties and are not within SCC's publicly maintained highway. As such, collaborative working with the respective owners would be required to explore opportunities to improve conditions for active travel.

Additionally, consideration should be given during subsequent development phases to review and coordinate future opportunities for integration with other workstreams (e.g., SCC/ EEBC schemes and development activity), or other active travel improvements, including those identified within the aspirational list / LCWIP network for walking and/or cycling, and measures which may be progressed in addition to the LCWIP proposals.

Section outline

The proposed interventions are presented over the following pages. Whilst these proposals are focused on the Phase 1 CWZs, they also provide examples of the types of interventions that can be implemented Borough-wide as needs or opportunities arise.

The proposed interventions associated with core walking zones 11 and 12 are grouped together as there is a lot of overlap between them. Despite this it remains possible to develop one or both in the future.[1]

For each CWZ the extent of the proposals along the identified walking corridors is presented in a map and separate maps have been developed with zoomed in sections of the interventions to help focus on the different areas of the zones.

1 Several walking corridors identified for the two CWZs extend along the same roads (see page 134) serving same destinations with different origins (the different centres of the zones).

Core Walking Zone 4: Ewell Centre

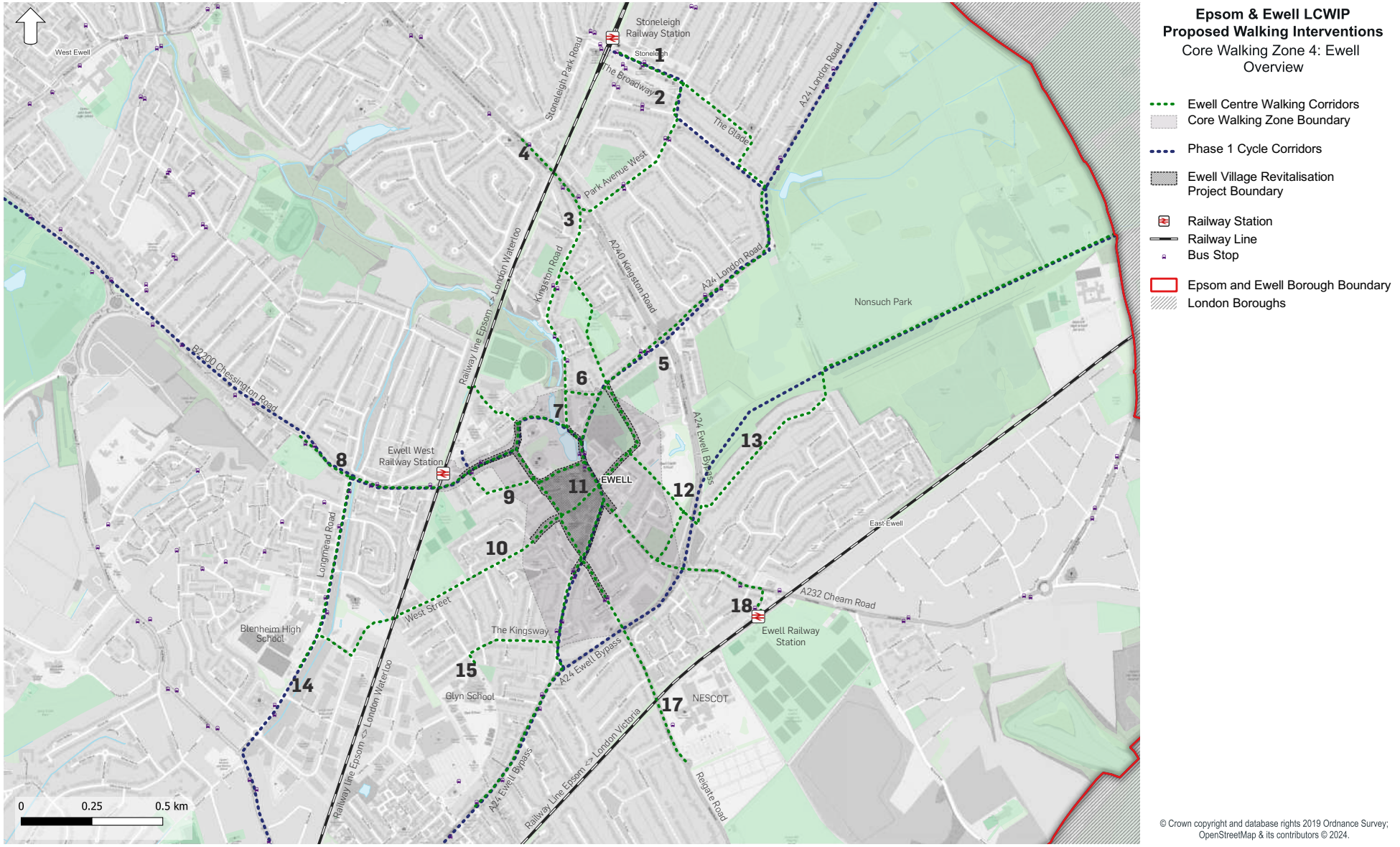


Figure 87. Core Walking Zone 4 overview

Core Walking Zone 4: Ewell Centre - map 1

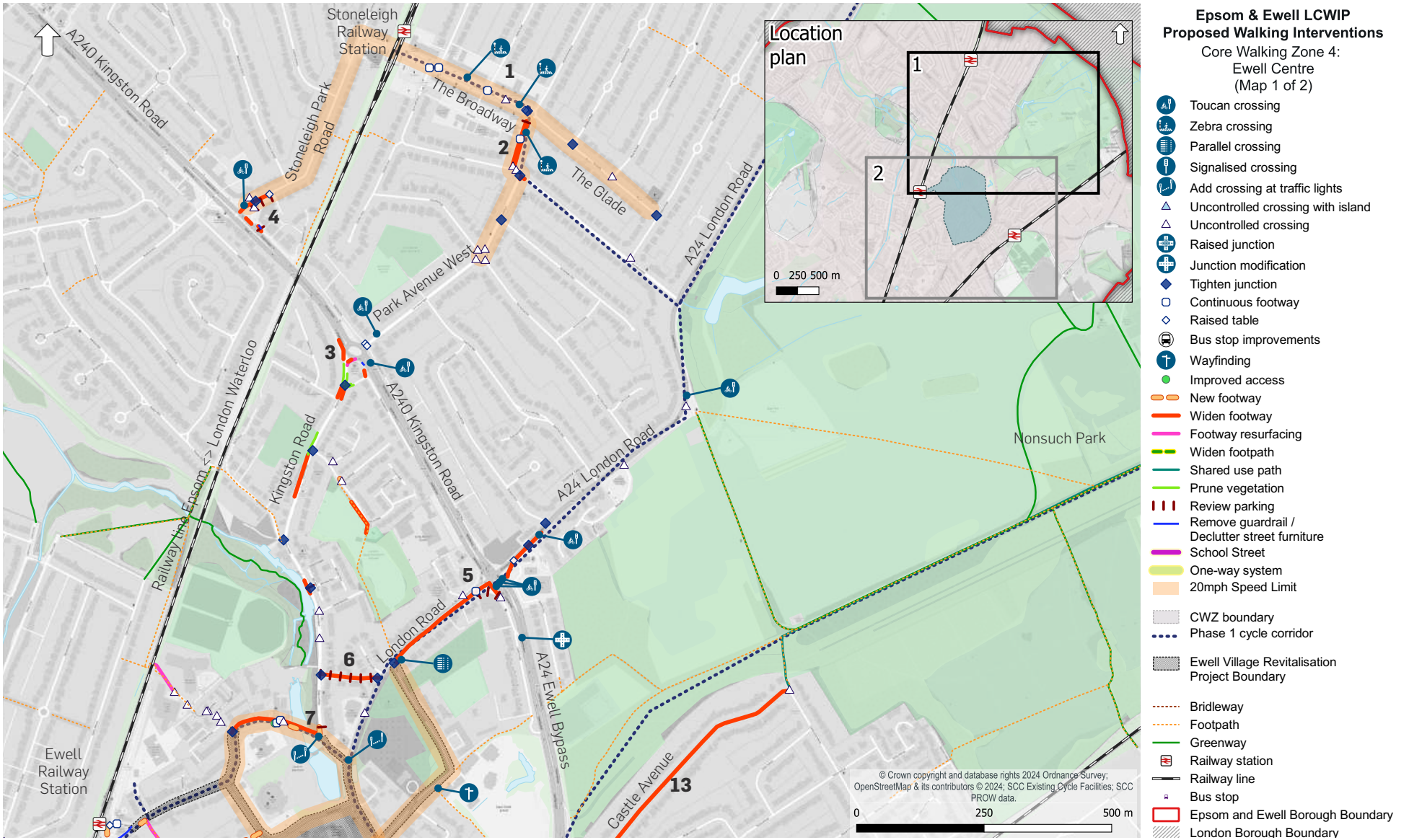


Figure 88. Core Walking Zone 4 key high-level interventions map 1

Core Walking Zone 4: Ewell Centre - map 2

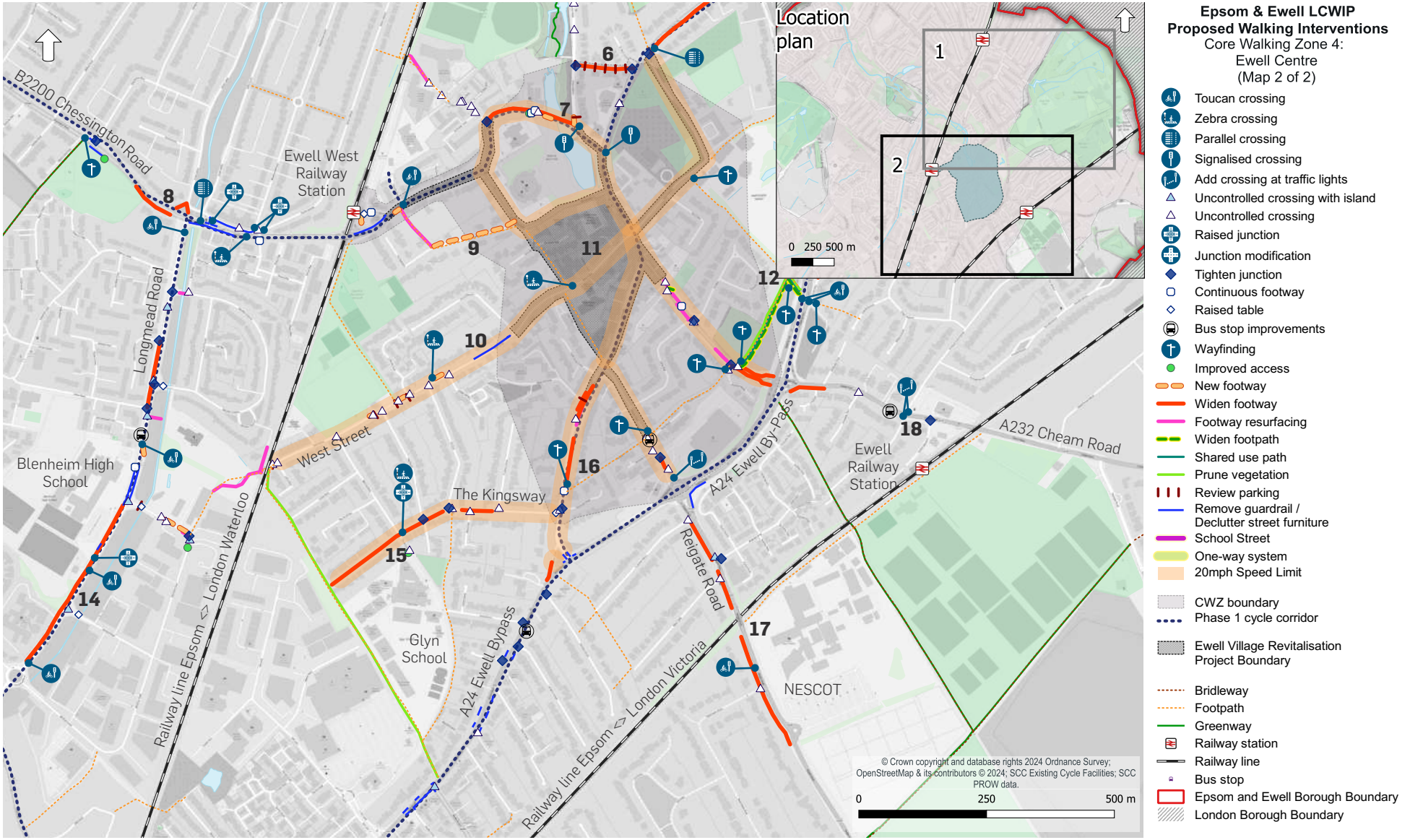


Figure 89. Core Walking Zone 4 key high-level interventions map 2

Core Walking Zone 4: Ewell Centre

This core walking zone is located around the centre of Ewell and encompasses the gyratory, retail centre and key highway links to and from the village centre. It also includes the area of the Ewell Village Revitalisation project (see page 36) of which the proposals for the CWZ seek to tie into and complement it accordingly. Given the project's overlap with the CWZ, only additional key interventions to the tie in points are shown on the plan. However, the identified interventions within Ewell Village Revitalisation project are also included in the LCWIP and are outlined on point 11.

Proposals have also been developed to align with SCC's aspirations to improve the public realm along Stoneleigh Broadway and encourage more people to walk and cycle.

Lastly, there is an overlap with Cycle Corridors 3, 8 and 11 which have been developed in collaboration with the walking proposals complementing each other.

Indicative Proposed Interventions:

1 Stoneleigh Broadway[1]: It is proposed to introduce zebra crossings on raised tables across the highway to improve north-south connectivity. This would be complemented with proposed continuous footways over the side roads including Kenilworth Road, Rosedale Road and Gayfere Road providing pedestrians greater comfort as well as deliver accessibility improvements. These interventions align with SCC's aspirations to improve the public realm along the extent of the Broadway.

2 Dell Road: Accessibility improvements are proposed by means of wider footways. At the northern end of the road it may be necessary to reallocate space from parking in order to achieve a suitable footway width. Kerbside activity surveys in future phase of design should give greater clarity on the demand and the opportunities to relocate the parking to the side roads. Additionally, there is currently a lack of formal crossing provision on the southern arm of the roundabout and therefore a zebra crossing is proposed. The nature and details of this are to be refined as the scheme develops and following relevant surveys and assessments. Additionally, it is also proposed to reduce the speed limit to 20mph or introduce a 20mph zone across the area comprising Stoneleigh Broadway, The Glade, Dell Road, Glenwood Road, Stoneleigh Park Road and associated side roads. The full extent of this proposal to be determined in the next stage of work and once traffic data has been reviewed and assessments are undertaken.

3 Kingston Road: Whilst there is an existing footway on the southern side of the A240, it is neither wide nor meets accessibility standards, therefore improvements are proposed. This could, in some sections, involve vegetation removal to increase the effective width of the footway and potentially reallocation of space from the carriageway if feasible. This complements a proposed signalised crossing over the A240 east of the roundabout at the existing uncontrolled crossing.

4 Stoneleigh Park Road: Proposals seek to improve safety and accessibility in the vicinity of the shopping parade. A toucan crossing is proposed here to facilitate safe north-south movements. Additional improvements to the widths of footways are proposed which might require reallocating space from the carriageway which may impact parking provision (subject to surveys in the next phase of work). Additionally, the vehicular entrance to the parade from Stoneleigh Park Road is recommended to be tightened with a raised table entry treatment / continuous footway. A 20mph speed limit is recommended to improve road safety.

Figure 90. Stoneleigh Broadway offers wide footways however the crossing provision is limited

1 Challenging street layout with frequent kerbside activity, wide carriageway, poor visibility at the crossing locations and lack of suitable crossings.

5 A24 / A240 Ewell By-Pass / London Road: This junction is dominated by traffic, although there are a number of opportunities to improve the pedestrian environment. These would seek to improve access to the parade of shops as well as improved access at the junction as a link between the residential areas north and south of Ewell By-Pass. Measures include footway widening on the approach to the junction from London Road (south), achieved by reallocating road space from parking on Castle Parade (subject to kerbside activity surveys)[2]. Additionally, the footway is also proposed to be widened between the junction and Castle Parade where possible. This is complemented with an uncontrolled crossing between the eastern and western sides of Castle Parade and a wider footway on the eastern side of the junction/along London Road.

Furthermore, closure of the slip road from the A24 directly to Castle Parade is recommended to improve the pedestrian environment and safety[3].

6 London Road and Mill Lane: Widening of the footway is proposed on London Road to accommodate movements to the Village centre along with crossing improvements as part of the Ewell Village Revitalisation Plan. On Mill Lane the footway is very narrow and exacerbated by cars parked on it forcing pedestrians to walk on the carriageway. It is therefore proposed to restrict parking on the footway and increase the width of the footway where feasible.

7 Kingston Road / Chessington Road: The current footway on the western side of Kingston Road is very narrow on the approach to the junction. It is proposed to widen the footway and improve accessibility by tightening the junction where possible (subject to reviewing the highway boundary and undertaking further surveys and assessments in future stages of scheme development), which would complement the footway widening along Chessington Road. Additionally, proposals for Kingston Road include a new pedestrian crossing over the northern arm of the junction where currently there are traffic signals without any facilities for pedestrians to cross. Proposals closely align with the designs for the Ewell Village Revitalisation scheme (see also 11) and it is recommended both schemes work together.

8 B2200 Chessington Road: Proposed improvements along the area outside a parade of shops / cafés include new crossings and junction re-alignment to introduce pedestrians priority, enhance the visibility and safety. Other pedestrian crossings in the area are also subject to review in order to attend current design standards. Crossing improvements aim to enhance connectivity and access to the Hogsmill River path. Localised improvements to the width of the footways to be investigated in the future stages of the development of the proposals. Additional improvements to consider Water Sensitive Urban Design (WSUD) treatments to address localised flooding.

Figure 91. Entrance to Ewell West Station from Chessington Road

2 Proposals to align with the cycle proposals as part of Corridor 11.

3 It is noted that there is already access from the A24 approximately 200m east which would become the only access on London Road.

9 The Headway: This is a private road and a designated PRoW with poor pedestrian provision (no footways). Therefore a new footway is proposed to improve connectivity and safety for pedestrians accessing the area. As the Headway is a private road, engagement with the relevant landowner(s) is going to be necessary as the scheme develops. Additionally, along the footpath which runs north from The Headway to Chessington Road, improvements to the surface are required in addition to the introduction of lighting to enhance personal safety. A pedestrian crossing is proposed at the northern end of the footpath on Chessington Road. Further assessments and surveys are proposed in the next stage ,which should help determine the nature and positioning of the crossing.

10 West Street: Proposals here seek to tie into and complement Ewell Village Revitalisation Project proposals. LCWIP proposals include a zebra crossing adjacent to Ewell Grove Primary & Nursery School. Proposals also include the removal of barriers, bollards and other street clutter as well as new footways where missing. This seeks to improve safety and accessibility particularly given the proximity to the school and the Town Centre. Accessibility improvements are also proposed to the railway bridge, including new ramps of lifts[4].

4 Recommendations to Network Rail.

11 Ewell Village Revitalisation: SCC has developed plans which seek to improve the public realm within the centre of Ewell Village. The area of the revitalisation scheme is shown on the map in grey with only key / peripheral proposals shown and information is provided on page 36. Interventions include improved crossings at the junctions, access restrictions to vehicular traffic to reduce flows through the residential area and to the schools, public realm improvements to the high street and speed limit reduction to enhance road safety. As the schemes develop the respective teams should work together to align proposals.

12 A24 Ewell By-Pass: A new signal-controlled priority crossing is proposed at the junction of A24 with the Cheam Road. This new crossing would bring a safe and accessible route for pedestrians and cyclists between residential areas, the village centre and schools. This complements proposed improvements to the pedestrian and cycle path to the west of this location, which would improve access to the village centre. Additionally, it is recommended that the footway along Castle Avenue to be widened to help provide onward connectivity to Nonsuch Park and adjacent woodland.

Figure 92. West Street outside the school

13 Castle Avenue: The footway in this location is in poor condition and so is proposed to be resurfaced and widened to improve accessibility for walking and wheeling

14 Longmead Road: This features a school and is on the periphery of an industrial estate. Improvements are predominantly associated with widening of the footways and are supplemented with crossings and junction improvements, particularly adjacent to the school. Additionally, bus stop infrastructure would also be improved. This seeks to improve safety for those going to the school, particularly on foot or by public transport.

15 The Kingsway / Glyn School: Road safety improvements proposed to encourage walking, wheeling and cycling to school. This involves traffic calming measures, reduced speed limit, and timed parking restrictions (during school hours). Additionally a zebra crossing is proposed on the approach to the school entrance to enhance pupils' safety. This ties into proposed footway widening at The Kingsway.

16 High Street / Epsom Road: Proposals in this location seek to complement the proposals associated with the Ewell Village Revitalisation project. This includes the introduction of wider footways, complemented by a change to 20mph or 20mph zone, with details of the extents confirmed in the next stage of work and aided by surveys, assessments and close working with the other project team.

Figure 93. Existing crossing poor provision at A232 Cheam Road / Nonsuch Court Avenue / St Normans Way junction

17 Reigate Road: Widening of the footway to improve access to NESCOT and the surrounding area. This is in addition to a proposed toucan crossing adjacent to NESCOT and improvements to Augustus Drive to reduce the bellmouth / crossing distance for pedestrians.

18 A232 Cheam Road / Nonsuch Court Avenue / St Normans Way: There is currently an absence of a pedestrian crossing at this junction, it is therefore proposed to improve the junction by including pedestrian crossings across all arms and investigate widening of the footways on the approaches to the proposed crossings. Additionally, the bus stop in the vicinity on Cheam Road is proposed to be upgraded to include a bus shelter and step-free access.

General Items:

- 20mph zone: Implement 20mph speed limit or zones across the village centre area, including the surrounding local residential streets. The next stage of design to review and assess the extent of the 20mph limit/zones, existing traffic speeds and potential need for accompanying traffic calming measures.
- Footway widths: Existing footway widths along the identified walking corridors to be reviewed in the feasibility design stage, when more accurate measurement information would be available.
- Accessibility: Install improved dropped kerbs and tactile paving at side road crossings/ junctions where they are currently missing.
- Wayfinding: Review and update area-wide wayfinding system. Consider measures such as wayfinding totems at key locations (e.g., railway stations, High Streets/Town Centre) to help pedestrians navigate the area and illustrate the locations of local destinations and potential walking routes between them.
- Planting, seating, and shelter: As part of footway and public realm improvements, consider opportunities for additional planting, street trees, seating, and/or shelter as part of a Healthy Streets approach to pedestrian improvements and improve the accessibility of walking to a wider range of the population.
- Mobility hubs: Consider a network of mobility hubs across the CWZ to encourage uptake of active travel modes and support place-making.

Core Walking Zones 11 & 12: Epsom Town Centre (North & South)

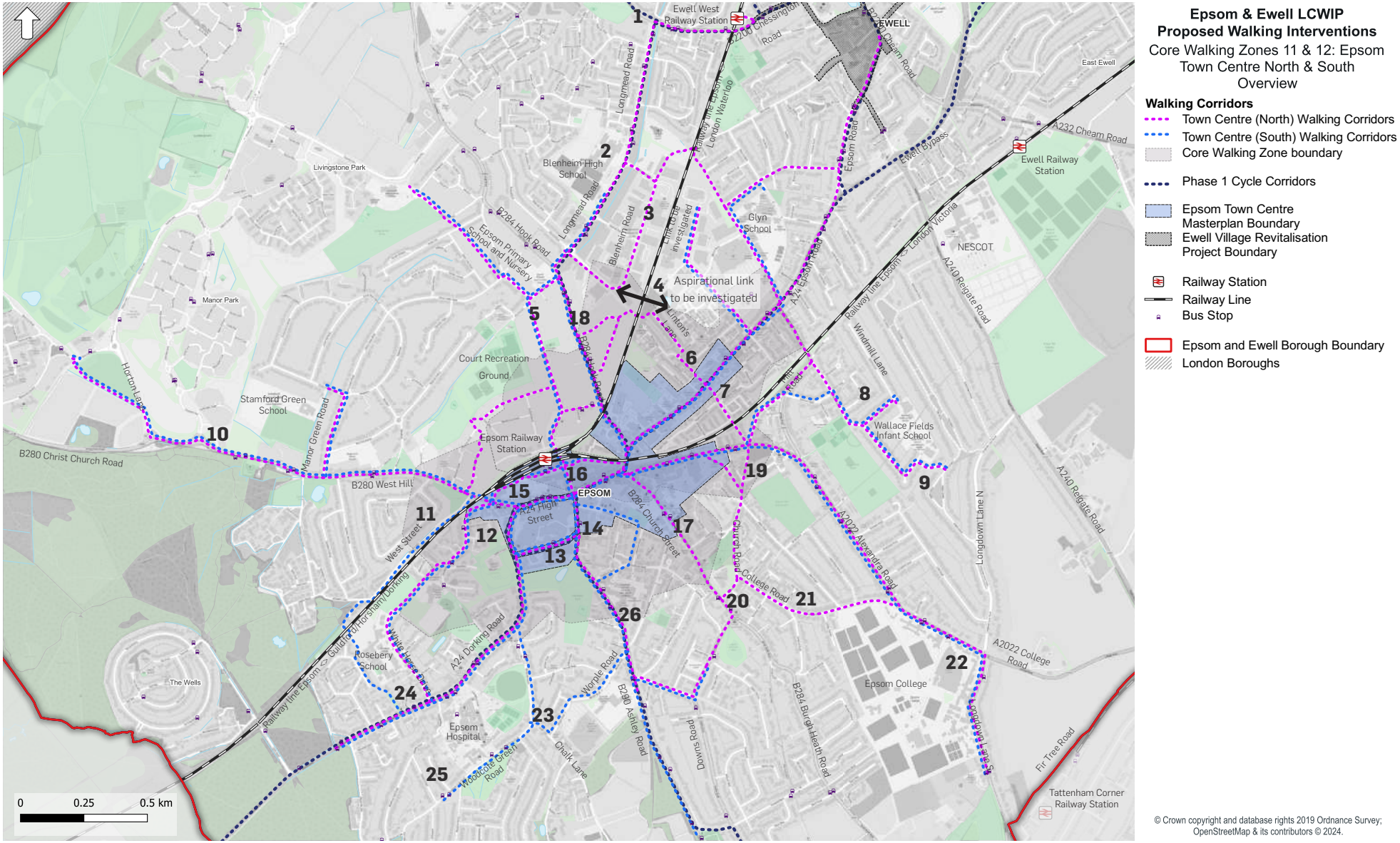
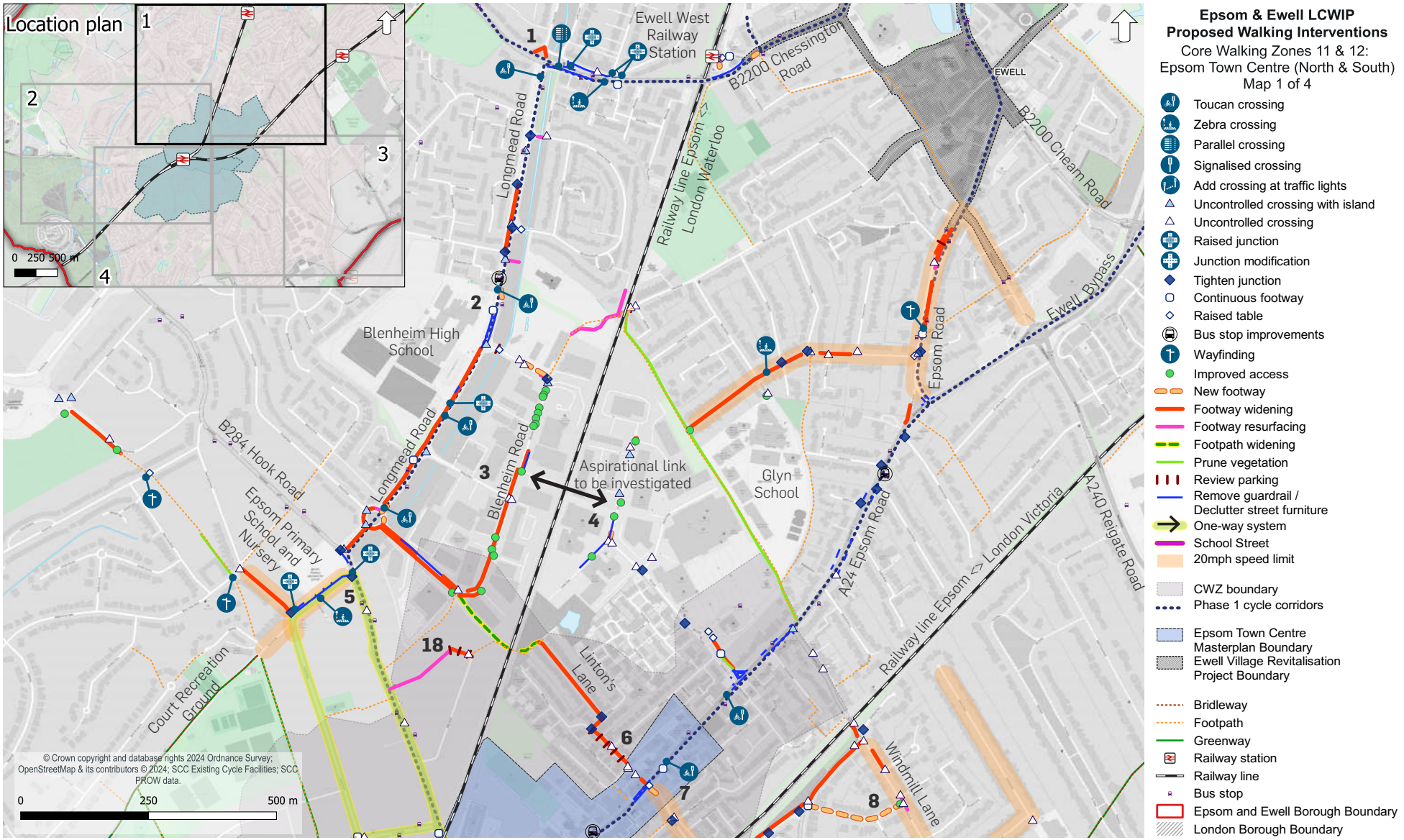


Figure 94. Core Walking Zones 11 & 12 overview

Core Walking Zones 11 & 12: Epsom Town Centre (North & South) map 1

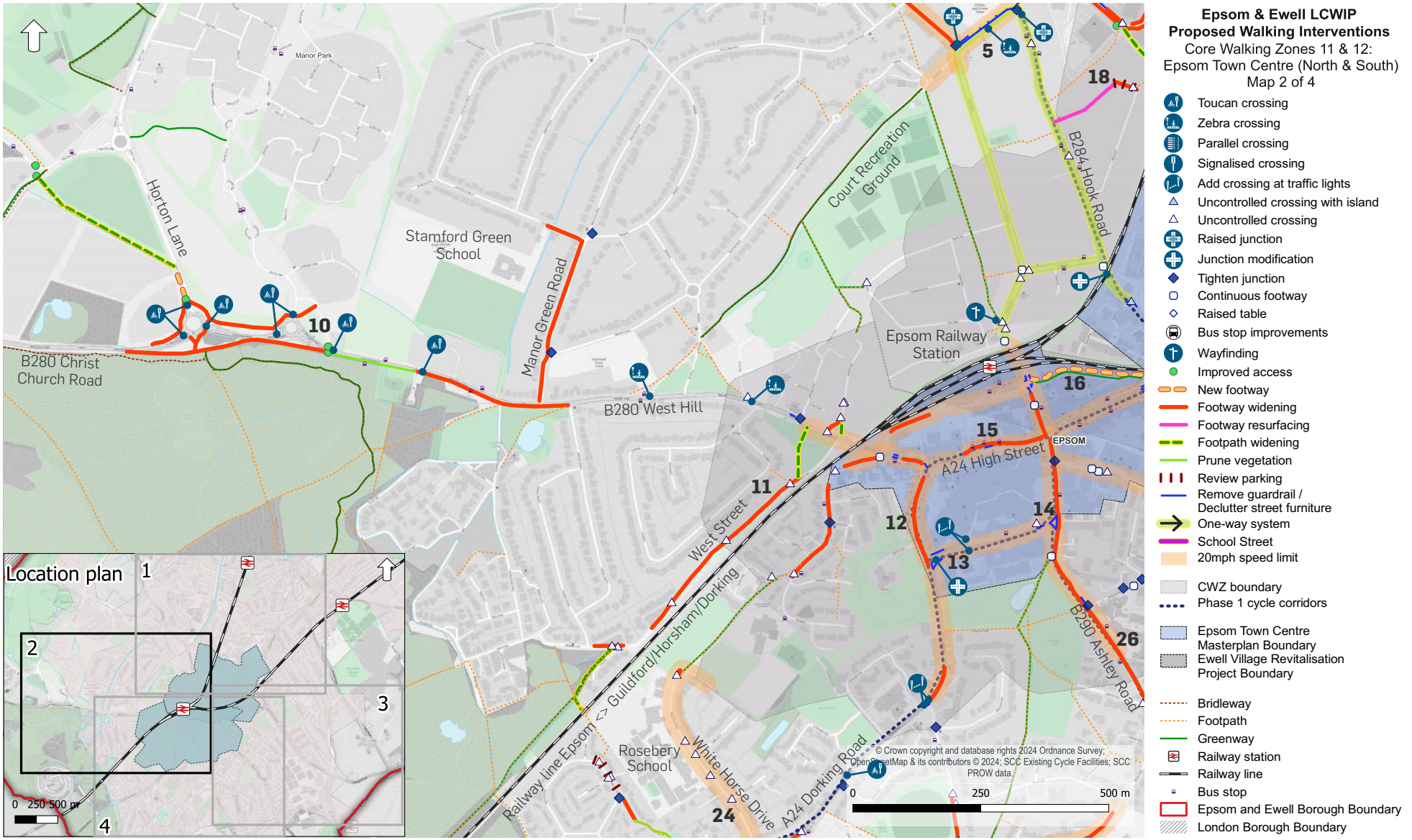


Epsom & Ewell LCWIP
Proposed Walking Interventions
Core Walking Zones 11 & 12:
Epsom Town Centre (North & South)
Map 1 of 4

- Toucan crossing
- Zebra crossing
- Parallel crossing
- Signalised crossing
- Add crossing at traffic lights
- Uncontrolled crossing with island
- Uncontrolled crossing
- Raised junction
- Junction modification
- Tighten junction
- Continuous footway
- Raised table
- Bus stop improvements
- Wayfinding
- Improved access
- New footway
- Footway widening
- Footway resurfacing
- Footpath widening
- Prune vegetation
- Review parking
- Remove guardrail / Declutter street furniture
- One-way system
- School Street
- 20mph speed limit
- CWZ boundary
- Phase 1 cycle corridors
- Epsom Town Centre Masterplan Boundary
- Ewell Village Revitalisation Project Boundary
- Bridleway
- Footpath
- Greenway
- Railway station
- Railway line
- Bus stop
- Epsom and Ewell Borough Boundary
- London Borough Boundary

Figure 95. Core Walking Zones 11 & 12 key high-level interventions map 1

Core Walking Zones 11 & 12: Epsom Town Centre (North & South) - map 2



Epsom & Ewell LCWIP
Proposed Walking Interventions
Core Walking Zones 11 & 12:
Epsom Town Centre (North & South)
Map 2 of 4

- Toucan crossing
- Zebra crossing
- Parallel crossing
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- Railway line
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- Epsom and Ewell Borough Boundary
- London Borough Boundary

Figure 96. Core Walking Zones 11 & 12 key high-level interventions map 2

Core Walking Zones 11 & 12: Epsom Town Centre (North & South) - map 3

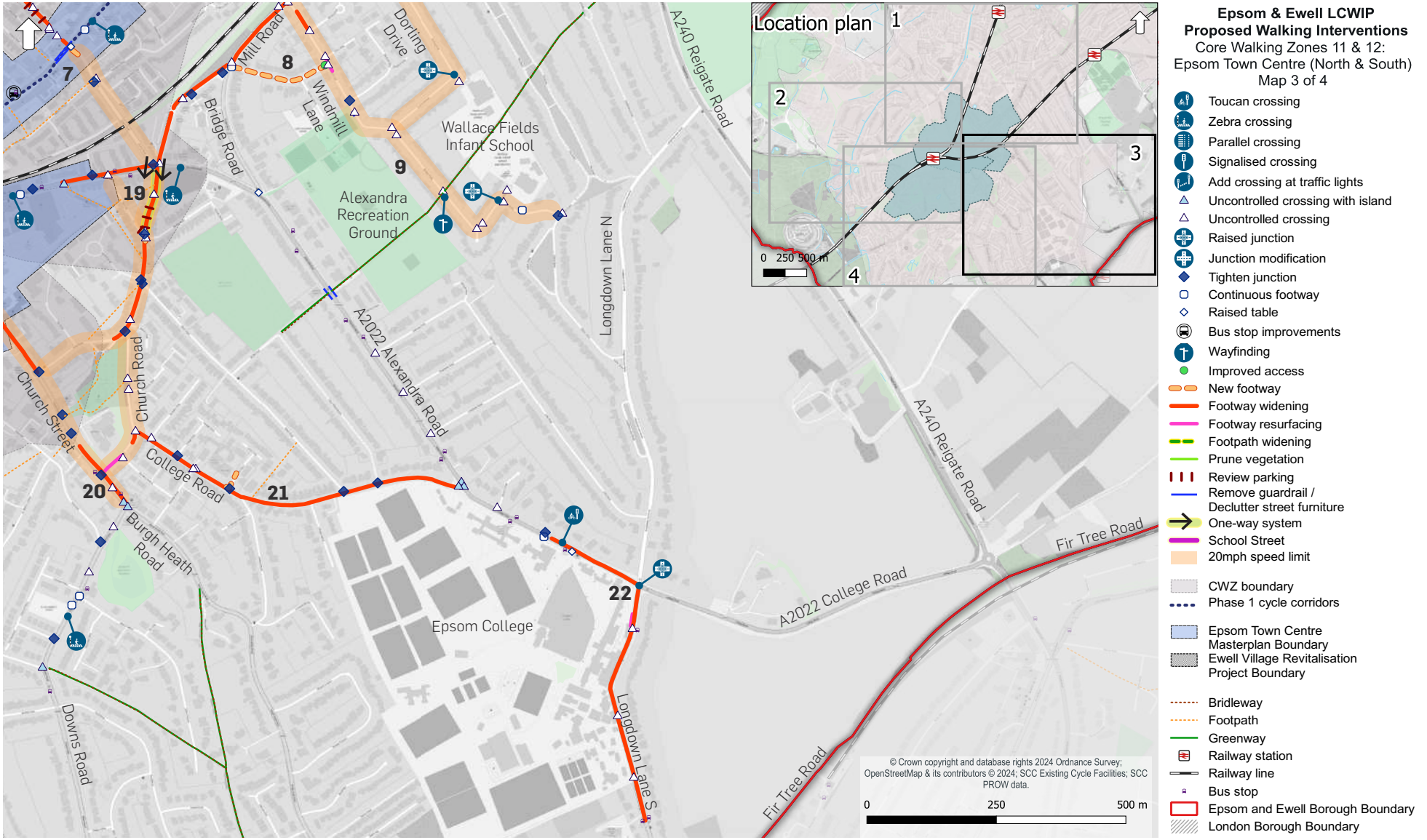
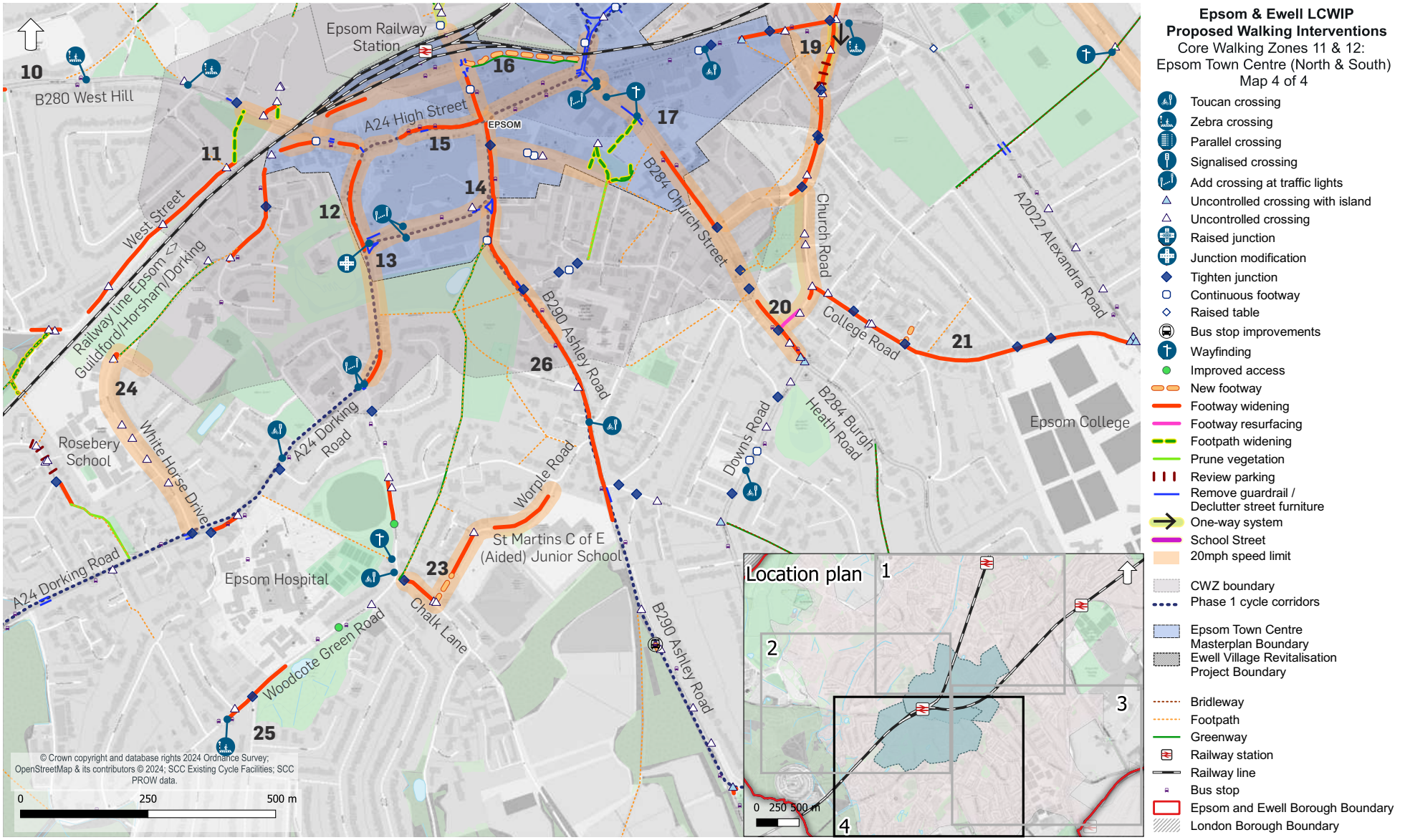


Figure 97. Core Walking Zones 11 & 12 key high-level interventions map 3

Core Walking Zones 11 & 12: Epsom Town Centre (North & South) - map 4



Epsom & Ewell LCWIP
Proposed Walking Interventions
Core Walking Zones 11 & 12:
Epsom Town Centre (North & South)
Map 4 of 4

- Toucan crossing
- Zebra crossing
- Parallel crossing
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- Uncontrolled crossing
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- London Borough Boundary

Figure 98. Core Walking Zones 11 & 12 key high-level interventions map 4

Core Walking Zones 11 & 12: Epsom Town Centre

These two core walking zones comprise both the northern and southern parts of Epsom Town Centre. For the purpose of reporting the proposals for both are presented together due to their considerable overlap.

The CWZs also include the area of the Epsom Town Centre Masterplan. The walking proposals reflect the aspirations of the masterplan and additional proposals are included to complement the early concepts of the masterplan.[1]

Additionally, the proposals for cycle corridors 1, 3, 4 and 6 overlap with the CWZs and the proposals for both walking and cycling have been developed collaboratively.

Indicative Proposed Interventions:

1 B2200 Chessington Road: Improvements along the area outside the parade of shops / cafés to make it safer and more accessible include the introduction of crossings to access the shops and junction improvements to improve the visibility and give priority to pedestrians. Proposed crossings aim to enhance connectivity and access to Hogsmill River path.

2 Longmead Road: This features Blenheim High School and is on the periphery of an industrial estate. Improvements are predominantly associated with widening the footways although supplemented with crossings and junction improvements, particularly adjacent to the school. Additionally, it is recommended improvements to the bus stop infrastructure to increase safety for those going to the school, particularly on foot or by public transport.

3 Blenheim Road: This section extends through the industrial area with many opportunities to improve the pedestrian environment and promote a mode shift from private cars to walking and wheeling for commuting trips. These opportunities are predominantly associated with footway resurfacing and side road treatments. This includes tightened side roads with continuous footways or raised tables and inclusion of tactile paving improving the pedestrian environment and reduce conflict with HGVs.

4 Kiln Lane: As a long-term aspiration, provision of an additional crossing over the railway lines near Kiln Lane is to be considered to reduce severance and improve access to nearby retail, employment, and education destinations. Potential alignment options would be investigated in future stages of scheme development or as opportunities arise. This would likely include consideration of previous proposals in the area and engagement with Network Rail and landowners as necessary. The indicative alignment shown on the map (Figure 95) is illustrative only.

Figure 99. Narrow footpaths south of Blenheim Road

1 Unlike cycling, the proposals for walking and wheeling are more localised and may achieve the desirable widths for the proposed interventions without major impact on vehicular flows. Therefore interventions for the gyratory are included as part of the core walking zone. However, it is recommended that a holistic, multi-modal movement strategy, is required, which also incorporating aspirations of the Epsom Town Centre Master Plan.

5 Pound Lane / Hook Road / Temple Road / Chase Road: Is an existing one-way road along Epsom Primary School and Nursery. It is proposed to increase the extent of the one-way system to cover Hook Road, Template Road and Chase Road and reallocate space for walking, wheeling and cycling (as per proposals on Cycle Corridor 6). Additionally, it is also proposed to increase safety for both pedestrians and wheelers with reduction of the speed limit to 20mph[2]. Implementation of a school street to promote active travel for school trips to be investigated in future stage of scheme development. This is proposed to be accompanied by a zebra crossing and a raised junction at each end of Pound Lane.

Furthermore, on the railway lines underpass, it is proposed to introduce traffic signals as shuttle working and increase the width of the footway. Assessments in the next stage are recommended to be undertaken to further develop these proposals.

6 Blenheim Road / Stones Road / Linton's Lane: This section comprises public highway and footpath, the latter of which connects to the A24 East Street and provides a useful link east and west of the railway lines. It is proposed to improve the width of the existing footway which may require the removal or relocation of existing parking provision. Additionally, improvements to the footpath providing a connection to the A24 are proposed, including resurfacing, removal of street clutter and localised interventions to improve accessibility for all users.

7 Church Road: It is proposed to reduce the speed limit to 20mph to improve safety, particularly considering the proximity to the nursery. This includes additional traffic calming measures, new uncontrolled crossing and improvements to existing junctions to enhance pedestrian safety.

8 Denham Road: A new footway is proposed along Denham Road. It is recognised that it is a private road (designated PROW) therefore engagement with the landowner(s) in the next phase should be considered.

9 Windmill Lane: This provides a link from the A24 to a residential area including a school. Proposals in this location comprise a 20mph zone with traffic calming measures, improvements to the side roads, wayfinding around the PRoW and improvements to the junctions on the approaches to the school. The extent of the 20mph zone is proposed to extend from the A24 and include Dorling Drive, St Johns Avenue, Wallace Fields, Windmill Lane and the respective side roads. The exact extents of this would be confirmed subject to surveys and assessments in the next stage of scheme development. Furthermore, at the junction of Wallace Fields and Higher Green the junction is proposed to be tightened to make it more accessible and safer for those walking and wheeling.

10 B280 Christ Church Road: This is a main route to the western periphery of Epsom. The existing shared use path are proposed to be widened to current standards. Additionally, pedestrian improvements are also proposed around the Christ Church Road / Horton Lane roundabout including toucan crossings and widened footways. Further assessments are proposed in the next stage of work which would confirm environmental constraints, as the area to the south is common land.

Figure 100. Railway lines underpass on West Street requires public realm improvements to enhance personal safety.

2 An area wide 20mph speed limit should be considered as the scheme develops in future stages of the design.

11 West Street: The footway is proposed to be widened throughout the length of West Street as it is currently very narrow and below the minimum standards, putting pedestrians in close proximity to vehicular traffic. Additionally, the footpath through the park at the northern extent of West Street is also proposed to be widened which would tie into proposals on West Street itself. Additionally, public realm improvements through the railway lines underpass are proposed to enhance personal safety.

12 South Street: This represents the western element of the gyratory around the Town Centre. The existing carriageway widths are narrow and constrained and there significant high traffic flows with high frequency of bus services. The footway is very narrow in places, which presents a challenge to create a pedestrian environment which promotes safety, comfort and accessibility. In order to achieve this it is necessary to investigate the reallocation of carriageway space to provide a wider footway (potentially by reducing the number of traffic lanes). Potential options should be investigated in the next stage of scheme development, in conjunction with highway boundary information, traffic data, in line with the aspirations of the Town Centre Masterplan. A broader movement strategy study may also be required for the Town Centre area to consider circulation for all modes.

13 A24 South Street / Ashley Avenue junction: In conjunction with the proposals on South Street, proposals for this junction include modification to reduce the number of pedestrian crossing stages and improve green man time for pedestrians travelling predominantly north-south. A review of current signal timings and traffic data should help to inform and shape the proposals in the next stage of scheme development.

14 Ashley Road: Similar to the western extent of the gyratory, the pedestrian environment is very constrained. In order to improve the pedestrian environment and promote safety and accessibility, footway widening is required by reallocating carriageway space[3]. Additionally, improvements are also proposed to be made to the junction with Ashley Avenue including the removal of guard railing to increase the effective width of the footway.

15 A24 High Street: This is a busy area which serves a number of shops and restaurants as well as being the interchange for buses in Epsom. Proposed improvements to the pedestrian environment in this location are associated with increasing the width of the footway which would require the reallocation of carriageway space. This also aligns with the aspirations of the Epsom Town Centre Masterplan. Further assessments should be undertaken in the next stage of the scheme development which would affirm the feasibility of the proposals and impact on traffic flows.

16 Path rear of Derby Square: This is currently a narrow shared use path with predicated high pedestrian flows, particularly during peak periods. Access for cyclists is to be investigated to be restricted to improve accessibility for people walking. Re-alignment of the cycle access to the Town Centre from the east would be investigated (as part of Cycle Corridor 3) to reduce conflict and improve safety and accessibility. Improvements are also proposed to be made to the path surface, with vegetation clearance and enhancing accessibility by removing guard railings.

Figure 101. Lack of footways and crossings on the approach to Epsom Town Centre

3 The available space within the highway boundary is to be reviewed in the next stage of work which would help to develop the cross section and confirm the footway width. It is an aspiration to provide segregated cycle facilities for Ashley Avenue and Ashley Road. As previously discussed, active travel improvements to the gyratory and its immediate approach roads would likely require a holistic, multi-modal movement strategy, also incorporating aspirations of the Epsom Town Centre Master Plan.

17 Church Street: A new crossing is proposed to the existing traffic signals at the junction of Church Street / Upper High Street. This is in addition to new wayfinding to improve connectivity in a southwest direction towards Dulshott Green and The Parade. This would be complemented by the speed limit reduction to 20mph in the area. Assessments and surveys in the next phase seek to give clarity to the extent of the 20mph speed limit or 20mph zone proposals.

18 Miles Road: This provides an important link to the underpass of the railway lines. The condition of the footway is poor with a high degree of vertical deflection and poor surface quality. Cars were observed parking on the footway making it inaccessible. Proposed improvements to the footway include resurfacing, kerbing and measures to restrict footway parking. Additionally, at the northern end, dropped kerbs are proposed to improve the access to the railway underpass.

19 Church Road: The footway is very narrow in places; it is therefore proposed to increase the footway width which would require reallocation of space from the carriageway. To achieve this a one-way system is proposed (southbound direction preferred) with northbound traffic using Pikes Hill (an existing one-way road). Additionally, parking is also proposed to be relocated to the side roads subject to assessments in the next stage of scheme development.

20 Pitt Road / Burgh Heath Road: This junction has a very wide bellmouth, which increases the crossing distance and time for pedestrians. The condition of the footway is also poor in addition to frequent level changes where there are private driveways. Improvements are therefore proposed to the junction and footways to enhance safety and accessibility for users. This includes resurfacing and widening (where feasible) of the footway on Pitt Road and narrowing of the junction bellmouth / reducing the crossing distance for pedestrians.

21 College Road: The width of the footway varies throughout the length of the road, it is therefore proposed to make this consistent to a width that is comfortable for all. Surveys and assessments in the next stage to be undertaken to confirm the feasibility including a review of the highway boundary/availability of space and demand for parking. Additionally, key side road junctions are also proposed to be tightened.

22 Longdown Lane South / College Road: Proposed at this location is modification to the junction to include signalised pedestrian crossings on all arms with refuge islands and wider footways on the approach, subject to further assessments in the next phase of design development.

23 Worple Road / Chalk Lane: St. Martins C of E (Aided) Junior School is at the eastern end of Worple Road, of which along the western extent of available highway space is very constrained and there is no footway for approximately 70m requiring pedestrians to walk on the carriageway. Constraints in the area, including limited public highway space and listed buildings are proposed to be investigated in the next stage of scheme development with the aim of improving the safety and accessibility of the footway network. Improvements include reducing the speed limit to 20mph[4] as well as crossing improvements, particularly at the northern end of Chalk Lane.

4 Potentially investigating an area wide 20mph speed limit or 20mph zone

Figure 102. Wide side roads and lack of tactile information and appropriate dropped kerbs reduce the comfort for pedestrians along Upper High Street.

24 White Horse Drive: Road safety improvements proposed to encourage walking, wheeling and cycling to school. This involves traffic calming measures, reduced speed limit, and timed parking restrictions (during school hours).

25 Woodcote Green Road: This road runs behind Epsom Hospital although is still an important access point. Proposals comprise improvements to the width of the footway where it is currently too narrow in addition to the tightening of the junction with Woodcote Hurst. It is acknowledged that this road is private and discussions with landowner(s) should be undertaken for the proposed improvements. Additionally, proposals also include a toucan crossing adjacent to the junction with Hylands Road, at the existing uncontrolled crossing to enhance safety and connectivity.

26 Ashley Road: The footway is proposed to be widened between the junction with Worple Road (east of Ashley Road) and Woodcote Grove through reallocation of the central hashed area. Mature trees to be retained along the road. Further surveys and assessments should be undertaken in the next stage of design development to determine the detail and confirm the extents of this. Assessments include a review of parking along Ashley Road, particularly on Sundays when parking controls are less restrictive. This is proposed to be complemented with restrictions on footway parking and improvements to the surface and drainage of the footway, both following further surveys in the next stage of design development. Improvements for cycling should also be considered as part of Cycle Corridor 4.

General Items:

- 20mph zone: Implement 20mph speed limit or zones across the Town Centre area, including the surrounding local residential streets. The next stage of design to review and assess the extent of the 20mph limit/zones, existing traffic speeds and potential need for accompanying traffic calming measures.
- Existing footway widths along the identified walking corridors to be reviewed in the feasibility design stage, when more accurate measurement information would be available.
- Accessibility: Install improved dropped kerbs and tactile paving at side road crossings/ junctions where they are currently missing.
- Wayfinding: Review and update area-wide wayfinding system. Consider measures such as wayfinding totems at key locations (e.g., railway stations, High Streets/Town Centre) to help pedestrians navigate the area and illustrate the locations of local destinations and potential walking routes between them.
- Planting, seating, and shelter: As part of footway and public realm improvements, consider opportunities for additional planting, street trees, seating, and/or shelter as part of a Healthy Streets approach to pedestrian improvements and improve the accessibility of walking to a wider range of the population.
- Mobility hubs: Consider a network of mobility hubs across the CWZ to encourage uptake of active travel modes and support place-making.

Assessment of Proposals

Following the identification of initial high-level proposals for infrastructure improvements, the proposed interventions were assessed using the Walking Route Audit Tool (WRAT) with the same criteria used for the assessment of the existing situation of the walking corridors within the CWZs.

The WRAT provides a high-level, comprehensive review of existing conditions for people walking along a corridor based on the key metrics of attractiveness, comfort, directness, safety and coherence. Lower scores suggest a poorer quality corridor, which may benefit from infrastructure interventions (i.e., to improve safety or comfort).

The results of each walking corridor are presented in detail in the appendices (Appendix 3: Walking Route Assessment Tool (WRAT) on page 190) for both the existing situation and the proposals. Table 11 presents the total scores of each category in the existing situation and the estimated score if the interventions were implemented, along with the relative change of the score in each category for each CWZ[1].

The WRAT results of the existing situation demonstrate that all selected CWZs have an overall score below the 'minimum level of provision' (i.e., 70%), according to the LCWIP Technical Guidance for Local Authorities.

This indicates the potential opportunity for and benefit of improvements along corridors within these CWZs. The WRAT results of the proposed interventions have shown increases in every criteria for each CWZ, taking the overall CWZ scores to 76% or above.

Figure 103. Footbridge over the railway line at Rosebery School

1 A score of 70% should normally be regarded as a minimum level of provision overall. Corridors which score below should be used to identify where improvements are required (Source: Annex C: Walking Route Audit Tool, LCWIP Technical Guidance for Local Authorities, DfT, 2017).

Table 11. WRAT results - Phase 1 Core Walking Zones

	4. Ewell Centre			11. Epsom Town Centre (North)			12. Epsom Town Centre (South)		
	Existing	*Proposal*	*%Improvement from existing*	*Existing*	*Proposal*	*%Improvement from existing*	*Existing*	*Proposal*	*%Improvement from existing*
Attractiveness	65.2%	79.4%	14.2%	62.9%	79.0%	16.1%	71.0%	85.9%	14.9%
Comfort	47.4%	80.6%	33.2%	52.9%	87.2%	34.3%	56.7%	90.2%	33.5%
Directness	55.5%	83.2%	27.7%	67.2%	91.9%	24.6%	74.8%	94.4%	19.6%
Safety	72.5%	87.3%	14.7%	72.4%	85.1%	12.6%	73.9%	96.4%	22.5%
Coherence	16.7%	79.4%	62.7%	29.3%	71.8%	42.5%	30.4%	75.4%	44.9%
Total	**52.4%**	**81.5%**	**29.1%**	**58.0%**	**84.8%**	**26.8%**	**63.1%**	**89.4%**	**26.3%**

9. Prioritisation and Costings

Introduction

Prioritisation of the Cycle Corridors and Core Walking Zones

Indicative Cost Estimates

Funding Opportunities

Introduction

This chapter summarises the prioritisation of development and implementation of the cycle corridors and the core walking zones (CWZs), relative prioritisation and indicative scheme costs for the Phase 1 walking and cycle proposals.

The prioritisation is high-level and indicates the relative importance of the selected corridors and their package of proposed interventions, based on the methodology described in the following section. The purpose of the prioritisation is to assist SCC and EEBC with which corridors should be developed first. At this stage of the assessment, the corridor prioritisation is independent of cost.

Further development for all schemes would be subject to funding availability. Opportunities for efficiencies through collaboration with other schemes or workstreams may also influence timescales for further development.

Prioritisation of the Cycle Corridors and Core Walking Zones

Prioritisation of the 'Aspirational' Networks

As mentioned in the previous sections, a multi-criteria assessment framework (MCAF) was used to evaluate the aspirational list of cycle corridors and core walking zones (CWZs) (see page 86 for the cycle corridors and page 131 for the CWZs). The framework identified the Phase 1 cycle corridors and CWZs from their respective aspirational list.

The framework was used to suggest potential relative time scales for the development of improvements, categorising the cycle corridors and CWZs into:

- Phase 1 - high priority (2 year scheme development)
- Phase 2 - medium & lower priority (10 year scheme development)

Additional cycle corridors and CWZs have been identified through the selection process that have been classified as Phase 3 - longer term ambitions. These corridors were not included in the multi-criteria assessment. The time-scales for scheme development of the Phase 3 CWZs and cycle corridors are longer (> 10 year plan).

The prioritisation of the aspirational lists is summarised in the following tables and figures.

Table 12. Prioritisation table for the aspirational list of Cycle Corridors

Cycle Corridor	Priority
A24 Dorking Road (Ashtead to Epsom Town Centre) (#1)	High Priority (Phase-1)
B284 Epsom Town Centre to Chessington (#2)	High Priority[1]
A24 Epsom Town Centre to Sutton (#3)	High Priority (Phase-1)
Epsom Town Centre to Epsom Downs (#4)	High Priority (Phase-1)
Epsom By-pass (#5)	High Priority[2]
Hook Road - Longmead Road (#6)	High Priority (Phase-1)
Chessington Road (#8)	High Priority (Phase-1)
A24 Ewell to Nonsuch Park (#11)	High Priority (Phase-1)
Longmead Industrial Estate to Ewell (#7)	Medium Priority (Phase-2)
Longmead Industrial Estate (#9)	Medium Priority (Phase-2)
Fairview Road path (#10)	Medium Priority (Phase-2)
Ruxley Lane to Worcester Park (#13)	Medium Priority (Phase-2)
Epsom Town Centre to Epsom College (via A2022) (#17)	Medium Priority (Phase-2)
Station Approach to Dorking Road (#18)	Medium Priority (Phase-2)
Cheam Road to Belmont RS (#21)	Medium Priority (Phase-2)
Hogsmill Open Space (#12)	Lower Priority (Phase-2)
Stoneleigh (#14)[3]	Lower Priority (Phase-2)
Ewell East to Nonsuch Park (#15)	Lower Priority (Phase-2)
Reigate Road (#16)	Lower Priority (Phase-2)
Epsom Town Centre to Epsom Common (#19)	Lower Priority (Phase-2)
Langley Vale Road (#20)	Lower Priority (Phase-2)
Old Malden Lane (#48)	Lower Priority (Phase-2)
Phase 3 cycle corridors	Future opportunities (Phase-3)

1 This corridor was originally selected for the cycling shortlist, but due to off-carriageway provision, some high-quality facilities already in place, and the selection of the parallel Corridor 6, stakeholders requested no proposals to be included for the corridor as part of the LCWIP.

2 This corridor is a major arterial for vehicle traffic. Stakeholders suggested that currently, this corridor is a poor option for cyclists (dual carriageway with high flows/speeds) and would require major transformation. Also, the shortlisted Corridor 8 is a preferred alternative for many cyclists to connect to Kingston via Surbiton.

3 Link along the Broadway in Stoneleigh was identified as a key local priority and was progressed as part of CC#11 for development of the high-level interventions.

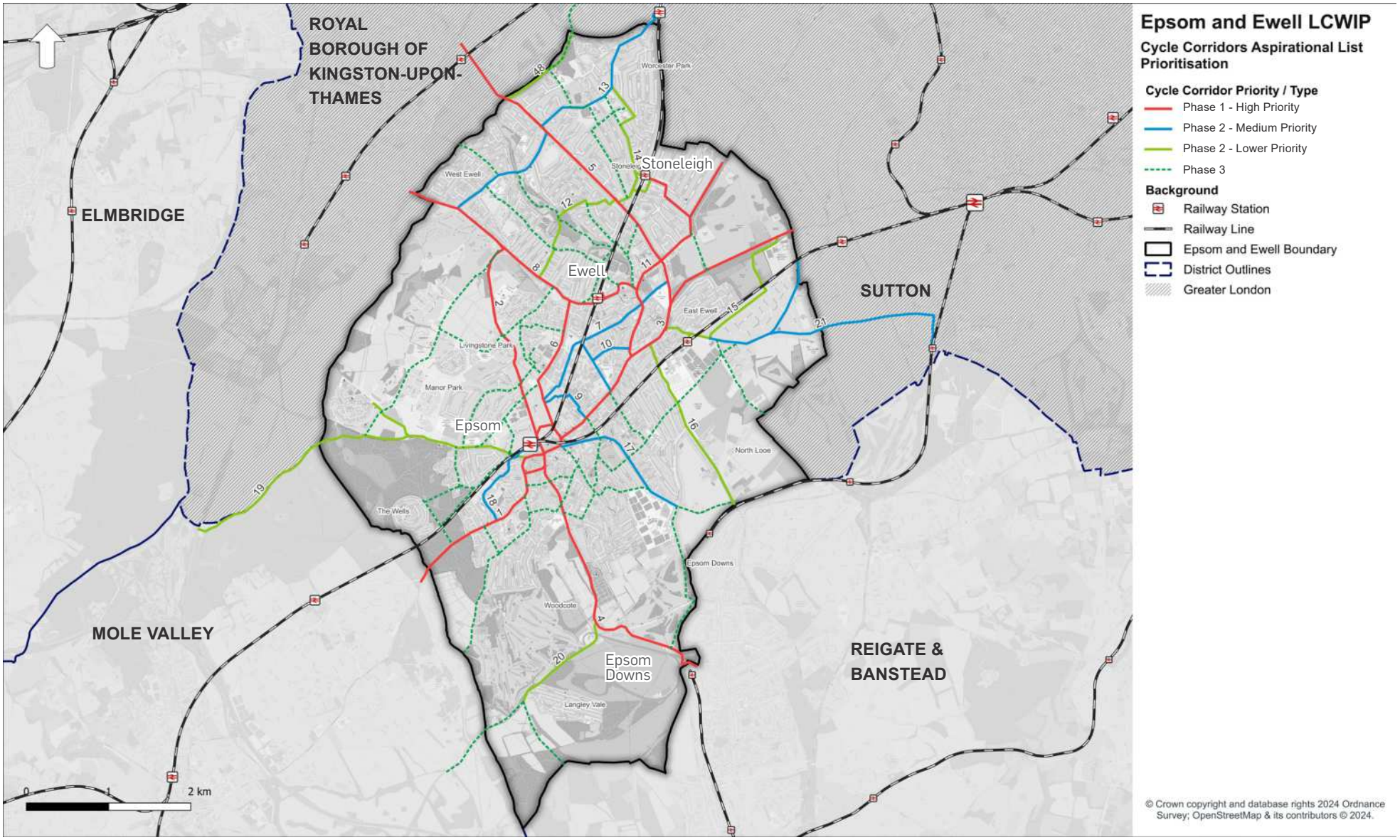

Figure 104. Suggested prioritisation of the identified cycle corridors in the aspirational network.

Table 13. Prioritisation table for the aspirational list of Core Walking Zones

Core Walking Zone	Priority
12. Town Centre (South)	High Priority (Phase-1)
11. Town Centre (North)	High Priority (Phase-1)
4. Ewell Centre CWZ	High Priority (Phase-1)
6. Hook Road B284	Medium Priority (Phase-2)
5. Holymoor Road	Medium Priority (Phase-2)
1. Chessington Road (East)	Medium Priority (Phase-2)
2. Chessington Road (West)	Medium Priority (Phase-2)
9. Stoneleigh (East)	Medium Priority (Phase-2)
16. Ewell East	Medium Priority (Phase-2)
10. Stoneleigh (West)	Medium Priority (Phase-2)
14. West Ewell (South)	Medium Priority (Phase-2)
16. Ewell East	Future opportunities (Phase-3)
7. Kingston Road A240	Future opportunities (Phase-3)
13. West Ewell	Future opportunities (Phase-3)
3. Ewell Bypass A240	Future opportunities (Phase-3)
15. Worcester Park	Future opportunities (Phase-3)
8. Langley Vale	Future opportunities (Phase-3)

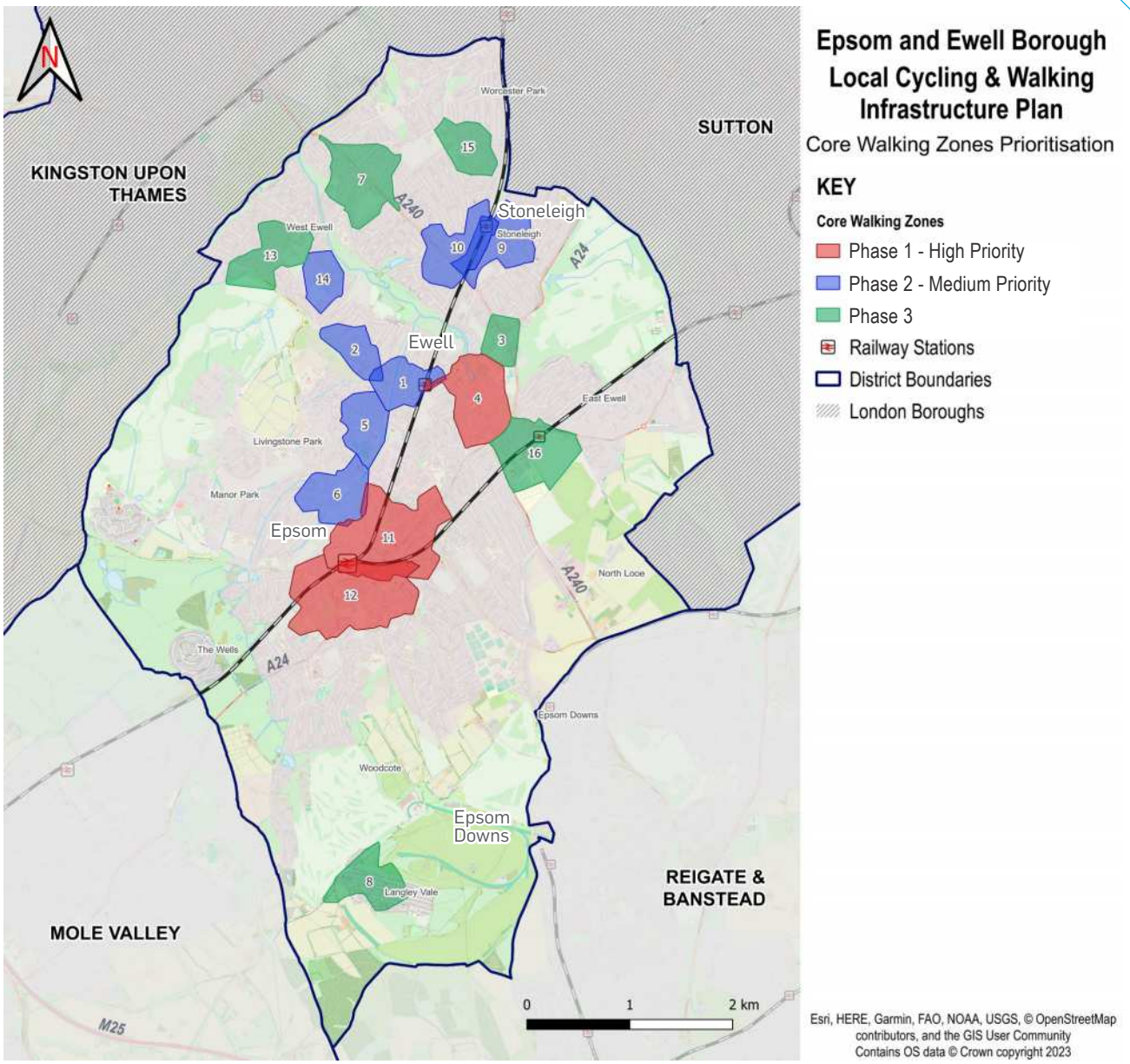

Figure 105. Suggested prioritisation of the identified core walking zones in the aspirational list.

Assessment of the Phase 1 schemes

The cycle corridors and the CWZs included in Phase 1 were assessed using the criteria summarised below. This further assessment of the cycling and walking[1] corridors is intended to assist SCC and EEBC in understanding which proposed Phase 1 schemes may have greater benefits for users. The Phase 1 prioritisation incorporated additional criteria to the previous prioritisation of the aspirational lists. Criteria were rated on a scale from 1 to 3 (low to high) and include assessment of the proposed interventions.

Scoring Criteria

Demand Criteria

- Public input: Public comments obtained via Surrey's LCWIP interactive map was used to estimate the demand from active users for improvements.
- Collision data: recorded collisions along the corridors and links (per km of the corridor/link) indicating the demand for improvements along the corridor/link.
- Potential flows: a score was derived based on the highest existing pedestrian flows along each walking link, as estimated from the Propensity to Cycle Tool (PCT) data. For cycling, an estimation of the potential increase in the number of people cycling for each corridor was calculated from PCT data using the E-Bike scenario for commuter flows and Go Dutch scenario for school flows.

Quality of Improvements Criteria

The criteria were intended to capture the potential of the improvements to encourage new walking, wheeling and cycling trips and are based on the before/after RST and WRAT scoring.

- Quality of design - safety: The criterion reflects the expected change for the RST and WRAT safety metric. Proposed changes that result in a more significant increase in the safety metric would be expected to have a higher net benefit than a corridor that scores relatively well in the current condition.
- Quality of design - comfort: The criterion reflects the expected change for the RST and WRAT comfort metric. Proposed changes that result in a more significant increase in the comfort metric would be expected to have a higher net benefit than a corridor that scores relatively well in the current condition.
- Quality of design - attractiveness, directness and coherence [walking only]: The three criteria reflect the expected change for the WRAT attractiveness, directness and coherence metrics. Proposed changes that result in a more significant increase in all the metrics would be expected to have a higher net benefit than a corridor that scores relatively well in the current condition.
- Contributes to improved cycling network [cycling only]: scores the connectivity of the proposed corridor with the rest of the aspirational cycle network.

Access Criteria

Access criteria are intended to capture whether the corridors help improve pedestrian and cycle access to several key destinations. Criteria were generally scored as 'yes' (3) if at least one destination is identified, or 'no' (1), unless otherwise noted. For the cycle corridors additional destinations within 400m from the corridor were assessed and scored with (2).

- Education (e.g. school, college, library, etc..).
- Transport facilities (railway station or bus stop).
- High Street/commercial area.

Deliverability Criteria

Intended to reflect the potential deliverability of the proposals at this very early proposal development stage.

- Ease of implementation: a high-level qualitative score that seeks to capture major constraints that may make implementation more difficult, such as potential need for third party land, major junction schemes, etc..
- Dependency on other schemes [walking only]: as the walking corridors were assessed separately, this criterion is intended to assess the dependency of the proposals on other workstreams or proposed interventions on neighbouring walking corridor links.
- Potential to achieve LTN 1/20 guidance [cycling only]: reflects the potential constraints along the corridor and ability to achieve compliance with LTN 1/20 guidance.

1 For the walking network the assessment was undertaken for each walking link within the Core Walking Zone, as this was selected during the WRAT assessment. Each link generally has consistent characteristics along it (e.g., geometry, land use, etc..) and the LCWIP proposals have a similar approach along each link.

Total Score and Factor Weighting

A score for each of the five criteria categories was calculated by averaging the sub-criteria within the category. To calculate a total score for each corridor, the main categories were then weighted as follows:

» Demand - 20%
» Quality of improvements - 30%
» Access - 20%
» Deliverability - 30%

The weightings were intended to give a slightly higher input to the design factors, as proposed interventions with a greater anticipated impact over the existing condition could support a more substantial uplift in walking and cycling. Additionally, factors related to stakeholder input, usage, and access were previously incorporated into the corridor selection methodology at the start of the LCWIP process.

Given that some routes have multiple intervention options and varying proposed alignments and cycle typologies, these options were assessed individually, and shown in Figure 101.

Assessment Results

Table 14 and Table 15 and the maps in Figure 106 and Figure 107 present the outputs of the assessment process and the relative prioritisation of the Phase 1 cycle corridors and walking corridors and their associated package of proposed interventions. The prioritisation categories were based on the relative rankings across the Phase 1 corridors (primary; secondary; tertiary).

For cycling the main alignment of the cycle corridors is presented on the table and the map. The additional alignments were also assessed to review the relative priority of the different options and support SCC and EEBC on decision making for progressing on the future stages of design. For every route the main alignment is scoring higher than the alternatives, primarily as the main alignment provides the most direct route and links key destinations.

Details on the prioritisation criteria and results are presented in the Appendix 4: First Phase Assessments to review.

Table 14. Prioritisation table for the Phase 1 cycle corridors

Cycle corridor	Length (km)	Score	Rank
1 Ashtead to Epsom Town Centre	2.43	83.8%	1
8 Chessington Road	2.93	80.0%	2
3 A24 Epsom Town Centre to Sutton	4.89	79.8%	3
4 Epsom Town Centre to Epsom Downs	4.57	72.7%	8
6 Hook Road - Longmead Road	3.31	72.7%	9
11 A24 Ewell to Nonsuch Park	8.05	58.7%	13

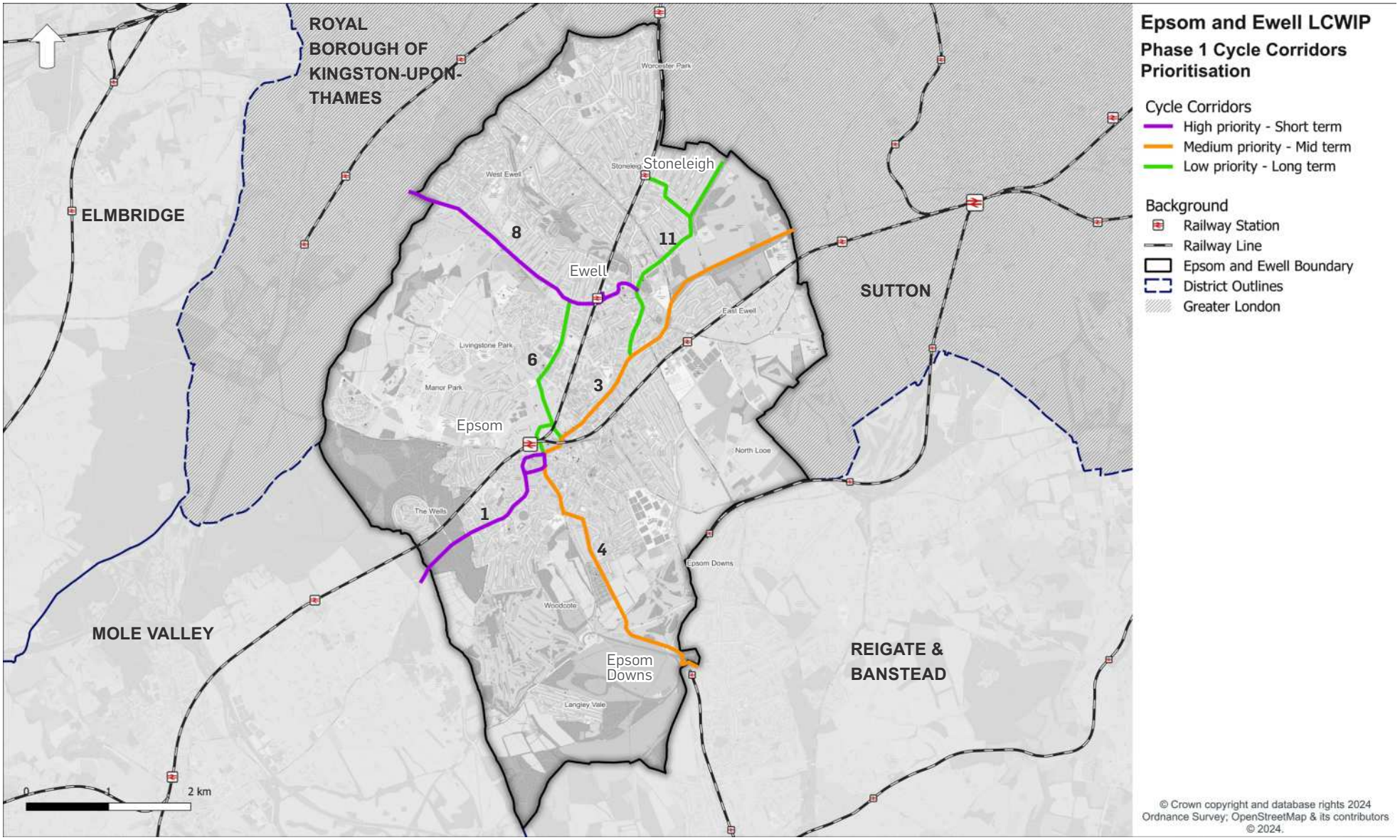

Figure 106. Suggested prioritisation of the Phase 1 cycle corridors

Table 15. Prioritisation table for the Phase 1 Walking Corridors - high priority corridors

Core Walking Zone	Walking corridor Link #	Road Name	Between	Score	Rank
Town Centre (North) 11	11.7	Church Road/ College Road	Church Road/High Street and College Road/Alexandra Road	89.0%	1
Town Centre (South) 12	12.4	Upper High Street/Alexandra Road	Church Street and Kilcorral Close	89.0%	1
Town Centre (North) 11	11.26	Waterloo Road/ Horton Footpath/ Temple Road	High Street and Brettgrave	89.0%	1
Town Centre (North) 11	11.20	Longmead Road	Hook Road and Chessington Road	85.0%	4
Town Centre (North) 11	11.2	Rosebank/White Horse Drive	West Street and Dorking Road	85.0%	4
Town Centre (South) 12	12.2	Rosebank/White Horse Drive	South Street and Dorking Road	85.0%	4
Town Centre (North) 11 & 12	11.19 & 12.12	Hook Road	East Street and Longmead Road	84.0%	7
Town Centre (North) 11 & 12	12.21 & 11.14	Epsom Square	Waterloo Road and East Street	83.0%	9
Town Centre (North) 11	11.10	Upper High Street/Alexandra Road	Ashley Road and College Road	81.3%	10
Town Centre (North) 11	11.15	East Street	High Street and Cheam Road	80.7%	11
Town Centre (North) 11	11.27	Pound Lane	Temple Road and Hook Road	80.3%	12
Town Centre (North) 11	11.24	West Hill	Ashley Road and West Park Road	80.3%	13
Town Centre (North) 11	11.5	Downs Road	Downs Avenue and Church Street/Pitt Road	79.0%	14
Town Centre (North) 11	11.11	Mill Road/ Windmill Lane/ Wallace Fields	Alexandra Road and Wallace Fields Primary School	79.0%	14
Town Centre (South) 12	12.20	Station Approach	West Street and Waterloo Road	79.0%	14
Town Centre (North) 11 & 12	11.4 & 12.3	Ashley Road	High Street and Downs Hill Road	78.7%	17
Ewell Centre 4	4.15	Kingston Road	London Road and Stoneleigh Park Road	78.3%	18
Town Centre (South) 12	12.18	Woodcote Road/ Woodcote Green Road	Dorking Road and Hylands Road	78.3%	19
Town Centre (North) 11	11.8	Church Road	Church Road/East Street and Church Road/College Road	78.0%	20
Town Centre (South) 12	12.10	Waterloo Road/ Temple Road/ Pound Lane	High Street and Hook Road	77.7%	21
Town Centre (South) 12	12.11	Longmead Road	Hook Road and Blenheim High School	77.7%	22
Town Centre (North) 11	11.22	Miles Road	Hook Road and Hook Road	77.0%	23

Table 16. Prioritisation table for the Phase 1 Walking Corridors - medium priority corridors

Core Walking Zone	Walking corridor Link #	Road Name	Between	Score	Rank
Town Centre (South) 12	12.1	Dorking Road/ South Street	West Street/High Street and Castle Road	76.7%	25
Town Centre (North) 11	11.1	South Street/ Dorking Road	High Street and Castle Street	76.3%	27
Town Centre (South) 12	12.16	East Street	High Street/Upper High Street and Fairview Road	75.3%	28
Town Centre (South) 12	12.17	Worple Road/ Chalk Lane	Ashley Road and Woodcote Green Road	75.3%	28
Ewell Centre 4	4.10	Spring Street/ Chessington Road	High Street and Kingston Road	75.3%	30
Town Centre (South) 12	12.7	Mill Road/ Denham Road/ Windmill Lane/St John's Avenue	Alexandra Road and Dorling Drive	75.0%	31
Town Centre (North) 11	11.21	Chase Road	Hook Road and Temple Road	74.7%	32
Town Centre (North) 11	11.28	Station Approach	Hook Road and West Hill	74.0%	33
Town Centre (South) 12	12.13	Lower Court/ Horton Footpath/ Long Grove Road	Pound Lane and Brettgrave	73.7%	34
Town Centre (North) 11 & 12	11.6 & 12.6	Downs Hill Road	Ashley Road and Downs Road/Downs Avenue	73.3%	35
Ewell Centre 4	4.11	Chessington Road	Spring Street and Riverholme Drive	72.7%	36
Ewell Centre 4	4.7	The Kingsway	Epsom Road and West Gardens	72.7%	36
Town Centre (South) 12	12.19	Ebbisham Road/ Wheelers Lane	Dorking Road and West Hill	72.3%	38
Ewell Centre 4	4.9	West Street/ Church Street	Church Street and Longmead Road	72.3%	38
Town Centre (North) 11 & 12	11.3 & 11.23	Ashley Avenue	South Street and Ashley Road	72.3%	40
Ewell Centre 4	4.3	London Road/The Glade	Church Street and Stoneleigh Broadway	71.7%	41
Ewell Centre 4	4.1	Epsom Road	Reigate Road and Chuters Grove	71.3%	42
Ewell Centre 4	4.2	The Headway	Chessington Road and Spring Street	70.7%	43
Town Centre (South) 12	12.5	High Street	West Street/South Street and Upper High Street	69.7%	44
Town Centre (South) 12	12.22	Heathcote Road/ The Parade	Ashley Road and Ashley Road	68.7%	46
Ewell Centre 4	4.14	Mill Lane	London Road and Kingston Road	68.7%	47
Town Centre (South) 12	12.15	West Street/ Christ Church Road	High Street/South Street and Richmond Crescent	68.7%	47

Table 17. Prioritisation table for the Phase 1 Walking Corridors - lower priority corridors

Core Walking Zone	Walking corridor Link #	Road Name	Between	Score	Rank
Town Centre (North) 11	11.13	Windmill Lane	Mill Lane and East Street	68.7%	47
Ewell Centre 4	4.13	Church Street/ Primrose Walk	Kingston Road and Church Street	68.3%	50
Ewell Centre 4	4.8	The Avenue	Church Street and Ewell Road	68.0%	51
Ewell Centre 4	4.12	Old Schools Lane	Chessington Road and Station Avenue	67.3%	52
Ewell Centre 4	4.4	High Street	Reigate Road and Church Street	67.0%	53
Town Centre (North) 11	11.29	Blenheim Road	Rory Richmond Way and Longmead Road	67.0%	54
Town Centre (South) 12	12.14	Fairview Road/ The Kingsway	Epsom Road and West Gardens	67.0%	54
Town Centre (North) 11	11.12	St John's Avenue	Wallace Fields and Dorling Drive	66.3%	56
Ewell Centre 4	4.5	Cheam Road	High Street and Station Approach	66.0%	58
Town Centre (North) 11	11.23	Burnett Grove/ Hazon Way	West Hill and Temple Road	65.7%	59
Town Centre (North) 11	11.18	Lintons Lane/ Stones Road	East Street and Miles Road	65.3%	60
Town Centre (North) 11	11.16	Fairview Road	East Street and West Gardens	65.0%	61
Town Centre (North) 11	11.17	Kiln Lane Alleyway	The Kingsway and Longmead Road	64.7%	62
Ewell Centre 4	4.16	Park Avenue West/Glenwood Road/Dell Road	Kingston Road and Stoneleigh Broadway	64.3%	63
Ewell Centre 4	4.17	The Grove	West Street and High Street	63.3%	64
Town Centre (North) 11	11.9	Alleyway behind Pikes Hill	Alleyway/Upper High Street and Pikes Hill/ Church Road	62.0%	65
Town Centre (South) 12	12.9	Manor Green Road	West Hill and Stamford Green Primary School	61.0%	66
Ewell Centre 4	4.6	Reigate Road	High Street and Ewell Downs Road	59.3%	67
Town Centre (North) 11	11.25	Manor Green Road	West Hill and Christ Church Mount	59.0%	68
Town Centre (South) 12	12.8	Wallace Fields	St John's Avenue and Wallace Fields Infant School	58.7%	69

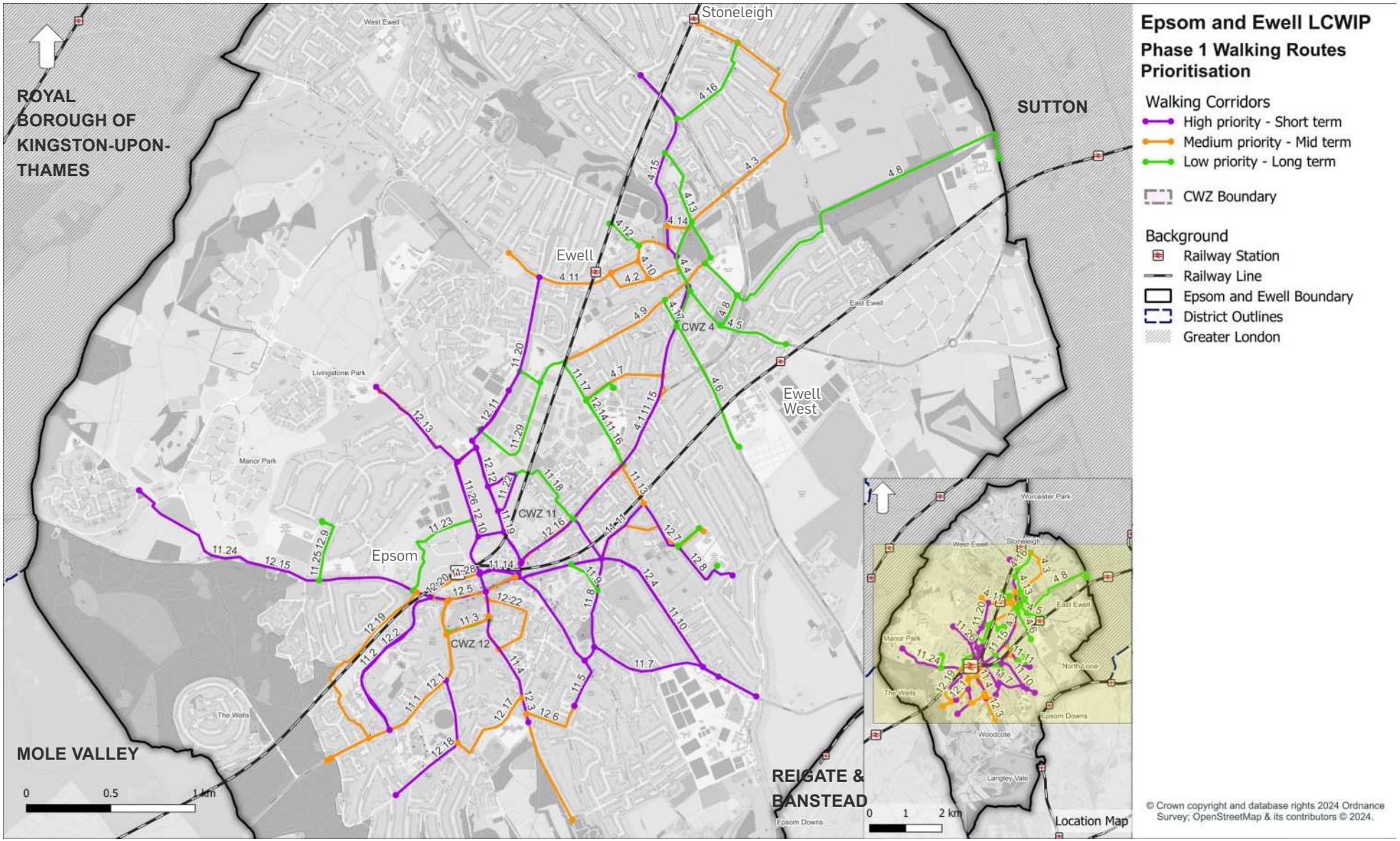

Figure 107. Suggested prioritisation of the Phase 1 walking Corridors.

Indicative Cost Estimates

Methodology

Outline costs were estimated for the high-level proposals for infrastructure improvements. The estimates are reflective of the early development stage and intended to provide an indicative, rough order-of-magnitude cost only. Costs can vary significantly depending on local site conditions.[1]

Depending on the type of intervention, costs were estimated by two methods:

Readily Available Unit Cost Information

Where available, unit cost information for common types of infrastructure improvements were obtained from data from DfT[2], Wiltshire Council[3], and Greater Manchester[4] (e.g. type of crossing, type of cycle facility). Cost estimates were then calculated based on the approximate quantity of facilities proposed (e.g., number of toucan crossings, kilometres of cycle track). For these costs, it was assumed that the indicative unit cost available included all aspects of installation, such as allowances for preliminaries, risk, costs associated with the need for utility diversions, etc.. Where the data source provided a range of costs, the high cost was used to provide a more conservative estimate at this early development stage.

Costing for Bespoke Elements

For scheme elements where unit cost information was not readily available, more bespoke estimates were developed. These cost estimates include allowances for items which can currently be quantified, unknown or unquantifiable items, and risk.

The estimates included the following assumptions:

Quantifiable items (the basic costs of a scheme before allowing for risks):

» Engineering judgement was used to estimate material quantities (what would be covered by multiple items in a standard bill of quantities developed in detailed design[5]).

Unknown or unquantifiable items:

» Allowance for those items which have not or cannot be quantified at this stage of design (25% of quantified costs).

» Allowance for preliminaries and traffic management (15% of quantified costs).

» Allowance for risk (20% of quantified costs).

» Allowance for statutory undertakers diversions (15% of quantified costs).

1 High level costs applicable to this study only, review of costs required as design progresses to feasibility /preliminary design phases.

2 Typical costs of cycling interventions, Interim analysis of Cycle City Ambition schemes, January 2017.

3 Costs of highway works, Wiltshire Council (https://www.wiltshire.gov.uk/highways-works-cost).

4 Greater Manchester Cycling design guidance, March 2014.

5 An example would be length of kerbing or area of new carriageway. Kerbing was estimated as a combined single rate but in later stages this would broken down to include the kerb, kerb bed, and kerb backing. For carriageway, the later stages would separately identify formation, capping, sub-base, road base, and surfacing.

Other assumptions:

- Each option is delivered individually and so no estimate of the efficiency from a combined delivery is applied.
- Prices from different sources were adjusted to a 2024 base year for all costs using inflation rates from the Consumer Price Index (CPI).
- Does not include costs associated with the need for third party land acquisition (if required).
- Assumes a standard material palette. Higher specification or a heritage materials palette may be preferred in some areas, which would be considered in detailed design and may require additional cost.
- Where alternative options are noted in the initial proposals, the indicative cost of the main proposal is highlighted, but alternative costs are also included as footnotes.
- Area-wide proposals (e.g., wayfinding review/ upgrades, dropped kerb/tactile paving review/ improvements, off-street path lighting review/ improvements, etc..) cannot be quantified at this stage and not included in cost estimates.
- A contingency of 40% is included to provide allowance for unknowns at this early stage of optioneering.
- Design/consultancy fees are assumed to be 18% of capital costs.
- Site supervision fees are assumed to be 12% of capital costs.
- Potential programme for delivery is unknown at this stage. Therefore, total estimated costs are in 2024 prices. Once potential timescales for delivery are known, an adjustment for inflation should be applied.
- Optimism bias is not included. This would typically be applied during outline business case[6].

Estimated costs were tabulated by CWZ and cycle corridor. Therefore, each CWZ/cycle corridor and each mode (walking, wheeling and cycling) were evaluated separately. This method provided a stand alone cost for each CWZ[7] and cycle corridor so they may be considered independently. However, if viewed as a network-wide package of improvements, there is opportunity for potentially significant savings associated with a combined delivery programme.

The indicative cost estimates for the package of improvements along each CWZ and cycle corridor are presented in Table 18 and Table 19, respectively. The unit cost references are summarised in Appendix 5: Indicative Unit Cost Estimates.

Initial costs for the sections of the gyratory are included on each cycle corridor. The proposed interventions added in the cost estimate include proposals with minimal impact for the traffic flows (i.e. not affecting the number of traffic lanes or changes to the circulation of traffic) and improvements for the junctions.

Cost estimates will be revised in future stages as the schemes are developed, the proposals are more defined and more information is known.

6 An optimism bias of 44% would typically applied during the business case for early stage civil engineering projects, as per UK Treasury guidance (HM Treasury, Guide to Development of the Project Business Case)

7 Some interventions sit inside multiple CWZs, where these overlap. For this exercise, interventions were assigned to a single CWZ to avoid double counting, based on the boundaries shown in Figure 108.

Table 18. Indicative high level costs for the proposed walking improvements

		CWZ 4 - Ewell[1]	CWZ 11 - Epsom Town Centre North	CWZ 12 - Epsom Town Centre South
Link Cost		£4,908,000	£6,135,000	£5,485,000
Junction Cost		£4,534,000	£4,760,000	£3,560,000
Total Base Capital Cost (2024 Prices)		**£9,442,000**	**£10,895,000**	**£9,045,000**
Contingency	40%	£3,776,800	£4,358,000	£3,618,000
Design / consultancy fees	18%	£1,699,600	£1,961,100	£1,628,100
Site supervision	12%	£1,133,100	£1,307,400	£1,085,400
Total Estimated Cost (2024 Prices, rounded)		**£16,060,000**	**£18,530,000**	**£15,380,000**

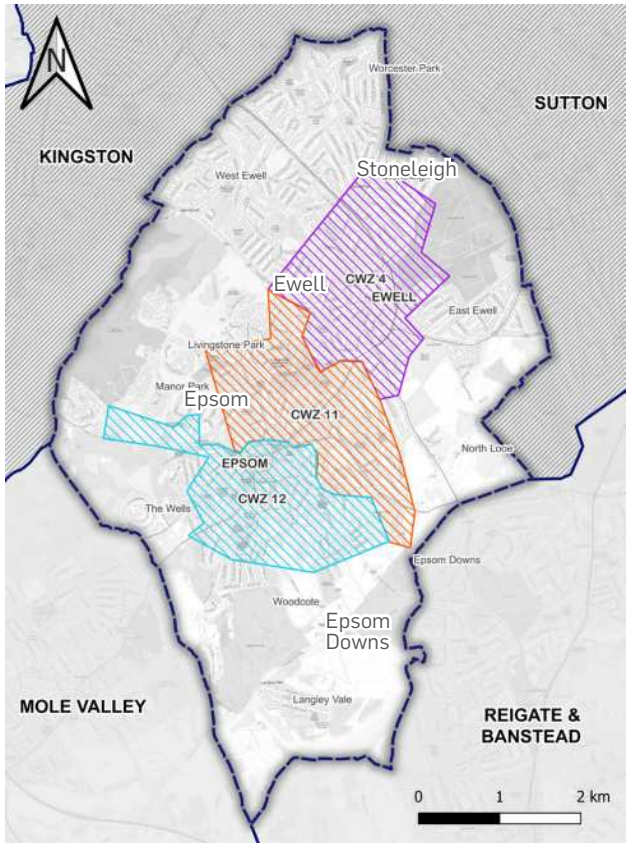

Figure 108. Costing areas for Core Walking Zones.

1 Ewell CWZ costing contains relevant elements of the Ewell Village Placemaking scheme as proposed at the time of writing.

Table 19. Indicative high level costs for the proposed cycle interventions

		1: A24 Dorking Road (Ashtead to Epsom Town Centre)[1]	3: A24 Epsom Town Centre to Sutton[2]	4: Epsom Town Centre to Epsom Downs[3]	6: Hook Road - Longmead Road[4]	8: Chessington Road[5]	11: A24 Ewell to Nonsuch Park and Stoneleigh link[6]
Link Cost		£3,289,000	£5,622,000	£6,662,000	£3,960,000	£3,596,000	£8,051,000
Junction Cost		£734,000	£1,201,000	£1,119,000	£1,127,000	£627,000	£2,405,000
Total Base Capital Cost (2024 Prices)		**£4,023,000**	**£6,823,000**	**£7,781,000**	**£5,087,000**	**£4,223,000**	**£10,456,000**
Contingency	40%	£1,609,200	£2,729,200	£3,112,400	£2,034,800	£1,689,200	£4,182,400
Design / consultancy fees	18%	£724,200	£1,228,200	£1,400,600	£915,700	£760,200	£1,882,100
Site supervision	12%	£482,800	£818,800	£933,800	£610,500	£506,800	£1,254,800
Total Estimated Cost (2024 Prices, rounded)		**£6,840,000**	**£11,600,000**	**£13,230,000**	**£8,650,000**	**£7,180,000**	**£17,780,000**

1 This cost represents the option along the A24. The total estimated cost for the alternative that runs along White Horse Drive is £4,970,000.
2 This cost represents the option which runs fully along the A24. The total estimated cost for the alternative alignments parallel to the A24 is £11,270,000.
3 This cost represents the option which runs along Ashley Road. The total estimated cost for the alternative alignment along the Parade is £12,820,000 for the alternative alignment along the Downside is £12,820,000.
4 This cost represents the option through the green space. The total estimated cost for the option that incorporates separate facilities for cyclists is £8,920,000.
5 This cost represents the option for an upgraded shared use path along Chessington Road. The total estimated cost for the alternative alignment via the quietway is £4,380,000. For the alternative alignment along the Hogsmill, the cost is £5,850,000.
6 This cost represents the main alignment via London Road and includes Stoneleigh and Ewell Village improvements. The total estimated cost for the alternative alignment through quietways and West Street is £26,810,000. None of the options is including the cost of a new bridge over the railway at the end of West Street.

Funding Opportunities

There are a number of potential sources of funding available to deliver improvements identified in an LCWIP. Several potential sources are summarised below[1]. Once funding opportunities are secured, the proposed improvements can progress to preliminary and detailed design phases for implementation

Integrated Transport and Maintenance Block funding: This is provided annually to the council by the Government's Department for Transport (DfT) to enable investment in various transport and highway projects and programmes.

Government grants: Government frequently provides opportunities for local authorities to bid competitively for funding opportunities, with differing themes and objectives depending on the focus of the funding stream, such as the Active Travel Fund (ATF). The ATF is DfT's main funding stream to encourage uptake of walking, wheeling and cycling and support Gear Change and the Cycling and Walking Investment Strategy 2. Government funding can also be made available for active travel improvements through other sources, such as the cycle rail fund to improve cycle facilities at railway stations.

Other Government grant sources may include Capability and Ambition Funds, Levelling Up Funds and agency funding such as National Highways (e.g., Designated Funds).

Developer funding: Through the Planning process, the council as Local Planning Authority will negotiate with developers in order to mitigate any potential impacts of new development or accommodate the expected increased travel demand, especially walking, cycling and public transport. Developers are asked to pay for, or contribute towards, the cost of the additional infrastructure required. The level of contribution will be related to the scale of the new development and its impact on the local area. For transport, these specific funds can be secured via a legal agreement (Section 106) or works can be agreed that the developer fully pays for. However, the use of S106 planning obligations is mainly limited to site-specific mitigation measures.

There is also the Community Infrastructure Levy (CIL), which is a charge levied on new development by local authorities to help deliver infrastructure needed to support development in the area. Bids for strategic CIL allocations can be used to support delivery of active travel schemes.

Other sources: Other sources may include internal funding.

1 Not all the listed opportunities may be applicable to this LCWIP.

Figure 109. A24 Dorking Road south of the gyratory

10. Next Steps

Next Steps

The Epsom and Ewell LCWIP sets out a long-term strategy of potential infrastructure improvements to improve conditions for active travel in the Borough and support a shift from car journeys to sustainable modes. Whilst some high-level proposals for infrastructure improvements are ambitious and would require more detailed analysis of issues and constraints, they identify how sustainable growth and modal shift could be achieved.

The LCWIP report is the first stage in the process for investment in active travel in the Borough and Surrey more broadly. The end-to-end process is outlined below:

» **Stage 1 - Plan (LCWIP Report)**
» Stage 2 - Feasibility
» Stage 3 - Business case / secure funding
» Stage 4 - Delivery

The LCWIP report should be used to support the case for future stages of design, assessment and stakeholder engagement and secure funding to progress interventions for the corridors and areas identified.

As an LCWIP is intended to facilitate a long-term approach to developing active travel proposals over a period of approximately 10+ years, all of the corridors and core walking zones (CWZs) identified within the active travel network maps are recommended to progress to concept development at an appropriate time in the life of the LCWIP implementation. Whilst Phase 1 corridors/CWZs have been progressed to initial high-level proposals for infrastructure improvements, the ultimate aim is to also advance Phase 2 and Phase 3 corridors/CWZs.

Future opportunities to further expand the proposed network should also be considered, including corridors not identified within the current LCWIP, with the aim to deliver a high-quality network which reflects an appropriate density of corridors.

Feasibility Design

The next stage of LCWIP implementation will be to advance the Phase 1 high-level proposals for infrastructure improvements to Stage 2 - feasibility design. This will allow a more detailed review of individual corridors or interventions, evaluation of constraints, and refinement of the proposed measures. The ability to achieve LTN 1/20-compliant facilities has been noted as a potential issue along several of the proposed cycle corridors and would be examined in more detail (e.g., measures to mitigate high traffic flows). The feasibility stage would include a broader stakeholder and public consultation process, enabling local input to help further shape the proposals.

There are several potential approaches to prioritising work in the next stage, such as:

Option 1: Advance Phase 1 Interventions in Full

This approach would seek to advance the cycle corridors / CWZs identified as highest priority, including the full package of proposed Phase 1 interventions.

Option 2: Prioritise / Advance Individual Interventions

This approach would break down the corridors or walking zones into smaller segments or individual interventions. This would allow a more refined prioritisation process to target areas of highest need or the weakest links of the network. Implementation would therefore be targeted where it is expected to deliver the most significant overall improvement and deliver the highest value for money.

Option 3: Quick Wins

This approach would review individual proposed interventions and identify potential 'quick wins' which could be implemented in the short term relatively easily. As with Option 2, this approach could focus on the Phase 1 corridors or identify potential quick wins across the entire LCWIP network.

Beyond Feasibility Design

Throughout the scheme development process, stakeholder engagement would continue to be a key element of developing high-quality and attractive active travel facilities for local users. The progression of these schemes, either as a work package or individual schemes, would likely be subject to external factors such as funding applications or potential interdependencies with other proposals within the local area.

The LCWIP should be viewed as a 'living document' and reviewed and updated periodically to reflect evolving needs and opportunities. This could be in response to significant changes in local circumstances, such as the publication of new policies or strategies. Engagement with SCC and EEBC has been undertaken during the development of the LCWIP to provide alignment and future-proofing with regards to key transport and local policies.

In future, additional active travel opportunities may also be identified and incorporated into the LCWIP in response to major new development sites, and as walking and cycling networks mature and expand.

Finally, to facilitate implementation, the LCWIP outputs should also be integrated into local planning and transport policies, strategies and delivery plans, as per DfT guidance.

Funding

There are a number of potential sources of funding available to support delivery of active travel infrastructure identified in an LCWIP, with a key one being government grants through the Active Travel Fund. Once funding opportunities are secured, the proposed improvements can progress to preliminary and detailed design phases for implementation. Refer to previous section (page 177) for information on potential funding opportunities.

Coordination with Other Workstreams

There are opportunities for coordination and collaboration with other active travel-related schemes to support implementation. This includes neighbouring LCWIPs to ensure cross-boundary continuity of walking and cycling networks (e.g., Cycle Corridor 1 into Mole Valley). Proposals from neighbouring areas should be reviewed together as an integrated package of strategies and interventions. This would allow potential synergies and interdependencies to be identified, potential competing needs to be resolved, and design proposals to be refined to ensure a cohesive overarching strategy.

As noted in the review of previous studies (see 2. Policy & Previous Study Context on page 19), there is also overlap of the LCWIP networks with several on-going or proposed studies, such as Epsom Town Centre Masterplan and Ewell Village Revitalisation Plans. Integration of the LCWIP networks and proposals with these schemes (and others) would provide another opportunity to facilitate implementation. The Epsom Town Centre gyratory is identified as one of the key priorities for the Borough, and proposals along the gyratory need for a holistic, multi-modal review of opportunities in the Town Centre alongside other workstreams (e.g., Epsom Town Centre Masterplan).

More broadly, the LCWIP is also a key strategy to support implementation of SCC's LTP4. Advancement of the LCWIP and active travel measures should be considered alongside other aspects of delivery of LTP4, such as public transport improvements or place-based strategies, to identify and resolve any potential competing needs amongst different modes and ensure a comprehensive approach to scheme development.

Finally, SCC are in the preliminary stages of identifying suitable neighbourhoods within the county to trial Local Street Improvement schemes (LSIs). LSIs will be groups of residential streets, bordered by main or "distributor" roads and natural boundaries such as railway lines, where new or improved infrastructure is provided to improve the safety, accessibility and ease of walking, wheeling and cycling. Not only would this help residential streets build a sense of place, but it would increase the walkability of streets and improve cycling conditions on these streets.

The work on LSIs would be complementary to LCWIP work, as it would provide more localised walking and cycling corridor connections and improve the permeability of Surrey's walking and cycling network, whilst delivering additional benefits such as a reduction in air and noise pollution, collision rates, increased community activity and increased physical activity of residents.

Figure 110. Cheam Road / Nonsuch Ct Avenue / St Normans Way junction

Appendices

Appendix 1: Multi-Criteria Assessment Framework (MCAF)

Appendix 2: G. Central Cycle Corridor: Gyratory, limited intervention option

Appendix 3: Walking Route Assessment Tool (WRAT)

Appendix 4: First Phase Assessments

Appendix 5: Indicative Unit Cost Estimates

Appendix 6: Stakeholder Comments on high-level proposals for infrastructure improvements

Appendix 7: Sustrans Cycle Corridor 5 Review

Appendix 1: Multi-Criteria Assessment Framework (MCAF)

Table 20. MCAF output table for cycling aspirational list

erion-->		Access				Demand				Cycle Network			
Name/Description	Length (km)	CWZs Served by Corridor (within 10min walk)	Rail Station Access (within 10min walk)	Number of Schools (within 10min walk)	Weighted Score %	Development Sites (No of Dwellings within 10min Walk)	School PCT (Go Dutch, Number of daily School Trips)	PCT Tool (GoDutch, Number of Daily Commuters)	Weighted Score %	Contributes to Improved Cycling Network (Number of Links to Other Segments of Proposed LCWIP Network)	Contributes to Improved Cycling Network (Existing Cycle Facilities i.e., Cycle Tracks, Bridleways & Greenways)	Pedal Cycle Collision History (Cycle Collisions per KM)	Weighted Score %
g Rules -->		1: < 3 2: < 6 3: ≥ 6	Station Nos. Score: 0: No Station 2: 1 RS within 10min walk 3: 1 RS within along the cycle corridor	1: < 1 2: < 1.5 3: ≥ 1.5		1: < 250 2: < 500 3: ≥ 500	1: < 300 2: < 600 3: ≥ 600	1: < 200 2: < 450 3: ≥ 450		1: < 1 2: < 2 3: ≥ 2	1: < 0.1 2: < 0 3: ≥ 0	1: < 1.5 2: < 3 3: ≥ 3	
hting-->		3	3	3	30%	2	2	2	30%	1	1	3	15%
Score-->		3	3	3	100%	3	3	3	100%	3	3	3	100%
A24 Dorking Road (Ashtead to Epsom Town Cen	2.81	1	2	3	67%	3	3	3	100%	2	1	3	80%
B284 Epsom Town Centre to Chessington	4.37	3	2	3	89%	3	2	3	89%	2	1	3	80%
A24 Epsom Town Centre to Sutton	4.26	2	3	3	89%	3	3	3	100%	3	1	3	87%
Epsom Town Centre to Epsom Downs	3.55	1	3	2	67%	2	2	3	78%	1	3	2	67%
Epsom By-pass	4.49	3	3	2	89%	2	3	2	78%	2	3	2	73%
Hook Road - Longmead Road	1.86	3	3	1	78%	3	3	3	100%	3	1	2	67%
Longmead Industrial Estate to Ewell	2.18	3	0	3	67%	3	3	2	89%	2	3	1	53%
Chessington Road	2.22	3	2	3	89%	3	3	2	89%	2	3	3	93%
Longmead Industrial Estate	0.71	2	0	1	33%	3	2	3	89%	3	3	1	60%
Fairview Road path	1.22	2	0	1	33%	0	2	3	56%	3	3	2	80%
A24 Ewell to Nonsuch Park	2.81	2	0	3	56%	0	3	3	67%	3	3	2	80%
Hogsmill Open Space	1.67	3	0	1	44%	1	2	2	56%	2	3	0	33%
Ruxley Lane to Worcester Park	3.80	2	2	3	78%	0	2	2	44%	1	3	1	47%
Stoneleigh	3.02	2	2	1	56%	0	2	2	44%	1	3	1	47%
Ewell East to Nonsuch Park	2.15	1	2	3	67%	2	1	2	56%	2	3	1	53%
Reigate Road	2.21	1	0	1	22%	0	1	3	44%	1	2	2	60%
Epsom Town Centre to Epsom College (via A202	1.81	1	2	2	56%	3	1	3	78%	1	3	2	67%
Station Aproach to Dorking Road	1.37	1	2	1	44%	3	3	3	100%	3	1	1	47%
Epsom Town Centre to Epsom Common	5.08	1	2	1	44%	2	2	1	56%	1	1	1	33%
Langley Vale Road	1.39	1	0	0	11%	0	1	1	22%	1	3	1	47%
Cheam Road to Belmont RS	4.17	1	3	2	67%	2	1	1	44%	1	3	1	47%
Old Malden Lane	1.20	1	0	1	22%	0	1	2	33%	1	3	2	67%

Table 21. MCAF output table for cycling aspirational list

erion-->		Deliverability		Stakeholder Input			Cycle Corridor Ranking (Method-2)	
Name/Description	Length (km)	Ease of Implementation	Weighted Score %	Comments (Comments & Agreements per KM)	Stakeholder Feedback - Workshop (number of Stakeholder Votes)	Weighted Score %	Weighted Score %	Rank
g Rules -->		: Likely Major Constraints, such as Limited Public Highway, Bridges, Steep Gradient 2 : Significant Constraints, Narrow carriageway Lanes with no Significant Traffic Flows : Use of Footpaths, Bridleways & Sections of Country Lanes with No Traffic		1: < 15 2: < 30 3: ≥ 30	1: < 2 2: < 3 3: ≥ 3			
hting-->		1	10%	3	1	15%	-	-
Score-->		3	100%	3	3	100%	100%	-
A24 Dorking Road (Ashtead to Epsom Town Cen	2.81	2	67%	3	3	100%	83.7%	3
B284 Epsom Town Centre to Chessington	4.37	1	33%	3	3	100%	83.7%	3
A24 Epsom Town Centre to Sutton	4.26	1	33%	3	2	92%	86.8%	1
Epsom Town Centre to Epsom Downs	3.55	2	67%	3	2	92%	73.8%	6
Epsom By-pass	4.49	1	33%	2	1	58%	73.1%	7
Hook Road - Longmead Road	1.86	1	33%	2	1	58%	75.4%	5
Longmead Industrial Estate to Ewell	2.18	1	33%	2	2	67%	68.0%	11
Chessington Road	2.22	2	67%	3	1	83%	86.5%	2
Longmead Industrial Estate	0.71	2	67%	1	1	33%	57.3%	13
Fairview Road path	1.22	3	100%	1	1	33%	53.7%	15
A24 Ewell to Nonsuch Park	2.81	2	67%	3	3	100%	70.3%	8
Hogsmill Open Space	1.67	2	67%	1	1	33%	46.7%	18
Ruxley Lane to Worcester Park	3.80	2	67%	3	3	100%	65.3%	12
Stoneleigh	3.02	1	33%	2	2	67%	50.3%	17
Ewell East to Nonsuch Park	2.15	1	33%	1	0	25%	51.8%	16
Reigate Road	2.21	1	33%	2	2	67%	42.3%	20
Epsom Town Centre to Epsom College (via A202	1.81	3	100%	2	1	58%	68.8%	10
Station Aproach to Dorking Road	1.37	2	67%	3	1	83%	69.5%	9
Epsom Town Centre to Epsom Common	5.08	1	33%	2	0	50%	45.8%	19
Langley Vale Road	1.39	2	67%	2	0	50%	31.2%	22
Cheam Road to Belmont RS	4.17	3	100%	1	0	25%	54.1%	14
Old Malden Lane	1.20	1	33%	3	0	75%	41.3%	21

Two high-scoring corridors were not selected for the Phase 1 shortlist. These corridors were excluded for the reasons outlined below:

- Cycle Corridor 2: This corridor was originally selected for the cycling shortlist, but due to off-carriageway provision, some high-quality facilities already in place, and the selection of the parallel Corridor 6, Stakeholders requested that this corridor be downgraded to Phase 2.
- Cycle Corridor 5: This corridor is a major arterial for vehicle traffic. Stakeholders suggested that currently, this corridor is a poor option for cyclists (dual carriageway with high flows/speeds) and would require major transformation. Also, the shortlisted Corridor 8 is a preferred alternative for many cyclists to connect to Kingston via Surbiton.

Table 22. MCAF output table for core walking zone aspirational list

Criterion-->		Access					Demand				Existing Pedestrian Quality		
ID	CWZ Name/Description	Other Key Destinations (Retail areas, parks, Hospitals; within 10min walk)	Number of Schools (within 10min walk)	Bus Stops (# of stops) (within 10min walk)	Rail Station Access (within 10min walk)	CWZ Weighted Score %	Development Sites (No of Dwellings within 10min Walk)	Total Population (within 10min walk)	Total Workplace Population (within 10min walk)	CWZ Weighted Score %	Posted Speed (Highest Speed within CWZ)	Traffic Flows (Highest Flows within CWZ)	Pedestrian Collision History (within CWZ)
Rating Rules -->		1: < 5 2: < 10 3: ≥ 10	1: < 2 2: < 4 3: ≥ 4	1: < 10 2: < 20 3: ≥ 20	Station Nos. Score: 0: No Station 1: 1 RS within 10min walk 3: 1 RS within CWZ		1: < 500 2: < 1000 3: ≥ 1000	1: < 30000 2: < 35000 3: ≥ 35000	1: < 10000 2: < 15000 3: ≥ 15000		1: ≤ 20 2: = 30 3: > 30	1: < 5000 2: ≤ 10000 3: > 10000	1: < 3 2: < 8 3: ≥ 8
Weighting-->		2	3	2	3	30%	2	2	2	30%	1	2	3
Max Score-->		3	3	3	3	100%	3	3	3	100%	3	3	3
1	Chessington Road (East)	3	3	2	3	93%	1	2	3	67%	2	3	2
2	Chessington Road (West)	2	1	2	1	47%	3	2	2	78%	2	3	2
4	Ewell Centre	3	3	3	3	100%	1	2	2	56%	2	3	3
5	Holymoor Road	2	2	3	1	63%	3	1	3	78%	2	2	2
6	Hook Road B284	3	2	2	1	63%	3	2	3	89%	2	3	1
9	Stoneleigh (East)	2	2	2	3	77%	0	3	2	56%	2	1	1
10	Stoneleigh (West)	1	1	1	3	53%	0	3	2	56%	3	3	2
11	Town Centre (North)	3	3	3	3	100%	2	3	3	89%	2	3	3
12	Town Centre (South)	3	3	3	3	100%	2	3	3	89%	2	3	3
14	West Ewell (South)	1	2	3	0	47%	1	1	2	44%	2	1	2
16	Ewell East	2	2	2	3	77%	1	1	1	33%	3	3	2

Criterion-->		Deliverability			Stakeholder Input			CWZ Ranking		
ID	CWZ Name/Description	Potential to Improve to a High & Accessible Standard, relative to Existing Condition (along Main CWZ Corridor only)	Significant Constraints or Dependencies (along main CWZ corridor only)	CWZ Weighted Score %	Commonplace Comments (within CWZ)	Stakeholder Feedback - Workshop (number of Stakeholder Votes)	CWZ Weighted Score %	Weighted CWZ Score %	Rank	Network Priority
Rating Rules -->		1: Lower Potential 2: Medium Potential 3: Higher Potential	1: Significant Constraints (e.g. land take, third party works) 2: Constraints Typical for a Transport Improvement 3: Limited Constraints		1: < 8 2: < 16 3: ≥ 16	1: < 2 2: < 3 3: ≥ 3				
Weighting-->		1	1	10%	3	1	15%	-	-	-
Max Score-->		3	3	100%	3	3	100%	100%	-	-
1	Chessington Road (East)	2	1	50%	1	0	25%	68.4%	6	Med
2	Chessington Road (West)	2	3	83%	1	0	25%	61.1%	7	Med
4	Ewell Centre	3	3	100%	3	2	92%	84.6%	3	High
5	Holymoor Road	1	3	67%	3	1	83%	71.5%	5	Med
6	Hook Road B284	1	3	67%	3	1	83%	74.0%	4	Med
9	Stoneleigh (East)	2	1	50%	2	2	67%	60.5%	8	Med
10	Stoneleigh (West)	3	1	67%	1	2	42%	58.1%	9	Med
11	Town Centre (North)	2	1	50%	3	3	100%	90.8%	2	High
12	Town Centre (South)	3	1	67%	3	3	100%	92.5%	1	High
14	West Ewell (South)	3	3	100%	2	0	50%	53.2%	11	Low
16	Ewell East	2	1	50%	2	0	50%	58.0%	10	Low

Appendix 2: G. Central Cycle Corridor: Gyratory, limited intervention option

The section outlines an indicative proposal for high-level interventions for cycling through the gyratory with options that would not have an impact to vehicular flows. The proposed interventions do not align with the aspirations set out by the LCWIP as the typology is not suitable for most users due to the high flows in the area, as per LTN 1/20, and which would therefore not make this an attractive alternative to private cars.

The interventions are proposed to give an indication of interventions in the short term (with a low cost of implementation) whilst a holistic, multi-modal movement strategy, that could incorporate aspirations of the Epsom Town Centre Master Plan could be considered.

G. Central Cycle Corridor: Gyratory, limited intervention option

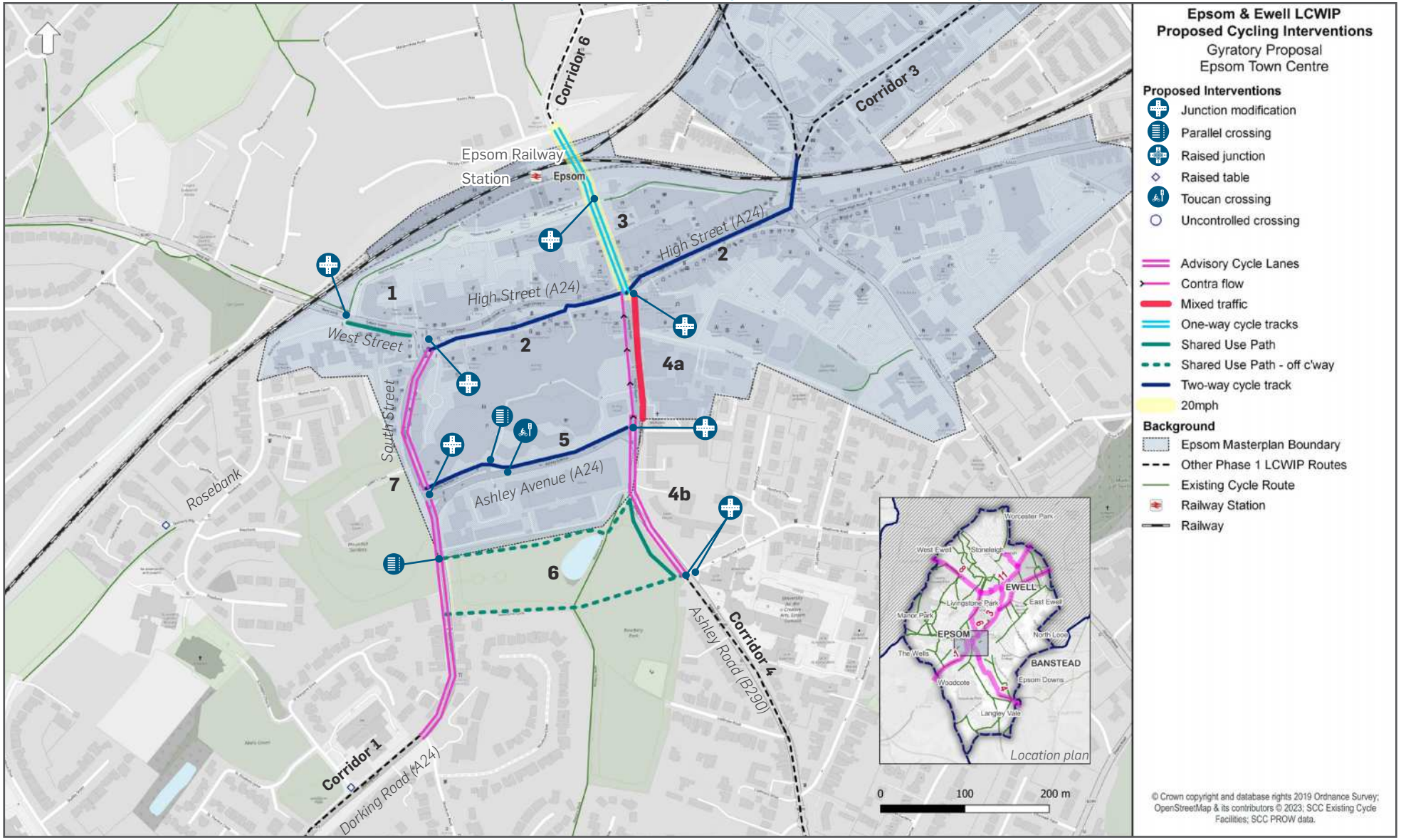

Figure 111. G. Central Cycle Corridor: Epsom Town Centre Gyratory

Indicative Proposed Interventions

1 West Street: Rosebank, part of Corridor 1, to connect to Station Approach through amended signalisation of the junction with West Street. Inclusion of shared use path on the southern side of the footway to connect to the gyratory.

2 A24 - High Street: Epsom High Street is currently a car-dominated environment, however, the amount of highway space allows for flexibility of provision for different modes. It is an aspiration to provide segregated cycle facilities in this area.

3 Waterloo Road: The proposal consists of one-way cycle tracks on Waterloo Road.

4 A24 - Ashley Road: **(4a)** One-way contraflow (northbound) on the western side of Ashley Road, adjacent to the Ashley Centre, to provide access to Epsom Railway Station and the Town Centre. The southbound direction would remain mixed traffic (current arrangement) due to space constraints[1]. **(4b)** South of the gyratory, the existing advisory cycle lanes are proposed to be retained up to Worple Road, and potentially upgrading to light segregation as available space increases. This proposal does not provide facilities suitable for most users as per ATE / LTN 1/20 guidelines due to high traffic flows and limited highway space[2].

5 Ashley Avenue: New two-way cycle track on the northern side of the carriageway, taking space from green verge adjacent to the Ashley Centre. New crossings proposed to access Epsom Gateway.

6 Rosebery Park: Shared use proposed for the boundary paths of Rosebery Park to provide alternatives to the gyratory. This is one of the more deliverable route sections in this area.

7 A24 - South Street: South Street is highly constrained due to limited available highway width, as well as high traffic volumes and demand for east-west connectivity for the A24. Due to these constraints and priority for pedestrian improvements in the Town Centre, minimal intervention for cyclists is proposed at this stage, limiting to advisory lanes through the reduction of lane width. This may not comply with ATE / LTN 1/20 guidance due to the high traffic flows in the gyratory.[3] In this section of the route, it is also proposed improved crossing provision to connect to the off-carriageway routes east of South Street.

1 In the future stages of scheme development further investigations are required to estimate the flows on the road and potential available space for alternative facilities or alternative alignments.

2 There is limited space for improved provision for cyclists without impacting vehicular traffic.

3 ATE criteria allows for advisory facilities under certain conditions. At this stage, it is unclear whether these criteria would be met as peak hour vehicle flows have been estimated at 500-1000 from previous years' traffic surveys.

Appendix 3: Walking Route Assessment Tool (WRAT)

Table 23. WRAT results for walking links: CWZ4 Ewell Centre - existing & proposals

					Existing						Proposals					
					WRAT - PERCENTILE						WRAT - PERCENTILE					
link	road_name	Start	End	length (m	Attractiveness	Comfort	Directness	Safety	Coherence	Total	Attractiveness	Comfort	Directness	Safety	Coherence	Total
4.1	Epsom Road	Reigate Road	Chuters Grove	0	75%	60%	86%	100%	17%	69%	92%	95%	100%	100%	67%	93%
4.2	The Headway	Chessington Roac	Spring Street	0	58%	20%	7%	67%	0%	28%	83%	85%	14%	83%	100%	69%
4.3	London Road/The Glade	Church Street	Stoneleigh Broadw	0	75%	55%	36%	100%	0%	53%	83%	90%	100%	100%	67%	90%
4.4	High Street	Reigate Road	Church Street	0	83%	60%	64%	67%	17%	62%	83%	60%	71%	67%	67%	69%
4.5	Cheam Road	High Street	Station Approach	0	75%	45%	79%	100%	0%	60%	83%	80%	79%	100%	67%	81%
4.6	Reigate Road	High Street	Ewell Downs Road	0	75%	55%	79%	100%	17%	66%	83%	90%	79%	100%	83%	86%
4.7	The Kingsway	Epsom Road	West Gardens	0	67%	45%	86%	83%	0%	59%	92%	90%	100%	100%	83%	93%
4.8	The Avenue	Church Street	Ewell Road	0	42%	75%	14%	0%	67%	45%	50%	90%	93%	100%	83%	83%
4.9	West Street/Church Street	Church Street	Longmead Road	0	50%	15%	71%	83%	0%	41%	83%	65%	79%	100%	67%	76%
4.10	Spring Street/Chessington Road	High Street	Kingston Road	0	67%	30%	0%	50%	0%	29%	83%	70%	57%	50%	83%	69%
4.11	Chessington Road	Spring Street	Riverholme Drive	0	58%	45%	29%	33%	17%	40%	58%	65%	100%	33%	67%	69%
4.12	Old Schools Lane	Chessington Roac	Station Avenue	0	50%	20%	79%	83%	0%	45%	67%	70%	93%	100%	83%	79%
4.13	Church Street/Primrose Walk	Kingston Road	Church Street	0	50%	50%	14%	83%	50%	45%	67%	75%	93%	100%	100%	83%
4.14	Mill Lane	London Road	Kingston Road	0	67%	35%	86%	83%	0%	55%	83%	75%	100%	100%	83%	86%
4.15	Kingston Road	London Road	Stoneleigh Park Rc	0	58%	45%	29%	0%	0%	34%	83%	95%	71%	50%	67%	79%
4.16	Park Avenue West/Glenwood Rc	Kingston Road	Stoneleigh Broadw	0	75%	55%	93%	100%	0%	67%	92%	80%	93%	100%	83%	88%
4.17	The Grove	West Street	High Street	0	83%	95%	93%	100%	100%	93%	83%	95%	93%	100%	100%	93%

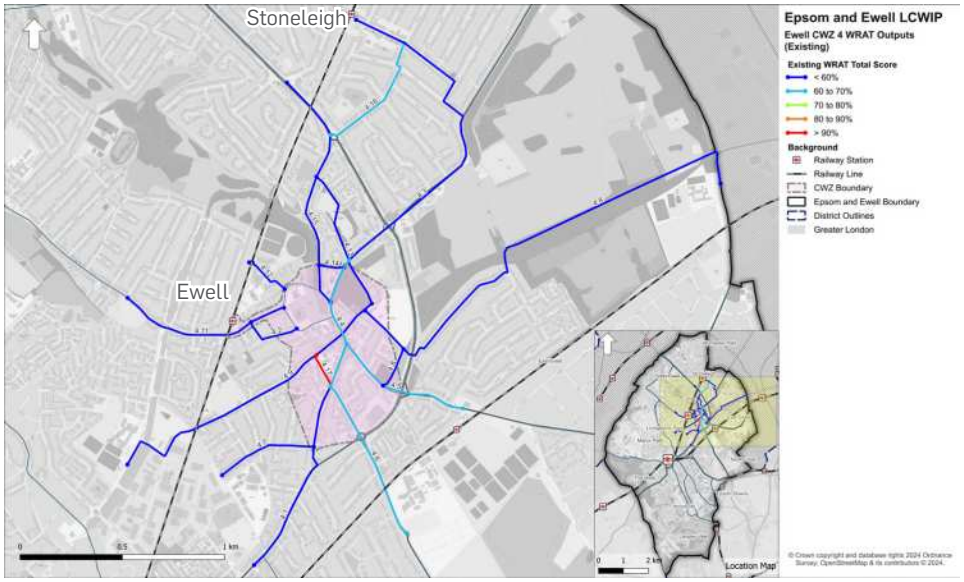

Figure 112. CWZ4 Ewell Centre - existing WRAT results

Figure 113. CWZ4 Ewell Centre - proposed WRAT results

Table 24. WRAT results for walking links: CWZ11 Epsom Town Centre (North) - existing & proposals

					Existing						Proposals					
					WRAT - PERCENTILE						WRAT - PERCENTILE					
link	road_name	Start	End	length (m	Attractiveness	Comfort	Directness	Safety	Coherence	Total	ttractivenes	Comfort	Directness	Safety	Coherence	Total
11.1	South Street/Dorking Road	High Street	Castle Street	0	83%	55%	57%	33%	33%	57%	92%	90%	93%	50%	67%	84%
11.2	Rosebank/White Horse Drive	West Street	Dorking Road	0	83%	50%	86%	83%	17%	66%	100%	100%	93%	100%	67%	95%
11.3	Ashley Avenue	South Street	Ashley Road	0	75%	65%	14%	33%	33%	48%	83%	100%	93%	83%	100%	93%
11.4	Ashley Road	High Street	Downs Hill Road	0	67%	60%	64%	50%	50%	60%	92%	90%	100%	67%	83%	90%
11.5	Downs Road	Downs Avenue	Church Street/Pitt R	0	67%	40%	64%	83%	17%	53%	83%	95%	100%	100%	67%	91%
11.6	Downs Hill Road	Ashley Road	Downs Road/Down	0	67%	40%	93%	83%	17%	60%	83%	95%	100%	100%	67%	91%
11.7	Church Road/College Road	Church Road/High	College Road/Alexa	0	58%	50%	43%	50%	0%	45%	83%	95%	93%	67%	50%	84%
11.8	Church Road	Church Road/East	Church Road/Colleg	0	58%	30%	57%	67%	17%	45%	83%	100%	100%	100%	67%	93%
11.9	Alleyway behind Pikes Hill	Alleyway/Upper H	Pikes Hill/Church Ro	0	50%	45%	71%	67%	67%	57%	67%	60%	71%	67%	83%	67%
11.10	Upper High Street/Alexandra Ro	Ashley Road	College Road	0	75%	60%	57%	67%	33%	60%	92%	95%	100%	67%	67%	90%
11.11	Mill Road/Windmill Lane/Wallace	Alexandra Road	Wallace Fields Prim	0	67%	45%	79%	83%	17%	59%	92%	90%	93%	100%	67%	90%
11.12	St John's Avenue	Wallace Fields	Dorling Drive	0	83%	70%	86%	83%	17%	72%	100%	90%	100%	100%	67%	93%
11.13	Windmill Lane	Mill Lane	East Street	0	75%	60%	79%	83%	17%	66%	92%	90%	93%	100%	83%	91%
11.14	Epsom Square	Waterloo Road/Sta	East Street	0	50%	60%	79%	100%	83%	69%	50%	85%	100%	100%	83%	83%
11.15	East Street	High Street	Cheam Road	0	75%	75%	57%	100%	33%	69%	83%	95%	100%	100%	67%	91%
11.16	Fairview Road	East Street	West Gardens	0	50%	35%	93%	83%	33%	57%	67%	90%	93%	100%	83%	86%
11.17	Kiln Lane Alleyway	The Kingsway	Longmead Road	0	33%	25%	79%	83%	33%	47%	58%	60%	79%	83%	83%	69%
11.18	Lintons Lane/Stones Road	East Street	Miles Road	0	42%	30%	57%	83%	17%	43%	58%	85%	86%	100%	67%	79%
11.19	Hook Road	East Street	Longmead Road	0	58%	45%	43%	33%	17%	43%	67%	90%	86%	67%	67%	79%
11.20	Longmead Road	Hook Road	Chessington Road	0	50%	60%	64%	67%	33%	57%	75%	95%	79%	67%	83%	83%
11.21	Chase Road	Hook Road	Temple Road	0	58%	50%	50%	50%	17%	48%	67%	50%	93%	67%	67%	67%
11.22	Miles Road	Hook Road	Hook Road	0	58%	45%	93%	50%	17%	57%	83%	90%	100%	67%	67%	86%
11.23	Burnet Grove/Hazon Way	West Hill	Temple Road	0	67%	50%	79%	100%	33%	64%	67%	65%	93%	100%	83%	78%
11.24	West Hill	Ashley Road	West Park Road	0	67%	60%	50%	67%	50%	59%	83%	100%	86%	100%	83%	91%
11.25	Manor Green Road	West Hill	Christ Church Moun	0	75%	55%	93%	83%	17%	67%	83%	85%	93%	100%	67%	86%
11.26	Waterloo Road/Horton Footpath	High Street	Brettgrave	0	42%	45%	50%	67%	33%	47%	67%	95%	93%	67%	83%	84%
11.27	Pound Lane	Temple Road	Hook Road	0	58%	60%	57%	50%	17%	53%	92%	80%	100%	67%	67%	84%
11.28	Station Approach	Hook Road	West Hill	0	58%	60%	64%	83%	33%	60%	75%	90%	64%	83%	50%	76%
11.29	Blenheim Road	Rory Richmond W	Longmead Road	0	67%	70%	93%	100%	33%	74%	75%	85%	93%	100%	83%	86%

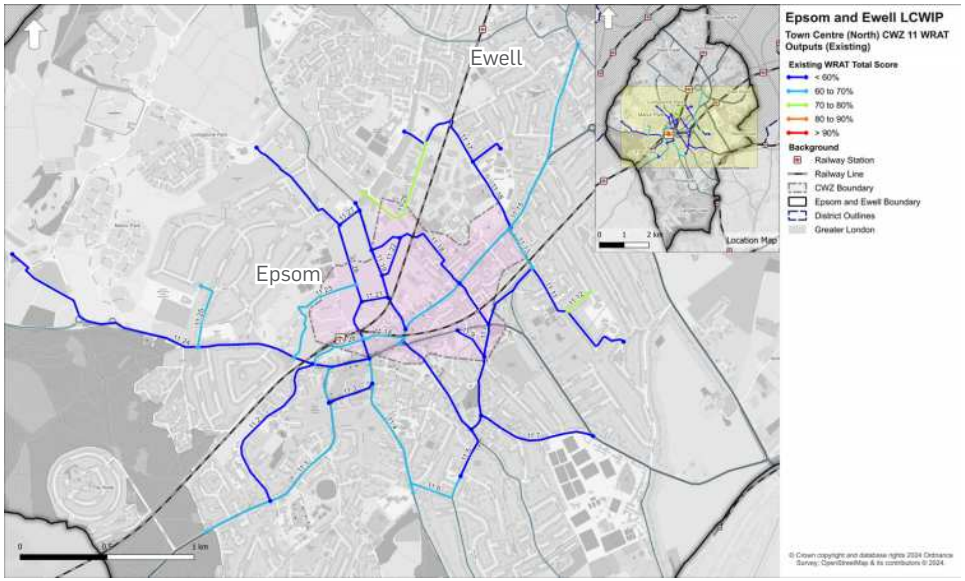

Figure 114. CWZ11 Epsom Town Centre (North) - existing WRAT results

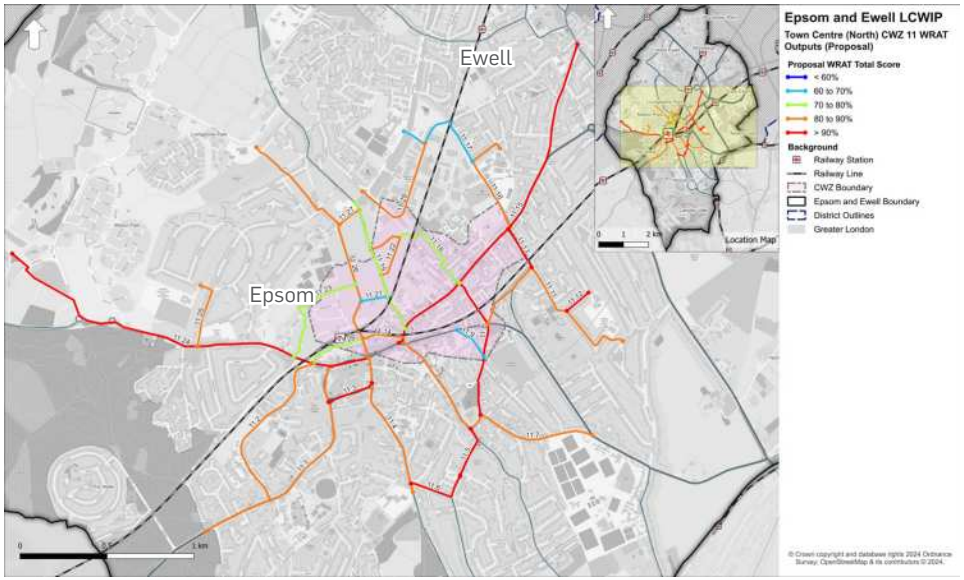

Figure 115. CWZ11 Epsom Town Centre (South) - proposed WRAT results

Table 25. WRAT results for walking links: CWZ12 Epsom Town Centre (South) - existing & proposals

					Existing						Proposals					
					VRAT - PERCENTILE						VRAT - PERCENTILE					
link	road_name	Start	End	length (m	Attractiveness	Comfort	Directness	Safety	Coherence	Total	tractivenes	Comfort	Directness	Safety	Coherence	Total
12.1	Dorking Road/South Street	West Street/High S	Castle Road	0	75%	55%	86%	33%	33%	62%	100%	100%	86%	100%	67%	93%
12.2	Rosebank/White Horse Drive	South Street	Dorking Road	0	83%	50%	86%	83%	0%	64%	83%	90%	100%	100%	83%	91%
12.3	Ashley Road	High Street	Treadwell Road	0	75%	60%	86%	67%	33%	67%	92%	100%	100%	100%	67%	95%
12.4	Upper High Street/Alexandra Roa	Church Street	Kilcorral Close	0	75%	60%	64%	67%	33%	62%	92%	90%	100%	100%	83%	93%
12.5	High Street	West Street/South	Upper High Street	0	75%	90%	86%	67%	67%	81%	92%	100%	100%	100%	100%	98%
12.6	Downs Hill Road/Downs Road	Ashley Road	Downs Ave	0	67%	40%	93%	83%	17%	60%	67%	90%	93%	83%	67%	83%
12.7	Mill Road/Denham Road/Windm	Alexandra Road	Dorling Drive	0	67%	45%	79%	83%	17%	59%	83%	100%	86%	100%	67%	90%
12.8	Wallace Fields	St John's Avenue	Wallace Fields Infan	0	83%	70%	86%	83%	17%	72%	83%	70%	93%	83%	67%	79%
12.9	Manor Green Road	West Hill	Stamford Green Pri	0	75%	55%	93%	83%	0%	66%	83%	85%	93%	100%	83%	88%
12.10	Waterloo Road/Temple Road/P	High Street	Hook Road	0	67%	55%	71%	67%	33%	60%	75%	60%	100%	100%	67%	78%
12.11	Longmead Road	Hook Road	Blenheim High Scho	0	67%	60%	57%	67%	17%	57%	92%	100%	100%	100%	67%	95%
12.12	Hook Road	East Street	Longmead Road	0	75%	45%	29%	33%	17%	43%	92%	85%	100%	100%	67%	90%
12.13	Lower Court/Horton Footpath/L	Pound Lane	Brettgrave	0	50%	55%	79%	83%	33%	60%	83%	95%	100%	100%	83%	93%
12.14	Fairview Road/The Kingsway	Epsom Road	West Gardens	0	58%	40%	86%	83%	33%	59%	92%	95%	100%	83%	83%	93%
12.15	West Street/Christ Church Road	High Street/South	Richmond Crescen	0	75%	60%	64%	67%	50%	64%	92%	100%	100%	100%	83%	97%
12.16	East Street	High Street/Upper	Fairview Road	0	83%	85%	86%	100%	50%	83%	92%	90%	100%	100%	83%	93%
12.17	Worple Road/Chalk Lane	Ashley Road	Woodcote Green R	0	75%	45%	64%	67%	17%	55%	83%	100%	86%	100%	67%	90%
12.18	Woodcote Road/Woodcote Gre	Dorking Road	Hylands Road	0	75%	60%	86%	67%	33%	67%	92%	95%	100%	100%	67%	93%
12.19	Ebbisham Road/Wheelers Lane	Dorking Road	West Hill	0	58%	35%	86%	83%	33%	57%	92%	100%	100%	100%	83%	97%
12.20	Station Approach	West Street	Waterloo Road	0	50%	60%	64%	83%	33%	59%	67%	90%	64%	83%	67%	76%
12.21	Epsom Square	Waterloo Road	East Street	0	58%	55%	71%	100%	83%	67%	83%	100%	86%	100%	100%	93%
12.22	Heathcote Road/The Parade	Ashley Road	Ashley Road	0	75%	50%	100%	83%	17%	67%	83%	70%	100%	83%	67%	81%
12.23	Ashley Avenue	South Street	Ashley Road	0	83%	70%	21%	67%	33%	57%	92%	70%	100%	100%	67%	84%

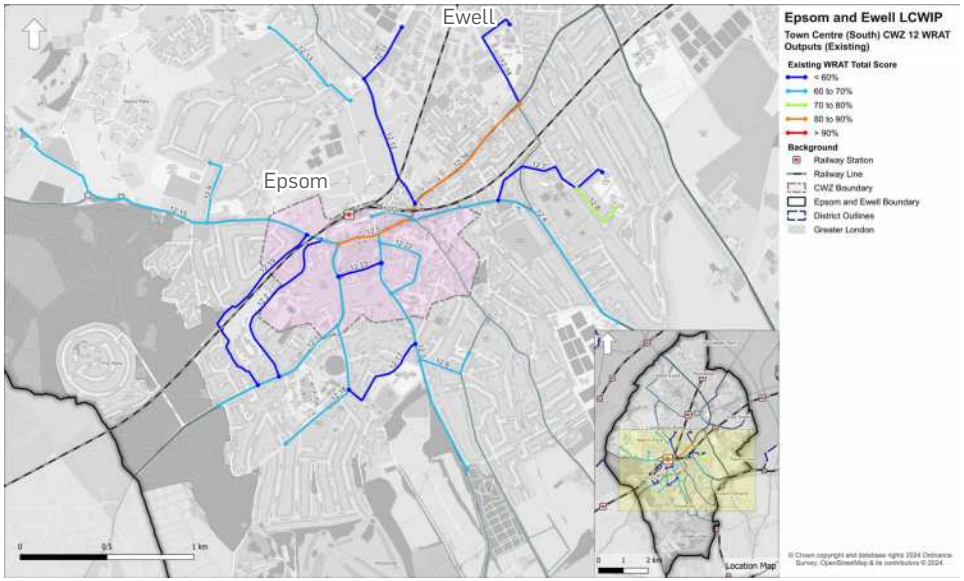

Figure 116. CWZ12 Epsom Town Centre (South) - existing WRAT results

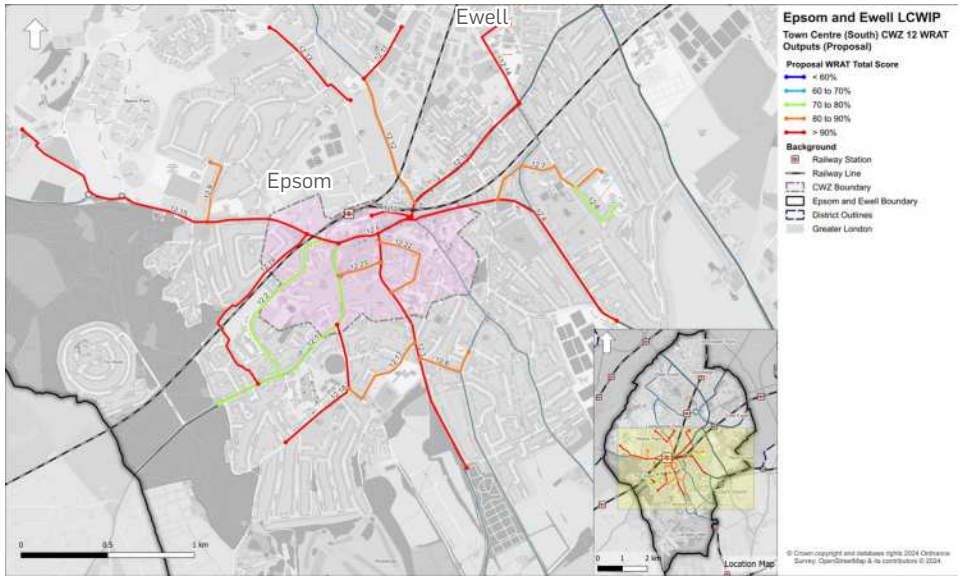

Figure 117. CWZ12 Epsom Town Centre (South) - proposed WRAT results

Appendix 4: First Phase Assessments

Table 26. Prioritisation table and scoring of the Phase 1 cycle corridors

Cycling Corridors			Multi-Criteria Assessment Framework									
Criterion-->			Access				Demand					
ID	Name/Description	Length (km)	Access to Town/ Village Centre (within 400m)	Access to Transport Facilities (within 400m)	Access to Education (within 400m)	Cycle Corridor Weighted Score %	Commuter PCT Growth (Census Baseline and E-Bike Scenario)	School PCT Growth (Census Baseline and Go Dutch Scenarios)	Common Place (Comments & Agreements)	Widen My Path (Comments & Agreements)	Pedal Cycle Collision History (Cycle Collisions per KM)	Cycle Corridor Weighted Score %
Rating Rules -->			1: < 5 2: < 8 3: ≥ 8	Railway Station Nos. Score: 0: No Station 2: 1 RS within 10min cycle 3: 1 RS within corridor	1: < 5 2: < 6 3: ≥ 6		1: < 550 2: < 880 3: ≥ 880	1: < 550 2: < 750 3: ≥ 750	1: < 9 2: < 17 3: ≥ 17	1: < 16 2: < 25 3: ≥ 25	1: < 2 2: < 3 3: ≥ 3	
Weighting-->			1	1	1	20%	1	1	1	1	1	20%
Max Score-->			3	3	3	100%	3	3	3	3	3	100%
1_a	Ashtead to Epsom Town Centre (Primary)	2.43	1	2	2	56%	2	2	2	3	3	80%
1_b	Ashtead to Epsom Town Centre (Optional)	2.69	1	2	1	44%	1	2	2	2	2	60%
3_a	A24 Epsom Town Centre to Sutton (Primary)	4.89	2	3	3	89%	3	2	3	3	3	93%
3_b	A24 Epsom Town Centre to Sutton (Optional)	5.03	2	3	3	89%	3	2	3	3	3	93%
4_a	Epsom Town Centre to Epsom Downs (Primary)	4.57	1	3	2	67%	3	1	3	2	3	80%
4_b	Epsom Town Centre to Epsom Downs (Optional)	4.11	1	2	2	56%	2	1	2	1	2	53%
4_c	Epsom Town Centre to Epsom Downs (Optional)	4.04	1	3	1	56%	3	1	3	1	2	67%
6_a	Hook Road - Longmead Road (Primary)	3.31	2	3	1	67%	3	3	2	1	3	80%
6_b	Hook Road - Longmead Road (Optional)	3.28	2	3	1	67%	3	3	2	1	3	80%
8_a	Chessington Road (Primary)	2.93	2	2	2	67%	1	3	1	2	3	67%
8_b	Chessington Road (Optional)	4.06	2	2	3	78%	1	3	1	2	3	67%
8_c	Chessington Road (Optional)	3.70	3	2	3	89%	1	1	1	1	2	40%
11_a	A24 Ewell to Nonsuch Park (Primary)	8.05	3	3	3	100%	2	2	1	2	2	60%
11_b	A24 Ewell to Nonsuch Park (Optional)	9.42	3	3	3	100%	2	2	1	2	2	60%

Table 27. Continued from previous page

Quality of Improvement				Deliverability				Cycle Corridor Ranking (Method-2)		
Contributes to Improved Cycling Network (Number of Links to Other Segments of Proposed LCWIP Network)	Quality of Design-Safety Improvement (RST)	Quality of Design-Comfort Improvement (RST)	Cycle Corridor Weighted Score %	Ease of Implementation	Gradient Score (RST)	Potential to Achieve LTN 1/20 Guidance	Cycle Corridor Weighted Score %	Weighted Score %	Rank	Network Priority
1: < 1.7 2: < 2.1 3: ≥ 2.1	1: < 2 2: < 3 3: ≥ 3	1: < 3 2: < 4 3: ≥ 4		1: < 1 2: < 2 3: ≥ 2	1: < 3 2: < 4.1 3: ≥ 4.1	1: < 1.1 2: < 2.1 3: ≥ 2.1				
1	1	1	30%	1	1	1	30%	-	-	-
3	3	3	100%	3	3	3	100%	100%	-	-
3	3	3	100%	3	3	2	89%	84%	1	High
3	3	3	100%	2	3	3	89%	78%	6	Med
2	2	2	67%	2	2	3	78%	80%	3	High
2	2	2	67%	2	2	3	78%	80%	3	High
2	3	3	89%	3	1	1	56%	73%	8	Med
1	3	3	78%	3	1	1	56%	62%	12	Low
1	3	3	78%	2	1	2	56%	64%	11	Low
3	1	1	56%	2	3	3	89%	73%	9	Med
2	1	1	44%	2	3	3	89%	69%	10	Med
3	3	3	100%	3	2	2	78%	80%	2	High
2	3	3	89%	3	2	2	78%	79%	5	High
1	3	3	78%	3	2	3	89%	76%	7	Med
1	1	1	33%	2	1	2	56%	59%	13	Low
1	1	1	33%	2	1	2	56%	59%	13	Low

Table 28. Prioritisation table and scoring of the Phase 1 walking corridors

Core Walking Zone (CWZ) and Walking Routes						Multi-Criteria Assessment Framework										
Criterion-->						Access					Demand					
CWZ	Link ID	Route Name	Start	End	Length (km)	Access to Rail/Bus Station (within 10min walk)	Access to High Street/Commercial Area (within 10min walk)	Access to Education (within 10min walk)	Access to Other Key Destinations (within 10min walk)	Walking Route Weighted Score %	Pedestrian PCT (Sum of All Pedestrian Trips<2km; Number of Daily Commuter Trips)	Connection to Development Sites (within 10min walk)	Common Place (Comments & Agreements)	Pedestrian Cycle Collision History (Pedestrian Collisions per KM)	Walking Route Weighted Score %
Rating Rules -->						3: Bus Stop & Railway Station 2: Bus Stop 1: No Connection	Score: 1: No Connectivity 2: Only 1 connectivity 3: More than 1 Connectivity	Score: 1: No Connectivity 2: Only 1 connectivity 3: More than 1 Connectivity	Score: 1: No Connectivity 2: Only 1 connectivity 3: More than 1 Connectivity		1: < 20 2: < 250 3: ≥ 250	Score: 1: No Connectivity 2: Only 1 connectivity 3: More than 1 Connectivity	1: < 4 2: < 11 3: ≥ 11	1: < 1 2: < 4 3: ≥ 4	
Weighting-->						1	1	1	1	20%	1	1	1	1	20%
Max Score-->						3	3	3	3	100%	3	3	3	3	100%
Ewell Centre 4	4.1	Epsom Road	Reigate Road	Chuters Grove	1.58	3	2	3	3	92%	1	1	2	2	50%
Ewell Centre 4	4.2	The Headway	Chessington Road	Spring Street	0.28	3	2	3	3	92%	1	1	2	1	42%
Ewell Centre 4	4.3	London Road/The Glade	Church Street	Stoneleigh Broadway	1.78	3	2	1	3	75%	2	1	2	2	58%
Ewell Centre 4	4.4	High Street	Reigate Road	Church Street	0.67	2	2	3	3	83%	1	1	3	3	67%
Ewell Centre 4	4.5	Cheam Road	High Street	Station Approach	0.69	3	2	2	2	75%	1	2	2	1	50%
Ewell Centre 4	4.6	Reigate Road	High Street	Ewell Downs Road	0.81	2	2	2	1	58%	1	1	3	2	58%
Ewell Centre 4	4.7	The Kingsway	Epsom Road	West Gardens	0.49	2	2	1	1	50%	1	1	1	1	33%
Ewell Centre 4	4.8	The Avenue	Church Street	Ewell Road	2.59	2	2	3	3	83%	1	1	2	1	42%
Ewell Centre 4	4.9	West Street/Church Street	Church Street	Longmead Road	1.57	2	2	3	3	83%	2	1	3	1	58%
Ewell Centre 4	4.10	Spring Street/Chessington Road	High Street	Kingston Road	1.58	3	2	3	3	92%	1	1	2	2	50%
Ewell Centre 4	4.11	Chessington Road	Spring Street	Riverholme Drive	0.86	3	2	2	3	83%	2	2	2	3	75%
Ewell Centre 4	4.12	Old Schools Lane	Chessington Road	Station Avenue	0.25	3	2	2	3	83%	1	1	1	1	33%
Ewell Centre 4	4.13	Church Street/Primrose Walk	Kingston Road	Church Street	0.71	2	2	2	3	75%	1	1	2	1	42%
Ewell Centre 4	4.14	Mill Lane	London Road	Kingston Road	0.12	2	2	2	3	75%	1	1	1	1	33%
Ewell Centre 4	4.15	Kingston Road	London Road	Stoneleigh Park Road	1.21	2	2	3	3	83%	1	1	1	1	33%
Ewell Centre 4	4.16	Park Avenue West/Glenwood Road/Dell R	Kingston Road	Stoneleigh Broadway	0.63	3	2	1	2	67%	1	1	2	2	50%
Ewell Centre 4	4.17	The Grove	West Street	High Street	0.18	2	2	3	2	75%	1	1	3	3	67%
Town Centre (North) 11	11.1	South Street/Dorking Road	High Street	Castle Street	3.38	3	3	3	3	100%	3	3	2	3	92%
Town Centre (North) 11	11.2	Rosebank/White Horse Drive	West Street	Dorking Road	2.12	3	3	3	3	100%	2	2	3	2	75%
Town Centre (North) 11	11.3	Ashley Avenue	South Street	Ashley Road	0.28	3	3	1	2	75%	1	2	2	3	67%
Town Centre (North) 11	11.4	Ashley Road	High Street	Downs Hill Road	0.84	3	3	3	2	92%	2	3	3	3	92%
Town Centre (North) 11	11.5	Downs Road	Downs Avenue	Church Street/Pitt Road	0.30	2	2	3	1	67%	1	2	3	1	58%
Town Centre (North) 11	11.6	Downs Hill Road	Ashley Road	Downs Road/Downs Avenue	0.37	2	1	3	1	58%	1	1	3	2	58%
Town Centre (North) 11	11.7	Church Road/College Road	Church Road/High Street	College Road/Alexandra Road	1.44	3	3	2	2	83%	3	3	2	3	92%
Town Centre (North) 11	11.8	Church Road	Church Road/East Street	Church Road/College Road	0.82	2	2	1	2	58%	1	2	3	2	67%
Town Centre (North) 11	11.9	Alleyway behind Pikes Hill	Alleyway/Upper High Street	Pikes Hill/Church Road	0.22	2	2	1	2	58%	1	2	1	1	42%
Town Centre (North) 11	11.10	Upper High Street/Alexandra Road	Ashley Road	College Road	3.38	3	3	3	3	100%	3	3	2	3	92%
Town Centre (North) 11	11.11	Mill Road/Windmill Lane/Wallace Fields	Alexandra Road	Wallace Fields Primary School	1.22	2	2	2	2	67%	1	2	2	2	58%
Town Centre (North) 11	11.12	St John's Avenue	Wallace Fields	Dorling Drive	0.16	2	1	1	1	42%	1	1	1	3	50%
Town Centre (North) 11	11.13	Windmill Lane	Mill Lane	East Street	0.26	2	1	1	2	50%	1	1	1	1	33%
Town Centre (North) 11	11.14	Epsom Square	Waterloo Road/Station Approa	East Street	0.24	3	3	1	2	75%	3	3	3	3	100%
Town Centre (North) 11	11.15	East Street	High Street	Cheam Road	2.08	3	3	3	3	100%	3	3	2	2	83%
Town Centre (North) 11	11.16	Fairview Road	East Street	West Gardens	0.65	2	1	1	1	42%	1	1	1	1	33%
Town Centre (North) 11	11.17	Kiln Lane Alleyway	The Kingsway	Longmead Road	0.64	2	1	1	1	42%	2	1	3	2	67%
Town Centre (North) 11	11.18	Lintons Lane/Stones Road	East Street	Miles Road	0.53	2	2	1	1	50%	1	2	1	1	42%
Town Centre (North) 11	11.19	Hook Road	East Street	Longmead Road	0.79	3	3	1	2	75%	3	3	1	2	75%
Town Centre (North) 11	11.20	Longmead Road	Hook Road	Chessington Road	2.12	3	3	3	3	100%	2	2	3	2	75%
Town Centre (North) 11	11.21	Chase Road	Hook Road	Temple Road	0.16	3	3	1	2	75%	3	2	1	1	58%
Town Centre (North) 11	11.22	Miles Road	Hook Road	Hook Road	0.44	3	2	1	2	67%	3	2	1	1	58%
Town Centre (North) 11	11.23	Burnet Grove/Hazon Way	West Hill	Temple Road	0.70	3	3	2	2	83%	1	2	1	2	50%
Town Centre (North) 11	11.24	West Hill	Ashley Road	West Park Road	2.30	3	3	3	3	100%	1	3	2	2	67%
Town Centre (North) 11	11.25	Manor Green Road	West Hill	Christ Church Mount	0.41	2	1	1	1	42%	1	1	1	1	33%
Town Centre (North) 11	11.26	Waterloo Road/Horton Footpath/Temple	High Street	Brettgrave	1.50	3	3	3	3	100%	1	3	2	3	75%
Town Centre (North) 11	11.27	Pound Lane	Temple Road	Hook Road	0.14	2	2	1	2	58%	2	2	3	3	83%
Town Centre (North) 11	11.28	Station Approach	Hook Road	West Hill	0.34	3	3	1	2	75%	1	2	3	3	75%
Town Centre (North) 11	11.29	Blenheim Road	Rory Richmond Way	Longmead Road	0.72	2	2	2	2	67%	2	2	1	2	58%
Town Centre (South) 12	12.1	Dorking Road/South Street	West Street/High Street	Castle Road	2.45	3	3	3	3	100%	3	3	1	3	83%
Town Centre (South) 12	12.2	Rosebank/White Horse Drive	South Street	Dorking Road	1.37	3	3	3	3	100%	1	3	3	2	75%
Town Centre (South) 12	12.3	Ashley Road	High Street	Treadwell Road	1.48	3	3	3	2	92%	2	3	3	3	92%
Town Centre (South) 12	12.4	Upper High Street/Alexandra Road	Church Street	Kilcorral Close	1.56	3	3	3	2	92%	3	3	2	2	83%
Town Centre (South) 12	12.5	High Street	West Street/South Street	Upper High Street	0.43	3	3	1	2	75%	1	3	3	3	83%
Town Centre (South) 12	12.6	Downs Hill Road/Downs Road	Ashley Road	Downs Ave	0.37	2	1	3	1	58%	1	1	3	2	58%
Town Centre (South) 12	12.7	Mill Road/Denham Road/Windmill Lane/S	Alexandra Road	Dorling Drive	0.83	2	2	1	2	58%	1	2	3	2	67%
Town Centre (South) 12	12.8	Wallace Fields	St John's Avenue	Wallace Fields Infant School	0.36	2	1	1	1	42%	1	1	1	2	42%
Town Centre (South) 12	12.9	Manor Green Road	West Hill	Stamford Green Primary School	0.41	2	1	1	1	42%	1	1	1	1	33%
Town Centre (South) 12	12.10	Waterloo Road/Temple Road/Pound Lane	High Street	Hook Road	2.45	3	3	3	3	100%	3	3	1	3	83%
Town Centre (South) 12	12.11	Longmead Road	Hook Road	Blenheim High School	0.37	2	1	1	2	50%	2	1	3	1	58%
Town Centre (South) 12	12.12	Hook Road	East Street	Longmead Road	0.78	3	3	1	2	75%	3	3	1	2	75%
Town Centre (South) 12	12.13	Lower Court/Horton Footpath/Long Grove	Pound Lane	Brettgrave	0.65	2	1	2	2	58%	1	2	1	2	50%
Town Centre (South) 12	12.14	Fairview Road/The Kingsway	Epsom Road	West Gardens	0.65	2	1	1	1	42%	1	1	1	1	33%
Town Centre (South) 12	12.15	West Street/Christ Church Road	High Street/South Street	Richmond Crescent	2.08	3	2	2	3	83%	1	2	2	1	50%
Town Centre (South) 12	12.16	East Street	High Street/Upper High Street	Fairview Road	0.94	3	3	1	2	75%	3	3	2	3	92%
Town Centre (South) 12	12.17	Worple Road/Chalk Lane	Ashley Road	Woodcote Green Road	0.57	2	1	3	1	58%	2	1	3	1	58%
Town Centre (South) 12	12.18	Woodcote Road/Woodcote Green Road	Dorking Road	Hylands Road	0.86	2	2	3	2	75%	2	2	1	3	67%
Town Centre (South) 12	12.19	Ebbisham Road/Wheelers Lane	Dorking Road	West Hill	1.21	3	2	2	2	75%	1	2	1	1	42%
Town Centre (South) 12	12.20	Station Approach	West Street	Waterloo Road	1.37	3	3	3	3	100%	1	3	3	2	75%
Town Centre (South) 12	12.21	Epsom Square	Waterloo Road	East Street	0.24	3	3	1	2	75%	3	3	3	3	100%
Town Centre (South) 12	12.22	Heathcote Road/The Parade	Ashley Road	Ashley Road	0.55	3	3	1	2	75%	3	3	1	3	83%
Town Centre (South) 12	12.23	Ashley Avenue	South Street	Ashley Road	0.26	3	3	1	2	75%	1	2	2	3	67%

Table 29. Continued from previous page

Core Walking Zone (CWZ) and Walking Routes																					
Criterion-->						Quality of Improvement							Deliverability			CWZ Routes Ranking (Method-1)			
CWZ	Link ID	Route Name	Start	End	Length (km)	Attractiveness	Comfort	Directness	Safety	Coherence	Overall Assessment of Walking Link	Walking Route Weighted Score %	Ease of Implementation	Dependency to Other Improvements	Walking Route Weighted Score %	Total Weighted Score	% Score	Rank (Ascending)	Network Priority
Rating Rules -->						1: < 0.1 2: < 0.2 3: ≥ 0.2	1: < 0.3 2: < 0.45 3: ≥ 0.45	1: < 0.1 2: < 0.3 3: ≥ 0.3	1: < 0.1 2: < 0.3 3: ≥ 0.3	1: < 0.35 2: < 0.6 3: ≥ 0.6	1: < 0.25 2: < 0.33 3: ≥ 0.33		3: No significant constraints 2: Implementation will require further studies and engagement 1: Constraints to delay the implementation	3: No depedency 1: Depedent					
Weighting-->						2	2	2	2	2	3	30%	2	2	30%	-	-	-	-
Max Score-->						3	3	3	3	3	3	100%	3	3	100%	63	100%	-	-
Ewell Centre 4	4.1	Epsom Road	Reigate Road	Chuters Grove	1.58	2	2	2	1	2	1	60%	3	2	83%	45	71%	41	Med
Ewell Centre 4	4.2	The Headway	Chessington Road	Spring Street	0.28	3	3	1	2	3	3	80%	2	2	67%	48	76%	27	Med
Ewell Centre 4	4.3	London Road/The Glade	Church Street	Stoneleigh Broadway	1.78	1	2	3	1	3	3	67%	3	2	83%	46	73%	36	Med
Ewell Centre 4	4.4	High Street	Reigate Road	Church Street	0.67	1	1	1	1	2	1	40%	3	2	83%	40	63%	60	Low
Ewell Centre 4	4.5	Cheam Road	High Street	Station Approach	0.69	1	2	1	1	3	1	53%	3	2	83%	41	65%	55	Low
Ewell Centre 4	4.6	Reigate Road	High Street	Ewell Downs Road	0.81	1	2	1	1	3	1	53%	2	2	67%	38	60%	64	Low
Ewell Centre 4	4.7	The Kingsway	Epsom Road	West Gardens	0.49	3	3	2	2	3	3	87%	3	3	100%	48	76%	27	Med
Ewell Centre 4	4.8	The Avenue	Church Street	Ewell Road	2.59	1	1	3	3	1	3	60%	2	3	83%	43	68%	50	Low
Ewell Centre 4	4.9	West Street/Church Street	Church Street	Longmead Road	1.57	3	3	1	2	3	3	80%	2	2	67%	49	78%	21	High
Ewell Centre 4	4.10	Spring Street/Chessington Road	High Street	Kingston Road	1.58	2	2	3	1	3	3	73%	3	2	83%	49	78%	21	High
Ewell Centre 4	4.11	Chessington Road	Spring Street	Riverholme Drive	0.86	1	1	3	1	2	2	53%	3	2	83%	45	71%	41	Med
Ewell Centre 4	4.12	Old Schools Lane	Chessington Road	Station Avenue	0.25	2	3	2	2	3	3	80%	2	2	67%	46	73%	36	Med
Ewell Centre 4	4.13	Church Street/Primrose Walk	Kingston Road	Church Street	0.71	2	1	3	2	2	3	67%	3	2	83%	44	70%	46	Med
Ewell Centre 4	4.14	Mill Lane	London Road	Kingston Road	0.12	2	2	2	2	3	2	73%	3	2	83%	45	71%	41	Med
Ewell Centre 4	4.15	Kingston Road	London Road	Stoneleigh Park Road	1.21	3	3	3	3	3	3	100%	3	2	83%	54	86%	4	High
Ewell Centre 4	4.16	Park Avenue West/Glenwood Road/Dell R	Kingston Road	Stoneleigh Broadway	0.63	2	1	1	1	3	1	53%	3	2	83%	40	63%	60	Low
Ewell Centre 4	4.17	The Grove	West Street	High Street	0.18	1	1	1	1	1	1	33%	3	2	83%	37	59%	65	Low
Town Centre (North) 11	11.1	South Street/Dorking Road	High Street	Castle Street	3.38	1	2	3	2	1	2	60%	2	2	67%	49	78%	21	High
Town Centre (North) 11	11.2	Rosebank/White Horse Drive	West Street	Dorking Road	2.12	2	3	1	2	2	2	67%	3	3	100%	53	84%	7	High
Town Centre (North) 11	11.3	Ashley Avenue	South Street	Ashley Road	0.28	1	2	3	3	3	3	80%	2	2	67%	49	78%	21	High
Town Centre (North) 11	11.4	Ashley Road	High Street	Downs Hill Road	0.84	3	2	3	2	1	2	73%	2	2	67%	52	83%	11	High
Town Centre (North) 11	11.5	Downs Road	Downs Avenue	Church Street/Pitt Road	0.30	2	3	3	2	2	3	80%	3	3	100%	51	81%	13	High
Town Centre (North) 11	11.6	Downs Hill Road	Ashley Road	Downs Road/Downs Avenue	0.37	2	3	1	2	2	2	67%	3	3	100%	46	73%	36	Med
Town Centre (North) 11	11.7	Church Road/College Road	Church Road/High Street	College Road/Alexandra Road	1.44	3	2	3	2	2	3	80%	3	3	100%	57	90%	1	High
Town Centre (North) 11	11.8	Church Road	Church Road/East Street	Church Road/College Road	0.82	3	3	3	3	2	3	93%	2	3	83%	53	84%	7	High
Town Centre (North) 11	11.9	Alleyway behind Pikes Hill	Alleyway/Upper High Street	Pikes Hill/Church Road	0.22	2	1	1	1	1	1	40%	3	3	100%	36	57%	67	Low
Town Centre (North) 11	11.10	Upper High Street/Alexandra Road	Ashley Road	College Road	3.38	2	2	3	1	1	2	60%	3	2	83%	51	81%	13	High
Town Centre (North) 11	11.11	Mill Road/Windmill Lane/Wallace Fields	Alexandra Road	Wallace Fields Primary School	1.22	3	3	2	2	2	2	80%	3	3	100%	51	81%	13	High
Town Centre (North) 11	11.12	St John's Avenue	Wallace Fields	Dorling Drive	0.16	2	1	2	2	2	1	60%	3	3	100%	41	65%	55	Low
Town Centre (North) 11	11.13	Windmill Lane	Mill Lane	East Street	0.26	2	2	2	2	3	2	73%	3	3	100%	44	70%	46	Med
Town Centre (North) 11	11.14	Epsom Square	Waterloo Road/Station Approa	East Street	0.24	1	1	2	1	1	1	40%	3	3	100%	45	71%	41	Med
Town Centre (North) 11	11.15	East Street	High Street	Cheam Road	2.08	1	1	3	1	1	1	47%	3	3	100%	48	76%	27	Med
Town Centre (North) 11	11.16	Fairview Road	East Street	West Gardens	0.65	2	3	1	2	2	2	67%	3	3	100%	41	65%	55	Low
Town Centre (North) 11	11.17	Kiln Lane Alleyway	The Kingsway	Longmead Road	0.64	3	2	1	1	2	1	60%	2	3	83%	41	65%	55	Low
Town Centre (North) 11	11.18	Lintons Lane/Stones Road	East Street	Miles Road	0.53	2	3	2	2	2	3	73%	2	3	83%	43	68%	50	Low
Town Centre (North) 11	11.19	Hook Road	East Street	Longmead Road	0.79	1	3	3	3	2	3	80%	3	3	100%	54	86%	4	High
Town Centre (North) 11	11.20	Longmead Road	Hook Road	Chessington Road	2.12	3	2	2	1	2	2	67%	3	3	100%	53	84%	7	High
Town Centre (North) 11	11.21	Chase Road	Hook Road	Temple Road	0.16	1	1	3	2	2	1	60%	3	3	100%	46	73%	36	Med
Town Centre (North) 11	11.22	Miles Road	Hook Road	Hook Road	0.44	3	3	1	2	2	2	73%	3	3	100%	49	78%	21	High
Town Centre (North) 11	11.23	Burnet Grove/Hazon Way	West Hill	Temple Road	0.70	1	1	2	1	2	1	47%	2	3	83%	40	63%	60	Low
Town Centre (North) 11	11.24	West Hill	Ashley Road	West Park Road	2.30	2	2	3	3	1	2	73%	3	2	83%	52	83%	11	High
Town Centre (North) 11	11.25	Manor Green Road	West Hill	Christ Church Mount	0.41	1	1	1	2	2	1	47%	3	3	100%	35	56%	68	Low
Town Centre (North) 11	11.26	Waterloo Road/Horton Footpath/Temple	High Street	Brettgrave	1.50	3	3	3	1	2	3	80%	3	3	100%	57	90%	1	High
Town Centre (North) 11	11.27	Pound Lane	Temple Road	Hook Road	0.14	3	1	3	2	2	2	73%	3	3	100%	51	81%	13	High
Town Centre (North) 11	11.28	Station Approach	Hook Road	West Hill	0.34	2	2	1	1	1	1	47%	3	3	100%	44	70%	46	Med
Town Centre (North) 11	11.29	Blenheim Road	Rory Richmond Way	Longmead Road	0.72	1	1	1	1	2	1	40%	3	3	100%	39	62%	63	Low
Town Centre (South) 12	12.1	Dorking Road/South Street	West Street/High Street	Castle Road	2.45	3	2	1	3	1	2	67%	2	2	67%	50	79%	19	High
Town Centre (South) 12	12.2	Rosebank/White Horse Drive	South Street	Dorking Road	1.37	1	2	2	2	3	2	67%	3	3	100%	53	84%	7	High
Town Centre (South) 12	12.3	Ashley Road	High Street	Treadwell Road	1.48	2	2	2	3	1	2	67%	2	2	67%	50	79%	19	High
Town Centre (South) 12	12.4	Upper High Street/Alexandra Road	Church Street	Kilcorral Close	1.56	2	2	3	3	2	2	80%	3	3	100%	57	90%	1	High
Town Centre (South) 12	12.5	High Street	West Street/South Street	Upper High Street	0.43	2	1	2	3	1	1	60%	2	2	67%	45	71%	41	Med
Town Centre (South) 12	12.6	Downs Hill Road/Downs Road	Ashley Road	Downs Ave	0.37	1	3	1	1	2	1	53%	3	3	100%	42	67%	54	Low
Town Centre (South) 12	12.7	Mill Road/Denham Road/Windmill Lane/S	Alexandra Road	Dorling Drive	0.83	2	3	1	2	2	2	67%	3	3	100%	47	75%	33	Med
Town Centre (South) 12	12.8	Wallace Fields	St John's Avenue	Wallace Fields Infant School	0.36	1	1	1	1	2	1	40%	3	3	100%	34	54%	69	Low
Town Centre (South) 12	12.9	Manor Green Road	West Hill	Stamford Green Primary School	0.41	1	1	1	2	3	1	53%	3	3	100%	37	59%	65	Low
Town Centre (South) 12	12.10	Waterloo Road/Temple Road/Pound Lane	High Street	Hook Road	2.45	1	1	2	3	1	1	53%	3	2	83%	48	76%	27	Med
Town Centre (South) 12	12.11	Longmead Road	Hook Road	Blenheim High School	0.37	3	2	3	3	2	3	87%	3	3	100%	51	81%	13	High
Town Centre (South) 12	12.12	Hook Road	East Street	Longmead Road	0.78	2	2	3	3	2	3	80%	3	3	100%	54	86%	4	High
Town Centre (South) 12	12.13	Lower Court/Horton Footpath/Long Grove	Pound Lane	Brettgrave	0.65	3	2	2	2	2	2	73%	3	3	100%	47	75%	33	Med
Town Centre (South) 12	12.14	Fairview Road/The Kingsway	Epsom Road	West Gardens	0.65	3	3	2	1	2	3	73%	3	3	100%	43	68%	50	Low
Town Centre (South) 12	12.15	West Street/Christ Church Road	High Street/South Street	Richmond Crescent	2.08	2	2	3	3	1	2	73%	2	2	67%	46	73%	36	Med
Town Centre (South) 12	12.16	East Street	High Street/Upper High Street	Fairview Road	0.94	1	1	2	1	1	1	40%	3	3	100%	44	70%	46	Med
Town Centre (South) 12	12.17	Worple Road/Chalk Lane	Ashley Road	Woodcote Green Road	0.57	1	3	2	3	2	3	73%	3	3	100%	48	76%	27	Med
Town Centre (South) 12	12.18	Woodcote Road/Woodcote Green Road	Dorking Road	Hylands Road	0.86	2	2	2	3	1	2	67%	3	3	100%	49	78%	21	High
Town Centre (South) 12	12.19	Ebbisham Road/Wheelers Lane	Dorking Road	West Hill	1.21	3	3	2	2	2	3	80%	2	3	83%	48	76%	27	Med
Town Centre (South) 12	12.20	Station Approach	West Street	Waterloo Road	1.37	2	2	1	1	1	1	47%	3	3	100%	47	75%	33	Med
Town Centre (South) 12	12.21	Epsom Square	Waterloo Road	East Street	0.24	3	2	2	1	1	2	60%	3	3	100%	51	81%	13	High
Town Centre (South) 12	12.22	Heathcote Road/The Parade	Ashley Road	Ashley Road	0.55	1	1	1	1	2	1	40%	3	2	83%	41	65%	55	Low
Town Centre (South) 12	12.23	Ashley Avenue	South Street	Ashley Road	0.26	1	1	3	3	1	2	60%	2	2	67%	43	68%	50	Low

Appendix 5: Indicative Unit Cost Estimates

Table 30. Indicative base unit costs for proposed interventions[1]

Intervention	Cost (2023 £)[1]	Description
Zebra crossing / parallel crossing	£42,00 per item	*New crossing including road markings, dropped kerbs, belisha beacons and high friction surfacing on approaches*
Signalised Pedestrian and Cyclist Crossing (Toucan crossing)	£86,500 per item	*New crossing including traffic signals, road markings, dropped kerbs, and high friction surfacing on approaches*
Crossings at traffic lights	£56,200 per item	*Re-phasing of the traffic signals to introduce a pedestrian phase*
Side road treatment	£18,000 per item	*Raised table crossing and associated works such as tactile paving, street lighting, signing and lining*
	£25,000 per item	*Continuous footway at the side road and associated works such as tactile paving, street lighting, signing and lining*
Junction modification	£43,800 per item	*Raised junction with crossing points and associated works such as tactile paving, coloured surfacing, street lighting, signing and lining*
	£74,500 per item	*Tighten junction widening the existing footways with crossing points and associated works such as tactile paving, drainage and lining*
	£74,500 per item	*Convert mini roundabout to priority junction with associated works such as tactile paving, signing, drainage and lining*
Bus Gate/modal filter	£70,000 per location	*Includes buildout, signs with associated road markings and ANPR cameras*

1 Costs are indicative only and can vary significantly depending on local site conditions. Based on indicative base unit costs available from DfT (Typical costs of cycling interventions, Interim analysis of Cycle City Ambition schemes, January 2017), Greater Manchester Cycling Design Guidance and Standards, and Wiltshire Council (https://www.wiltshire.gov.uk/highways-works-cost). Where a cost range was given, the higher value is shown to provide a more conservative estimate and reflect a potential higher degree of engineering interventions required. For more bespoke elements, engineering judgement was used to estimate material quantities (what would be covered by multiple items in a standard bill of quantities developed in detailed design) and make allowances for unknowns at this early development stage. For costs estimated before to Q4 2023 (January to March 2024), these have been uplifted to account for inflation.

Intervention	Cost (2023 £)[1]	Description
Reduced speed limit	£3,620 per km	*20mph: introduce signs and road markings*
	£38,620 per km	*30mph: introduce signs, road markings and street lighting*
Improve access to the bus stop	£5,600 per item	*Localised footway widening, dropped kerbs, tactile paving, surfacing*
Widened footway	£900,000 per km	*Widened footway, new kerbs and resurfacing of the full extent of the footway (2.5m)*
New footway	£800,000 per km	*Site/vegetation clearance and provide kerbing and new footway (2.5m)*
Two-way cycle track	£1,591,000 per km	*3.0m (desired minimum width) on the carriageway level with kerb segregation*
	£1,500,000 per km	*3.0m (desired minimum width) off-carriageway though green areas*
One-way cycle track	£862,000 per km	*2.0m (desired minimum width) on the carriageway level with kerb segregation (assumes cycle facility on one side of the road)*
'Dutch facility' / Pedestrian & cycle priority street	£902,000 per km	*based on Greater Manchester Cycling Design Guidance and Standards cost for 'quiet street' with full civil works*
Mixed traffic	£902,000 per km	*based on Greater Manchester Cycling Design Guidance and Standards cost for 'quiet street' with limited civil works*
Shared use path	£915,000 per km	*3.5 shared use path*
	£1,100,000 per km	*3.5m (desired minimum width) off-carriageway though green areas*
Advisory cycle lane	£351,000 per km	*2.0m lane on the carriageway including road markings and resurfacing (assumes cycle facility on one side of the road)*
School street	£46,000 per access point	*CCTV system to monitor access point*

1 Costs are indicative only and can vary significantly depending on local site conditions. Based on indicative base unit costs available from DfT (Typical costs of cycling interventions, Interim analysis of Cycle City Ambition schemes, January 2017), Greater Manchester Cycling Design Guidance and Standards, and Wiltshire Council (https://www.wiltshire.gov.uk/highways-works-cost). Where a cost range was given, the higher value is shown to provide a more conservative estimate and reflect a potential higher degree of engineering interventions required. For more bespoke elements, engineering judgement was used to estimate material quantities (what would be covered by multiple items in a standard bill of quantities developed in detailed design) and make allowances for unknowns at this early development stage. For costs estimated before to Q4 2023 (January to March 2024), these have been uplifted to account for inflation.

Appendix 6: Stakeholder Comments on high-level proposals for infrastructure improvements

Table 31. 1st Early Engagement Stakeholder workshop - Comments on the Draft proposed networks

Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
1	1A	4 Cycling Corridors	Will existing facilities have improvements proposed to them?	the LCWIP takes a 'clean sheet' approach, and improving routes with existing facilities would be considered.	No Action Required
2	1A	General	How constrained is the LCWIP with land ownership, and will development sites be included?	First ideas consider options within the highway boundary, as it is cheaper and easier to implement. Depending on the area and local context options outside the highway boundary may be considered following conversations with SCC, EEBC. The LCWIP includes proposals for links to the development sites, to capture trips between the developments and other destinations however no proposals are included within the development sites.	No Action Required
3	1A	General	Where would land would come from if it is coming from the highway boundary (i.e. narrowing of footway or taking from car space)?	it depends on the local context and traffic flows, and space is normally reallocated from the road, and minimal changes should be proposed on the pedestrian environment.	No Action Required
4	1A	4 Cycling Corridors	From the map, it looks like proposals don't utilise open space. For instance, several people use the riverside path along Hogsmill River from Ewell to Tolworth	The initial network focused on the most direct alignment options, which tend to focus on the road network, as off-road options can be indirect and isolated. However, routes such as this can be considered as alternative options if the highway boundary space is constrained, or they offer more attractive, direct route options.	Item Updated
5	1A	General	SCC have invested in wayfinding on green spaces.	Noted for the next stage (high level interventions)	No Action Required
6	1A	4 Cycling Corridors	emphasising the strength of 'off road' routes. Whilst there is an acknowledgement that they may be less direct than on-road provision, they are often more pleasant routes.	Off road routes are included in the LCWIP and will be considered as alternative alignements if a route on the road is likely not feasible	Item Updated
7	1A	4 Cycling Corridors	opportunity to link to the emerging Local Plan. i.e. making the A240 into a single carriageway, to reduce car use, emphasising Epsom and Ewell's climate change strategies.	Noted for the next stage (high level interventions)	No Action Required
8	1A	4 Cycling Corridors	Some Difficulties in the town centre – existing routes lead up to the town centre, but do not connect through the town centre.	The proposed network provides routes through the town centre. Proposed facilities will be reviewed in the next stage	No Action Required
9	1A	General	The existing railway bridges are also unfit for cycling, noting the railway lines are a key barrier to cycling in the borough.	Crossings of the key barriers will be reviewed and proposals will be included for improvements	No Action Required
10	1A	4 Cycling Corridors	the bridge on Castle Road (West Epsom) is being demolished by Network Rail. New bridge is not being installed until Spring 24. It is planned to be a bespoke bridge due to utilities. He suggested the timescale may still allow a potential conversation with NR to influence design.	Noted	No Action Required
11	1A	5 Core Walking Zones	There are several major schools that are not considered within the CWZs, such as **Glyn Schoo**l close to CWZ 4.	The entrance to the school is 350m+ from the nearest CWZ and so would be accomodated for by means of walking corridor, subject to said CWZ be progressed as part of the Phase 1 CWZs.	No Action Required
12	1A	5 Core Walking Zones	The students also travel to a sports field close to CWZ 16.	CWZ 16 has been updated to include the sports field.	Item Updated
13	1A	5 Core Walking Zones	Additionally, Blenheim School is missing from CWZ 5 and Rosebery School is missing from CWZ 14.	Blenheim School is currently within CWZ5. Rosebery School is 600m~ from the nearest CWZ (12) and so would be accomodated by means of a corridor, subject to said CWZ be progressed as part of the Phase 1 CWZs.	Item Updated
14	1A	5 Core Walking Zones	Schools should be incorporated and noted that Epsom and Ewell High School, Epsom College (key link between college and town centre/Sainsbury's), and University for the Creative Arts are also not included	The CWZs could be amended to capture adjacent schools or walking corridors could be identified to link the schools to the nearest CWZ(s) when the primary CWZs progress to the next stage. The CWZs that are taken forward for further development will include walking corridors emanating from their respective CWZs to help link to schools and other key destinations within 2km as per the DfT LCWIP guidance.	Item Updated
15	1A	5 Core Walking Zones	Llinks to public transport, particularly access to Ewell West Station and Ewell Village, should be provided, as well as improvements in links between CWZ 1 and 4.	links to public transport were considered as part of the heatmap process and would also be considered in the next step when key walking routes are identified within or leading to/from the primary CWZs.	No Action Required
16	1A	5 Core Walking Zones	Is there any consideration of bus routes alongside train service?	Both accessibility to buses and trains has been considered in the early development of the CWZs.	No Action Required
17	1A	5 Core Walking Zones	A CWZ close to Ewell East Station should be included in the prioritised (Phase 1 & 2) network.	CWZ 16 includes Ewell East Station - will be selected as a Phase 1 & 2	Item Updated
18	1A	5 Core Walking Zones	Stations in the Borough may have different ridership patterns, as they terminate at different stations in London (Victoria, Waterloo, London Bridge).	This has been considered and all stations feature within CWZs.	No Action Required
19	1A	5 Core Walking Zones	highlighted the importance of considering primary schools, noting many are adjacent.	The proximity of primary schools within 100m of draft CWZs were reviewed. This led to the inclusion of St. Joseph's Primary School in CWZ 12 in the revised network.	Item Updated

Table 31. 1st Early Engagement Stakeholder workshop - Comments on the Draft proposed networks

Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
20	1A	5 Core Walking Zones	the Kiln Lane link which was originally proposed in the past for improvements but has never been further developed. Such a link would go a long way to resolving historic severance caused by the railway line. Reference was also made to Chessington Road bridge as a key barrier for active travel.	Chessington Road bridge is currently within CWZ1 and is acknowledged as a barrier to active travel. It will be considered further should it be progressed as a Phase 1 CWZ. It is acknowledged that there are advatages to have a link in this area. There will be a number of factors to consider when proposing a crossing over the railway line including understanding previous studies.Such a link would be progressed as a walking corridor from a CWZ, subject to said CWZ being progressed as a Phase 1 CWZ.	No Action Required
21	1A	5 Core Walking Zones	break CWZs 11 and 4 into smaller CWZs considering the Masterplan.	The proposed zones cover the Masterplan area. They are divided to two to allow the work to be more manageable (following agreement with SCC, EEBC)	No Action Required
22	1A	5 Core Walking Zones	popularity of Stoneleigh Broadway, and the ambition to reduce car traffic there.	Noted	No Action Required
23	1A	5 Core Walking Zones	the timetable for the development on the emerging Local Plan which will soon be un-paused. The plan is anticipated to be with the Planning Inspector by mid-2025.	Noted	No Action Required
24	1A	General	the borough has favourable topography for walking and cycling, particularly compared to other parts of Surrey which are hillier. He highlighted the need for cycle parking and seating/places to rest to help encourage uptake of cycling and walking	Noted for the next stage (high level interventions)	No Action Required
25	1A	5 Core Walking Zones	There are difficulties associated with replacing bridges across the railway lines and high cost. connectivity	Noted	No Action Required
26	1A	General	With regards to the Kiln Lane link, there is a counterproposal to redevelop Blenheim Road area to a mixed use area – could this resurrect the Kiln Lane Link and enable the pedestrianisation of Chessington Road bridge. A landslip recently occured near Hook Road, highlighting the importance of good	Kiln Lane. The borough looked at redevelopment of the industrial estate into mixed use development, however this did not progress to the Local Plan, which includes this area as a strategic employment site. Chessington Road bridge is currently within CWZ1 and is acknowledged as a barrier to active travel. It will be considered further should it be progressed as a Phase 1 CWZ. It is acknowledged that there are advatages to have a link in this area. There will be a number of factors to consider when proposing a crossing over the railway line including understanding previous studies.Such a link would be progressed as a walking corridor from a CWZ, subject to said CWZ being progressed as a Phase 1 CWZ.	Item Updated
27	1A	General	difficulties in Epsom Town Centre and the discomfort of cycling along the A24.	Noted for the next stage (high level interventions)	No Action Required
28	1A	General	the potential of paths along the Hogsmill River	The focus of the LCWIP is on utilitarian trips that represent movements to key/daily destinations although the advantage of access to open space is acknowledged and will be considered as the Phase 1 CWZs are developed further. Route has been added as Phase 3	Item Updated
29	1A	General	raised the potential of conversations with train operating companies to encourage use of railway between Stoneleigh and Epsom with lower fares for the short journey	Outside of the scope of the LCWIP.	No Change
30	1A	General	need for accessibility improvements to Stoneleigh Station, while NP added that the frequency of the train services has been reduced since 2019.	Noted for the next stage (high level interventions)	No Action Required
31	1A	General	communication with stakeholders on the benefits of increased footfall and the 'pedestrian pound', particularly on the impact on trade of changes to infrastructure	Noted	No Action Required

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Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
32	1B	4 Cycling Corridors	Will the alignment of routes use off-road paths or are routes along the road network, and if so what type of facilities will be proposed?	the proposed network extends primarily along the road network as they tend to provide less isolated routes and more direct alignment. At this stage of the LCWIP the type of facility has not been defined yet.	No Action Required
33	1B	4 Cycling Corridors	Along route 14 (Stoneleigh) there is a lot of residential parking required for the properties and is a very busy residential area, what type of facilities would be proposed?	that is not clear at this stage the type of facility. If the traffic flows are low then cyclists will feel confident using the road, so no major changes will be proposed. However if the traffic flows are high then segregation will be required along with parking management to provide safe space for active travel.	No Action Required
34	1B	4 Cycling Corridors	Cycle route 2 currently has a shared facility, but at the southern end (parallel to Temple Road / Court Rec) the available space may allow for segregation.	pedestrian and cycle flows determine the requirements for segregation in paths, but generally separate facilities are preferred.	No Action Required
35	1B	4 Cycling Corridors	Cycle route 2 is very popular for both pedestrians and cyclists.	Noted	No Action Required
36	1B	4 Cycling Corridors	proposed route 3 along the A24 (north of Epsom Town Centre) is very busy, and the section under the railway lines is very constrained. The new facility is a shared use path, there has been a lot of comments that crossings are not provided on the main road and at the side roads, creating a lot of conflicts.	Noted for the next stage (high level interventions)	No Action Required
37	1B	4 Cycling Corridors	route 3 is a key route to the leisure centre, and it is not continuous at sections	Noted	No Action Required
38	1B	4 Cycling Corridors	there is a lot of recreational cycling on Epsom Common using the Summers Gate path, the most direct alignment from The Wells to Epsom Town Centre, which requires a lot of work to ensure that key connection. The route that is proposed as Phase 3 is well used.	Summers gate path added to cycle network	Item Updated
39	1B	4 Cycling Corridors	use routes away from traffic, to avoid the busy roads, and provide a more pleasant route, giving the example between The Wells and Epsom Town Centre parallel to the railway lines. Off-road routes do not require cyclists to stop frequently at junctions.	the network follows the most direct route, but alternative alignments will be investigated and assessed, however the off-road paths normally are more isolated and do not provide connections to destinations and residential areas, therefore the routes along the road network are preferred.	No Action Required
40	1B	5 Core Walking Zones	the 250m radius around the centres is a small distance for walking and people tend to walk longer distances for key destinations (shops, railway stations etc).	the 250m area is a measure to create the core of the pedestrian areas, which sets the extend of the core walking zone (CWZ) to minimum 500m. DfT technical guidance sets the diameter of the CWZs to 400m minimum, therefore the methodology follows the guidance. Further in the study, walking corridors that may extend to 2km from the centre of the zone to key destinations and areas of interest, will be identified and used as the base for the development of the walking proposals, extending the area of improvements to 2-4km	No Action Required
41	1B	5 Core Walking Zones	there is opportunity to provide connections between the zones and the schools in the area. 5 senior schools in the area host over 10,000 pupils, and improvements for the students should be proposed. examples of zones that are located close to schools: CWZ5 and CWZ13.	The boundaries of the zones are refined to cover the schools that are close to the proposals, and in other cases that schools are located further from the zones, walking corridors will be selected to provide the safe connections.	Item Updated
42	1B	5 Core Walking Zones	in CWZ11 the footbridge on the railway lines was replaced by an underpass, and it is well used by cycles and pedestrians, however people are not feeling safe.	Noted for the next stage (high level interventions)	No Action Required
43	1B	5 Core Walking Zones	queries on the boundaries of CWZs 9 and 10. recommend providing connections between zone 10 and the 3 schools in Stoneleigh, as well as include Auriol Park within the zone.	GIS map was shared with attendees to show the extent of the zones in more detail. The park and the schools are close to different zones and can be included as part of other areas, but the team will ensure to provide connections between the schools and the park to Stoneleigh CWZs.	No Action Required
44	1B	General	about Commonplace data and if the team is reviewing the comments	all the comments have been received and reviewed for this stage. In the next stage all the recommendations placed in Commonplace will be taken into account to help the development of the proposed interventions.	No Action Required
45	1B	4 Cycling Corridors	cycling parking will be part of the study, as there is high demand in the shopping areas.	parking will be one of the elements included in the proposed interventions along the prioritised corridors. separate schemes/studies will review parking demand but quick wins as part of the LCWIP will be included. All additional measures, behaviour change, cycle training, parking demand etc are part of the LTP4 policies and will complement / support the LCWIP proposals	Item Updated
46	1D	2 Objectives of the LCWIP	Did the team use other data than the Census data sources.	the main data source is the Census and Propensity to Cycle Tool, and any additional information will be useful for the study.	No Action Required
47	1D	2 Objectives of the LCWIP	LBS are working on 'Invisible women' to investigate improvements for women that do not feel safe to walk not only for commuting trips but other utilitarian purposes (school, shops etc).	EEBC has shared information about emerging Local Plan, with the note that it is work in progress and may change, and the team ensured to provide connections to the development sites and local centres to capture future demand	No Action Required
48	1D	General	if the team has a view of the emerging Local Plan and the proposed developments within the borough	EEBC is providing information on the Local Plan for the LCWIP	No Action Required
49	1D		any interventions through the common land will be difficult due to environmental constraints	the constraints for interventions on the paths through common land have been acknowledged, during the feasibility stage of the proposals environmental surveys will be undertaken to estimate any impact in the areas. NM (SCC) - common land may be an issue and confirmed that during the feasibility design stage the deliverability of each scheme will be reviewed, which will include surveys (such as environmental, parking, traffic etc) to support the study.	No Action Required
50	1D	3 Background	Surrey Hills is a key destination primarily for leisure and connectivity should be considered	Surrey Hills and green spaces are being considered for the development of the network.	No Action Required
51	1D	3 Background	Has the expansion of the ULEZ has been taken into account as it is likely to generate more demand for walking and cycling trips in the area, so cross boundary connections will be required.	that the team is aware of the new ULEZ boundary and cross borough connections are proposed as part of the LCWIP.	Item Updated
52	1D	4 Cycling Corridors	The redevelopment of Royal Marsden Hospital in Belmont should be a strategic destination as it is a major employment site and will generate a lot of trips.The completion date is 2026-27 and improved access for walking and cycling is planned as part of the development, as well as improved access to public transport (rail and buses).	This will be added as a destination however the proposed network for Epsom and Ewell may extend up to the borough border, and further discussions should follow for the section within LBS. Route 21 has been slightly realigned to go E-W via Station Road in Belmont to meet Brighton Road facilities (out of EEBC)	Item Updated
53	1D	4 Cycling Corridors	Along the A24 in Ashtead there two secondary schools, and the local centre is located closer to the A24. The schools generate a lot of trips and as there is a lot of young population in Epsom and Ewell, there is higher provision for sustainable travel to the area.	A24 is part of cycle network. Suggestions to be referred to in the next stage.	No Action Required
54	1D	4 Cycling Corridors	People require segregation from cars and pedestrians, primarily for the access to the schools.	Noted for the next stage (high level interventions)	No Action Required

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Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
55	1D	4 Cycling Corridors	Dorking and Box Hill are key destinations. Due to the uptake of ebikes, more non-confident cyclists are willing to cycle longer distances and want to access the areas.	the distance between the borough and Dorking /Box Hill is over 10km so it was not included as part of the study, but may be added, as a destination further from Leatherhead. NM (SCC) - the focus of the LCWIP is shorter trips and providing facilities for all cyclists. It is likely that leisure cyclists may not require segregated facilities, so leisure trips are not a high priority as the utilitarian trips for non-confident cyclists.	No Change
56	1D	4 Cycling Corridors	is an ebike sharing system is being considered for the area?	NM added that an ebike scheme might roll out in the future, as has been done in other areas, as part of the LTP4 policies. EEBC about the opportunity for longer trips using ebike hire.	No Action Required
57	1D	4 Cycling Corridors	Route 21 seems reasonable to be a lower priority for the short term, but there is demand for trips to Belmont.Will share the draft network map with colleagues in LBS to discuss opportunities.	Route 21 upgraded to Phase 1 & 2	Item Updated
58	1D	3 Background	shared the Kingston Cycle Network Plan mentioning that some routes the borough are missing from the map	data display information from the TfL site and any information may from RBK used to update the maps	Item Updated
59	1D	4 Cycling Corridors	high demand for trips in Epsom Town Centre and the conflict that are being recorded, and suggested engagement with students and RNIB	Noted	No Action Required
60	1D	5 Core Walking Zones	Have circular walks for leisure have been considered or walks to the parks and back (as key destinations)? There is a desire to promote walking and cycling to the parks for leisure instead of driving to these destinations.	parks have been considered as key destinations, but the focus is on utilitarian trips undertaken regularly rather than leisure trips.	No Action Required
61	1D	5 Core Walking Zones	Local/town centres form a good basis for CWZs but should look at secondary schools and the hospital, for example on the A24.	Schools are considered to be included in the zones, and if schools are further from the zones, walking corridors will be provided.	No Action Required
62	1D	5 Core Walking Zones	the hospital is a key destination and should be considered to be added as part of the Town Centre CWZ.	links between the hospital and the town centre and the railway station is important, however was concerned that the extent of the CWZ will be more difficult to manage as a scheme should it be taken forward, so it is preferred to include connections to the hospital via walking corridors.	No Change
63	1D	5 Core Walking Zones	What types of improvements will be considered along the main road network and the arterial routes, as there are many constraints.	proposals will depend on the local context, but crossing improvements and widening of the facilities as well as public realm improvements are examples of interventions that will be considered in the next stage of the study.	No Action Required
64	1D	5 Core Walking Zones	there will be constraints presented by conservation areas and the types of improvements, in cases proposed schemes extend through conservation areas, the only requirements will be for new crossings on the road network.	work in the next design phase will highlight such constraints and ensure proposals reflect such constraints.	No Action Required
65	1D	5 Core Walking Zones	Connections should also be provided to the railway stations and suggested discussions with operators.	detailed discussions with Network Rail and operators will be undertaken in the next stages of the design.	No Action Required
66	1D	5 Core Walking Zones	bus operators change the schedules and routes following demand analysis which may affect the extent of the proposed interventions and asked how the LCWIP will coordinate with them.	currently the team is not aware of any immediate changes and that proposed interventions will focus on existing infrastructure. NM (SCC) - SCC passenger transport team has been involved in the process and will continue to be involved as part of the wider project team. there will be a separate bus priority scheme as part of the LTP4 objectives to promote sustainable travel habits, which will be linked with the LCWIP primarily in the priority areas, like the town centres.	No Action Required
67	1D	5 Core Walking Zones	have user groups from the neighbouring authorities been involved, the Banstead Society will have useful feedback to the proposals.	user groups were primarily focused within the Epsom and Ewell borough but happy to share the proposed networks with user groups from the neighbouring areas and gain their input.	No Action Required
68	1D	General	will the proposed interventions be more age friendly to consider older people, giving the example of gradient and signage.	the proposed interventions will follow the LTN 1/20 and Inclusive Mobility guidance that sets standards for users of all ages and abilities 8 to 80 years old, to ensure the facilities are accessible to everyone.	No Action Required
69	1D	3 Background	if AQMAs have been considered	information on AQMAs has be reviewed as part of the study	No Action Required
70	1C	3 Background	if the emerging local plan had been included in the review and if the team is aware of the Epsom Town Centre Masterplan as it is under consultation this period, and subject to change.	both have been included as the EEBC has provided the information	No Action Required
71	1C	3 Background	questioned if the locations displayed for the collisions and the comments are reflected as locations where people live	the two datasets are independent and show the locations where a collision has occurred, and the comments show the locations people mentioned there are issues	No Action Required
72	1C	3 Background	concern that the local railway station for the north area is located in RB Kingston Upon Thames and do not have safe route to the station, especially along Old Malden Lane.	Route towards the station is considered	Item Updated
73	1C	3 Background	on Moor Lane there was a pedestrian fatality which should be included in background information.	Note to be added in reporting	No Action Required
74	1C	4 Cycling Corridors	commented about the 3 schools in their ward, West Ewell Infants, Epsom & Ewell High School and Riverview CoE. Ruxley Lane needs attention. Funding had to be given to the area to lift the gullies to avoid people tripping. High demand for pedestrian and cycle improvements.	Ruxley Lane is part of cycle network. Suggestions to be referred to in the next stage.	No Action Required
75	1C	4 Cycling Corridors	asked about the policy of the LCWIP as it is very difficult to use main roads, questioning whether it will be the policy of the LCWIP to take cyclists away from the main roads to the quiet lanes. Kingston has designated cycle facilities on the main roads and has worked well but they made significant changes to the network	there is no set policy, it is based on where the opportunities are, and the most direct routes will be the preferred options. There are certain guidelines that set out what type of facilities are needed for main road. Epsom has some good opportunities for on-road and off-road routes.	No Action Required
76	1C	4 Cycling Corridors	the cycle route in Horton to the Country Park that is of high quality since it was completed with new development. They suggested to take example from Kingston that has re-allocated facilities away from road users.	Noted	No Action Required
77	1C	4 Cycling Corridors	Old Malden Lane is a major active travel barrier for those in the North of the Borough, and many people drive this short route to access the nearby station and shops since there is no pedestrian or cycle provision. It is a scenic route with a new development of 300 houses and would be heavily used by walkers/cyclists if people could use it. – Traffic calming measures should be in place.	Noted for the next stage (high level interventions)	No Action Required
78	1C	4 Cycling Corridors	the condition of the road has not been changed in over 50 years and was overlooked by Epsom Borough when a new development was built in the area	Route towards the station is considered	Item Updated

Table 31. 1st Early Engagement Stakeholder workshop - Comments on the Draft proposed networks

Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
79	1C	Both	one of the conditions of the recent development was to add a footpath. There is very poor provision on this road and intervention would be highly appreciated	Noted	No Action Required
80	1C	4 Cycling Corridors	on the border to Banstead, Epsom to Banstead LTP, the road changes from 40mph to 30mph, there are several developments, however funding for the STP was withdrawn by dLEP. In the Development to the east, the only way to get there by car. They are keen to seeing improvement along the road to link with Banstead.	New secondary link added along Banstead Road. Primary link already existing along Reigate Road.	Item Updated
81	1C	Both	Are you connecting footpaths through the common? They recommended a section through the woods and a connection to Stamford Green, and another section between the hospital site moving Northwards. Not necessarily appropriate for cyclists as they are now but there is potential to improve.	Stamford Green Road connection added. Routes 1 and 18 already existing northwards from E Gen Hospital	Item Updated
82	1C	4 Cycling Corridors	The Dorking Road is dangerous for active travel as it is. Since the Car park has been built, very dangerous behaviour from the drivers has been observed.	Noted for the next stage (high level interventions)	No Action Required
83	1C	Both	Some paths from the hospital to the north to link to Wells may be preferable.	Routes 42, 2 and 26 connect from the hospital to the Wells	No Action Required
84	1C	4 Cycling Corridors	Will walk the routes and send recommendations.	Noted	No Action Required
85	1C	3 Background	comments have been added to the SCC platform and whether they will be considered by the Atkins team	all comments from commonplace have been received and will be reviewed in detail.	No Action Required
86	1C	4 Cycling Corridors	whether connections to Malden Rushett will be considered. No current active travel facilities and cars travel down the route at high speeds along Rushett Lane so it is not a safe route.	the network was discussed with neighbouring authorities	No Action Required
87	1C	Both	North East of the borough, one of the journeys that people walk and cycle is from Ewell Court to Ewell Village and the centre via Meadow Walk to Hogsmill and cycle to Ewell. Barriers (railing) were removed for mobility scooters. There is flooding at sections and a steep section, which is not accessible for elderly. They recommended to add a handrail. This is a heavily used route that people take when they do not have cars. It is a popular route to schools. People use to avoid the A240 as it takes them to the station.	Hogsmill Link and Meadow Walk added. Design suggestions to be retained for next stage.	Item Updated
88	1C	General	highlighted the councillors local knowledge, and that by engaging with other local councillors they could provide some key routes and destinations.	Noted	No Action Required
89	1C	4 Cycling Corridors	further reference to Longmead and Ruxley Lane as essential locations that need improvements. They further mentioned the poor provision and a high demand for students on Ruxley Lane. They added that SCC will be adding a pedestrian crossing outside the schools.	Ruxley Lane already part of network.	No Action Required
90	1C	4 Cycling Corridors	whether bike hire schemes will be entering the borough	the LCWIP is part of LTP4 and bike hire scheme may form another part of the LTP4 so it may be considered. WPP responded that there is not currently any bike hire scheme operation in EEBC. LBS has a Forest Bike system but there are not any expectations at the present for extension of the scheme to EEBC. WPP has engaged with Climate change officer about scheme and they were not aware of any potential schemes. If it is something we want to pursue we can raise it.	No Action Required
91	1C	5 Core Walking Zones	connections to the London Loop which passes through the north of the borough (Sections 7 & 8), and the Thames Down Link. Cllr Mason mentioned Stuart Cocker as someone who developed these routes	the routes will be reviewed and added in the previous studies section and will be considered as walking corridors.	Item Updated
92	1C	General	asked about funding for construction of the proposals coming out of the LCWIP	this study will allow EEBC and SCC to request funding based on prioritised routes outlined in the LCWIP.	No Action Required
93	Mail	4 Cycling Corridors	public consultation underway presently on the Belmont proposals which can be found at https://sutton.citizenspace.com/resources/walking-and-cycling-lch/	Noted	No Action Required
94	Mail	5 Core Walking Zones	1. Old Malden Lane is dangerous for pedestrians and requires a 40 m of road to have pedestrian access included to ensure a continuous walkway from Worcester Park Rd to the boundary to Royal Borough of Kingston on Thames (RBKoT)	This wasn't included in the initial draft of CWZs as there are compartivly greater density of destinations elsewhere in the borough although it is acknowledged that benefits to the road would be advantagous. A walking corridor along Old Malden Lane will be progressed once CWZ7 is prioritised for improvements	Item Updated
95	Mail	4 Cycling Corridors	2. The A240 dual carriageway from the boundary of RBKoT through to Epsom town centre , needs a clearly defined safe cycle route, preferably isolated by barrier from vehicular traffic, similar to the cycle route from Tolworth into Kingstown town centre.	Noted for the next stage (high level interventions)	No Action Required
96	Mail	4 Cycling Corridors	3. The cycle route from the end of the cycle path on the Hook Rd (B284) at Parkview Way shares the pavement with pedestrians but does not give a clear understanding for cyclists how to get to Epsom Town Centre.	Noted for the next stage (high level interventions)	No Action Required
97	Mail	5 Core Walking Zones	More focus on walking to school routes in Ewell; there are a high number of schools in the village and little space for parking or drop-off/pick-up.	The formation of the CWZs have considered the location of schools. With regards to schools in Ewell all schools are either within a CWZ or close enough that they would be included as part of walking corridors eminating from the respective Phase 1 CWZs. The focus of the CWZs will be to promote walking to key destinations, such as schools.	No Action Required
98	Mail	5 Core Walking Zones	The connection between Ewell Village (centre) and Ewell West Station should be made clear (Walking Zones 1 and 4) as there is an existing strong desire line between the two (this might be the red line that someone has placed on the map). It may be that Zones 1 and 4 overlap at Ewell West Station for example, given that there is a catchment in both directions from the station.	CWZs 1 and 4 have been amended to include the link on Chessington Road. Note that walking corridors will eminate from the Phase 1 CWZs.	Item Updated
99	Mail	5 Core Walking Zones	A note that the "Kiln Lane Link" is extremely unlikely to proceed without significant rezoning of existing industrial land – the EEBC Local Plan will give a clearer indication of this.	Noted	No Action Required
100	Mail	5 Core Walking Zones	There is another strong desire line from Nescott (NE Surrey College of Technology), (adjacent to Ewell East Station) and Ewell Village centre, so inclusion of this would also be wise.	The college is within CWZ16. The benefit of a walking corridor to this location is noted and will be reviewed once the Phase 1 CWZs are developed.	No Action Required
101	Mail	5 Core Walking Zones	The rail line at Ewell West Station is quite a barrier to walking, particularly those with mobility challenges. There could be a new accessible route to the station made via the Ewell West Playground Area on to the southbound platform, but Network Rail feel the platform is unsafely narrow at this location to permit access.	Station platforms are outside of the scope of the LCWIP/the responsibility of station operator. The advantage of a route via the playground is acknowledged as is improving accessibility to the railway stations.	Item Updated
102	Mail	4 Cycling Corridors	Question whether the A24 Ewell By-Pass for cycling is appropriate (Route 3)?	This route has received support and has been questioned for suitability. No change	No Change
103	Mail	4 Cycling Corridors	Route 8 that runs between Ewell West Station and London Road: the road around Bourne Hall is a one-way circular for traffic, so cyclists may need to do this movement also.	Noted	No Action Required
104	Mail	4 Cycling Corridors	Route 7 at the western end of West Street is currently only accessible across the railway line via a stepped bridge.	Noted	No Action Required

Table 31. 1st Early Engagement Stakeholder workshop - Comments on the Draft proposed networks

Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
105	Mail	Both	Where we live is very interesting geographically. In many ways we are in a "sweet spot" - transport to London a 20-30 minute walk in one direction and countryside amenities 20-30 minutes in the other direction. Surrey suffers from poor paving and road surface, inadequate traffic speed control and road layouts that suit the motor car. In the far north of the borough we are densely developed and used as a cut-through by angry drivers frustrated by the bottleneck at Tolworth. Despite all this we enjoy some of the most beautiful parks and open spaces the borough has to offer. The wards of Ruxley and Cuddington are separated by the busy A240; however - we maintain close ties! We share churches, shops, schools, pubs, cafés, sports and of course our lovely river. The Hogsmill is a chalk stream - one of only 210 chalk streams in the whole world. It flows through our communities and for the residents here is a sanctuary. It is in this area that we could develop a "green highway" and continue it to Malden Manor; we could also make Ruxley Lane safer for residents by increasing tree shade, insulating a cycle lane from traffic and improving the walkway from the country park at Horton right the way through and over the A240, along Worcester Park Road and through Old Malden Lane.	Ruxley Lane part of cycling network, new 'Green Highway' added to network by the Hogsmill	Item Updated
106	Mail	Both	So why are Ruxley Lane (RUXLEY) and Old Malden Lane (CUDDINGTON) struggling to walk and cycle? We are very dependent on each other, despite being cut off by an "A" road. Malden Manor and Worcester Park stations are our locals. We use each others shops and services. We love the nature reserves. We send our kids to schools in both areas. We play sport together. Sadly, our roads are not safe to use. Ruxley Lane, despite speed restrictions, is too narrow for cyclists to share the road. Cuddington is quite cut off in parts - we have one bus an hour in Cuddington itself. Residents in the yellow area cannot use Old Malden Lane - yet it is the most direct route! We do "lifts" to the station - so many car journeys simply because it is not safe to walk and cycle	Issues of severance due to A240 noted	No Action Required
107	Mail	Both	The turquoise line shows Ruxley Lane. Yellow area - streets here use Malden Manor as it is the nearest station and the most level walk or cycle. The pink line denotes a very steep gradient - which is why many of us don't walk or cycle to Worcester Park Station. Malden Manor is much easier. However - it is unsafe to walk and cycle on the most direct route for us - Old Malden Lane. It is particularly difficult for elderly people, those using mobility aids and parents with small children. The green line is Worcester Park Road, which becomes Old Malden Lane - in part this road is unpaved. The road has blind bends, is narrow and there is no speed restriction. Soft verges are tyre marked where drivers lose control. A turning off Old Malden Lane, Barrow Hill, the route from St Mary's Road/Cleveland Road area of Cuddington to Malden Manor Station, is unpaved. Shops at Malden Manor and Plough Green are the nearest for walking and cycling (Royal Borough of Kingston). Nearest Dentist and pharmacy is here. Cafés, pubs and restaurants serving food from a variety of cultures at Malden Manor and Plough Green. Within the yellow area we have people who come here to work, play sport and learn on a daily basis. Wandgas Sports for cricket and football including opportunities for children and young people with physical disability & SEN. It is also the headquarters for British Gas seminars/training and the Fulham FC Charitable Foundation. Linden Bridge School takes pupils with Autism from nursery age to sixth form. The Riverhill Community over the Hogsmill River, at the foot of Old Malden Lane, has retirement bungalows, a kart track, Christmas tree farm, pitches and a licenced sports and social club. Currently one bus per week to that area. Old Malden Lane is narrow, unpaved in parts and the only walking route to trains (see above) and buses at Plough Green into Sutton, West Croydon Station and Heathrow Airport. In the Ewell direction - bus route to Epsom, Ewell, Tolworth, Surbiton and Kingston University. Look at all the places along these routes that we rely on, that have mutual interests for us. I think we could make it much better! Parts of Ruxley currently suffers deprivation - people here don't have the luxury of a car. Not all disabilities are visible - many people with seizure disorders can't drive.	Old Malden Lane added to cycle network/upgraded to Phase 1 &2 	Item Updated
108	Mural	Cycle network	A240 shared footway/ cycleway north of Junction with B221 Great Tattenhams/ Tattenham Way & Provision of a toucan crossing onto two arms of the junction of A240 & B2221 Great Tatenhams CIL funding awarded		No Action Required
109	Mural	Cycle network	Area proposed for inclusion in Surrey Hills National Landscape - opportunities for improving cycling and walking	Routes added to link to existing paths	Item Updated
110	Mural	Cycle network	Banstead High Street Cycling and walking improvements at LCWIP early Stage 2 Dec 2023	Noted	No Action Required
111	Mural	Cycle network	Beeline Way is complete, linking New Malden and Raynes Park	Noted	No Action Required
112	Mural	Cycle network	Box hill key destination with the update of e-bikes	Routes added to link to existing paths	Item Updated
113	Mural	Cycle network	key destination - hospital (visitors and staff)	Proposal discussed - link to the area provided	Item Updated
114	Mural	Cycle network	Lots of potential conflicts in the centre: schools, commuters, RNIB	Noted - proposals to be reviewed in the next stage (high level interventions)	No Action Required
115	Mural	Cycle network	New cycle improvements for Banstead in Stage 2 works - could be better connected	Noted	No Action Required
116	Mural	Cycle network	RBK working on completing facility on Jubilee Way - consulting on next stage soon we hope	Noted	No Action Required
117	Mural	Cycle network	route from new malden to kingston is partially complete. looking to complete by end of 2024	Noted	No Action Required
118	Mural	Cycle network	Secondary schools and the local centre should be a key connection	Route proposed	No Action Required
119	Mural	Cycle network	St andrews seccondary (ashtead) and Rosebery secondary (epsom) school along the A24	Route proposed	No Action Required
120	Mural	Cycle network	There is a route from Epsom to Ashtead via Woodcote and Wiilmerhatch Lane and the Rookery, which is quieter than the A24, Maybe show?	Added as a phase 3	Item Updated
121	Mural	Cycle network	Tolworth Broadway has a Greenway filling this gap	Noted	No Action Required

Table 31. 1st Early Engagement Stakeholder workshop - Comments on the Draft proposed networks

Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
122	Mural	Cycle network	upgraded cycling/walking package being developed as part of Belmont area improvement	Proposal discussed - link to the area provided	No Action Required
123	Mural	Cycle network	2 - North - south shared path parallel to Temple Road / Court Rec = segregated?	To be reviewed in the next stage (high level interventions)	No Action Required
124	Mural	Cycle network	3 - East Street. Existing low cost route. Lots of P/C accidents. Busy, schools. Potential for LTN1/20 P/C facils.	To be reviewed in the next stage (high level interventions)	No Action Required
125	Mural	Cycle network	conflicts with pedestrians at SUP	Aknowledged	No Action Required
126	Mural	Walking Network	connection to the schools and the park	CWZ 7 - To be provided	Item Updated
127	Mural	Walking Network	Increased tactile paving could make these new routes more accessible - this is particularly important for any proposed mixed use to make it safer for people with hearing loss, sight impairment or deafblind.	Aknowledged - all proposals will seek to improve facilities for all. Tactile paving to be reviewed in future design stages	No Action Required
128	Mural	Cycle network	Residents at Swail House in Epsom must not have their routes impeded by cycle-ways	To be reviewed in the next stage (high level interventions)	No Action Required
129	Mural	Cycle network	The route for Stoneleigh14 goes through two residential roads which already have signifiacnt parking issues-	Aknowledged	No Action Required
130	Mural	Walking Network	underpass is used by cycles and pedestrians - needs to be improved for personal safety	To be reviewed in the next stage (high level interventions)	No Action Required
131	Mural	Cycle network	Why doesnt route 14 go into Auriol park where there are shared paths already	Route added	Item Updated
132	Mural	Walking Network	Blocked drains causes large water runs, causing pedestrians to be splashed	Noted	No Action Required
133	Mural	Cycle network	Connect to route	Rushett Ln: it is outside the borough boundary - connections are provided to existing paths. If route is proposed then it will not provide any continuity for the network	No Change
134	Mural	Walking Network	Crossing church rd on the way to alexandra not easy here	Noted	No Action Required
135	Mural	Cycle network	cycling the hill not helped by poor road surface	CC17 - Noted	No Action Required
136	Mural	Walking Network	Due to water pooling in large potholes, pedestrians get splashed by cars	Noted	No Action Required
137	Mural	Cycle network	Fast cars can make it hard to cycle across over here	CC17 - Noted	No Action Required
138	Mural	Walking Network	For walking up/down Ashley RoadÂ (town to Downs) this is a very difficult roundabout (Ashley Rd / Treadwell Rd)- sight lines impossible!!	Noted	No Action Required
139	Mural	Cycle network	important route for school	route included in the network	No Action Required
140	Mural	Cycle network	Junction visibilty is bad	Woodcote green road - included as a phase 3	Item Updated
141	Mural	Cycle network	Make an easier cycle route Epsom to banstead	Noted	No Action Required
142	Mural	Cycle network	rat-run and no footpath	Route added	Item Updated
143	Mural	Cycle network	Road surface very bad	Woodcote green road - included as a phase 3	Item Updated
144	Mural	Cycle network	steep section- not accessible	Noted - to be reviewed in the next stage (High level interventions)	No Action Required
145	Mural	Walking Network	This bit of worple road often forces me into the road.	Noted	No Action Required
146	Mural	Walking Network	Walking up/down - v difficult.Â No decent sight lines across the roundabout	Not clear reference	No Change
147	Mural	Cycle network	New bridge at Castle Road - Talk to Network Rail	Noted	No Action Required
148	Mural	Walking Network	connect to green infrastructure	Links to be provided	Item Updated
149	Mural	Walking Network	Glyn School	CWZ 4 - Included in the zone	No Action Required
150	Mural	Walking Network	Blenheim School	CWZ 5 - - Link to be provided	Item Updated
151	Mural	Walking Network	Rosebery School	CWZ 12 - Link to be provided	Item Updated
152	Mural	Walking Network	School	CWZ 14 - Link to be provided	Item Updated
153	Mural	Walking Network	College	CWZ 16 - Link to be provided	Item Updated
154	Mural	Walking Network	Nonsuch Girls School	Entrance from LBS	No Action Required
155	Mural	Walking Network	UCA	CWZ 12 - Link to be provided	Item Updated

Table 31. 1st Early Engagement Stakeholder workshop - Comments on the Draft proposed networks

Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
156	Mural	Walking Network	Look at connections to the bus stops from the core walking zones	Links to be provided	Item Updated
157	Mural	Walking Network	Potential local plan site	CWZ 16 - Upgraded to Phase 1 & 2	Item Updated
158	Mural	Walking Network	Look at primary schools - improve walking and cycling to schools	Links to be provided	Item Updated
159	Mural	Walking Network	Potentially to reduce the size of the CWZs: 11 & 4	Size retained	No Change
160	Mural	Walking Network	Kiln Lane Link	To be added as a walking route	Item Updated
161	Mural	Walking Network	`Stoneleigh Broadway - key destination - lots of people accessing and visiting	Aknowledged	No Action Required
162	Mural	Cycle network	Shared surfaces (for cycling and walking) put people with sight loss at risk and are disciminatory. In Epsom borough alone there is in excess of 300 people who are registered as blind or partially sighted	Aknowledged - all proposals will seek to improve facilities for all.	No Action Required

Table 32. 2nd Early Engagement Stakeholder workshop - Comments on the Draft high-level proposed interventions for the Phase 1 cycle corridors and CWZs

Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
1	2A	1	Asked in the chat if any of the Atkins colleagues on the call are based in Epsom	Responded that he used to work out of the Epsom office and there have also been others involved in the proposals who are based in the Epsom office albeit they aren't on this call.	No Action Required
2	2A	1	Added in the chat that he would recommend consulting Alan Flaherty as he is very familiar with Epsom & Ewell and how the current cycle network has been developed over the years.	Acknowledged	No Action Required
3	2A	2	Added in the chat that there was a Road Safety Working Group proposal to remove the central hatching on Longmead Road. This could complement the proposal to widen the footway. He then added that there are vehicles parked on the western side. Narrowing the carriageway would help to provide widened footways and shorter crossing distances. He added that outside the Blenheim School there's a crossing which is effectively three lanes wide.	Acknowledged	No Action Required
4	2A	2	Asked in the chat if the footways are widened around the town centre one way system, what would be the impact on traffic capacity? He added that a number of the suggested interventions would undoubtedly result in a reduction of traffic capacity. While that would be fully in line with LTP4, is there any political support for this?	responded that no traffic modelling has been undertaken for the proposals, although it is expected the proposals would impact the capacity. He added that the proposals follow the Masterplan concepts and both the LCWIP and the Masterplan work seek to be ambitious, to improve accessibility for pedestrians.	No Action Required
5	2A	2	Added that a Member session has been planned and the team will get an instant feel for the acceptance of the proposals. He added that these high-level proposals will be investigated further in the feasibility stage but if there is no political support, then there will be no further work on the proposals.	Acknowledged	No Action Required
6	2A	2	Added in the chat that as a result of a significant landslip around four years ago, Network Rail presented three options. The 'do max' option included replacement of the Hook Road bridge with a high deck. In its current arched form, it's in the top ten bridge strikes in	Responded that an aspiration for improvements can be added in the report and SCC may engage with Network Rail in the next stage of scheme development to investigate options for improvements.	No Action Required
7	2A	2	Asked in the chat if there are any data on the catchment area for the college? Another stakeholder responded regarding Epsom College - as far as she is aware it depends which houses/main school/sports facilities anyone is trying to access as to where main entrance is. The college is a boarding school as well as day school	Responded that at this stage we do not hold data for the catchment areas of the schools.	No Action Required
8	2A	2	Commented in the chat that it would really help to label the road names and significant landmarks. It will help members get their bearings too when you present to them. Members will respond better to the presentation if you can be really confident on local	Responded that the team will add labels to the key roads for the next engagement workshops.	Item Updated
9	2A	2	Added in the chat that a lot of people use the hospital as a cut through - both pedestrian and vehicle.	Acknowledged and added that it is difficult to propose any improvements within the hospital land as it is privately owned, but proposals to improve access are included in the LCWIP	No Action Required
10	2A	2	Added in the chat that on Worple Road / Chalk Lane there are extensive heritage constraints in this area - conservation area. Part of the wall mentioned is Grade II listed, the remainder locally listed.	The extent of the highway boundary will be reviewed during the next stage of work in conjunction with heritage and environmental constraints. It is the aspiration to create an environment that is safe and accessible for all users.	No Action Required
11	2A	2	Commented in the chat that Atkins would have the expertise to propose a solution that met all the different constraints. We may also need to challenge ourselves on whether heritage or accessibility is more important when these two are in conflict...	Once assessments are undertaken in the next stage of work we will be in a better position to disucss what options are available to us from which an informed decision can be made.	No Action Required
12	2A	2	Recommended in the chat for Worple Road a virtual footway.	Agreed that it is a challenging location and improvements would be investigated further.	No Action Required
13	2A	3	Asked in the chat how do the cycle corridor proposals fit with the core walking zone proposals in the town centre? Is there enough room for both?	Responded that they are coordinating the proposals for walking and cycling. In areas where there is limited space even for pedestrians and following the hierarchy of road users, having pedestrians on the top of the pyramid, it was prioritised to propose interventions that would improve the pedestrian environment rather than for cyclists.	No Action Required
14	2A	3	Added that even with the removal of one traffic lane it is unlikely to get full LTN 1/20 compliance for the cycle proposals, as the highway space is very constrained with heritage buildings.	Responded that for the LCWIP we will have to work within the constraints of the existing building line and that is going to limit what can be achieved in the Town Centre, and anything that we propose there would result in some reduction in vehicle capacity. However, there are alternative proposals that can be taken forward.	No Action Required
15	2A	4	Commented that in the past gas work on Hook Road resulted in a temporary one-way system between Temple Road and Hook Road, which appeared to work well. He recommended to investigate formalising the one-way system for the benefit of improved	Traffic surveys will be undertaken during the next stage of work which will help us to develop options which seek to provide a suitable walking and cycling environment balanced against the need to keep traffic moving.	No Action Required
16	2A	4	Added that in the past there was a recommendation for a one-way system but the Members at the time were not supportive of the proposals. He recommended to re-introduce the proposals as part of the LCWIP.	Agreed and the team will add the recommendation for discussion with the members.	No Change
17	2A	4	Commented in the chat that removal of one traffic lane, albeit 250m, is likely to have an adverse effect on the whole of Epsom.	Acknowledged	No Action Required
18	2A	5	Added in the chat that the Draft Epsom Town Centre Masterplan (p47) included some high level / indicative schemes for Ashley Rd - this was approved for consultation by EEBC members - epsom-ewell.inconsult.uk/gf2.ti/-/1569410/187456645.1/PDF/-/EEBC Draft Town Centre Masterplan November 2023.pdf	Responded that the LCWIP is following the Masterplan proposals with added elements for cycling which would require removal of a traffic lane to accommodate the cycle proposals.	Item Updated
19	2A	6	Commented that the Ewell Village Revitalisation public realm scheme is proposing a new 20mph zone, with traffic modelling showing a potential increase of vehicle flows on Ewell Bypass. He added that there is no argument against the speed limit reduction, however the changes should be investigated further to estimate the impact on flows.	Agreed and added that investigations will be done in the next stage of scheme development.	No Action Required
20	2A	7	Provided some updates for the Ewell Village Revitalisation public realm scheme. The second round of public engagement has been completed with generally positive feedback. The need for additional crossings on London Road was highlighted. He added that one-way proposals for West Street will not be taken forward.	Acknowledged	No Action Required
21	2A	7	Commented on the Headway and the proposals for the public right of way, supporting the ideas to promote the use of the path, however a crossing is required at the end of the path on the approach to the station.	Responded that a crossing was considered, but there is an existing crossing west of the location and it would be challenging to introduce a second crossing in close proximity. Additional issues are the visibility at the location and the constrained highway space. Improvements can be considered with potential need for land take.	No Action Required
22	2A	7	Asked in the chat if the toucan crossing proposed at Stoneleigh Park Road local shopping parade over the main road (A240) or the side road (Stoneleigh Park Road)	Responded that the crossing is proposed on Stoneleigh Park Road.	No Action Required
23	2A	9	Commented regarding Ewell Village Revitalisation public realm scheme that with the exception of the High Street, all proposals for the Ewell scheme are agreed, as they were in the consultation. He was happy to see that the proposals were incorporated in the LCWIP and suggested that if the team has additional recommendations, he is happy to discuss them.	Responded that the team has discussed with the Atkins team that works on the scheme and will feedback if any additional recommendations come from the engagement for the LCWIP.	No Action Required
24	2A	9	Commented on the Stoneleigh Broadway proposals that the public realm scheme is in early stages.	Responded that the team considered the ideas Alex shared in the past and built on them.	No Action Required
25	2A	9	Confirmed that when the scheme will be progressed the changes will aim to be more radical as there is space available to propose higher quality facilities.	Acknowledged	No Action Required
26	2A	9	Asked in the chat why are we calling this "Ewell to Nonsuch Park" rather than "Stoneleigh Broadway to Nonsuch Park"	Responded that the corridor extends south to Ewell. The section to Stoneleigh was added in during the prioritisation process to ensure we will be connecting to the railway station. The scheme was split into two maps.	No Action Required
27	2B	1	Asked if the LCWIP aligns with the emerging Local Plan and if the Local Plan would incorporate the LCWIP	Acknowledged	No Action Required
28	2B	1	Responded that the emerging Local Plan has been reviewed for the development of the LCWIP and the LCWIP is aligned with the policies. As the LCWIP will be adopted policy the Local Plan will ensure to reference the LCWIP.	Acknowledged	No Action Required
29	2B	1	Asked whether routes have been consulted on by stakeholders.	Responded that proposed CCs and CWZs were discussed with stakeholders in a similar workshop in November 2023.	No Action Required

2nd Early Engagement Stakeholder workshop - Comments on the Draft high-level proposed interventions for the Phase 1 cycle corridors and CWZs

Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
30	2B	1	Asked if there is a reason why routes typically follow roads rather than off-road.	Responded that often roads provided the most direct route between key destinations. Connections to existing off-road paths will be provided.	No Action Required
31	2B	2	Asked about the Kiln Lane link and how advanced proposals are for additional crossings in this area	Responded that proposals were conceptual, with no firm plans at this stage.	No Action Required
32	2B	2	Queried the junction tightening proposals, and what these include	Responded that junction tightening includes narrowing of the bellmouth, which will reduce the turning speeds for motorised vehicles and reduce the crossing distance for pedestrians.	No Action Required
33	2B	2	Asked whether private roads such as Denham Road are acceptable to be considered	Responded that routes focused on key desire lines and are agnostic to land ownership at this stage.	No Action Required
34	2B	2	Raised concerns about crossings at Ashley Avenue and South Street junction, with large detours for pedestrians, particularly for those leaving the Ashley Centre	Responded that proposals will look to improve all crossings at that junction.	No Action Required
35	2B	2	Raised concerns about width restrictions on College Road, with widening footway taking road space which may make vehicles passing each other difficult and with frequent on-street parking. Michael recommended potential one-way system along the road	Noted that proposals at this stage have not considered precise road widths and a one-way system can be considered.	No Action Required
36	2B	2	Raised concerns about parking on College Road and Ashley Road, with cars currently parking on the advisory cycle lanes and footway, blocking pedestrians and cyclists, primarily over the weekends – so proposals would need to include a review of parking	Acknowledged this and said further scheme development would involve review of parking.	No Action Required
37	2B	3	Asked about the contra-flow cycling proposals on Ashley Road, and whether this would involve taking up road space	Confirmed that proposals would likely require 1 of the 2 lanes with cycle lanes in both directions.	No Action Required
38	2B	4	Noted that proposals to convert Hook Road to one-way has previously been considered by the Highway Authority.	Acknowledged	No Action Required
39	2B	5	Raised the possibility of extending the off-road cycle path from Rosebery Park along Heathcote Road as a contra flow facility	Agreed that this connection may be useful and will be considered by the team.	Item Updated
40	2B	5	Commented that proposals may clash with the bus bay on Ashley Avenue	Made the point that before the implementation of the bus bay, the area looks more pedestrian friendly, and so proposals may attempt to reduce total road space, possibly through reducing running lanes from 3 to 2.	No Action Required
41	2B	5	Agreed and noted that this land should be Borough Council owned.	Acknowledged	No Action Required
42	2B	7	Asked if the proposals include review of the on-street parking on Mill Lane.	Confirmed	No Action Required
43	2B	7	Said they would welcome the improvements and referenced the engagement in Ewell Village for the public realm scheme	Confirmed that the project manager from Surrey is in the core project team and Atkins is communicating with the public realm design team to ensure the proposals align.	No Action Required
44	2B	8	Expresses preference for a route along Chessington Road, noting access to Horton Golf Park.	Acknowledged	No Action Required
45	2B	9	Mentioned the poor crossing provision of the railway line west of West Street	Agreed and proposals need to consider improvements to the bridge at this point; text updated.	Item Updated
46	2C	2	Asked whether the project team are aware that the area at Longmead Road/Chessington Road has been allocated CIL funding for improvements, including a user-activated crossing at the incline towards Ewell West Station.	Responded that the LCWIP would consider these proposals.	No Action Required
47	2C	2	Added that this is scoped to be built this financial year	Responded that the LCWIP would consider these proposals.	No Action Required
48	2C	2	Asked about the link to be investigated across the Epsom to Waterloo railway line, stating that there have been previous proposals for a road crossing at this site	Stated that this was included as a long-term potential opportunity.	No Action Required
49	2C	2	Expressed concern that green space has not been considered – Noted Longmead Contours and the lack of crossing to the Hogsmill Nature Reserve and access to Court Recreation Ground	Stated that these comments and connections to the green spaces in the area will be considered as part of the aspirations. Noted that provision on the east side of Longmead Road along the waterway / green space is of good quality, with proposals likely to include side road crossing interventions and a crossing of Chessington Road for linkage toward the Nature Reserve.	No Action Required
50	2C	2	Asked whether the LCWIP project team are aware of proposals for Ewell Village Placemaking scheme, noting that results from the recent consultation will be made public at the end of April	Stated that the LCWIP project team are working closely with the Ewell Village Placemaking team and Simon Lowe, who is also part of the LCWIP project team.	No Action Required
51	2C	2	Noted that proposals along Christchurch Road have difficulty with proximity to Epsom Common and a nearby SSSI and noted that a multi-user path has been installed through Epsom Common to overcome this restriction.	Acknowledged	No Action Required
52	2C	2	Stated 3 concerns on Ashley Road: - Issues relating to interaction with vehicles, notably with spray from vehicles – asking can the LCWIP call for interventions relating to drainage and surface quality?	Maybe more a maintenance issue which will be shared with colleagues at SCC.	No Action Required
53	2C	2	Stated 3 concerns on Ashley Road: - Ashley Road and entrance to park – surface is extremely damaged due to parked cars – is there anything that can be done to	The LCWIP team had similar feedback from other stakeholders. The LCWIP would highlight the issue and a need to review the on-street parking provision to maintain accessible footways and cycle lanes.	Item Updated
54	2C	2	Stated 3 concerns on Ashley Road: - Further north, problems with roots causing unevenness to pavements, adding that it is a very popular route	Proposals will consider surface quality.	No Action Required
55	2C	2	Asked whether existing schemes have been considered – for example, at College Road / Longdown Lane junction a large scale ITS scheme has been proposed which includes an improved crossing provision. Expressed concern at lack of coordination and awareness of non-LCWIP proposals, and asked whether the specific site has been considered	Said it had not been identified as this stage, but the team would get more information about it from SCC colleagues. There is close coordination between the LCWIP team and SCC officers to provide awareness of previous/current schemes in the area	No Action Required
56	2C	2	Reemphasised the close coordination within SCC, with SCC officers representing different departments/disciplines a part of the project team. He noted that more detailed proposals would be considered at feasibility design stage to review potential overlap with	Acknowledged	No Action Required
57	2C	2	Expressed concern that proposals were too focused on the south of the borough, asking whether Epsom College proposals are useful, with large numbers of students not using active modes at present and other non-LCWIP schemes also proposed in the area	Responded by noting one of the aims of the LCWIP is to encourage modal shift to active travel.	No Action Required
58	2C	2	Noted that Burgh Heath Road is missing a footway, and asked why proposals have not been aimed here, rather than College Road	Noted that proposals have been included along some parts of Burgh Heath Road.	No Action Required
59	2C	2	Noted on Sundays, the parking restrictions are lifted on Ashley Road, with parking on both sides of the carriageway. This can effectively block the footways and cycle lanes, sometimes forcing pedestrians into the carriageway. They also pointed out the possibility of Chalk Lane as a suitable recreational route and alternative to Ashley Road, noting current traffic issues. It is supposed	Proposals updated accordingly.	Item Updated
60	2C	2	Added that the Sunday parking issues could be added to the annual parking review and noted Chalk Lane would need some sort of physical restriction to restrict motor vehicle flow, with previous attempts to block traffic seeing vandalism.	Acknowledged	No Action Required
61	2C	2	Noted problems with patching and trenching and general quality of footways, with a noted decline in standards	Noted that this would be useful for Surrey CC team to consider.	No Action Required

2nd Early Engagement Stakeholder workshop - Comments on the Draft high-level proposed interventions for the Phase 1 cycle corridors and CWZs

Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
62	2C	2	Expressed concern at rat-running in the north of the borough, with numerous roads being used to avoid A240	Acknowledged this point	No Action Required
63	2C	2	Noted the access-only restrictions to Chalk Lane, noting visibility issues	Acknowledged this point	No Action Required
64	2C	3	Noted speed of cyclists along Dorking Road and White Horse Drive, causing concerns for local residents	Responded by noting topography and resultant speed of cyclist travelling down the hill	No Action Required
65	2C	3	Noted the bus stands and stated that these stands are used so there may be difficulty moving these in carriageway	Noted that proposals relating to bus stops at these locations will be investigated further by the LCWIP project team, and as part of the next stage of scheme development.	No Action Required
66	2C	3	Noted risks with encroachment of proposals onto Epsom Common	Responded by noting that an initial check of the highway boundary suggests there should be enough space for the proposals, however, this would be assessed in more detail during the feasibility design stage – Stewart emphasised the point of avoiding	No Action Required
67	2C	3	Noted several points where existing cycling infrastructure is not up-to-date	Acknowledged that the SCC existing cycle facility map layer may be outdated and an update on existing cycling infrastructure would be useful.	No Action Required
68	2C	3	Asked for specific details on proposals for the gyratory in Epsom Town Centre	Responded with a description of the proposals, also noting the high-level proposals / aspirations in the Epsom Town Centre Masterplan.	No Action Required
69	2C	3	Asked whether these proposals would include narrowing Ashley Road to one lane	Confirmed that these proposals would likely require narrowing due to space constraints	No Action Required
70	2C	3	Noted that work on Epsom Town Centre Masterplan is ongoing, with work to conclude in summer 2024. Also noted narrowing of South Street, with concerns over existing congestion and the likely effects of reducing lanes at this point	Acknowledged these concerns, and noted that proposals in Epsom Town Centre would need to be considered separately as part of a broader movement strategy. Also noted the suitability of White Horse Drive / West Street and Station Approach as a by-pass of the	No Action Required
71	2C	3	Responded outlining the proposals in the Epsom Town Centre Masterplan, noting concerns over vehicular traffic on the gyratory, and also noting the high-level aspirational nature of the Masterplan	Added that further detailed proposals would require a multi-disciplinary approach due to complex nature of the area.	No Action Required
72	2C	3	Noted that proposals along Station Approach/West Street would need additional work at the junction of West Street, and stated width restrictions along Station Approach and West Street.	Acknowledged	No Action Required
73	2C	3	Added via Chat that there should be the possibility to revisit Station Approach and consider reallocating road space, stating the view that the current arrangement doesn't work. Stated that the car pick-up/set-down area near Waterloo Road causes congestion. Proposals should consider the bus stand area in Station Approach, which would free up space on Ashley Avenue for a contraflow cycle facility. Concluded by noting the challenges of the above.	Acknowledged	No Action Required
74	2C	4	Asked whether proposals could consider wayfinding at southern end of shared-use path from Court Recreation Ground, with existing provision lacking coherence	Responded that proposals would consider improved facilities in this area.	No Action Required
75	2C	4	Asked whether proposals are considering introducing a one-way running along Hook Road, which Atkins team confirmed. Noted that this may be challenging, with Hook Road serving as an important strategic route in the borough.	Traffic surveys will be undertaken during the next stage of work which will help us to develop options which seek to provide a suitable walking and cycling environment balanced against the need to keep traffic moving.	No Action Required
76	2C	4	Responded that this area functions with an implied one-way system - northbound in Temple Road, southbound in Hook Road. Welcomed proposals including one-way, contra-flow cycling and other interventions in the area, emphasising approaching proposals in this area with an open mind and supported further investigations in future stages.	Acknowledged	No Action Required
77	2C	5	Noted challenges with parking along Downs Road –	Proposals text hsas been updated.	Item Updated
78	2C	5	Also noted high equestrian traffic along Downs Road and Downs Hill Road, noting the unsuitability of equestrian and pedestrian/cycling traffic mixing	Acknowledged this point.	No Action Required
79	2C	5	Noted that Swale House generates a large number of pedestrian trips from visually impaired users, with Ashley Road seeing a large number of crossings by visually impaired users and pipeline proposals to improve crossing provision at this point	Noted the project team would consider this going forward.	No Action Required
80	2C	5	Asked whether proposals considered Downside through to Worple Road as an alternative, which would remove the interaction with blind users and expressed initial support for this idea	Responded saying that the LCWIP will consider this route as an option (see image below for alignment, in solid red).	Item Updated
81	2C	6	Added that Castle Avenue forms part of the 'Round The Borough' walk and cycle route. Added, noting the risk of mature trees in this wooded area, with potential Root Protection Orders in place at this point.	Responded that current proposals preferred this option to a route through the wooded area to the north, noting feasibility risks in this area	No Action Required
82	2C	7	Noted that in some areas SCC do not own the full extent of the footway along the Broadway in Stoneleigh, so LCWIP proposals should be mindful of this poin	Acknowledged	No Action Required
83	2C	7	Upper Mill at Chessington Road and under the railway line to Hogsmill Path is not displayed on the map	Responded that the current map is only displaying public rights of way, and so may not capture all existing infrastructure, stating that the 'Round the Borough' link has been considered by the LCWIP.	No Action Required
84	2C	7	Noted that The Headway is a private road, so there may be issues signposting pedestrians and cyclists down private road	Acknowledged that The Headway is a private road but is also a public right-of-way.	No Action Required
85	2C	8	The recent implementation of the shared use path along the Hogsmill River. Also pointed out that this map, unlike CWZ map includes Upper Mill at Chessington Road and under the railway line to Hogsmill Path route.	Responded that cycling and walking maps include different layers. Stewart also noted the map is also missing routes through Horton Park, and a separate discussion may be necessary.	No Action Required
86	2C	9	Noted land ownership issues in Stoneleigh Village Centre, and issues with loading bays on the service roads	Acknowledged this point, whilst noting that proposals are limited to the carriageway.	No Action Required
87	2C	9	Noted a separate SCC scheme considering initial proposals forfor Stoneleigh Broadway, focusing on proposals for crossings.	Acknowledged	No Action Required
88	2C	9	Noted that this area is extremely popular, with visitors from Worcester Park, North Cheam and Ewell and current issues with parking due to station works. Noted that proposals would need to be mindful of parking impacts	Acknowledged this point.	No Action Required
89	2C	9	Noted that London Borough of Sutton are responsible for the A24 north of Sparrow Farm Road and there are visually impaired users emerging from a property in this area	Acknowledged this point.	No Action Required
90	2C	9	Noted concern of the route along Bluegates, with the proposed route passing over a landfill site	Acknowledged this point, stating the LCWIP will consider routing along the east perimeter of this area	No Action Required
91	2D	3	Sits on Epsom and St Helier Hospital Trust Transport Working Group and asks whether project team have engaged with the hospital trust. Ariana confirms that the hospital trust have not been engaged but the proposals associated with the London Cancer Hub have	Notes that CC21 (a Phase 2 cycle corridor) serves the Belmont area and is an alternative to the CC3 if it is not feasible. Also notes that CC3 may be an indirect route and added that as design phases advance, alternatives may become important as potential	No Action Required
92	2D	3	Asks whether The Avenue is of use for commuters during the evening, as route is unlit and isolated. also points out the change in character as the route moves from The Avenue to the A24. Also points out that smart lighting may be useful from an ecological point of view, but some users may avoid it entirely due to isolation.	Acknowledges this point, and states that LCWIP would consider alternatives including CC21. no ecological surveys have been undertaken, and lighting is not currently proposed, but cyclist and pedestrians may be separated to reduce nighttime conflict	No Action Required
93	2D	3	Asked whether AtkinsRéalis have a list of proposals to share with Sutton highways team in writing.	States that AtkinsRéalis team will be drafting a design chapters to outlines where the routes would connect. The interventions chapters are usually only shared with SCC/EEBC officers and Sustrans, but suggested that some written design commentary could	No Action Required
94	email	4	Page 27 is currently titles 'Ewell Town Centre', can you change this to 'Stoneleigh and Ewell Town Centres'-.	For the Ewell centre CWZ we cannot change the title of the CWZ as it is mainly focused in Ewell, but we will ensure in the presentations and the report to add specific references to connections to Stoneleigh. (if we add Stoneleigh then we will have to expand our proposals to the west of the railway lines and the residential area).	No Action Required

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Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
95	email	General	From a walking point of view, it's important to raise the current dangers pedestrians face on Stoneleigh high street. Caused by: •The large distances involved when crossing the road •Current inadequate and inaccessible crossing points •Conflict between vehicles and drivers exiting parked cars on the carriage way by the raise planters •Traffic speeds particularly exiting the roundabout into Stoneleigh Broadway So there are plenty of opportunities to build out crossing points and add fit for purpose raised pedestrian crossings.	Crossings have been proposed which will seek to create a safe pedestrian environment and mitigate some of the problems cited. Further assessments will also be undertaken in the next stage of work which will identify challenges and constraints too.	No Action Required
96	email	General	From a cycling perspective it is great to see the consideration of a cycle lane and agree we should be more radical in our thinking of what's possible on Stoneleigh Broadway and consider the opportunities if the raised beds are redesigned or planting relocated in this	Cycle facilities along with greenery proposed at the extent of the Broadway	Item Updated
97	email	General	It will be unrealistic to expect a modal shift away from the current dependence on car use in the Borough without SCC delivering significant improvements in public transport.	The LCWIP is one of the key tools for Surrey and other local authorities to achieve mode shift and get people out of their cars. Surrey is taking a holistic approach for transportation as this was defined by the LTP4 and they are looking for other aspects, such as bus journey and access improvements.	No Action Required
98	email	General	It is crucial that the priority schemes are fully accommodated within and consistent with the emerging Epsom & Ewell Local Plan.	The emerging Local Plan is one of the key policies reviewed as part of the Stage 2 of the LCWIP, and EEBC team working on the LP is engaging with the LCWIP team	No Action Required
99	email	General	Many of your proposals will be dependent upon Surrey County Council actively pursuing the re-allocation of road space to enable the proposed improved walking and cycling infrastructure	Surrey is supporting the measures to improve active travel. Of course everything is depended on further investigations and reviews and subject to public consultation at the end of the feasibility design stage.	No Action Required
100	email	General	Given the current financial context it might be better to look at a plan which focuses on putting in place fewer schemes and make them really safe and attractive for residents to use.	Agreed, we are looking at a wider picture for Epsom and Ewell but we have identified potential schemes that can be delivered independently as quick wins	No Action Required
101	email	General	These routes need to be joined up with neighbouring boroughs to maximise the benefits	As part of our early engagement exercise we met with officers from Mole Valley, Reigate and Banstead, Sutton and Kingston Upon Thames, and discussed the development of the network as well as the initial high level interventions.	No Action Required
102	email	General	User safety will be paramount ie appropriate surfaces, lighting and immediate surroundings – especially on school routes	proposed elements will aim to improve personal and road safety for all.	No Action Required
103	email	General	In the case of cycling, account will need to be taken of the different types of cyclist which don't mix well – ie fitness groups; shoppers, leisure riders and commuters.	The proposed facilities are targeted to all types of cyclists, with a little more focus on commuters and for utility trips. Of course the aspirational network is including routes through green spaces that are more leisure oriented.	No Action Required
99	email	Ewell CWZ	Looks good to me, I just really wanted to reiterate the need for the LCWIP and the Ewell Village work to reflect one another. It's great that the plans have acknowledged much of the work set out in the village proposals, and I know you've received these from Lauren, but in this most recent version there are still a few items missing so wanted to just bring to the table again	Acknowledged	No Action Required
100	email	Ewell CWZ	The elements along the westbound leg of Spring Street, including footway widening and a potential new crossing point, are absent.	Acknowledged	No Action Required
101	email	Ewell CWZ	Pedestrian crossing on third arm of Kingston/Chessington intersection – this is on the map but unclear as to whether this is regarding the missing crossing arm.	Whilst the map is an overview of proposals, improvements are associated with this arm.	No Action Required
102	email	Ewell CWZ	Zebra crossing on West Street outside of the school is absent.	Pedestrian crossing (zebra) is shown on plan.	No Action Required
103	email	Ewell CWZ	Cheam Road recently had some resurfacing and additional greening, so may not need any further work.	It is considered that improvements can be made in some key areas beyond resurfacing and greening. Examples include at the St. Normans Way / Nonsuch Court Avenue junction where there is currently no signalised crossing for pedestrians. Additionally, we are reccomending that the footways be widened on the approch to the junction with the A24, particularly on the western side.	No Action Required
104	email	Ewell CWZ	New pedestrian crossing on London Road close to the northern end of Church Street is absent.	Added	Item Updated
105	email	Ewell	Pages 27 and 39 include junction modifications on London Road close to Church Street – what does this entail? There are calls for a new pedestrian crossing at this point to aid those accessing the church and school on Church Street, so it would be helpful to	Improvements to the pedestrian crossing are proposed in this location although improvements at this location and predominently associated with tighting the junction radi. Crossing improvements will consider the sight lines and crossing distance in conjunction	No Action Required
106	email	Ewell	Great to see the introduction of missing pedestrian crossing arm at the signalised crossing at Kingston/Chessington.	Noted	No Action Required
107	email	Ewell	What modifications are proposed (or likely to be proposed) at the junctions of London/Kingston and London/Spring?	Proposals include pedestrian crossings where traffic signals currently are along with localised footway widening to tighten the approaches. At the latter location the LCWIP isn't proposing anything / we would look to the Ewell Village Revitilisation Project.	No Action Required
108	email	Ewell	Chessington Road between Ewell West Station and Spring Street is almost certainly unsuitable for a shared use path given its existing width and lack of opportunity for widening (the opposite side has no footway at all).	A shared use path is proposed to be widened subject to reviewing the highway boundary in the next stage of work. Segregation is required for cyclists to provide connectivity to Ewell Village centre. Suggested to retain the proposal to be reviewed following topo	No Action Required
109	email	Ewell	In addition, it would be useful to see the inclusion of some minor footway modifications along this stretch of Chessington Road that we have proposed in the Ewell Village plans.	Noted	Item Updated
110	email	Ewell	Great to see the resurfacing of the footway between The Headway and Ewell West Station, as well as a potential new crossing point between them on Chessington Road.	Noted	Item Updated
111	email	Ewell	Page 39 the footway resurfacing on Cheam has recently been completed.	At the start of the next stage of work if there are areas which have already been improved or are scheduled to be improved by another project this will not feature as part of the Stage 2 works.	No Action Required
112	email	Ewell	For consistency, you might want to consider, rather than greying-out the centre of the village, just adding in the elements that are already proposed in the Ewell Village plans such as those along the High Street etc.	We are showing this to indicate that there is another scheme in this location and that the proposals of it are proposed to be developed here accordingly. Special reference in the report will be included that highlights the improvements.	No Action Required
113	email	Ewell	Footway improvements on Spring Street that we set out in the Ewell Village plans are also missing so please can you include those.	We are making reference on these as part of the Ewell Village Revitalisation plan and we are recommending them as part of the LCWIP as well	No Action Required
114	email	Stoneleigh	Page 8 'Review on-street parking' raises the increased potential for conflict at the junction between parked cars and cyclist. 'Green buffers' also highlights the value of segregating cars and pedestrians from cyclists. If we apply that to page 25 on Stoneleigh Broadway and the zoomed in detail, should we mark the length of the Broadway as 'Public realm Improvements as these measures would be required for the length of the Broadway? The current proposal of two way cycle track marked on the south side of the street in blue would create the conflict highlighted on page 8 so consideration / application of for these points would be required as part of any public realm improvements.	Parking is reviewed where it either presents a hazard or presents an opportunity to reallocate space in favour for walking and/or cycling. Identification of specific green buffers, or wider landscaping and public realm improvements will form part of later design stages. Additionally, there are existing aspirations to improve the public realm at the Broadway which are refered to within the narrative.	Item Updated
115	email	Epsom TC	I think the solution of adding a map and text of the gyratory and an explanation of why at this stage the LCWIP doesn't address the gyratory in detail would be helpful. Some text emphasising that it is a priority but that it is complex and will require more work and identifying what the next stage would also be useful	Noted	Item Updated
116	email	General	we're generally happy with the walking maps as they have zoomed in sections, just reiterate Ian's suggestion of potentially having an interactive map, particularly Surrey wide would be welcomed.	Noted	No Action Required
117	email	Epsom TC	Epsom & Ewell Road Safety Working Group (RSWG) agreed that reduced speed limit (20mph) on the gyratory would be beneficial for all users and asked if it can be incorporated in the LCWIP.	Proposals have been updated	Item Updated
118	email	Epsom TC	1. A good selection of walking improvements in the draft report. It needs a clear paragraph on the next steps. Also suggest a large-scale plan for Town Centre (Fig 22) to better see your mapping.	This is already clear in the report	No Action Required

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Comment ID	Meeting ID	Item reference	Requested Amendment	Response	Status
119	email	Epsom TC	2. The Network Map shown in Figure 2 is hard to read and the transport components are unclear. Try changing line type and thickness. Also bring the numbers on plan into the key, so you don't have to flick forward and backwards to find out what key things mean in the proposals. Please can this map make clear what is 'existing' and what is 'proposed'.	A list of the routes is added next to the map	Item Updated
120	email	Epsom TC	3. We agree with Wai Po regarding the need to mind the gap in the Epsom gyratory. If the gyratory is a key priority, then please show on LCWIP map i.e. 'gyratory key priority area'.	Noted	Item Updated
121	email	Epsom TC	4. The gyratory does not want to be a separate study from the four corridors that feed it, they want to be together in analysis, design and technical assessment processes.	It was agreed with SCC and EEBC to consider the gyratory along with other transport related elements. Information and proposals for the walking and cycle elements in the area around the gyratory would be fed in the review/analysis of the gyratory.	No Change
122	email	Epsom TC	5. Suggest you bring your valid point 'A broader movement strategy study may also be required for the town centre area to consider circulation for all modes' forward in your report. I think it definitely is needed to take forward ideas to enhance walking and cycling in the town centre.	Noted	No Action Required
123	email	Epsom TC	6. This statement needs strengthening and a few SCC/EEBC agreed words on next steps. 'However, active travel improvements to the gyratory will likely require a holistic, multi-modal movement strategy, also incorporating aspirations of the Epsom Town Centre Masterplan'.	Noted	No Action Required
124	email	Epsom TC	7. This statement needs reviewing with DLA/EEBC and confirm the SCC/Atkins next steps. '**Visualisations of East Street in the Epsom Masterplan illustrate aspirations for a two-way facility from the Town Centre, and this concept should be extended along the A24, reallocating space from the central hatching of the carriageway.**'	Noted	No Action Required
125	email	Epsom TC	8. This statement needs reviewing with DLA/EEBC and confirmation on the SCC approach. 'Epsom High Street is currently a car-dominated environment. It is an aspiration to provide segregated cycle facilities in this area, however, active travel improvements to the gyratory will likely require a holistic, multi-modal movement strategy, also incorporating aspirations of the Epsom Town Centre Master Plan'.	Noted	No Action Required
126	email	CC1	- Could raised table and uncontrolled crossing symbology be made more different from one another?		No Change
127	email	CC1	- P16 intervention 2 – "This may not compliant…" – change to "may not comply".	Noted	Item Updated
128	email	CC1	- Could locations of wayfinding and secure cycle parking be added to map? Or is this covered by "public realm improvements" ? If so, could this be made clearer in the text?	No specific locartions have been identified. a general note has been added	No Change
129	email	CC11	- P28 – point 10 West Street – location of grade-separated crossing due to be upgraded – consider adding this to the map.	Symbol added	Item Updated
130	email	CWZ4	- Figure 20. What is the purple and orange symbol underneath the bus stop symbol? Could these be spaced out slightly to avoid overlap and make clearer?	Updated proposals accordingly.	Item Updated
131	email	CWZ4	- Figure 21 – Toucan crossing symbol at intervention 11 is partially obscured by blue lines	Updated proposals accordingly.	Item Updated
132	email	CWZ4	- Figure 21 – Point 12 is missing from map	This is shown on the previous figure	No Action Required
133	email	General	Include bins, benches and shelter at all bus stop upgrade recommendations. OR include bus stops in "planting, seating and shelter" section of "general items".	Identification of street furniture and components of public realm improvements are to be identified as part of the next stage of works.	No Action Required
134	email	CWZ11 & 12	- Figure 26. Point 18 missing from map.	Outside of view port	No Action Required
135	email	CWZ11 & 12	- Figure 26. Point 19 – what do the black arrows refer to? One way system not very clear as green line is against a green background.	Updated proposals accordingly.	Item Updated
136	email	Page 9	· The text boxes are overlapping the bottom line, some lines can be summarised to keep the consistency. (many of the maps have similar feature)	Noted	Item Updated
137	email	Page 14	· Figure 2 - It may not be clear that the number icons represent the locations of each cycle corridor. Perhaps this could be clarified in the legend, or a sentence added to the first paragraph.	A list of the routes is added next to the map	Item Updated
138	email	Page 36	· Perhaps brining other two textboxes and images from page 35 can be an option to make this page more filled rather than very blank on the right side.	Updated proposals accordingly.	Item Updated
139	email	Page 42	· Move the paragraph 9 to the second column and adjust others accordingly to avoid the overlap with the bottom boarder.	Updated proposals accordingly.	Item Updated
140	email	Page 49	· Maybe bring "Epsom" on the second row with the "Town Centre" in the title.	Updated proposals accordingly.	Item Updated
141	email	General	· Just a thought: Underlining the bullet points/ can be changed to blue colour, same as the number in the picture below.	Current format considered adaquate	No Change
142	email	General	Titles of the maps in blue colour can be moved to the lefthand side aligned with the left edge of the maps as those are not quite centre considering the map area.	Text is center aligned over the map (inc legend)	No Change
143	email	Stoneleigh	Firstly, along Stoneleigh Broadway the drawing is not clear enough that the modal filters are for the service roads. At first glance it looks like the modal filters are for the main carriageway and that we are looking to pedestrianise the whole street/prevent motor vehicle access down the Broadway and to the station. This will be a big issue with members who will see the modal filters and jump to this conclusion. Instead of using modal filters at all, could we rethink this and just write that we are reallocating the southern service road to cyclists and pedestrians through resurfacing and footway widening, essentially turning the service road into a cycle lane and pedestrian space? This would cost more to implement than just using modal filters to prevent vehicles using the service road but for the purpose of explaining the proposals I think this would be better/ruffle fewer feathers and we can add elements of	Map amended to show a greater extent of the public realm improvements and remove referenced to modal filters 	Item Updated
144	email	Gyratory	Secondly, is it correct that no recommendations are being made to improve cycling at the Epsom gyratory? (Apologies, I am sure this will have been discussed at various progress meetings that I have not been at!) The report says under cycle corridor 1: 'The aspiration would be to provide segregated cycle facilities. However, active travel improvements to the gyratory will likely require a holistic, multi-modal movement strategy, also incorporating aspirations of the Epsom Town Centre Masterplan'. What has been behind the decision to exclude any radical rethink of the gyratory from the LCWIP? Has it been decided that the town centre work will take this on? Or are we just deeming it to be beyond the LCWIP and kicking it into the grass? I am just interested as to how this decision has been reached and apologies for not knowing this but I anticipate we will be asked about this a lot by	Include in the report a section in the cycling proposals just for the gyratory for aspirational proposals and text to explain the issues, constraints and opportunities. In this section we would want to highlight the high priority of the area for improvements, but we need to flag that any interventions should not be looked just from an Active Travel point of view, but more holistically for all users. Of course, the proposals would not be isolated from the remaining cycle network, everything would tie in together. We have identified in the meantime, alternative alignments for connections to the centre for cycling, for all approaches (for four cycle corridors). For walking it was agreed to not separate the gyratory, as the interventions are more localised and less likely to have a push back.	Item Updated

Appendix 7: Sustrans Cycle Corridor 5 Review

Epsom & Ewell Local Cycling and Walking Infrastructure Plan (LCWIP) Critical Friend

Cycle Corridor 1 Recommendations: A24 Dorking Road (Ashtead to Epsom Town Centre)

March 2024

About Sustrans

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

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

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

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

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

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Revision	Description	Author	Check	Date
v0.1	Draft for issue	CF	SM	5/3/2024
v0.2	Draft for issue	CF	SM	7/3/2024
v1.0	Final draft	CF	SM	7/3/2024

1 Epsom Town Centre

- **A24 Gyratory including High Street, Ashley Road, Ashley Avenue and South Street:** Investigate the feasibility of installing segregated cycle tracks by utilising excess carriageway space. Note that there are width constraints on Ashley Road (near the junction with The Parade)

  - **High Street**: Alternatively, consider upgrading the pedestrianised area on High Street to allow for shared use.

    Install cycle symbols and 'share with care' signs

2 A24 South Street

- **A24 South Street from Ashley Avenue junction to Woodcote Road junction:** Segregated cycling provision is favourable as per LTN 1/20, but it may be difficult to achieve in this area due to width constraints. Subject to further feasibility studies, investigate whether a shared use path is possible in this area. See alternative option below

3 A24 Dorking Road

- **A24 Dorking Road from Woodcote Road junction to Craddocks Avenue junction:** Consider installing segregated cycle tracks by using excess carriageway space and cutting into the verge where possible. Remove shared use signs, allowing the footway to be used by pedestrians only. Widen the footway where necessary to at least 2m by cutting into the verge, as it becomes narrow when moving towards Ashtead.

Alternative Alignment

Although the current alignment on the A24 is a more direct option, there are width constraints from the Ashley Avenue junction to the Woodcote Road junction, where a lane of traffic would most likely need to be removed to provide segregated cycling provisions. However, we recognise that this is a key road with few parallel options for traffic. Considering the lack of verge space, it may also be difficult to provide a 3m wide shared use path which would not be preferable in this urban context in any case and only be used as a last resort. An alternative alignment could be considered which avoids using this section of the A24 and is shown on the map as the dashed lines:

- **Footpath from A24 South Street to Rosebank:** Widen and upgrade the footpath to allow for shared use. Add wayfinding signage
- **Rosebank:** Mixed traffic
- **Shared use path adjacent to St Joseph's Catholic School:** Consider removing bollards at the ends of the path to improve accessibility and ensure the path is at least 3m wide throughout its length
- **Whitehorse Drive:** Explore traffic calming options such as reducing the speed limit to allow for mixed traffic cycling

Epsom & Ewell LCWIP Critical Friend - Cycle Corridor 1 Recommendations

1 Epsom Town Centre

1.1

Consider tightening Ashley Road and High Street junction, and re-allocating space towards segregated cycling facilities

Figure 1.1 High Street and Ashley Road junction

1.2

Narrow section on Ashley Road near The Parade junction. Segregated cycling provisions are favourable, but due to width constraints, investigate the feasibility of providing a shared use path for this section

Figure 1.2 Ashley Road

1.3

Consider reducing the turning radii on The Parade, and replacing the guardrails with planters to improve the attractiveness of the route, while still providing a shielding effect

Figure 1.3 The Parade

1.4

Investigate the feasibility of tightening Ashley Road and Ashley Avenue junction, and re-allocating excess carriageway space towards segregated cycling facilities. Also, consider re-designing crossings to make them more direct

Figure 1.4 Ashley Avenue and Ashley Road junction

1.5

Investigate the feasibility of tightening Ashley Avenue and Ashley Centre car park junction, and re-allocating excess carriageway space towards segregated cycling facilities. Also, add missing pedestrian crossing buttons to the northern and southern junction arms

Figure 1.5 Ashley Avenue

1.6

Investigate the feasibility of tightening West Street and High Street junction, and re-allocating excess carriageway space towards segregated cycling facilities

Figure 1.6 West Street and High Street junction

2 A24 South Street

1.7

Narrow section near Rosebery Park. Although segregated cycling provisions are favourable, consider creating a shared use path at least 3m wide by using road and verge space if possible

Figure 1.7 South Street

1.8

Considering tightening Woodcote Road and South Street junction, re-allocating space towards segregated cycling facilities. Also, replace guardrails at junction with shrubs, planters, etc.

Figure 1.8 Woodcote Road and South Street junction

3 A24 Dorking Road

1.9

Consider upgrading the current uncontrolled crossing to a toucan crossing, or to a similar controlled crossing, subject to further traffic surveys. Consider moving it closer to the junction, at a minimum 20m distance

Figure 1.9 A24 Dorking Road

1.10

Consider upgrading the current uncontrolled crossing to a toucan crossing, or to a similar controlled crossing, subject to further traffic surveys

Figure 1.10 A24 Dorking Road

1.11

Reduce turning radii on Elmslie Close

Figure 1.11 Elmslie Close

1.12

Consider installing controlled crossing facilities on Dorking Road, near Epsom General Hospital bus stop

Figure 1.12 A24 Dorking Road near the hospital

1.13

Consider reducing the turning radii on Whitehorse Drive

Figure 1.13 Whitehorse Drive

1.14

Remove shared use signs along Dorking Road, allowing the footway to be used by pedestrians only, and widen where necessary. Investigate the feasibility of using excess carriageway and verge space for segregated cycling provision

Figure 1.14 A24 Dorking Road

1.15

Install controlled crossing provision on Dorking Road, near Orchard Gardens

Figure 1.15 A24 Dorking Road

1.16

Consider reducing the turning radii on Whitmores Close, and widen the footway in this area by using the verge space

Figure 1.16 Whitmores Close

1.17

Install controlled crossing provision on Dorking Road, near Wells Road junction, to help facilitate movement to the public footpaths in area on either sides of the road

Figure 1.17 A24 Dorking Road near Wells Road junction

1.18

Consider upgrading the current crossing to provide controlled crossing provision, near Craddocks Avenue junction

Figure 1.18 A24 Dorking Road near Craddocks Avenue

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