Halton Borough Council

East Runcorn Local Cycling and Walking Infrastructure Plan

October 2024

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Executive summary

Halton Borough Council (HBC) is promoting a series of active travel improvements in East Runcorn.

This Local Cycling and Walking Infrastructure Plan (LCWIP) is a key planning document to ensure that the network plan for walking and cycling is evidence led, providing infrastructure where it is most needed to facilitate mode shift towards active modes. It also assists authorities in unlocking funding streams, currently City Regional Sustainable Transport Funds (CRSTS), and Active Travel Funds (ATF), and ensures that schemes are ready to be put forward for bidding with an associated evidence base aligned to funding stream objectives.

The LCWIP has been undertaken in line with the Department for Transport guidance (Local Cycling and Walking Infrastructure Plans[1]), from Stages 2 – 5 (Gathering Information, Network planning for Cycling and Walking and prioritisation). On this basis the following steps were undertaken:

- A comprehensive network plan for cycling was developed including linkages outside the study area to local centres (See Figure 3.6).
- From this network, ten cycling routes (some with alternative routings) were selected based on criteria to maximise benefits to users e.g. deprivation, connectivity to local centres.
- For walking, potential core walking zones (CWZ) were identified which incorporated local centres and attractors. In consultation with HBC, the CWZ incorporating Shopping City was selected for development. This area is subject to a separate study to improve active travel accessibility, whose geographical scope is Shopping City plus a 10-minute walking isochrone from the centre. To avoid duplication, this LCWIP study identified eight Key Walking Routes from the edge of the Shopping City scope up to 2km long (See Figure 4.3).
- The baseline conditions on the selected cycling and walking routes were assessed using the Route Selection Tool and Walking Route Audit Tool as prescribed in the LCWIP guidance, and recommendations for improvements made to bring the routes to LTN 1/20[2] standard. These improvements have been mapped for each route and can be found in Sections 3.3 and 4.5.
- Indicative costings for these improvements were estimated and can be seen in Section 5.1. It should be noted that the indictive costings will be revised throughout the feasibility and concept design stages and change is likely to occur. These routes have been prioritised – the output of which can be seen in Section 5.

HBC will seek to undertake LCWIP planning processes for the remainder of the borough. When this work is complete, the East Runcorn LCWIP outputs will be integrated to produce a coherent holistic LCWIP for the whole of Halton.

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/908535/cycling-walking-infrastructure-technical-guidance-document.pdf

[2] https://www.gov.uk/government/publications/cycle-infrastructure-design-ltn-120

1 Introduction

Mott MacDonald has been commissioned by Halton Borough Council (HBC) to provide technical support with the development of the Local Cycling and Walking Infrastructure Plan (LCWIP) which is the starting point of developing and delivering an active travel network over a 10 year period. The process is iterative and provides a basis from which to iterate, amend and enhance the network in response to new developments and new funding streams that enable the development of the network. This report documents the background work associated with Stage 2 (Gathering Information) Stages 3 (Network Planning for Cycling) and 4 (Network Planning for Walking), and initial work associated with Stage 5 (Prioritising improvements).

East Runcorn is expected to grow dramatically in coming years, with housing and employment developments emerging around the A56. This study has been developed to mitigate some of the negative impacts of increasing private vehicular trips, as well as making walking and cycling the natural choice for short trips or as part of a longer journey within Runcorn.

1.1 Scope of the report

This report covers the process and outputs of the LCWIP development. The LCWIP process consists of six stages outlined in the Department for Transport's LCWIP Guidance in Figure 1.1.

Figure 1.1: LCWIP steps from DfT Guidance

Stage	Name	Description
1	**Determining Scope**	Establish the geographical extent of the LCWIP, and arrangements for governing and preparing the plan.
2	**Gathering Information**	Identify existing patterns of walking and cycling and potential new journeys. Review existing conditions and identify barriers to cycling and walking. Review related transport and land use policies and programmes.
3	**Network Planning for Cycling**	Identify origin and destination points and cycle flows. Convert flows into a network of routes and determine the type of improvements required.
4	**Network Planning for Walking**	Identify key trip generators, core walking zones and routes, audit existing provision and determine the type of improvements required.
5	**Prioritising Improvements**	Prioritise improvements to develop a phased programme for future investment.
6	**Integration and Application**	Integrate outputs into local planning and transport policies, strategies, and delivery plans.

Feedback regarding existing conditions and barriers along proposed routes from stakeholders has been recorded and actions tracked in Appendix D. This report considers potential measures for the routes identified in Stages 3 and 4, however, route feasibility work will follow. In some cases, alternative parallel routes may be assessed where infrastructure measures for

the routes identified are not considered to be feasible or unlikely to bring the required level of benefit.

1.2 Report structure

The remainder of the report is structured as follows:

- Section 2 (Stage 2) summarises additional background data reviewed and feedback from engagement activity.
- Section 3 (Stage 3) documents the development of the cycling network.
- Section 4 (Stage 4) documents the development of the walking network.
- Section 5 (Stage 5) documents the prioritisation of walking and cycling routes.
- Section 6 outlines next steps.

2 Stage 2: Gathering Information

This section provides an overview of the policies, information, and data that has been used for Stage 2 to inform the initial network development.

2.1 Relevant policies

The policies that shaped this study have been derived from various studies which have been completed in areas with a similar scope and these have been detailed in the sections below.

2.1.1 Cycling and Walking Investment Strategy

The Department for Transport (DfT) published the Cycling and Walking Investment Strategy (CWIS1) in 2017, which sets out the Government's ambition to make walking and cycling the natural choices for shorter journeys or as part of a longer journey. A second strategy, Cycling and Walking Investment Strategy 2 (CWIS2) sets out objectives and financial resources from 2021 to 2025 with the following 4 revised targets to achieve by 2025:

- To increase percentage of short journeys that are walked or cycled from 41% in 2018 to 2019 to 46% in 2025.
- To double cycling to 1.6 billion cycle stages in 2025.
- To increase walking stages to 365 stages per person per year.
- To increase the percentage of children that usually walk to school to 55% in 2025.

LCWIPs form a vital part of the Government's strategy to increase the number of trips made on foot or by cycle by identifying cycling and walking improvements required at the local level using an evidence-based approach.

2.1.2 Department for Transport: Gear Change, A Bold Vision for Cycling and Walking

The Department for Transport (DfT) published its vision for a new era wherein England will be a great walking and cycling nation. This focusses on the following key objectives:

- Healthier, happier and greener communities: People's health and quality of life is improved by more people walking and cycling.
- Safer streets: Nobody is afraid to cycle, and all road users treat each other with mutual respect.
- Convenient and accessible travel: Cycling and walking are recognised as the most convenient, desirable and affordable way to travel in local areas.

The publication advances 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.

2.1.3 Cycle Infrastructure Design LTN 1/20

In 2020, the DfT published its updated Cycle Design Standards: Local Transport Note 1/20 (LTN 1/20). LTN 1/20 provides a refresh of national cycle infrastructure design guidance (previously LTN 2/08), reflective of latest best practices. It is intended to support the delivery of the high-quality infrastructure necessary to achieve the ambitions of the CWIS 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.

LTN 1/20 will be integrated into the LCWIP process, establishing the design aspirations of schemes identified as part of the LCWIP.

2.1.4 Inclusive Mobility, Department for Transport

In 2021, the DfT published its updated Inclusive Mobility document. This document compiles and summarises existing design guidance on disabled access for pedestrian and transport infrastructure. Although the main purpose of these guidelines is to provide good access for disabled people, designs that satisfy their requirements also meet the needs of many other people. Those who are travelling with small children or are carrying luggage or heavy shopping will all benefit from an accessible environment, as will people with temporary mobility and many older people. Thus, the overall objective of Inclusive Mobility is to provide inclusive design and through that achieve social inclusion.

2.1.5 Liverpool City Region Combined Authority (LCRCA), Local Cycling and Walking Infrastructure Plan (LCWIP)

The LCRCA LCWIP is a strategic approach, covering a period of 10 years (2019-2029), that develops a cohesive network of high standard active travel routes across the region. It has been developed in line with the DfT's Cycling and Walking Investment Strategy, and the DfT's supporting technical guidance document, LCWIP Technical Guidance for Local Authorities (2017).

The LCRCA Local Journeys Strategy (LJS, 2017) set out an approved vision for sustainable travel in the region, with an overall aim of making it more feasible and desirable for people to walk or cycle. The LCWIP acts as the supporting implementation plan for a region-wide high-quality cycling and walking network and will also help to deliver the strategic objectives set out in the LCRCA Transport Plan (June 2019). The key priorities within the LCRCA LCWIP are:

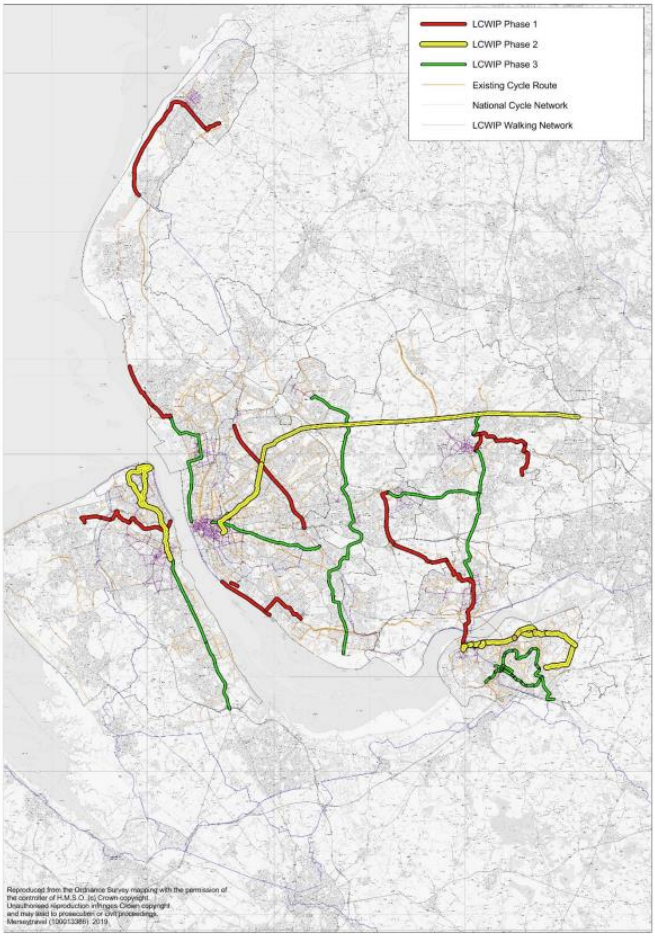
Priority 1.1 – Supporting a Clean, Inclusive Economy

Priority 3.6 – Developing and Delivering a Comprehensive New Cycling and Walking Network

Priority 4.3 – The Importance of Quality of Place and Placemaking

LCRCA LCWIP Phase 2 prioritises Runcorn to Daresbury for new/upgraded walking and cycling routes. Phase 3 prioritises Runcorn Busway improvements for upgrades in active travel infrastructure. The LCRCA LCWIP routes are shown in Figure 2.1 below, including the Phase 2 and 3 routes in the Runcorn area.

Figure 2.1: LCRCA LCWIP Routes



Source: Merseytravel, 2019

2.1.6 The Third Local Transport Plan for Halton – Transport: Providing for Halton's Needs 2011/12-2025/6, Halton Borough Council, 2011

Halton Borough Council's Local Transport Plan, LTP3, running from 2011-2026 is presented; it sets out a strategy for Halton until 2026 and an implementation plan for such strategy.

Section 6 of the document outlines local challenges and opportunities that guide the policy presented. Of relevance to active travel are:

- Rising car ownership and usage – the number of cars licensed in Halton has increased by 27%
- A growing health crisis due to rising levels of obesity and lack of activity – the health of people in Halton is generally worse than the average for England
- Low levels of walking and cycling – only 1% of trips in Halton made by bicycle

Following this the policy determines a key message to inform the future direction with LTP3 should be that:

"Sustainable modes of travel (public transport, cycling and walking) must be promoted and supported by the LSP[3] partner agencies to allow the Borough and Merseyside to contribute to Government priorities for Transport and thus achieve a healthier, safer and more prosperous environment for all."

They recognise that high numbers of short trips offer opportunities for shift to sustainable modes linked to a transformational public health programme via walking and cycling.

Of particular relevance is Section 9 – Primary Transport Strategies. Within that document, Section 9.3 refers to cycling strategies. Halton Borough Council acknowledge the success of schemes in LTP1 and LTP2 for cycling provision. This includes the Cycling Demonstration Towns programme which found an increase in cycling of 27% of the towns it was trialled in. However, they recognise that there is still a great deal of work that needs to be undertaken to establish a fully connective cycle route network throughout the whole of the Borough.

The key goals and strategies for achievement of such goals presented in the policy document are summarised below:

- Support priorities of LCR and Halton's Local Strategic Partnerships: provision of cross boundary cycle routes to provide sustainable transport connection
- Low carbon transport: develop further Greenway routes to promote cycling, adding to the network that is currently being developed
- Transport to promote health and wellbeing: encourage cycling to allow people to connect socially and improve physical and mental health
- Access to employment, services and social activities: use cycling to allow people to connect with opportunities for employment, services and social activities

2.1.7 Halton Delivery and Allocations Local Plan, Halton Borough Council, 2022

The Delivery and Allocations Local Plan sets out planning policy and land allocations to guide decisions on development and changes in the way local land and buildings are used. It contains strategic policy which seeks to support the economic recovery of the Borough through a programme of coordinated transport interventions that align with the future sustainable growth strategy set out in the adopted Core Strategy. The policies included in this document promote the development of active travel modes, and the considerations of inclusion, innovation and climate change in pipeline schemes.

2.2 Data sources

The DfT's LCWIP Guidance notes that a broad range of data should be collected to inform the preparation of the LCWIP including the following:

- Transport network, including proposed schemes
- Travel patterns
- Location of trip generators
- Perception of existing facilities

The DfT LCWIP guidance provides a list of potentially useful sources of data; however, it is not intended that all need to be used in the development of an LCWIP. The following sections

[3] Local Strategic Partnership

summarise the data sources that have been used or are planned to be used in future stages for Halton's LCWIP. A more detailed data list is also provided in Appendix A.

2.2.1 Transport network

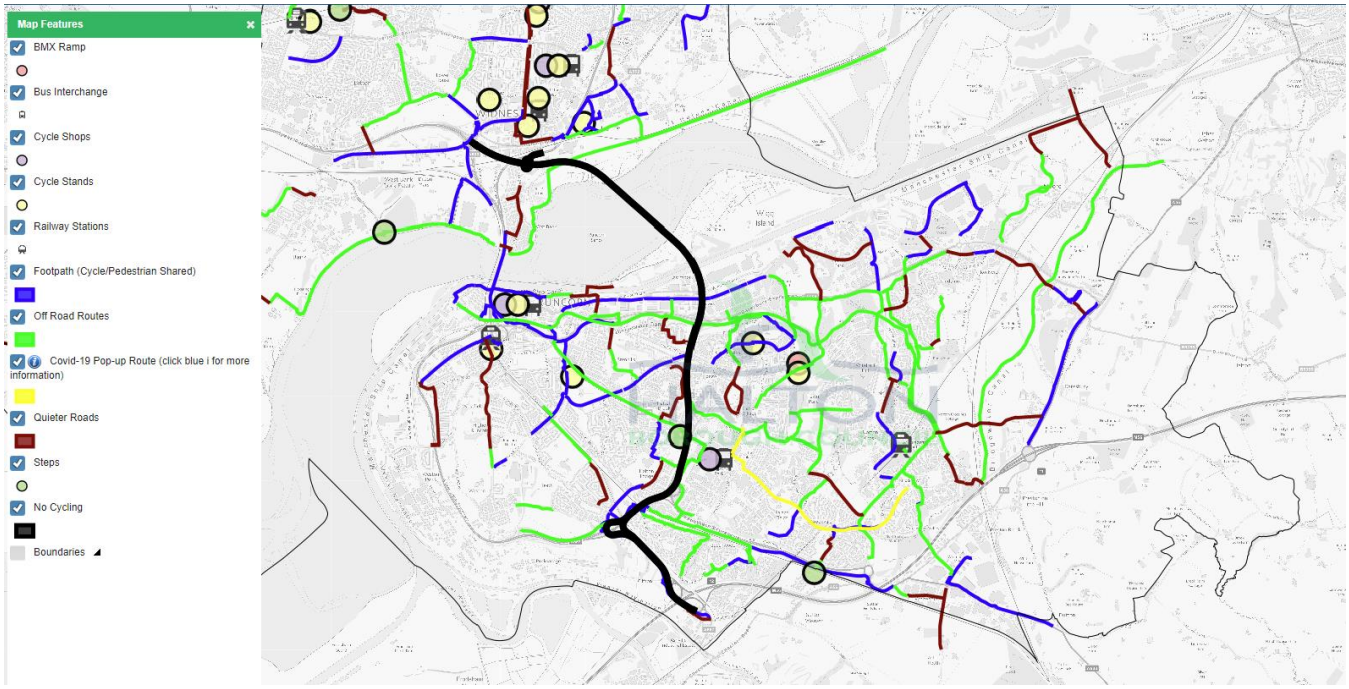
The existing network, including National Cycle Network (NCN) and regional routes have been mapped alongside demand analysis and is included on plans in the following section.

A number of schemes are planned by HBC or have been proposed through previous studies. These include the following:

- Liverpool LCWIP
- ATF Tranche 2-3 schemes
- Busway Cycleway Scheme

As the area continues to develop, there may be emerging schemes not outlined as part of this report. HBC's transport network map is shown in Figure 2.2 for further detail.

Figure 2.2: HBC Transport Network Map



Source: HBC, 2022

2.2.2 Travel patterns

Travel patterns have been obtained using a combination of outputs from the Propensity to Cycle Tool (PCT) and locations of existing origins and trip generators. Trip generators were provided by Halton Borough Council and included major destination as well as local and town centres.

To represent residential locations, Census Middle Layer Super Output Area (MSOA) population weighted centroids (a point at the population centre of the area), which fall within the LCWIP

boundary and within 5km[4] of the boundary, have been extracted from the national dataset. These points have then been used as origins. Additionally, allocated housing development centroids have been included as origins. The purpose of this is to capture future trips from these developments to trip attractors.

Trip attractors

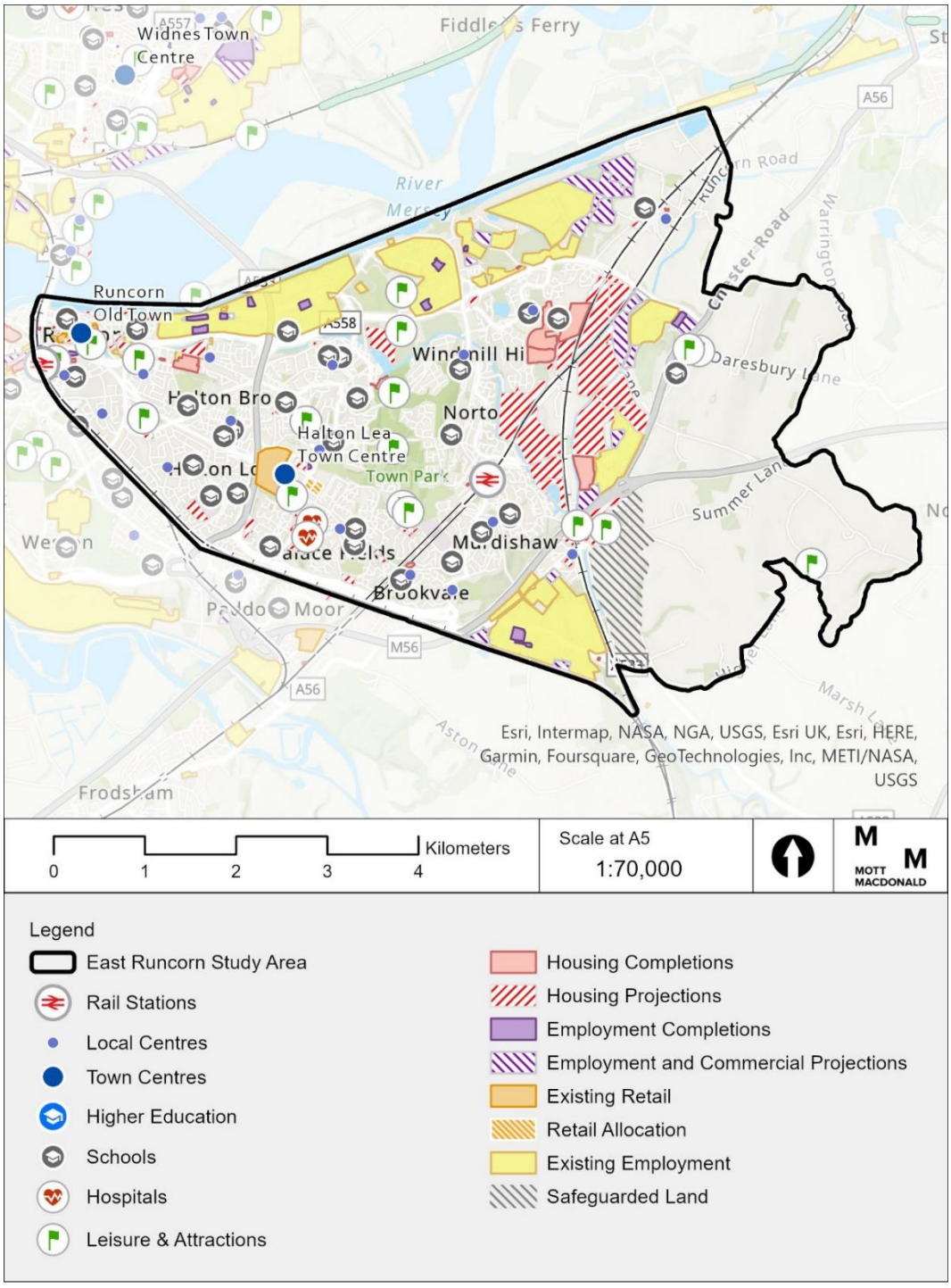
Significant trip attractors have been agreed and have been digitised using GIS. These include:

- Employment and mixed-use developments
- Key employment area
- Town centres
- Local centres
- Major out of centre retail
- Primary and secondary schools
- Major education facilities (colleges, universities)
- Leisure and attractions
- Hospitals
- Transport interchanges
- Projected and allocated development

Trip Attractor maps are shown on Figure 2.3, Figure 2.4 and Figure 2.5.

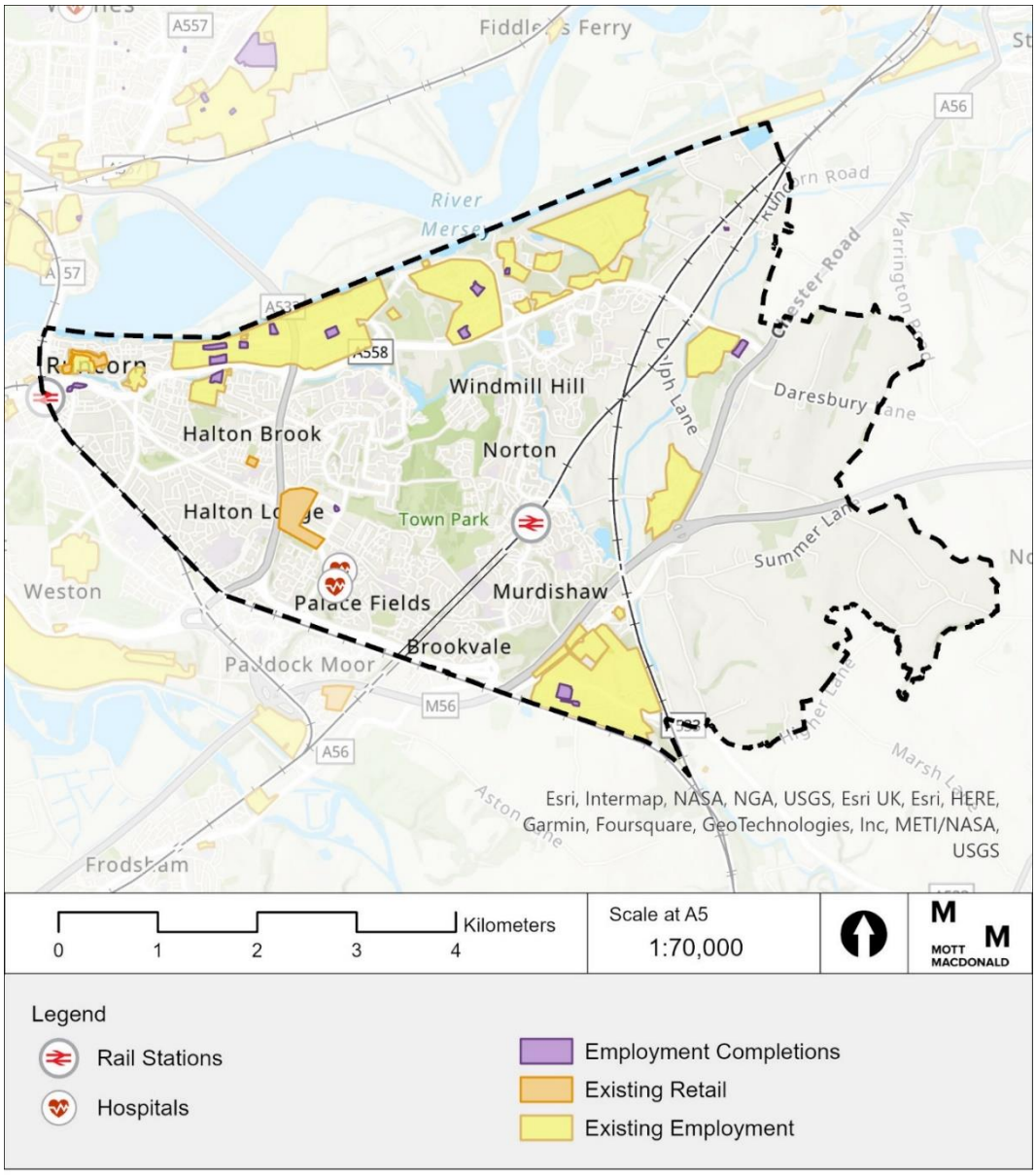
[4] The National Travel Survey outlines that typically, cycling trips are between 1.6km-8km. However, to keep the focus on the small study area, a 5km limit was selected to focus on local trips that would benefit East Runcorn in particular, and a wider trip analysis will be undertaken as part of the Halton LCWIP to include origins and destinations up to 8km away.

Figure 2.3: All Trip Attractors



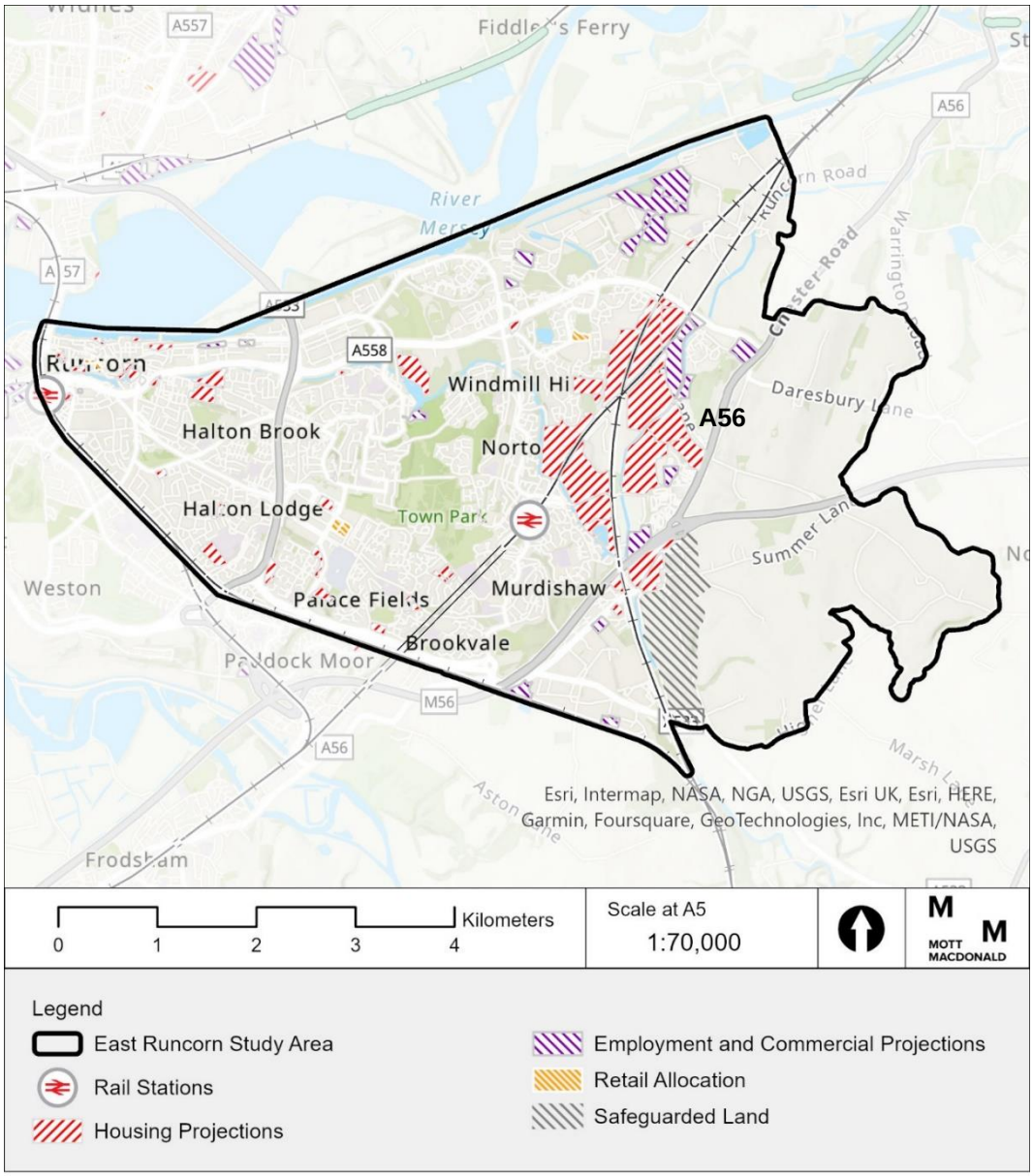
Halton Lea Town Centre consists of retail outlets which are significant trip attractors. Phoenix Park and Town Park which are in the heart of the study area are distributed as long stretches, separating neighbourhoods. Schools are located all over the study area. The Runcorn East Rail Station is located to the east of the study area.

Figure 2.4: Existing Employment



The major areas of employment exist at the outer boundary of the study area towards the north and the southeast. They comprise industrial and manufacturing companies, as well as corporations. Halton General Hospital is located to the south of the study area in Palacefields.

Figure 2.5: Emerging Areas



Major development is occurring in the Daresbury area, west of the A56. The majority of that development is projected as housing development while small portions are projected to have employment and commercial development. A small portion to the east of A56 could have housing development while rest of the development land is safeguarded for longer term developments.

2.3 Engagement

This section provides an overview of the engagement activity undertaken to support the initial LCWIP development. Further engagement will be undertaken in later stages.

2.3.1 Engagement activity

The engagement activity to inform the initial stages of the LCWIP included the following:

- A stakeholder workshop coordinated by Mott MacDonald in November 2022, the details of which are presented in Appendix D.
- Three design workshop sessions were held in early 2023 with HBC officers:
  - LCWIP Network review on Jan 16, 2023
  - Cycling route review on Jan 19, 2023
  - Walking route review on Feb 2, 2023

The following tables summarise the main points to arise from these engagement sessions. Some are general issues and, in some cases, would not necessarily be addressed directly through the LCWIP, but as part of future work phases.

Table 2.1: Stakeholder Meeting: Summary of Key Themes and Initial Response

Area	Location	Comment	Response
Walking	General	The Project Team will need to consider accessibility of any walking routes.	Noted. Designs will align with current standards.
Cycling	General	There are currently off-road routes around town including the existing cycle loop, and canal towpaths etc.	Noted. Drawing produced of existing routes.
Cycling	Tyrrell Way/Busway	Pipeline scheme- Future LCWIP / CRSTS route around busway in an anti-clockwise direction ending back at Halton Lea.	MM team investigated this dependency.
Cycling	Palacefields	Pipeline scheme- ATF2 cycle route along Busway now going from the Hospital to Murdishaw local centre.	MM team to consider missing sections of this route.
Cycling	Astmoor	There is a cycle route through Astmoor on the busway.	Noted. Route junctions included a part of shortlist.
Cycling	Daresbury Area	Consider new and proposed roads and cycle tracks in the new/proposed development area from various planning permissions. Also look at additional links through Sandymoor which are in place. Independent footpaths and cycle routes should become clearer when merged with the existing cycle route mapping (ex- link parallel with expressway). Final routing options can be checked with local knowledge at later stage.	Routes to be checked with HBC at shortlisting stage.
Walking/ Cycling	Sandymoor School	There are plenty of cars taking children to this senior school. Hence, a need to promote and provide better walking/cycling to this school is crucial.	Noted. Area to be considered as part of walking strategy.
Walking	Castlefields	Improvements to the busway corridor for cycling through Castlefields will also allow for walking. This is also likely to be a more direct route	Noted. Castlefields links to be considered as part of walking strategy.
Walking	Runcorn East Station	A walking zone would be helpful around this area, overlapping with the Murdishaw city centre. This must also link to the new development area to NW which are important for both walking and cycling.	Walking Zone considered, however not selected for shortlist.
Walking	Murdishaw	Important to capture independent footpath routes through parks and estates and check the usage of these which may be like cycling. Issues with navigation/legibility need to be looked at.	Wayfinding to be integrated with concept design.
Walking	Daresbury Area	Consider walkability/connectivity of planning permissions in this area and look at possible difficulties with severance due to canal/rail and how points of access can be best used (or new ones formed as needed).	Planning dependencies to be checked at Feasibility stage.

Table 2.2: Officer workshops: Summary of Key Themes and Initial Response

Area	Location	Comment	Response
Walking	General	Many of the walking routes in East Runcorn have absent, poor, or out-of-date wayfinding.	Wayfinding has been included as one of the items that are part of concept design.
Walking	General	There is a lack of footway continuity in many areas, or footways provided on a single side of the road without formal crossing provision between each part.	Where possible, either new crossings or new footpaths have been proposed as part of concept design.
Walking	General	Maintenance issues across the site, with overgrown vegetation, and residential paths in poor condition.	This issue has been noted, and asset management considerations are part of future design phases.
Cycling	General	Cycling routes need to integrate with existing routes as well as funded and pipeline schemes. – ATF2 route along the busway in Route 16 – Funded scheme for sections of Route 4 – Integrate Route 14 with existing provision and tie in with proposals from developers along Delph Lane – Feasibility study for bridge over Bridgewater canal on Route 8 – Proposed subway improvement at Victoria Road affecting Routes 4 and 9 – Old Town Connectivity Scheme funding, affecting Route 23 – Busway Cycleway scheme linking to Route 4 and potentially 16	These proposals will be documented and considered for integration as part of feasibility.
Cycling	General	There is an extensive existing cycling network, but much of it is not LTN 1/20 compliant.	All routes have been considered for concept design –including those where there is existing infrastructure that is in either poor condition or is not compliant with the latest standards.
Cycling	General	Need to improve access to existing destinations such as Runcorn East, schools at Moore and Sandymoor.	Key destinations have been integrated to shortlisted routes.

Additional feedback captured in the officer workshop sessions is outlined in Appendix D. This information includes client guidance on design and more detailed site issues.

2.3.2 Summary

Route and network suggestions within the above have been used to sense check the network identified in the following sections and apply local knowledge to the assessment of demand. Suggestions relating to specific infrastructure measures or issues will be considered further in the next stage.

Further engagement with stakeholder groups is planned the next stage and will include presenting the draft network and measures identified for these routes. This study is intended to be taken forward through to business case and feasibility stages.

3 Developing the Cycle Network

This section outlines the initial development of the cycling network. This includes the methodology for identifying key demand corridors, and the selection process for cycling routes. This section will also outline concept design interventions to be further investigated as part of feasibility design.

3.1 Steps in developing the network

A summary of the process applied is as follows:

1. **Origin and destination analysis undertaken**, including the trip attractors referred to in Section 2, including all primary, secondary and sixth form schools. The following rules were applied:
   - Every origin is connected to every destination within the boundary and outside it if within 5km.
   - District centres and retail centres are excluded from the above with the origin connected to the closest of each category of destination.

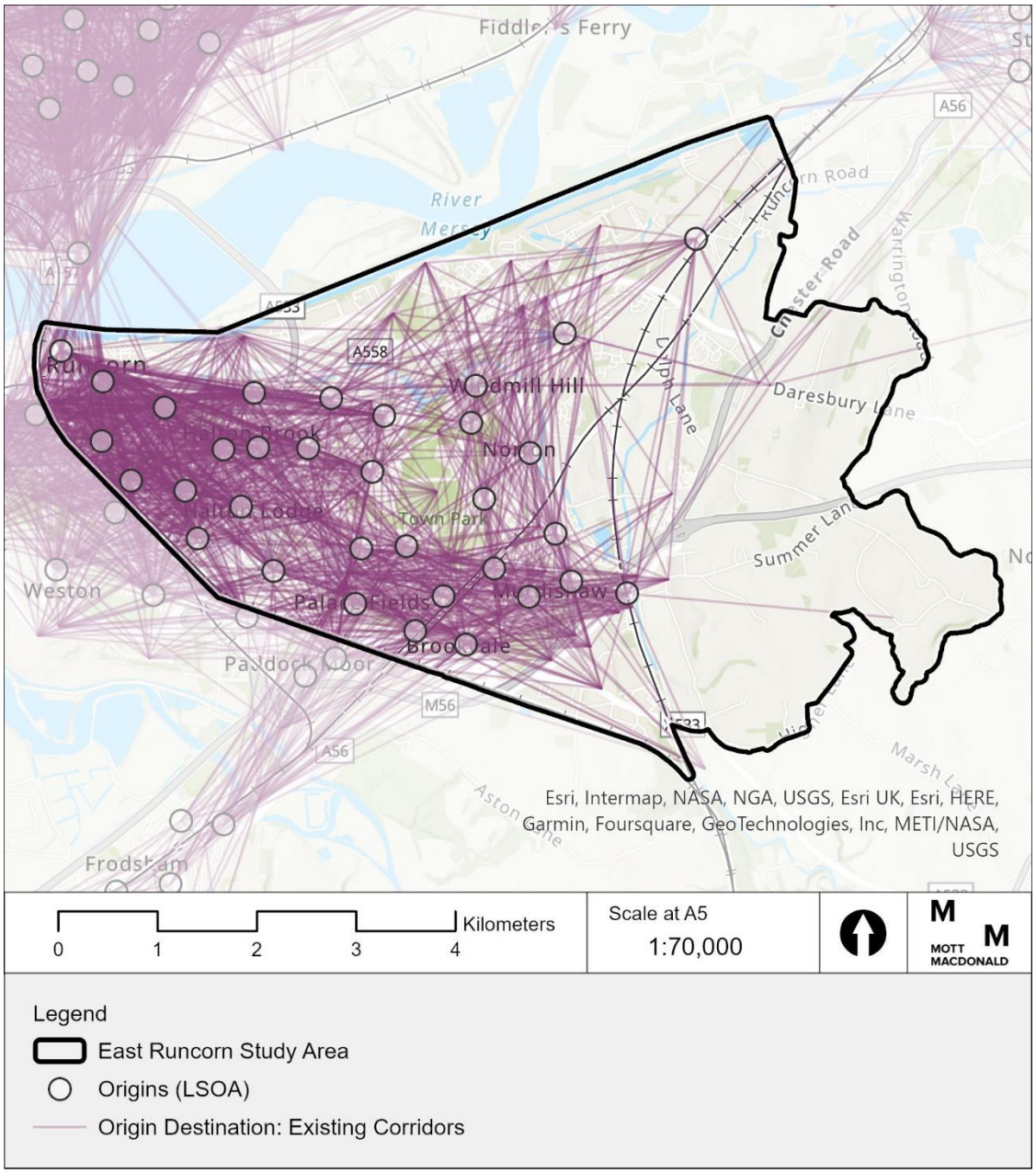
   The above generates a series of desire lines. These were then assessed, and clusters of corridors identified. Consideration was then given to routes that may not be represented by the above.
2. **Allocated development sites** were connected to existing origins and destinations within 5km in order to forecast potential future demand.
3. **A sense check was also undertaken using the PCT for commuting**. This used the 'Go Dutch' scenario defined as follows:
   - Go Dutch: This is an ambitious target which assumes people will be as likely to cycle a trip of a given distance and hilliness as the Dutch (also assuming the same level of infrastructure).
4. **The desire lines were then confirmed** using local knowledge through an engagement session with HBC. Any missing links were added during this session. This step involved creating a connection density plan of the above three steps and identifying the main desire lines. Subsequently, these desire lines were presented to stakeholders, who contributed additional links to be considered.
5. The final step was to **review the emerging desire line network and apply to the road network using GIS**, applying desire lines to the shortest possible route.

Figure 3.1 to Figure 3.5 in the following pages document this process.

3.1.1 Origin and Destination analysis

Figure 3.1 shows the initial desire lines between existing origins and destinations, assuming a maximum distance of 5km (the equivalent to 20-25-minutes of cycling). This begins to highlight clusters of routes with a greater density in the vicinity of Runcorn Town Centre, Palacefields, and Murdishaw but also on the main routes leading into and out of these areas.

Figure 3.1: Origin and destination analysis for existing trip attractors



The future desire lines in Figure 3.2 show high levels of desired linking activity in the east and south compared to the lack of active travel connections. This south and eastern area contains the largest development sites, however a large number of connections from small developments are sited nearer to Runcorn Town in the west.

An important area of focus here would be Murdishaw, Preston Brook and Whitehouse, where connections to new developments are hindered by a fragmented road network and severance lines from major roads, rail, and waterways.

Figure 3.2: Origin and destination analysis for allocated and future development

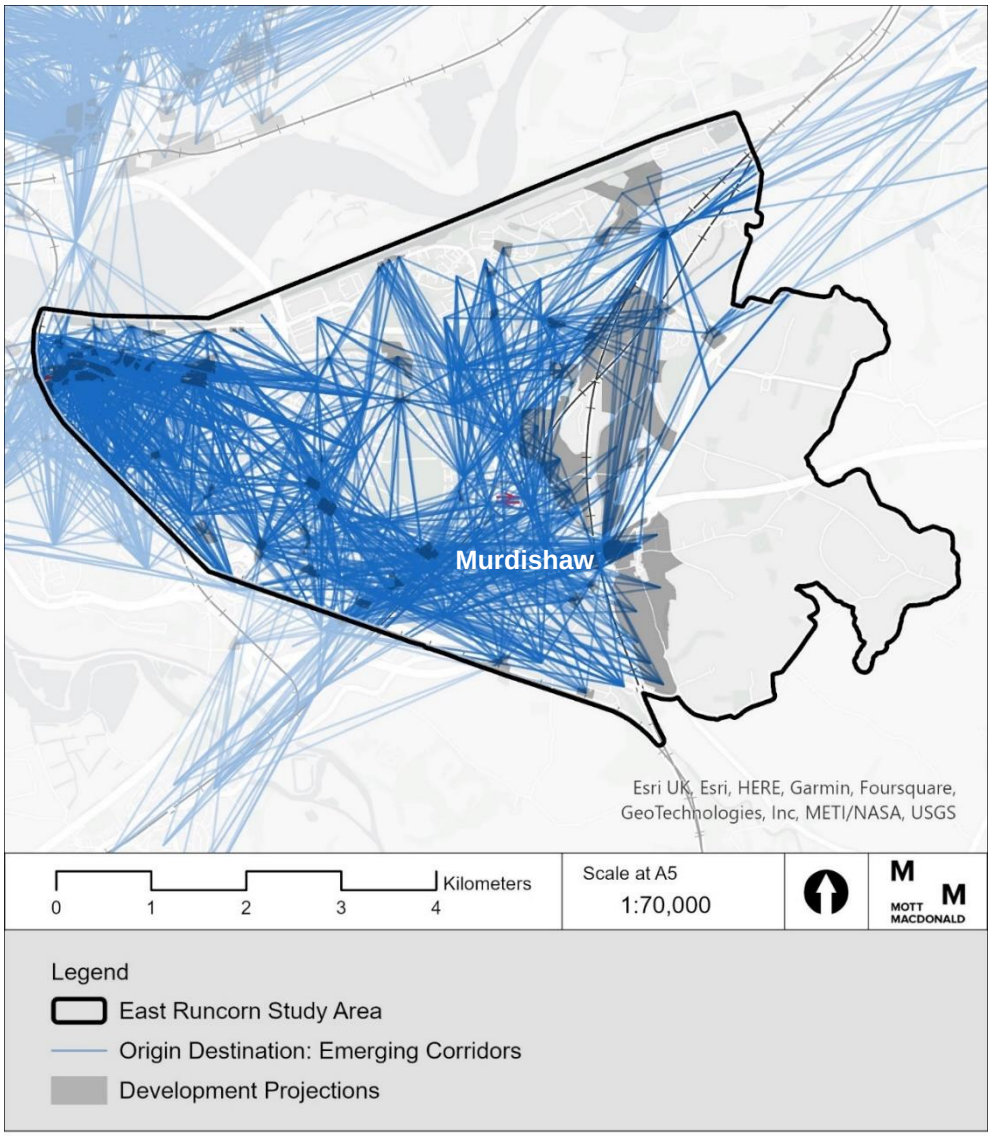
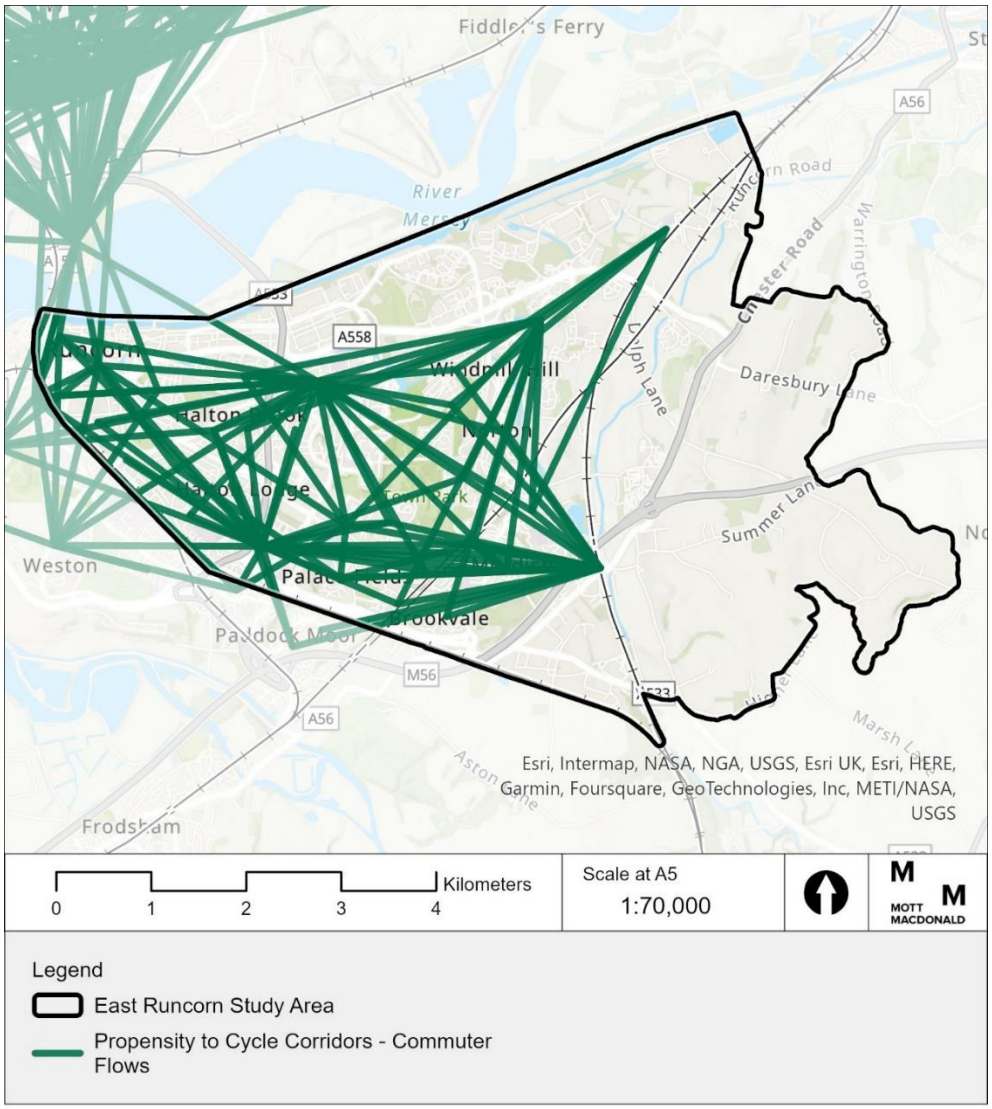


Figure 3.3 shows the top 100 most cycled commuter and school connections in Halton from the Propensity to Cycle Tool (Government Target). These lines connect population weighted centroids at the Lower Super Output Area level, using travel to work data from the 2011 Census, and therefore do not capture future growth through planned development or increases in population.

Figure 3.3 shows the consistent overlap between routes focussed on the town centre and across the River Mersey but also shows the additional desire lines associated with wider employment patterns on the area margins and the northeast corner of the site.

Figure 3.3: Propensity to Cycle Commuter and school Origin Destination pairs



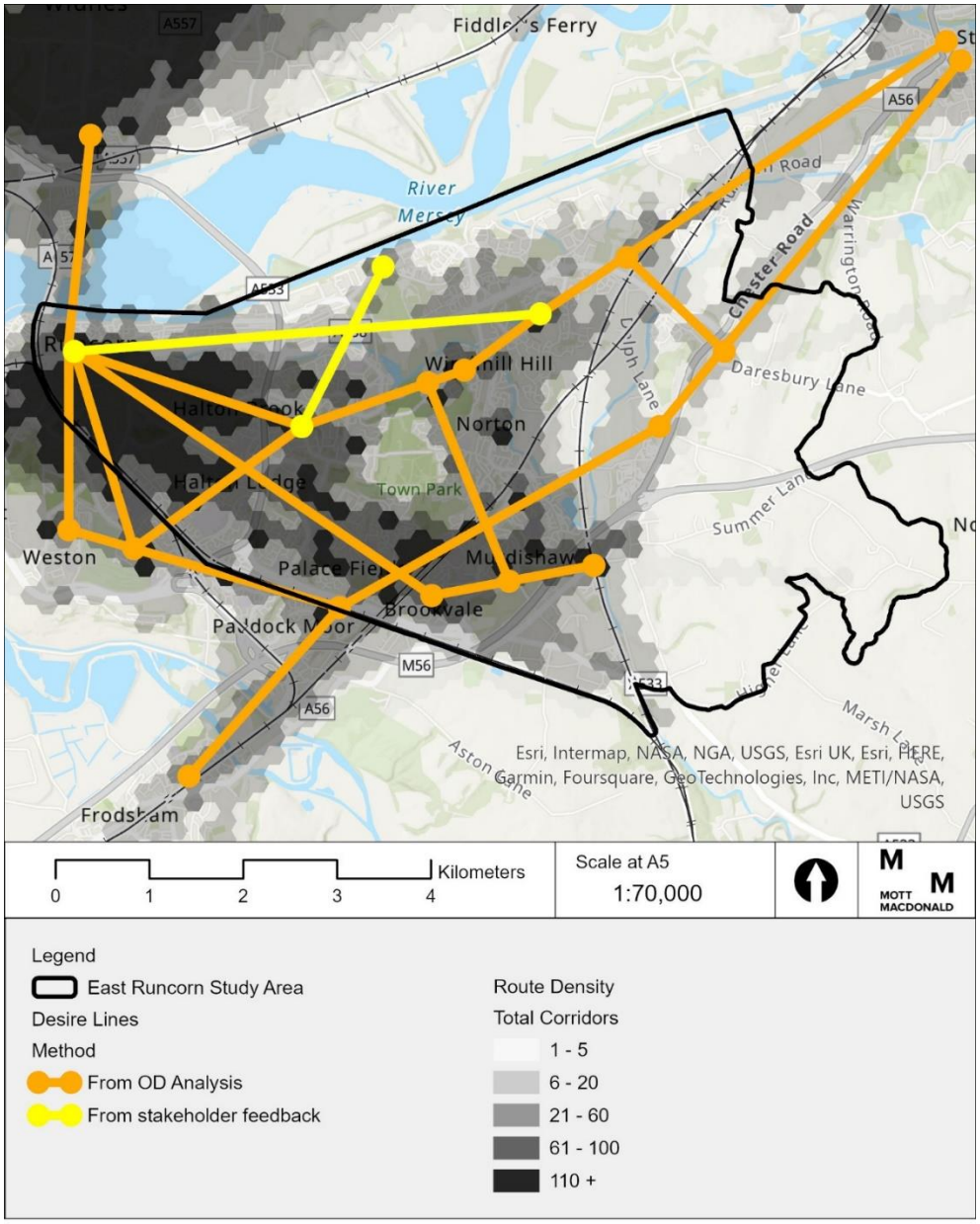
3.1.2 Overlaying desire lines on the network

Figure 3.4 overlays the main desire lines from the preceding figures onto the study area map to give a high level overview of where cycling routes should be developed. These lines do not represent actual routes, but important movement corridors, and include:

- Access to Runcorn Town Centre from all directions.
- Interconnectivity between Murdishaw, Brookvale, Palacefields and the Town Centre.
- Access to Warrington.

In addition to identifying corridors from the data analysis, a stakeholder meeting was held to identify potential gaps in the network. Most routes suggested by stakeholders were consistent with those identified through the assessment process; however, some additional links such as links to and through Astmoor were added into manually to reflect stakeholder feedback. These added links are shown in yellow in Figure 3.4. The desire lines are also overlaid on route density. It is seen that the desire lines connect the corridors with higher densities.

Figure 3.4: Desire Lines



Desire lines were mapped to the existing road and quiet way network. Outputs from GIS analysis have been reviewed and amended where necessary based on local knowledge and responses to the stakeholder engagement. The above routes were then supplemented with routes suggested by the client, stakeholders, and other cycling route studies completed by HBC. This information was taken forward to the pre-prioritisation process stage.

3.2 Pre-Prioritisation

The pre-prioritisation process exists to select the top corridors to develop further. High priority corridors represent the routes which will provide the greatest opportunity to improve a variety of social, economic, and environmental needs. Therefore, the complete network resulting from the data analysis outlined in the previous section has been prioritised in accordance with the criteria detailed in Table 3.1.

Table 3.1: Pre-Prioritisation Criteria

Factor	Dataset
Deprivation	Indices of multiple deprivation (IMD)
Improving active travel and accessibility to schools and workplaces	PCT commuting and school flows
Economic factors	Key employment, town and local centres
Development	Development allocations
Route Density/Hexagon Score	Number of corridors intersecting a hexagonal area of 100m radius

The above datasets were imported into GIS. They were individually analysed and scored so every dataset had a score between zero and one to allow each dataset to be equally compared.

The IMD dataset covers the whole LCWIP area and has been scored so all values were between one and five.

For the development allocations and economic factors, proximity analysis was undertaken. The values closer to one represent the areas closest to housing allocations, AQMAs or economic factors.

For the PCT, proximity analysis was also undertaken. However, the analysis also considered the PCT value of using the Dutch Scenario of cycling flows. Therefore, the values closest to one are near the highest PCT flows (a larger flow of commuters and school travel).

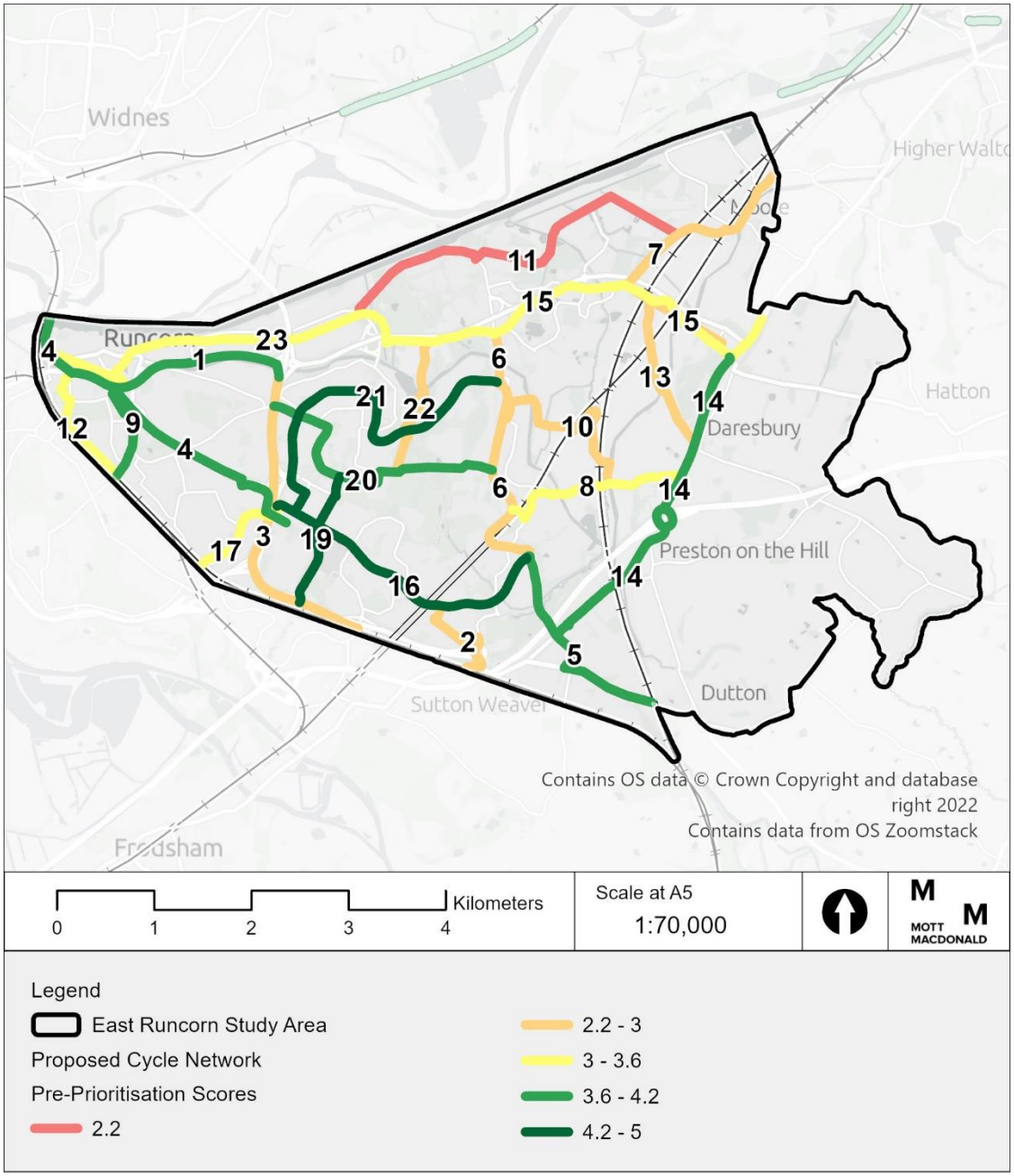
To identify routes for prioritisation, the proposed cycle network was broken into sections with a new section created at every junction. For each section, a score was calculated for each of the five datasets. A final score was then derived for each section based on the average score of all five datasets; therefore, meaning the maximum score was five.

The scoring breakdown reflects the degree of importance based on a particular dataset as follows:

- Deprivation: The routes with the highest score are those adjacent to more deprived areas
- PCT: Routes with a higher score are near routes with a higher flow (combination of schools and commuting data, Dutch Scenario)
- Economic: Higher scores indicate routes closer to town centres, local centres or key employment areas
- Development allocations: Higher scores indicate routes serving allocated development sites

All criteria are then combined in Figure 3.5. This final map has a maximum score of five as there are five datasets.

Figure 3.5: Priority Routes Based on Combined Criteria. Green represents highest combined score of individual assessments and represents the highest need.



This stage of pre-prioritisation does not account for safety, comfort, directness issues. It is based on need/benefit and levels of accessibility that the network can provide. Consideration of the deliverability and level of service a route/intervention provides is considered later in the process.

As a starting point, it is proposed that the top 10 routes are taken forward, although additional routes are being added as part of other existing projects to form a complete base network. The remaining routes will then be progressed in the longer-term. The LCWIP is a live document that should be updated as more routes are progressed or revised.

At this stage, some high-scoring routes had to be excluded due to other schemes already being developed, as indicated in Table 3.2.

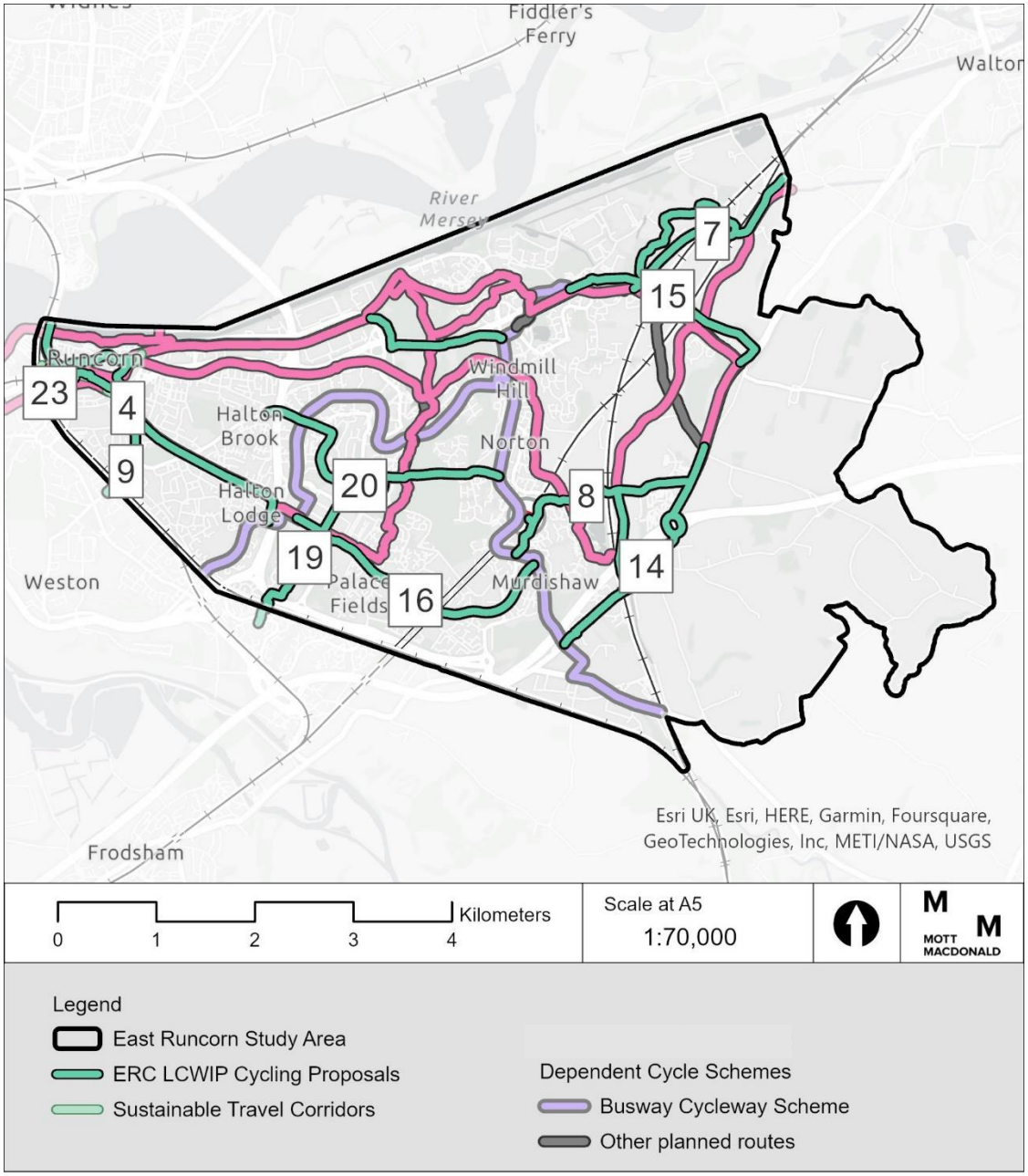
It should be noted that the pre-prioritisation process is indicative based on the criteria applied. Whilst this is useful in identifying groups of priority routes, the nature of the scoring means that route 4 for example may not necessarily be of greater importance than route 14 when assessing a wider range of factors which are considered in the Prioritisation stage (Stage 5 in the LCWIP process). In addition, it may be necessary for some routes to be reconsidered based on feasibility during the next stage.

Table 3.2: Cycling Route References and Pre-prioritisation scores

Route Number	Route Extents	Exclusion / Existing Scheme	Pre-Prioritisation Score	Inclusion in Shortlist
4	Silver Jubilee Bridge to Shopping City		4.2	✓
7	Runcorn Road to Moore		2.8	✓
8	Runcorn East Rail Station Access		3.6	✓
9	Heath Road to Runcorn Spur Road		3.8	✓
14	Chester Road to Daresbury Village		4	✓
15	Daresbury Expressway		3.4	✓
16	Southway to Murdishaw	Busway Cycleway Scheme (Link across Shopping City to Complete)	4.6	✓
19	East Lane and Hallwood Park		4.4	✓
20	Halton Brow, Main Street and Norton Lane		3.9	✓
23	Runcorn Station and Town Centre Access	Astmoor Route Complete (Junction Upgrades Remaining)	2.9	✓
1	Halton Road		4.2	
2	Northwich Road		3	
3	Central Expressway		2.8	
5	Busway at Whitehouse	Busway Cycleway Scheme	3.8	
6	Busway at Norton	Busway Cycleway Scheme	2.6	
10	Off Road access to Daresbury		2.8	
11	Warrington Road	Liverpool City Region LCWIP	2.2	
12	Norman Road	To be considered in feasibility as alternative to Routes 4 or 9	3.4	
13	Delph Lane	Developer to deliver route	2.8	
17	Busway South	Busway Cycle Scheme (Complete)	3.4	
22	Norton Priory Path	Liverpool City Region LCWIP	4.7	

Table 3.2 and Figure 3.6 show the results of the pre-prioritisation exercise, as well as other routes being developed. The selected routes will be developed to concept design as part of this study.

Figure 3.6: Prioritised Routes with existing and planned cycling schemes



3.3 Auditing the shortlist

To understand the merits and weaknesses of shortlisted routes, each was assessed using the DfT's Route Selection Tool (RST). The RST is a spreadsheet-based tool that uses a range of criteria to assess how well a route meets the core design outcomes for cycling, which are:

- Coherence: The route should be well-connected and easy to follow.

- Directness: The route should be as short as possible.
- Safety: The route should be free from hazards and should provide good visibility.
- Comfort: The route should be smooth and free from obstacles.
- Attractiveness: The route should be pleasant to cycle on and should offer interesting views.

The RST uses a scoring system to assess how well a route meets each of the core design outcomes. The scores are then added together to give an overall score for the route. The higher the score, the more suitable the route is for cycling.

The RST can be used to assess both existing routes and potential new routes. It can also be used to compare the merits of different routes. This is a valuable tool for local authorities and other organizations that are working to improve cycling infrastructure. It can help to ensure that new routes are designed to be safe, comfortable, and attractive for cyclists. Table 3.3 outlines the scores of the routes as existing:

Table 3.3: Existing condition RST Scores

Route Number	Directness	Gradient	Safety	Connectivity	Comfort	Total Score
Route 4	4.00	5.00	3.74	1.83	2.18	16.76
Route 7	4.00	5.00	2.63	2.13	4.25	17.00
Route 8	4.00	3.80	1.60	4.40	1.00	14.80
Route 9	4.00	5.00	3.00	5.00	3.00	20.00
Route 14	4.00	3.92	2.94	2.60	2.43	15.89
Route 15	4.00	5.00	1.12	1.24	2.06	13.41
Route 16	4.00	5.00	0.95	1.68	5.00	16.64
Route 19	4.00	5.00	2.38	3.06	5.00	19.43
Route 20	4.00	5.00	2.33	3.33	5.00	19.67
Route 23	4.00	5.00	1.04	1.96	5.00	17.00

Many of the routes in East Runcorn have a basic level of cycling facilities, however this is often not continuous or lacks junction treatments. Many locations lack appropriate lighting and perception of safety is poor.

3.4 Developing the route concepts

Once the shortlisted cycle network was identified and audited using the RST, design concepts were developed to make cycling more attractive, comfortable, direct, safe and coherent, as well as encourage users to make more journeys in the area. Potential improvements for cycling seek to follow the desired outcomes identified in DfT's LTN 1/20 guidance, as well as comply to its design standards. The proposed cycling interventions are high-level and identify concepts for further consideration in the next stage of development. They seek to address issues and deficiencies identified during the site assessment activities, incorporate comments and issues noted during early stakeholder engagement as well as to incorporate proposals from other workstreams.

The following measures were proposed to improve cycling provision in East Runcorn:

- Lighting improvements: provide lighting in areas away from main carriageways where perceptions of safety may be poor, as well as providing lighting along existing busways to improve actual and perceived safety.

- Junction improvements: this may include introducing signalisation or new crossing provision, roundabout bypasses and slip lanes.
- Junction - minor treatment: minor interventions that do not affect the kerb or vehicle movements, such as cycle detectors at traffic signals, advance stop lines, or dedicated cycle phases at signals.
- Modal filter/limited access: signage and/or physical barriers to exclude motor vehicles.
- Parking rearrangement: measure to reallocate space to cycling, or to induce traffic calming.
- Traffic calming: introduction of lower speed limits, road cushions, or visual narrowing.
- Subway improvement: improving lighting, infilling of subways, and creating alternative routes at grade.

In some instances, on-road segregation is proposed as part of a package of interventions to create 'quiet routes' where dedicated cycling lanes may not be required due to low vehicular flows and speeds. This study did not include traffic surveys, therefore the suitability of these quiet routes will be assessed as part of feasibility design.

The potential interventions for cycling routes are summarised in Figure 3.7 below and described in more detail as part of Appendix B.

Figure 3.7: Potential Interventions for shortlisted cycle routes

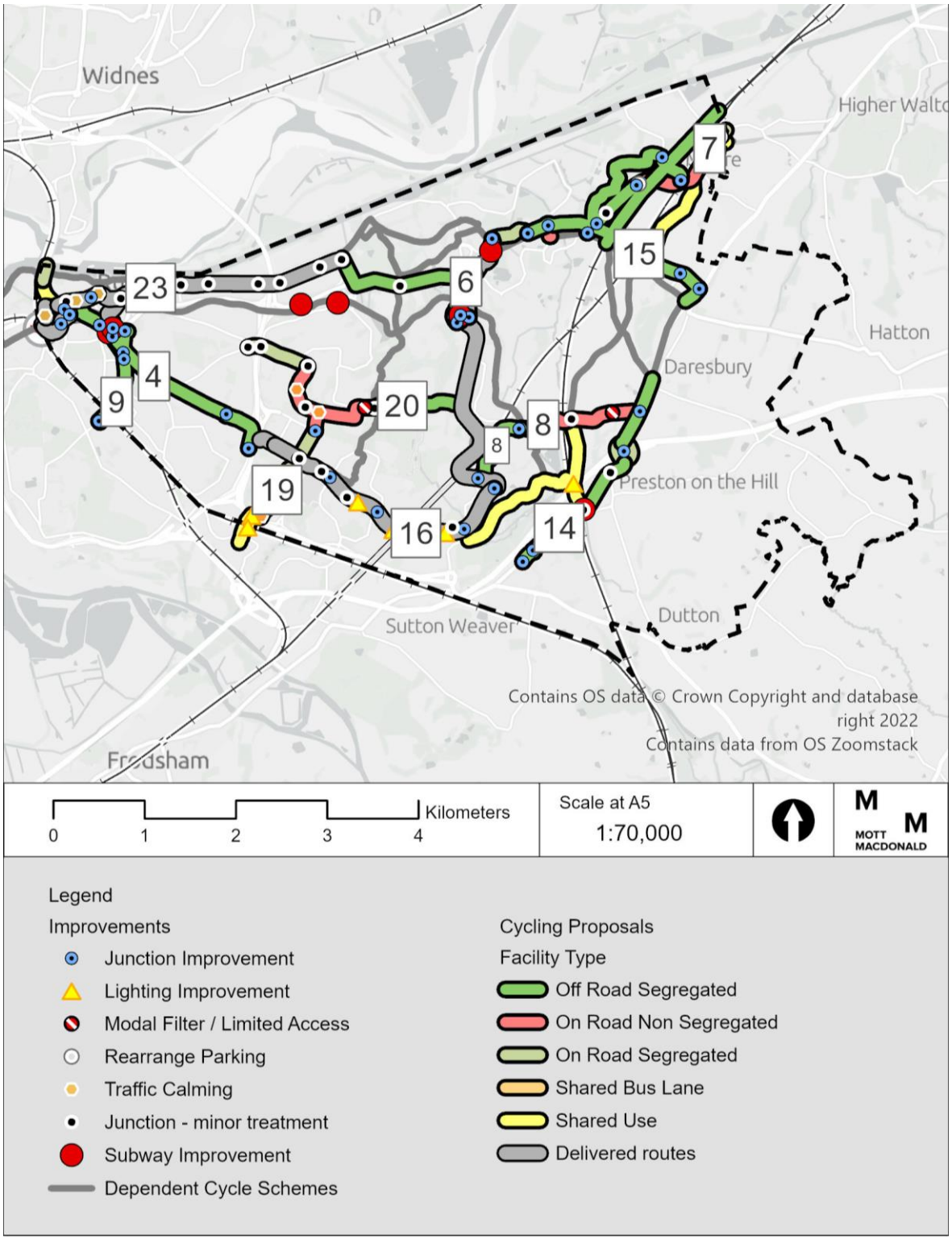


Table 3.4 outlines the RST assessment forecasting changes after proposed improvements. Some routes have significant improvements whilst other routes have constraints limiting the extent of interventions.

Table 3.4: RST Scores after proposed improvements

Route Number	Directness	Gradient	Safety	Connectivity	Comfort	Score for existing	Score after proposal	% Improvement
Route 4	4.00	5.00	3.96	1.83	5.00	16.76	19.80	18%
Route 7	4.00	4.88	4.25	2.13	4.88	17.00	20.13	18%
Route 8	5.00	3.81	3.40	4.40	5.00	14.80	21.61	46%
Route 9	5.00	5.00	5.00	5.00	5.00	20.00	25.00	25%
Route 14	5.00	4.23	4.17	2.60	5.00	15.89	21.00	32%
Route 15	4.00	5.00	5.00	1.24	5.00	13.41	20.24	51%
Route 16	5.00	5.00	1.14	1.68	5.00	16.64	17.82	7%[5]
Route 19	5.00	5.00	3.30	3.06	5.00	19.43	21.36	10%
Route 20	5.00	5.00	2.67	3.33	5.00	19.67	21.00	7%
Route 23	4.00	5.00	3.43	2.61	5.00	17.00	20.04	18%

[5] Most of route 16 is being improved through separate ATF2 funding, however, these improvements are not reflected in the RST results.

4 Developing the Walking Network

This section outlines the initial development of the walking network. This includes the selection process for the core walking zones and walking corridors. This section will also outline concept design interventions to be further investigated as part of feasibility design.

4.1 Steps in developing the network

The walking methodology within LCWIP involves the following key steps:

- **Data Collection and Analysis**: Data on walking patterns, such origin and destinations, and existing infrastructure, are collected and analysed to understand the current walking environment and identify areas of improvement.
- **Stakeholder Engagement**: Local stakeholders, including residents, community groups, transportation experts, and relevant organizations, are engaged to gather their insights, concerns, and aspirations regarding walking infrastructure. This helps in understanding the specific needs and priorities of the community.
- **Walking Network and Core Walking Zone (CWZ) Identification**: A walking network and CWZs are identified within the local area, which includes existing pedestrian routes, pathways, sidewalks, and connections to key destinations like schools, parks, public transit stations, and commercial areas.
- **Gap Analysis:** The identified walking network is compared to established standards, guidelines, and best practices to identify gaps and deficiencies in the infrastructure. This includes assessing missing or inadequate sidewalks, unsafe crossings, poor lighting, or other barriers that hinder the walking experience. The network is audited using the Walking Route Audit Tool (WRAT), which is a DfT methodology used to assess connectivity, accessibility, safety, and comfort criteria for walking infrastructure.
- **Prioritisation and Action Plan**: Based on the analysis, dependencies, and stakeholder input, priority areas for improvement are identified. These can include locations with high pedestrian traffic, areas with safety concerns, or places where walking can be promoted as a preferred mode of transportation. A plan is then developed, outlining specific interventions and their implementation timelines.

The following two steps are also included as part of the LCWIP process but are not part of this commission and will be addressed in upcoming workstreams, such as Feasibility studies for walking and cycling routes.

- **Design and Implementation:** Detailed designs and plans are created for the identified improvement projects, considering factors such as safety, accessibility, aesthetics, and integration with other modes of transportation. The implementation of the projects can be done in phases, depending on available resources and funding.
- **Monitoring and Evaluation:** Once the improvements are implemented, ongoing monitoring and evaluation are conducted to assess their effectiveness. This includes gathering feedback from pedestrians, tracking usage and walking patterns, and making necessary adjustments based on the collected data.

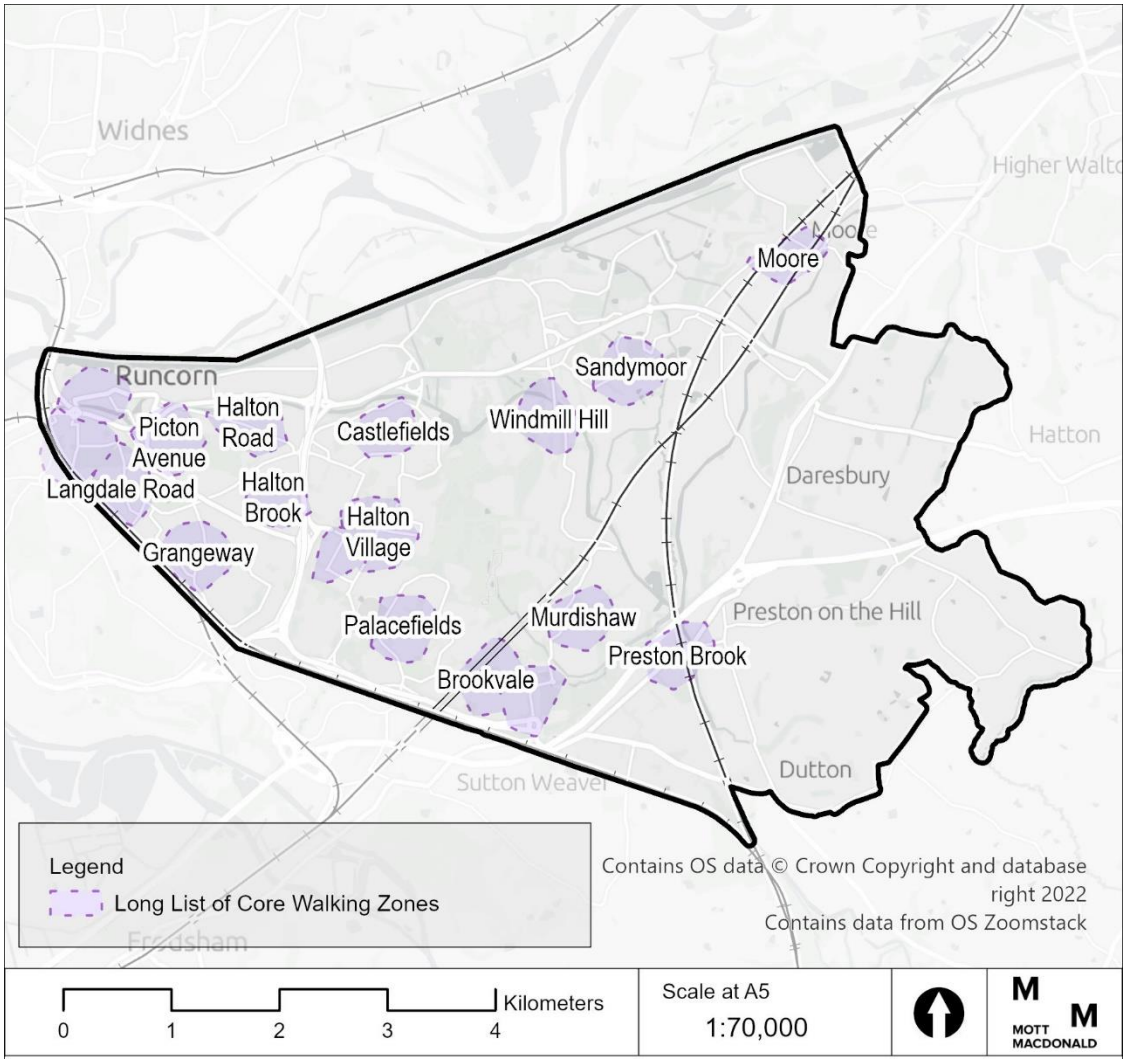
For the East Runcorn LCWIP walking routes, additional considerations were taken into account due to dependent schemes developing in the same areas of interest as this project.

4.2 Core Walking Zones

Core Walking Zones (CWZs) across the study area have been identified based on clusters of trip attractors including local centres (see Section 2). The DfT's LCWIP Guidance specifies that all routes within CWZs are important. For the purposes of this study, a core walking zone has a 400 metre walking radius from its centre.

The initial long list of CWZs is shown below in Figure 4.1.

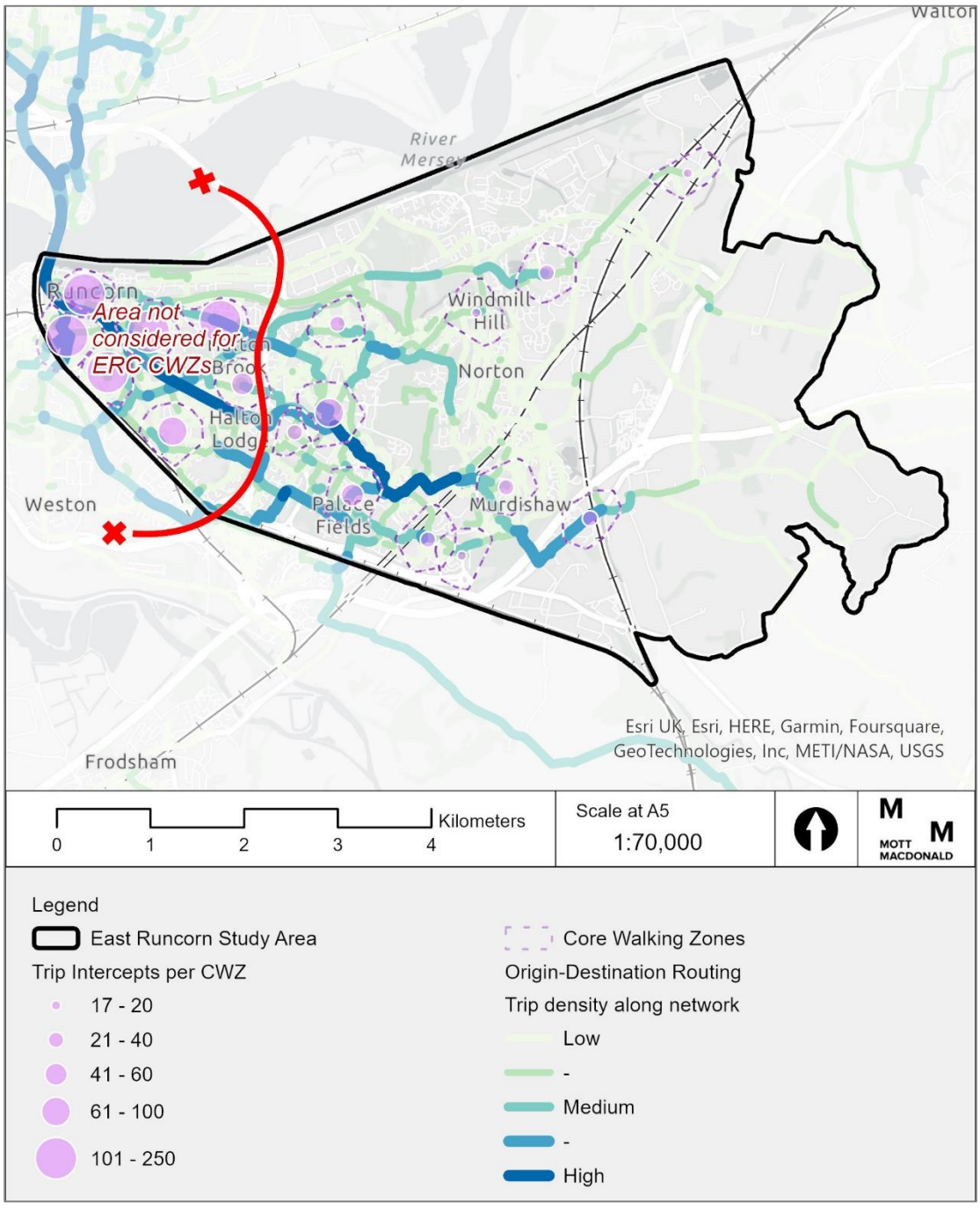
Figure 4.1: Core Walking Zones



4.3 Origin-Destination Analysis

All population-weighted Output Area centroids within 2km (the equivalent to a 25-minute walk) of the CWZs were extracted. The centroids were then routed along the OpenStreetMap road and path network on the shortest possible route into the CWZs. The purpose of this is to identify those routes which are likely to have the greatest demand based on overlapping routes. Figure 4.2 provides a summary of this, highlighting corridors which facilitate multiple routes.

Figure 4.2: Walking demand on the network and trip count within CWZs



For the purpose of this study, core walking zones situated west of the A533 Central Expressway were not considered for shortlisting as East Runcorn is the focus area of this study, and central Runcorn CWZs will be considered as part of a wider Halton LCWIP piece, as annotated in Figure 4.2 above.

4.4 Selection of a Core Walking Zone

The core walking zone with the highest level of trip intercept[6] within East Runcorn was the Halton Village / Shopping City CWZ. However, as a separate Shopping City scheme is improving the walking environment in the immediate area of the shopping centre, it was agreed with HBC that the scope of this LCWIP would focus on the 2km Key Walking Routes (KWRs) feeding the Halton Village/Shopping City core walking Zone CWZ, as per the LCWIP guidance.

4.5 Key Walking Routes

The next stage was therefore to identify KWRs which are those routes linking the CWZ. In this instance, walking corridors originate at the selected CWZ and typically extend between one and two kilometres, terminating at key destinations such as schools, rail stations, or shopping areas.

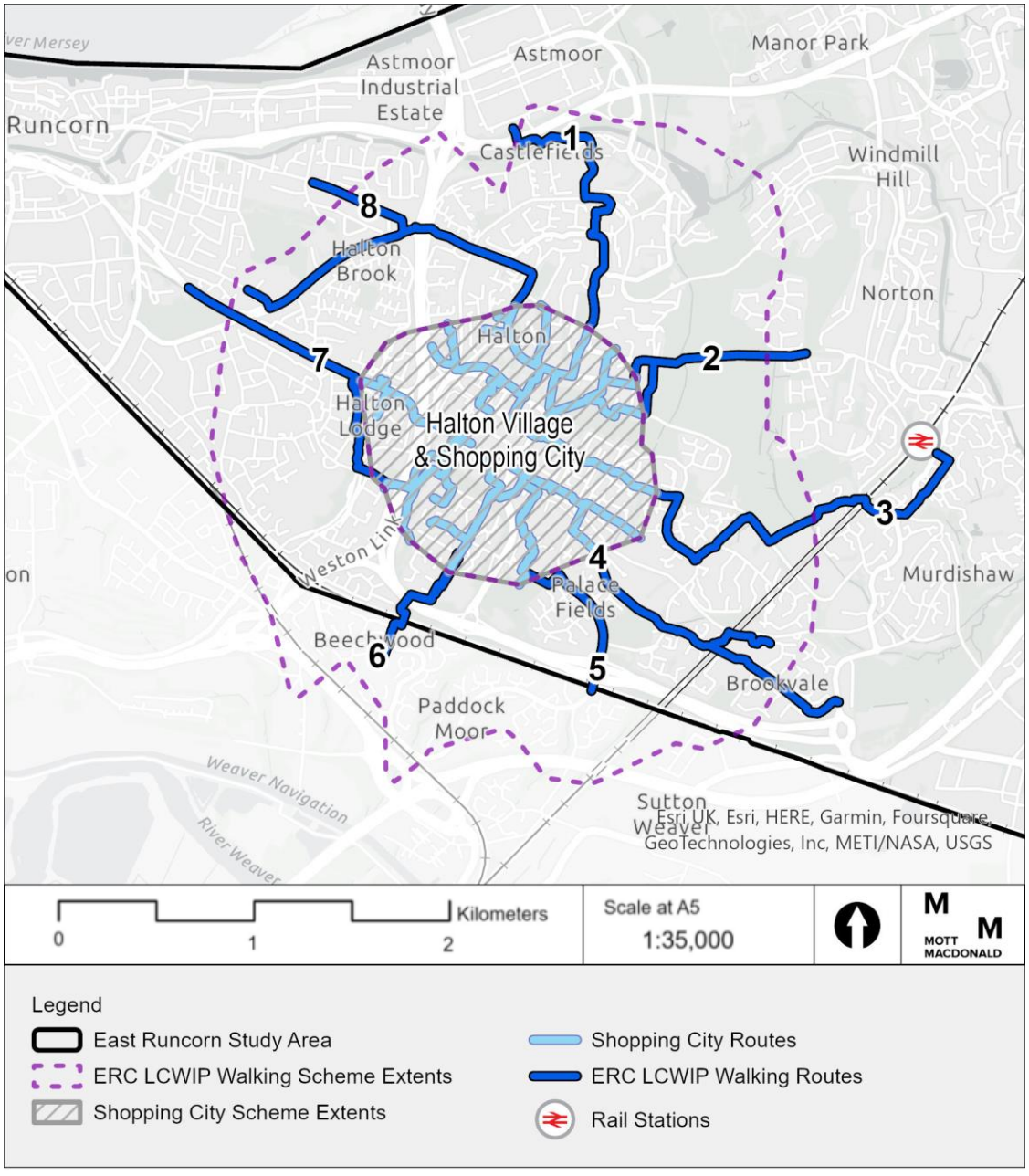
The KWRs, identified through a combination of the following, are shown in Figure 4.3:

- Corridors of high demand in the Network Density map in Figure 4.2
- Local knowledge to account for trips for other purposes
- Connections between corridors and Shopping City walking proposals
- Connections to key destinations
- Connections to developments

The extents and routes of the Shopping City workstream as well as selected LCWIP walking corridors are shown in Figure 4.3.

[6] Trip density was determined using a network analysis methodology, whereby origin and destination pairs were assigned onto the road network. Sections of road network therefore had a 'trip intercept' score where they were able to provide a connection for multiple trips.

Figure 4.3 Selected Walking Corridors and CWZ



4.6 Auditing walking routes

The Walking Route Audit Tool (WRAT[7]) was used to audit the shortlisted walking routes as prescribed in the LCWIP process guidance. The WRAT is a methodology used to assess and evaluate the quality and safety of walking routes and infrastructure. It is a systematic approach to examining the walking environment and identifying areas for improvement and uses a range of criteria to assess how well a route meets the core design outcomes, with scoring ranging from 2, being the highest, to 0, being the lowest. The criteria include the following:

- Attractiveness: the route should be pleasant to walk on and should offer interesting view (8 points maximum)

[7] Planning local cycling and walking networks - GOV.UK (www.gov.uk)

- Comfort: the route should be smooth and free from obstacles (12 points maximum)
- Directness: the route should be as short as possible (12 points maximum)
- Safety: the route should be free from hazards and should provide good visibility (6 points maximum)
- Coherence: the route should be well-connected and easy to follow (2 points maximum)

A WRAT Audit was undertaken on existing route as well as on proposed route interventions. Table 4.1 below shows audit scores for existing route conditions, where 40 is the maximum possible score. Forecast results after proposed route improvements are shown in the next section.

Table 4.1: WRAT scores for existing route conditions

Route Number	Attractiveness	Comfort	Directness	Safety	Coherence	Total Score
Route 1	4	5	3	3	1	17
Route 2	4	4	3	4	0	15
Route 3	4	5	4	4	1	17
Route 4	7	8	7	6	1	29
Route 5	6	7	7	6	2	27
Route 6	6	6	7	6	0	25
Route 7	7	7	8	5	2	30
Route 8	6	8	5	5	2	26

The WRAT results show that the existing walking network is highly variable in quality, and all shortlisted routes have room for improvement. Some key issues that are common among routes include a lack of convenient crossing locations, substandard footway widths, and confusing network layouts without wayfinding.

4.7 Developing the route concepts

The proposed walking interventions are high-level and identify concepts for further consideration in the next stage of design (see Figure 4.4). They seek to address issues and potential improvements identified during the site assessment activities and auditing process, as well as incorporate comments and issues noted during early stakeholder engagement and to incorporate proposals from the Shopping City project. Since the Shopping City project identified key routes within the CWZ, the LCWIP aims to connect to these proposals to provide complete walking corridors in the area.

The concept designs for individual walking corridors are described in more detail as part of Appendix C, but generally follow these intervention types:

- Wayfinding – provide signage. Many walking routes in East Runcorn are part of a convoluted network of pedestrian-only paths and could benefit from wayfinding showing walking times and destination signage.
- Junction improvement – tightening junction radii to reduce vehicle movement speeds and therefore improve safety for pedestrians.
- Zebra crossing – upgrading typically uncontrolled crossings into zebra crossings.
- Signalised crossing – signalising existing crossing location where vehicle movements are considered too high or fast for uncontrolled or zebra crossings.
- Traffic calming – raised tables and speed cushions to provide a safer walking environment.
- Crossing upgrade – typically providing dropped kerbs, tactile paving, resurfacing or other improvements.

Figure 4.4 Potential intervention for walking corridors

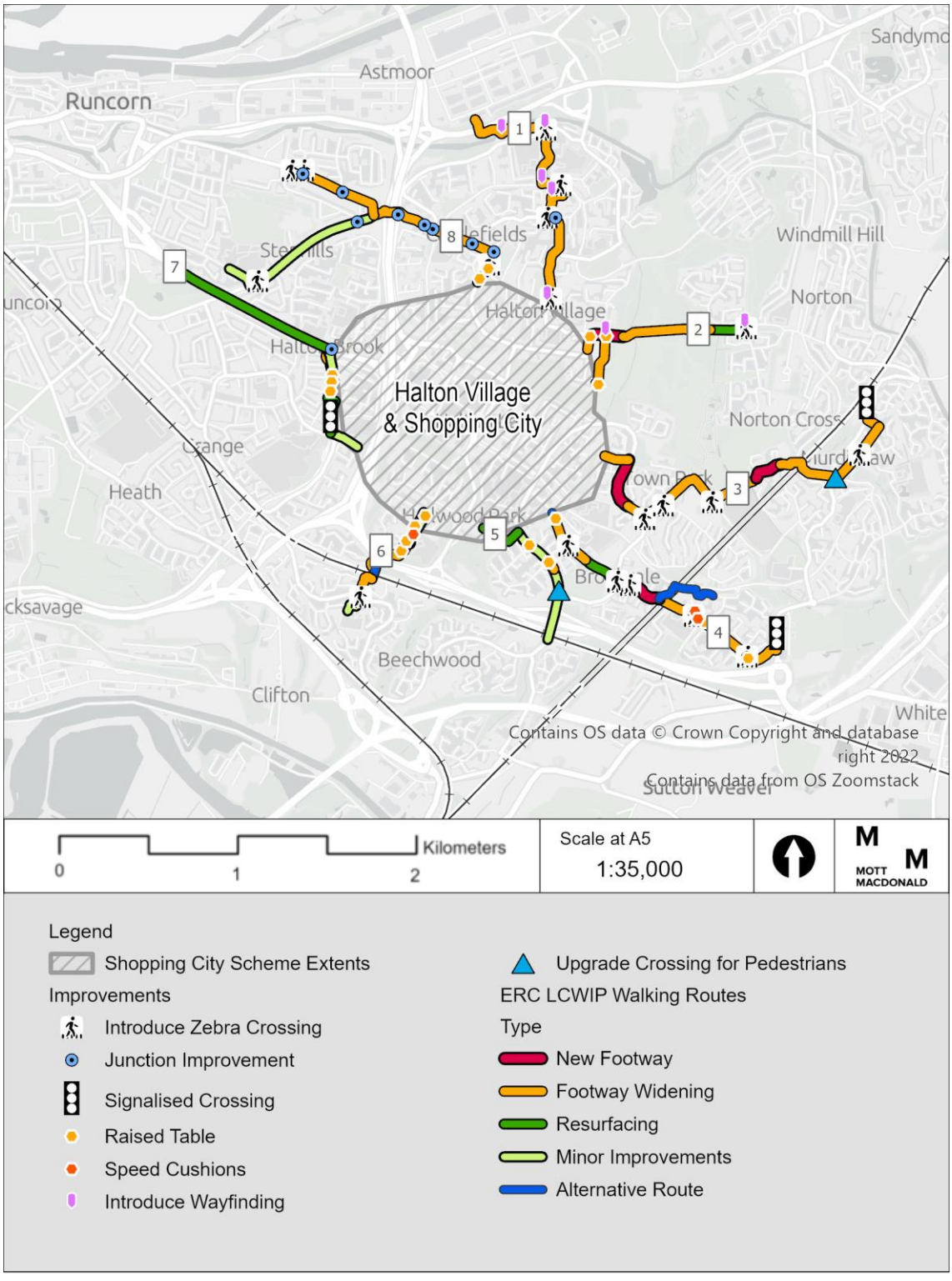


Table 4.2: Proposed route WRAT

Route Number	Attracti-veness	Com-fort	Direct-ness	Safety	Cohe-rence	Score for existing	Score after proposal	% Improvement
Route 1	6	8	7	5	2	17	27	59%
Route 2	8	10	7	6	2	15	33	120%
Route 3	8	10	9	6	2	17	35	106%
Route 4	8	9	7	6	2	29	32	10%
Route 5	8	9	7	6	2	27	32	19%
Route 6	8	9	8	6	2	25	32	28%
Route 7	8	9	11	5	2	30	35	17%
Route 8	8	11	8	5	2	26	34	31%

For all the walking routes, WRAT scores were re-assessed for each route and the results shown in Table 4.2. This shows that the WRAT scores would improve on all five criteria post scheme implementation. The infrastructure proposals should lead to improvements in comfort; improvements in coherence will be achieved with additional wayfinding, and safety can be improved with dedicated crossing provision and traffic calming.

5 Prioritisation

Once the shortlisted cycle and walking routes were identified, and concept designs were developed for each route, an assessment using both qualitative and quantitative criteria was carried out to provide a second prioritisation round of proposals to identify a first package of corridors to progress to feasibility design.

5.1 Costing

Outline costs have been estimated for the proposed design measures using a Library of Rates developed from previous scheme costs and DfT's typical costs. The Library of Rates has been included as part of Appendix F. The costs also include the following:

- Allowance for traffic management
- Allowance for prelims and temporary works
- Allowance for out of hours working
- Allowance for main contractors' overheads and profit
- Allowance for design
- Allowance for client PM costs
- Allowance for contingency
- Anticipated final cost

These estimates are reflective of the early concept design stage and are intended to provide an indicative, rough anticipated final cost and should not be used for budgetary purposes. The figures also reflect the diversity of route intervention proposals, which varied significantly in terms of size and complexity. It is recommended that as further design is developed, the estimating outputs are reviewed and revised in line with it.

Table 5.1 Estimated Costs

Ref	Route Type	Route Name	Cost
4	Cycling	Silver Jubilee Bridge to Shopping City	£6,000,000
7	Cycling	Runcorn Road to Moore	£3,700,000
8	Cycling	Runcorn East Rail Station Access	£1,600,000*
9	Cycling	Heath Road to Runcorn Spur Road	£3,100,000
14	Cycling	Chester Road to Daresbury Village	£7,400,000
15	Cycling	Daresbury Expressway	£7,900,000
16	Cycling	Southway to Murdishaw	£3,000,000
19	Cycling	East Lane and Hallwood Park	£3,900,000
20	Cycling	Halton Brow, Main Street and Norton Lane	£2,400,000
23	Cycling	Runcorn Station and Town Centre Access	£5,700,000**
1	Walking	Halton Common to Bridgewater Canal	£2,700,000
2	Walking	Norton Lane (Norton Lane and Norton View to Broadfields)	£2,200,000
3	Walking	Palace Fields to Runcorn East Railway Station	£4,300,000
4	Walking	Bethesda Church to Wellbrook Close	£2,500,000
5	Walking	The Glen Park to Beechwood Avenue	£1,000,000
6	Walking	Hallwood Park Avenue to Beechwood Primary School	£1,000,000

Ref	Route Type	Route Name	Cost
7	Walking	Woodside Primary School to Runcorn Spur Road	£2,100,000
8	Walking	Halton School to Runcorn Spur Road and Halton Road	£6,000,000
		Total Cost	£66,500,000

* Cost of rail bridge is not included in total cost (potential to coordinate with Network Rail overbridge development)
** Assumes that the route follows the existing busway scheme, and an alternate alignment has not been costed for at this stage.

5.2 Prioritisation Methodology

Following development of the high-level proposed interventions, the shortlisted walking corridors and cycle routes were prioritised to help guide future scheme development and implementation. The prioritisation process included criteria related to potential usage, infrastructure dependencies, and cost. These categories were intended to reflect the potential usage of each route; the potential feasibility of the proposed schemes; the overall benefit of the route; the potential of the improvements to encourage new walking and cycling trips; and the degree to which the routes will foster pedestrian and cycle access to new developments.

Table 5.2 below lists the criteria considered as part of prioritisation exercise, the data sources used for each criterium and the status of assessment. Route criteria were rated from 1-5 (low to high), and the scoring matrix is presented in detail in Appendix E.

Table 5.2: Prioritisation Criteria

Ref	Criteria	Data Source	Status
1	Forecast increase in the number of walking and cycling trips	Active Mode Appraisal Toolkit	Complete
2	Population who directly benefit from the intervention	Population Density from Census 2021	Complete
3	Proposed improvement to infrastructure	Route Selection Tool/ Walking Route Audit Tool	Complete
4	Contribution of the scheme to the overall network development	Trip Density Analysis	Complete
5	Improvement in road safety	Active Mode Appraisal Toolkit accident score	Complete
6	Air quality impact	Active Mode Appraisal Toolkit	Complete
7	Connection to new developments	GIS proximity analysis	Complete
8	Impact on other users	Visual assessment	Complete
9	Delivery against policy objectives, such as improvements to health and inclusion LTP3: promotes and enables improved health and wellbeing, LCR LTP4: Improving health through the right transport solutions, safer more attractive streets	Halton Borough Council	Complete
10	Importance of the intervention for particular target user groups, e.g. people without access to a car/van, or with higher levels of poor health	Indices of Multiple Deprivation	Complete
11	Performance against local transport plans/local plan policies LTP3: Local carbon transport, LTP3: connectivity to employment, services and social activities, LTP3: support the economy through efficient movement of goods and people, LCR LTP4: Net Zero	Halton Borough Council	Complete
12	Priority/importance of the intervention as defined through the engagement process	Stakeholder engagement	To be completed as part of feasibility
13	Scheme feasibility/deliverability including environmental constraints”	Feasibility study	To be completed as part of feasibility
14	Stakeholder acceptability	Halton Borough Council	To be completed as part of feasibility

Ref	Criteria	Data Source	Status
15	Dependency on other schemes	Halton Borough Council	Complete
16	Benefits realisation	Halton Borough Council	Complete

5.3 Prioritisation Results

The summary result of the multi-criteria assessment shown in full in Appendix E is the showing in Table 5.3 below:

Table 5.3: Summary Prioritisation Results

Ref	Route Type	Route Name	Rank	Notes
23	Cycling	Runcorn Station and Town Centre Access	1	Astmoor section complete (junction upgrades remaining)
4	Cycling	Silver Jubilee Bridge to Shopping City	2	
14	Cycling	Chester Road to Daresbury Village	2	
15	Cycling	Daresbury Expressway	2	Dependent on delivery of Daresbury Expressway dualling
7	Cycling	Runcorn Road to Moore	5	
3	Walking	Palace Fields to Runcorn East Railway Station	6	
16	Cycling	Southway to Murdishaw	7	Mostly complete, connection to Southway remaining
4	Walking	Bethesda Church to Wellbrook Close	7	
8	Cycling	Runcorn East Rail Station Access	9	
20	Cycling	Halton Brow, Main Street and Norton Lane	9	
8	Walking	Halton School to Runcorn Spur Road and Halton Road	9	
7	Walking	Woodside Primary School to Runcorn Spur Road	12	
1	Walking	Halton Common to Bridgewater Canal	13	
19	Cycling	East Lane and Hallwood Park	14	Additional route spur to be considered
6	Walking	Hallwood Park Avenue to Beechwood Primary School	14	
9	Cycling	Heath Road to Runcorn Spur Road	16	Route alignment subject to change
5	Walking	The Glen Park to Beechwood Avenue	17	
2	Walking	Norton Lane (Norton Lane and Norton View to Broadfields)	18	

The multi-criteria assessment described above is intended to compare different options against the agreed criteria and can help inform decision-making. The highest-scoring routes may have the highest potential benefits for users, meet policy goals, and when complete will address deliverability issues, and could be considered first as part of a progression to concept and feasibility stage.

The cycling and walking routes were assessed together, however, each group may be taken forward separately as part of discreet walking and cycling packages. Existing busway schemes which provide cycle infrastructure have not been listed above.

6 Summary and Next Steps

A LCWIP has been prepared for the East Runcorn study area within Halton. This report has summarised Stages 2, 3 and 4 of the development of the LCWIP and initial work associated with Stage 5 prioritisation. From this process, a complete cycle network, and a series of Core Walking Zones have been identified. From these, through a series of prioritisation processes, 10 cycle routes and 8 walking routes have been identified to be taken forward to the next stage of the development process. The walking interventions identified complement those identified in the Shopping City study.

Routes not forming part of the initial priority network are documented but not subject to the same level of assessment and design development. It is likely these will form longer-term interventions, except where potential 'quick-wins' or localised funding opportunities, for example through developer contributions, can be identified. LCWIPs are live documents and further routes can be brought forward in line with changes to deliverability, feasibility and funding availability.

Integration and application will then be considered further in Stage 6 of the LCWIP process. Routes will be packaged up for development and feasibility work will be undertaken on these packages.

A borough-wide LCWIP will also be produced which will be integrated with this LCWIP to produce a borough-wide network map for cycling, and a series of Core Walking Zones. The network as a whole will be prioritised to facilitate future funding applications which these schemes address.

A. Appendix A: Data Sources

Table A.1: Data sources used for background research

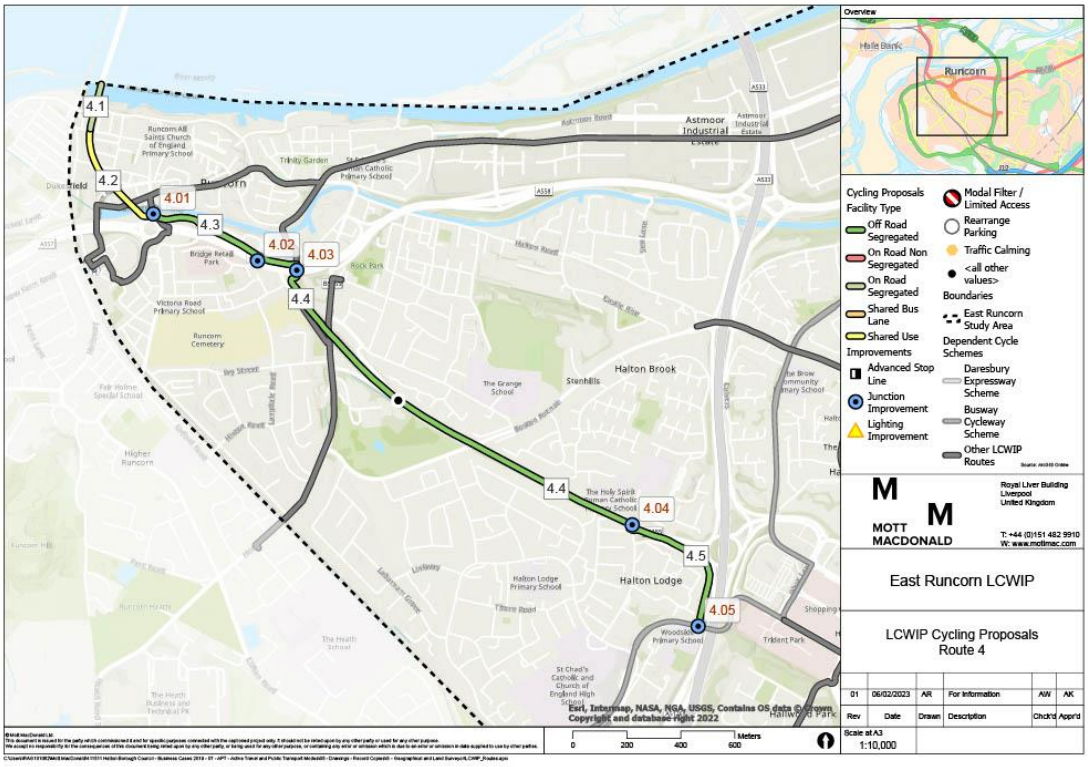
Type	Data	Source
Existing Infrastructure	National Cycle Network	Sustrans
	Public Rights of Way, Canal Towpaths	HBC
	Key Trip attractors, leisure & attractions, green open space, higher education, rail stations, rivers, road classification	Ordnance Survey
	Key Trip attractors: local & town centres, hospitals, schools, subways & bridges	HBC
	Key Trip attractors: existing retail, existing employment	MM desktop study and Census 2021
	Existing Cycle Network	HBC
	Recent development: Residential, Commercial and Employment completions	HBC
Travel Behaviour	Mode share (regional)	National Travel Survey, Census
	Estimated Pedestrian Demand	Propensity to Cycle Tool
	Estimated Cyclist Demand	Propensity to Cycle Tool
Barriers to Active Travel	Walking and Cycling Prohibited	HBC
	Collision Data	STATS19
	Severance Data	Ordnance Survey
	Noise	DEFRA
	Air Quality/AQMAs	DEFRA/HBC
Proposed	Housing, Employment and Commercial Projections	HBC
	Retail Allocation	HBC
	Safeguarded Land	HBC
	Aspirational cycle infrastructure (missing links)	HBC
	Liverpool City Region LCWIP	HBC
	Busway Cycleway Scheme alignment	MM

B. Appendix B: Potential interventions - Cycling

This section outlines proposed improvements for each cycling route. The number labels relate to different sections of the route, as well as junction treatments.

B.1 Route 4: Silver Jubilee Bridge to Shopping City

Figure B.1: Cycling Route 4 Proposals



Route 4 runs from east to west in Runcorn, from Queensway/Silver Jubilee Bridge and terminating east of the Central Expressway, along the busway. It is intended that this route connect with the proposed Busway Cycleway Scheme bridge from Southway.

It is proposed that this route is fully segregated eastwards from Devonshire Place. There is also an aspiration to allow for segregated cycling along Queensway on the approach to Silver Jubilee bridge through expansion of the width of the structure.

Route Length: 3.4km

Key Junction improvements:

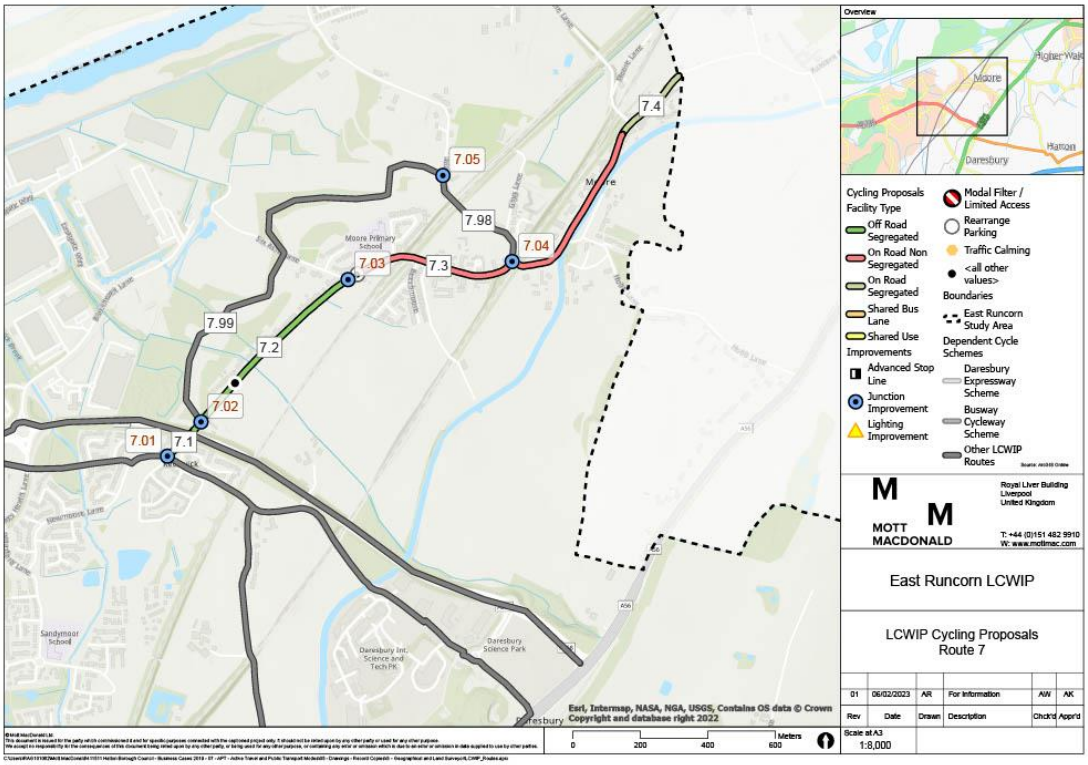
- Halton Lodge Avenue for improved east-west access and a new north-south phase to access the schools in Brackendale
- Improvements on the subway under the A558 Bridgewater Expressway
- Cycle priority crossing on Devonshire Place

Alternative alignments: partial realignment along Norman Road and Norleane Crescent.

Dependencies: Busway Cycleway Scheme connection to the east

B.2 Route 7: Runcorn Road to Moore

Figure B.2: Cycling Route 7 Proposals



Route 7 runs from Keckwick to Moore along Runcorn Road and ends at the boundary with Warrington Borough Council. The preferred alignment would be a separate cycling facility east of Runcorn Road, with the facility re-joining the carriageway by Six Acre Lane by providing a crossing facility and onward travel through on-carriageway markings. This route has a number of pinch points which will be investigated as part of feasibility.

Route Length: 2.1km for Runcorn Road alignment

Key Junction improvements:

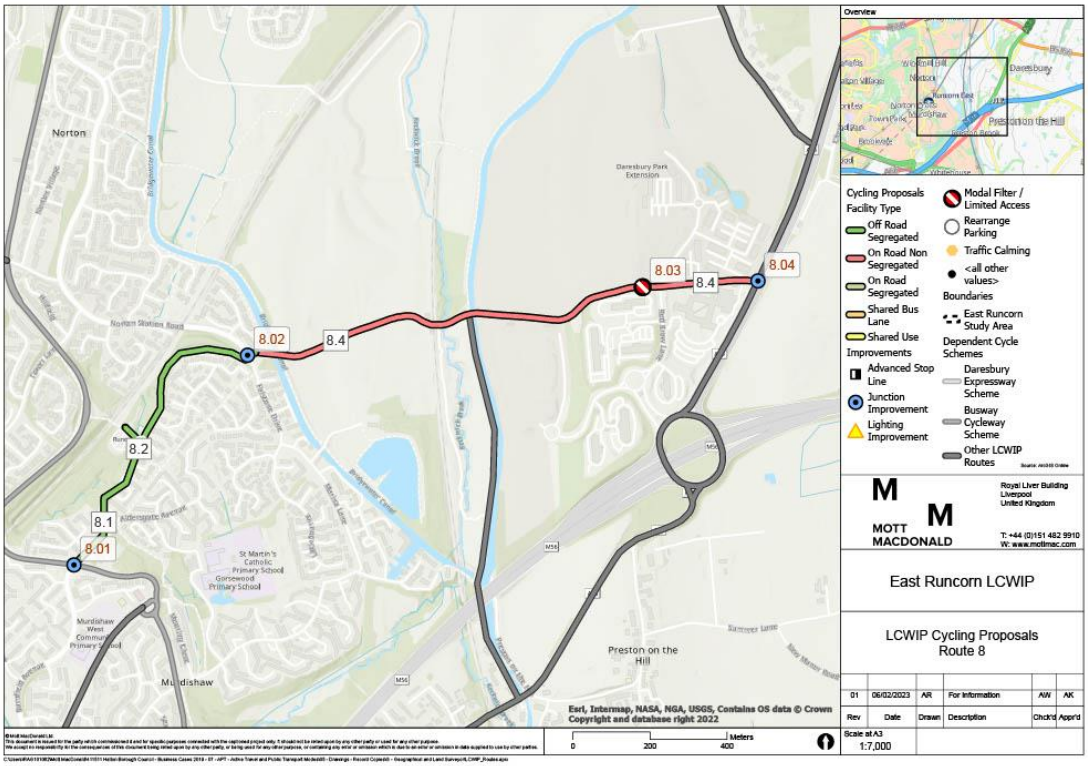
- Cycle priority crossings at Warrington Road/Runcorn Road roundabout
- Segregated facility access to Six Acre Lane
- Improvements on the subway under the A558 Bridgewater Expressway
- Cycle priority crossing on Devonshire Place

Alternative alignments: partial realignment along offline facility by Pitts Heath Wood and re-joining the carriageway at Moss Lane, with a length of 2.8km.

Dependencies: Keckwick Lane Scheme (LCR LCWIP)

B.3 Route 8: Runcorn East Rail Station Access

Figure B.3: Cycling Route 8 Proposals



Route 8 connects Runcorn East Rail Station to Daresbury and the A56. This area is undergoing extensive development in Daresbury, which is likely to create additional demand along Red Brow Lane. This route will be an important link between housing and employment sites and public transport.

It is proposed that east of Bridgewater Canal, this route would be a Quietway with limited vehicle access via a bollard.

Route Length: 2.2km

Key Junction improvements:

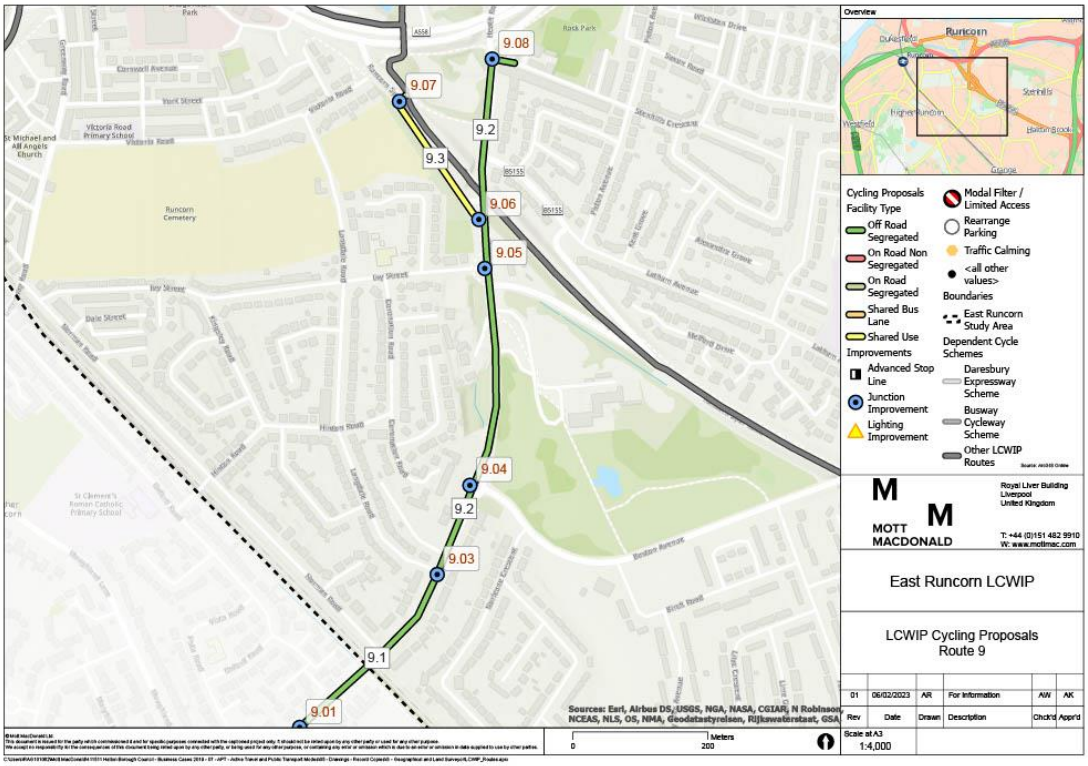
- A56 and Red Brow Lane, to connect to existing facilities to the north and proposed facilities to the south as part of Route 14
- New signalised crossing at Runcorn East on Barnfield Avenue

Alternative alignments: western section of route to run through Wood Lane and into the railway station

Dependencies: progression of development sites, level crossing improvements (potential to coordinate with Network Rail overbridge development), proposed second bridge alignment over Keckwick Brook.

B.4 Route 9: Heath Road to Runcorn Spur Road

Figure B.4: Cycling Route 9 Proposals



Route 9 runs along Heath Road, which is a north-south link, south of the town centre and the A558. This link allows for interconnectivity between other proposed routes and the southwestern quadrant of the study area. Heath Road itself has a suburban feel, with residential areas, parks, and schools along it.

Route Length: 1.3km

Key Junction improvements:

There are no major junctions along this route, so proposed interventions include minor junction and mini roundabout improvements.

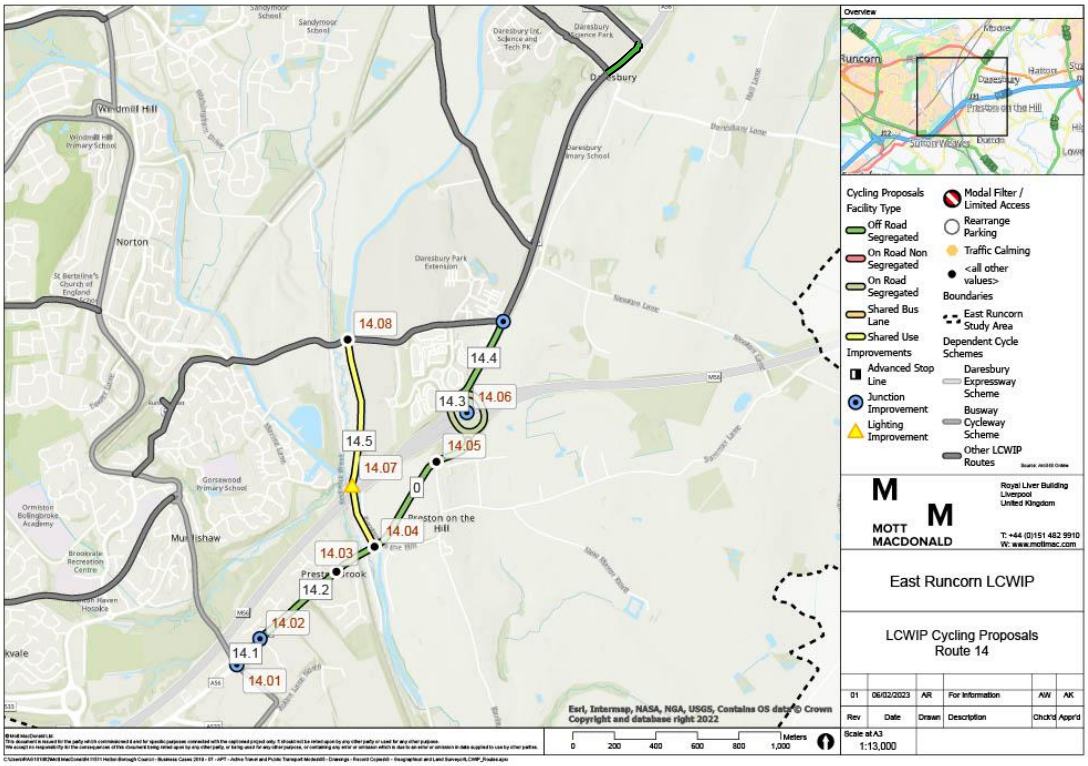
- Heath Road / Boston Road roundabout bypass (9.04 in the map)
- Access slip to Runcorn Spur Road (9.06 in the map)

Alternative alignments: The route alignment could follow Langdale Road and Victoria Road to connect to Runcorn Station and to Runcorn Town centre directly via a proposed subway improvement.

Dependencies: Suitable pedestrian and cycling connection with Route 4 (e.g. pedestrian crossing or subway improvement.)

B.5 Route 14: Chester Road to Daresbury Village

Figure B.5: Cycling Route 14 Proposals



The A56 is a vital part of the transport network in Runcorn. It is a major route for both traffic and public transport, and is home to a number of businesses, residential areas and planned development. The road connects various village and local centres, such as Preston-on-the-Hill, Daresbury, and eventually leads to Warrington. It is a lit dual carriageway, and has some existing cycle infrastructure, however, this does not cover its full length in East Runcorn.

Route Length: 3.3km for A56 section plus 1km for canal section

Key Junction improvements:

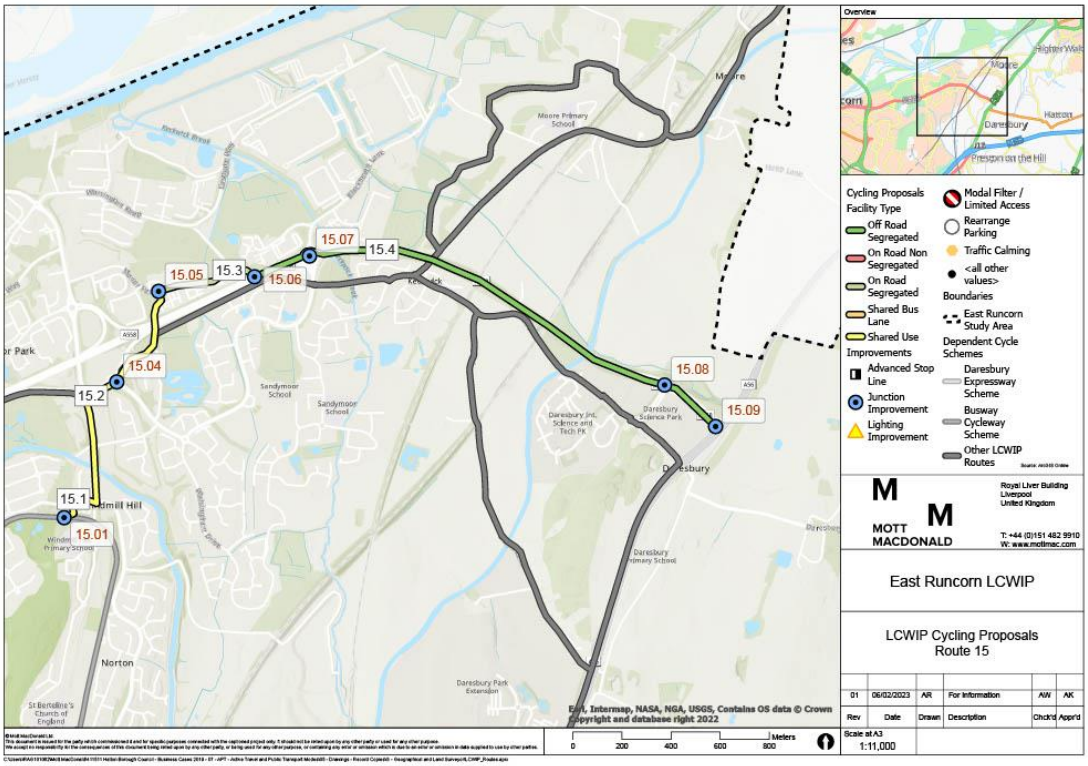
- Signalisation and provision of cycle tracks on the A56 elevated roundabout (14.06 on the map)
- Access slip ramp to canal path along Keckwick Brook (14.04 on the map)

Alternative alignments: the route already presents two potential alignments, but additional options may be identified in feasibility design.

Dependencies: Progression of development sites, some which have cycling proposals to improve nearby access to the A56, such as the Delph Lane scheme.

B.6 Route 15: Daresbury Expressway

Figure B.6: Cycling Route 15 Proposals



Route 15 runs along Windmill Hill Avenue north, Manor Farm Road, and Daresbury Expressway. The Daresbury Expressway is a vital part of the transport network in Runcorn. It is a major east west route for both traffic and public transport, and is home to a number of businesses, residential areas and planned development. The road connects various village and local centres, such as Windmill Hill, Daresbury, and eventually leads to the A56.

Route Length: 3.7km

Key Junction improvements:

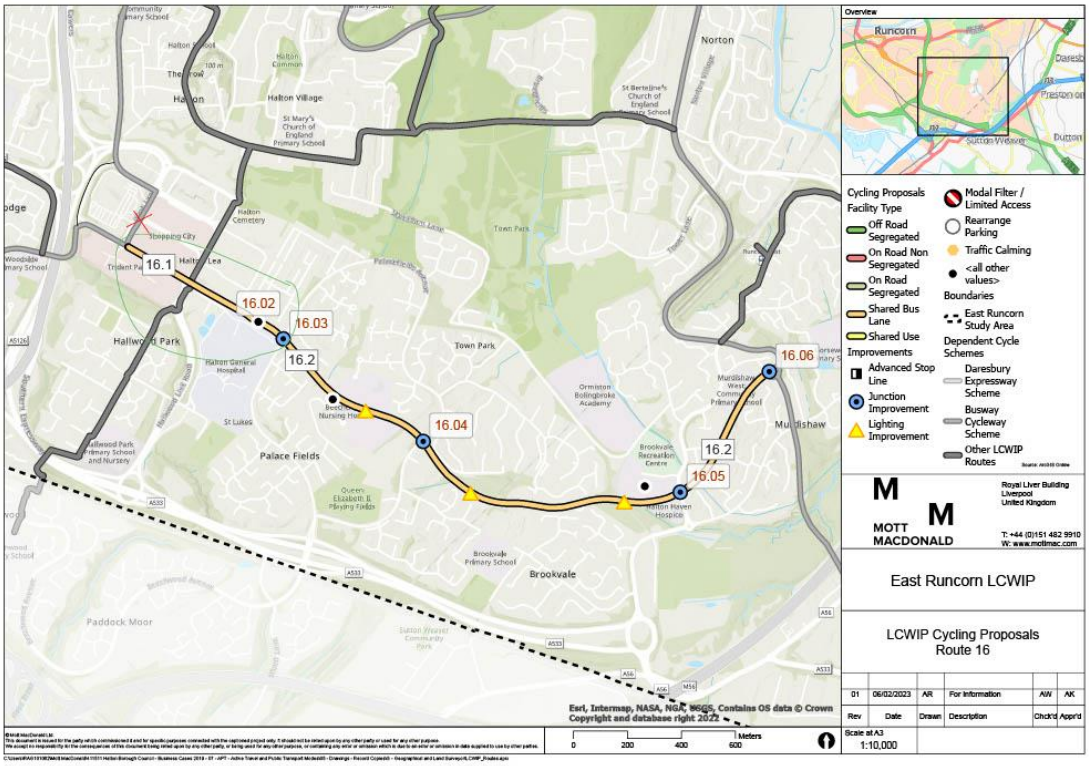
- Daresbury / Blackheath Lane Roundabout signalisation and provision of lanes (15.07 in the map)
- Cycle signalisation for access roads to the Daresbury estate and the A56 (15.08 and 15.09 in the map)

Alternative alignments: none

Dependencies: Progression of development sites, Daresbury Expressway Scheme.

B.7 Route 16: Southway to Murdishaw

Figure B.7: Cycling Route 16 Proposals



Southway is an existing busway connecting Shopping City to provide a link through Shopping City between two existing busway schemes . This route will be developed as part of ATF2 with potential supplementary funding from this LCWIP to provide a missing link between two busway schemes

Route Length: 3km

Key Junction improvements:

There are no major junctions along this route, so proposed interventions include minor junction improvements.

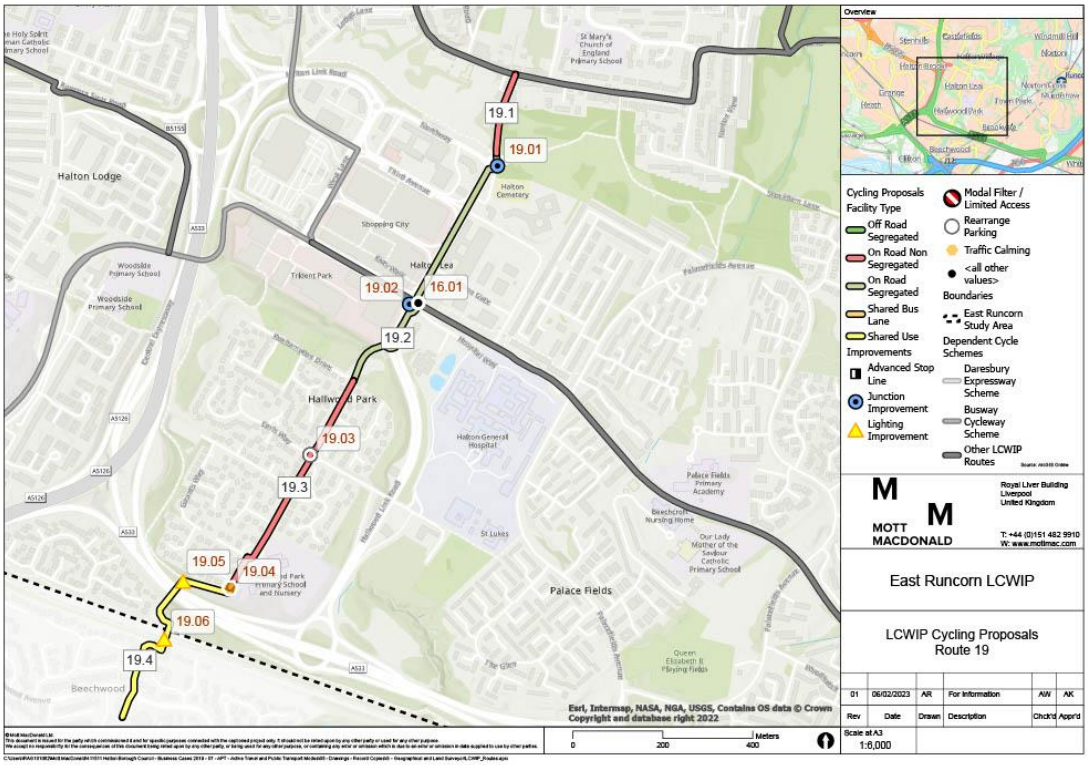
- Provision of connection to Shopping City at location 16.03 in the map

Alternative alignments: none

Dependencies: Progression of funded ATF2 scheme east of point 16.03 in the map, and the Busway Cycleway Scheme connecting to the west.

B.8 Route 19: East Lane and Hallwood Park

Figure B.8: Cycling Route 19 Proposals



This route connects Shopping City to Beechwood via Hallwood Avenue. There are some existing temporary cycle measures along the route, and it is proposed that these are formalised up to the Hallwood Park access, followed by traffic calming in the residential area (19.3 on the map) to create a Quietway.

Route Length: 1.9km

Key Junction improvements:

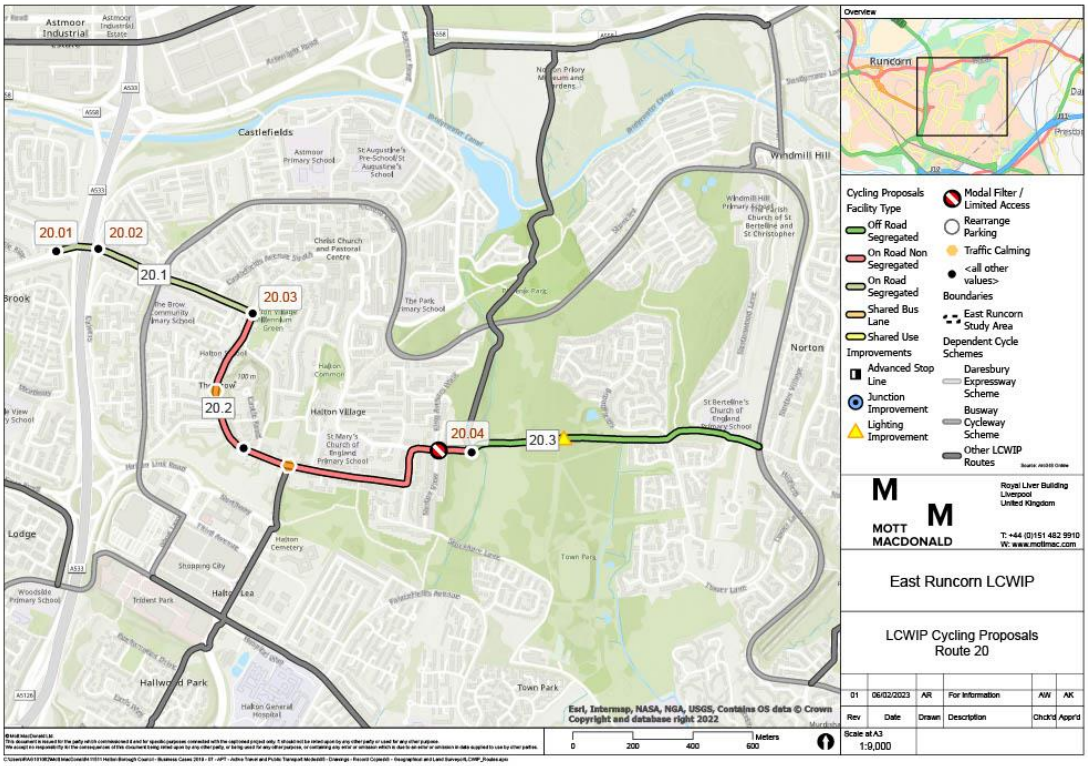
- Signalisation and provision of cycle tracks on East Lane roundabout
- There is also major improvement required at the pedestrian/cycle railway bridge (19.06 on the map)

Alternative alignments: alternative link through the Uplands and Halton General Hospital

Dependencies: Progression of Shopping City Scheme and ATF2 Busway Scheme (Route 16)

B.9 Route 20: Halton Brow, Main Street and Norton Lane

Figure B.9: Cycling Route 20 Proposals



Route 20 runs along Halton Brow, Halton Village and Town Park, connecting a local centre and various schools and amenities. The road network in Halton Village is significantly constrained due to its historic nature, and roads are narrow, lacking space for footways in several locations. It is proposed that Halton Brow (20.1 in the map) allocates space for cyclists, prioritising those travelling uphill by carving out dedicated space in the eastbound direction. It is also proposed that Main Street (20.2 in the map) receives interventions relating to traffic calming to enable both pedestrians and cyclists to traverse the area safely.

Route Length: 3km

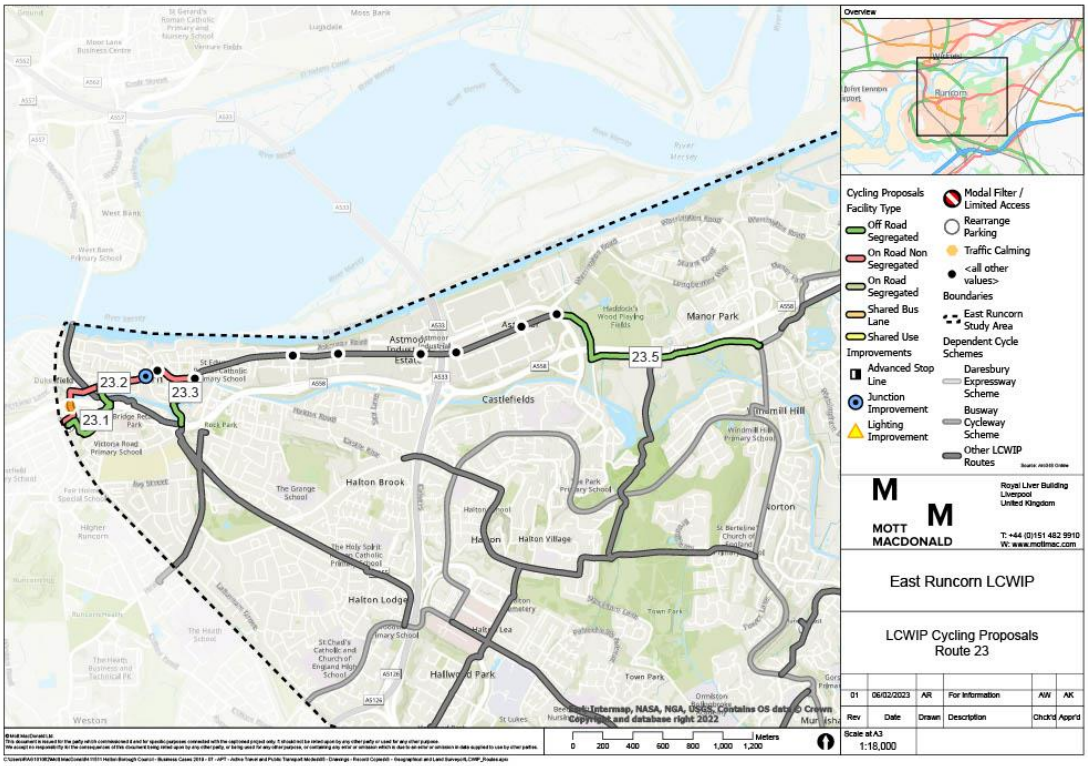
Key Junction improvements:

There are no major junctions along this route, so proposed interventions include minor traffic calming improvements.

Alternative alignments: none

B.10 Route 23: Runcorn Station and Town Centre Access

Figure B.10: Cycling Route 23 Proposals



Route 23 runs along a busway and Astmoor Road, joining an existing off-road path in its eastern end. It connects to Runcorn Old Town and Runcorn Station on its western end. The proposal includes traffic calming on Runcorn High Street, and off-road facilities leading to the station.

Route Length: 4.7km

Key Junction improvements:

- Leiria Way and High Street
- Cycle sensors along all junctions in central busway segment to trigger traffic signals for cyclists

Alternative alignments: none

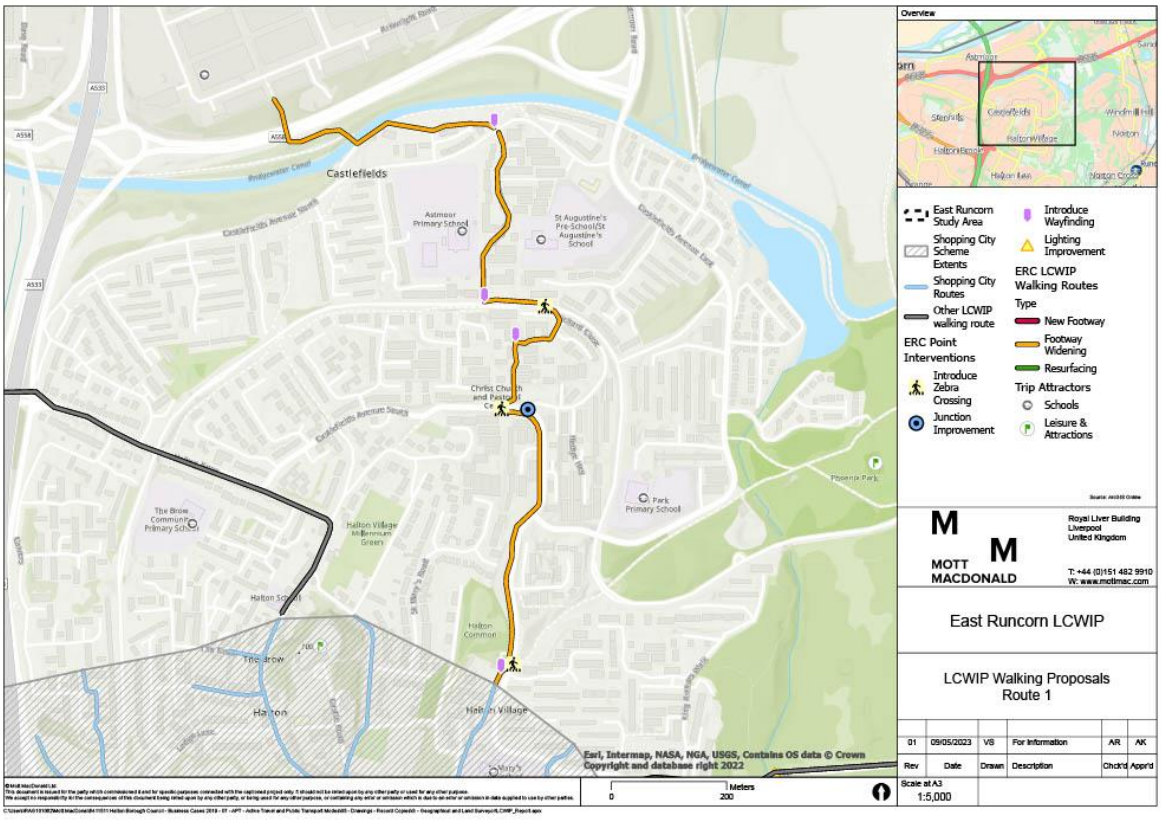
Dependencies: Old Town Connectivity Scheme, Busway Scheme

C. Appendix C: Potential interventions - Walking

This section outlines proposed improvements for each walking route.

C.1 Route 1: Halton Common to Bridgewater Canal

Figure C.11: Walking Route 1 Proposals



Route 1 connects Halton Common to north of the A558 via Castlefields Avenue South. The route also connects Halton Common to St Augustine's Catholic Primary School and Church.

It is proposed that footway is widened through entire route along with few crossing and wayfinding improvements.

Key crossing improvements:

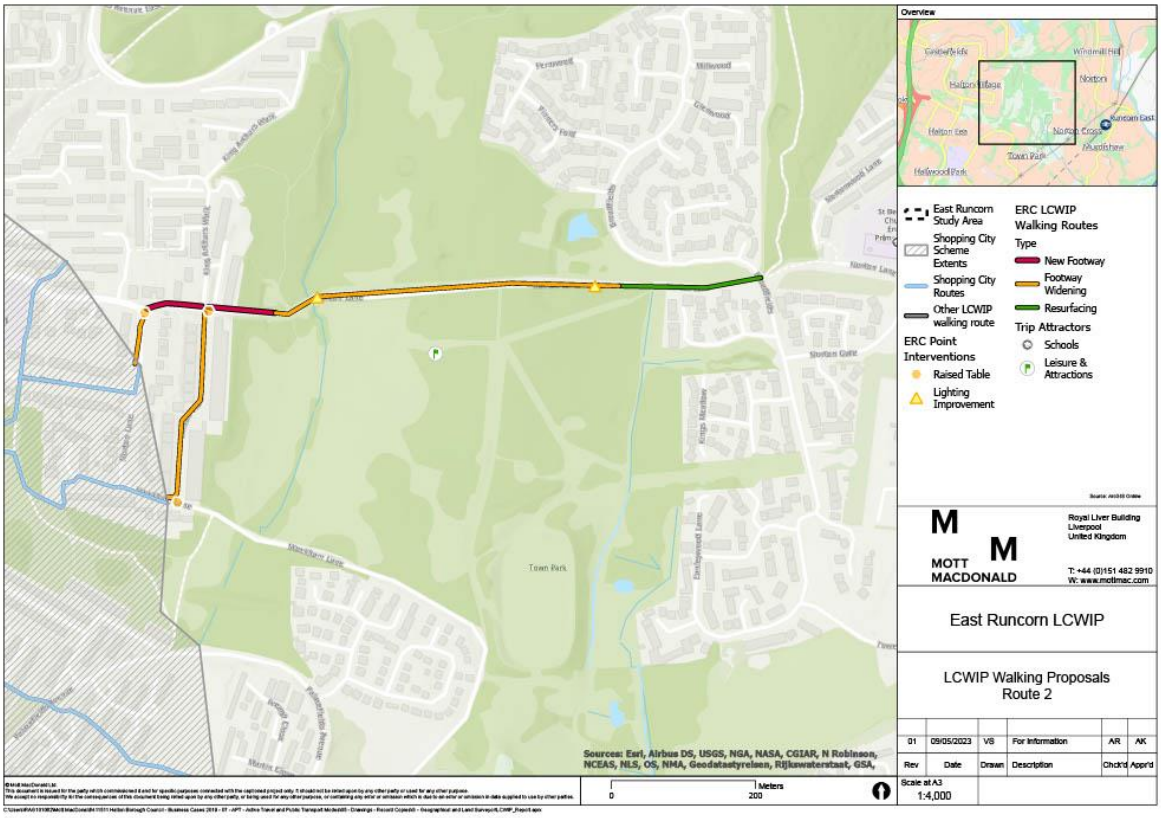
- Traffic free route at Halton Common joining Castlefields Avenue South, introduction of wayfinding and zebra crossing to access traffic free route further east.
- Junction improvements at Castlefields Avenue South/ Richard Close

Alternative alignments: none

Dependencies: Shopping City, Busway Cycleway Scheme

C.2 Route 2: Norton Lane (Norton Lane and Norton View to Broadfields)

Figure C.12: Walking Route 2 Proposals



The route starts at end of Stockholm Lane and Main Lane and ends at Broadfields via Norton Lane traffic free route through Town Park.

A major part of the route is through Town Park which requires lighting improvements. The route has narrow footway at most sections and required footway widening. Absence of footway is observed on a section of Norton Lane and new footway is proposed. Resurfacing on a section of Norton Lane traffic free route is proposed.

Key crossing improvements:

- Raised table at King Arthur Walk/ Norton Lane and Stockham Lane

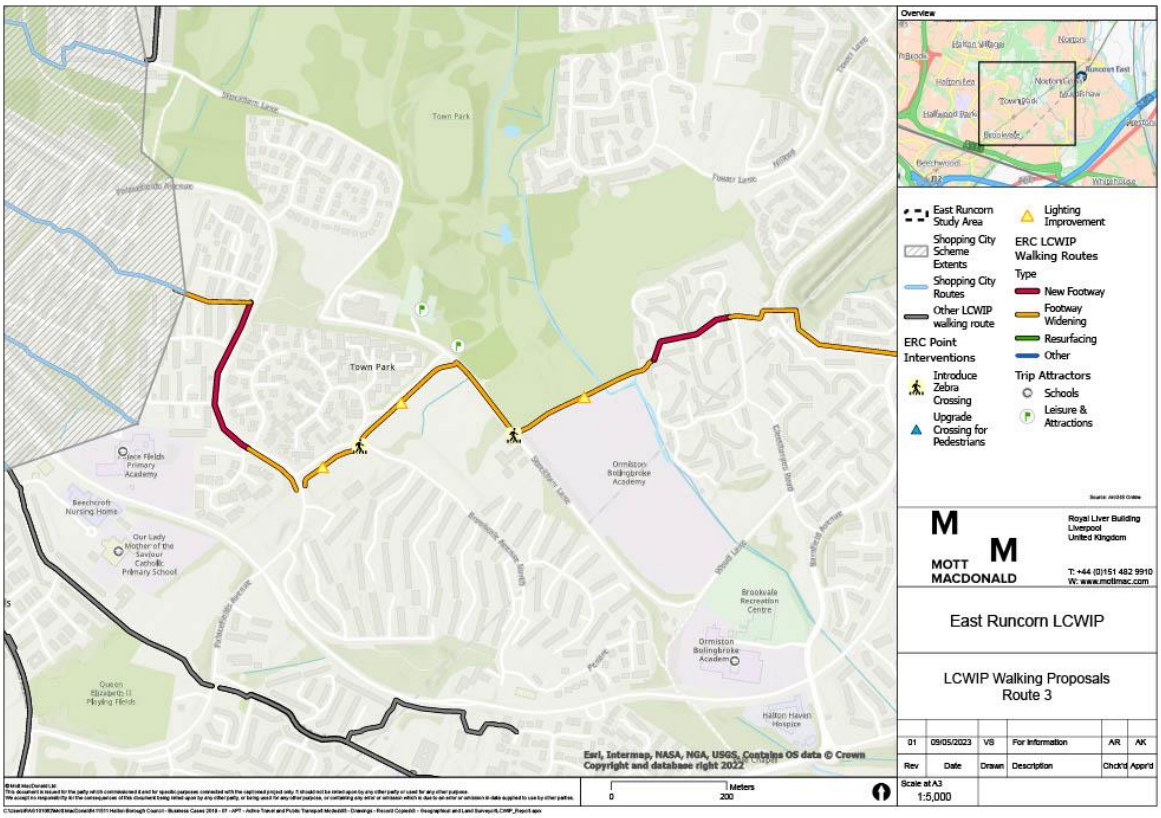
Alternative alignments: potential for other alignments as the route may be developed through ATF2 (alignment yet undefined). An additional connection could also be provided to the SE corner of the park.

Dependencies: Shopping City, Busway Cycleway Scheme, ATF2.

This route could also be used by cyclists and could be considered at design stage. Sufficient width would need to be provided and consideration given to how to safely manage the interaction between cyclists and pedestrians and other wheeled users.

C.3 Route 3: Palacefields to Runcorn East Railway Station

Figure C.13: Walking Route 3 Proposals



The route connects Palace Fields to Runcorn East railway station. The route runs around Ormiston Bollingbroke Academy and Brookvale recreation centre to its north and Town Park to its south.

The footways are narrow throughout the length of this route and footway widening is proposed on most of the sections of the route. Missing footway sections along palace Fields Avenue and Cleethorpes Road exist; new footways are proposed along these sections.

Key crossing improvements:

- Two new zebra crossings on Stockham Lane
- Lighting Improvement on traffic free route, south of town park

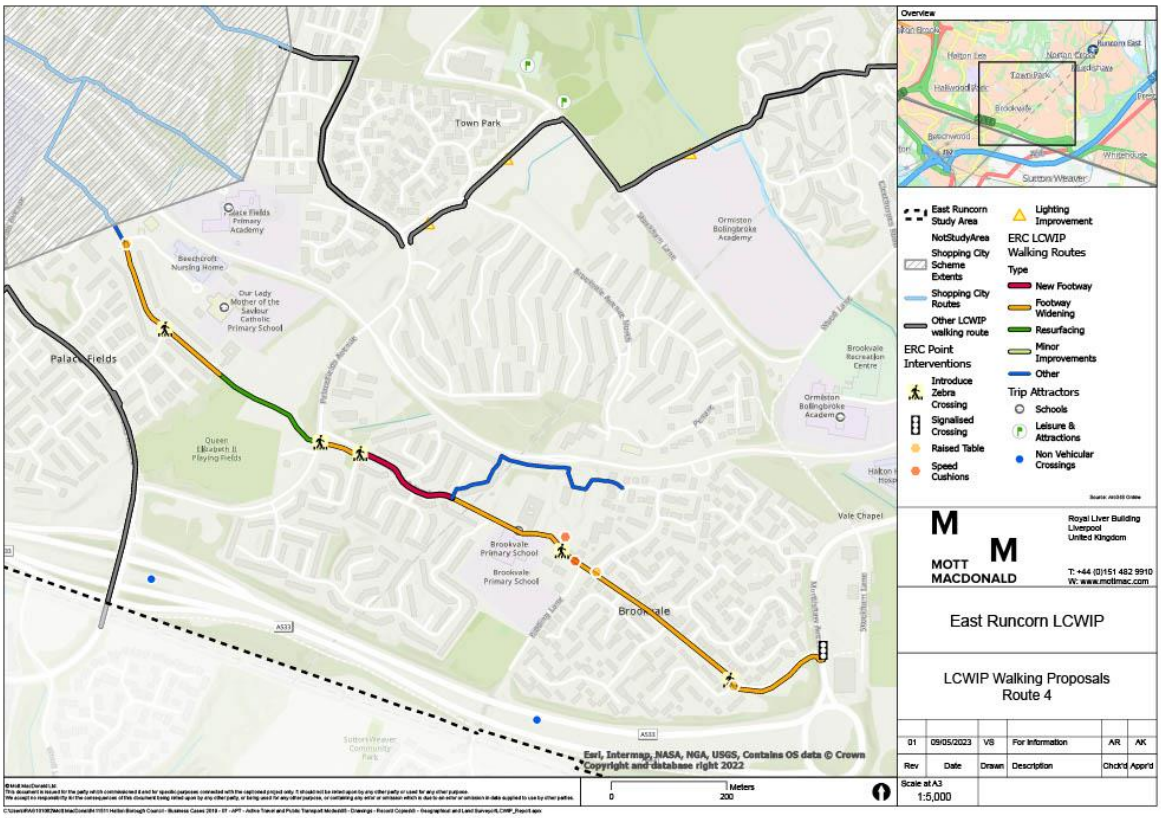
Alternative alignments: none

Dependencies: Shopping City, Busway Cycleway Scheme.

This route could also be used by cyclists and could be considered at design stage. Sufficient width would need to be provided and consideration given to how to safely manage the interaction between cyclists and pedestrians and other wheeled users.

C.4 Route 4: Bethesda Church to Wellbrook Close

Figure C.14: Walking Route 4 Proposals



The route starts at Lapwing Grove and ends at Murdishaw Avenue. It connects Our Lady, Mother of the Saviour Catholic Primary School and Brookvale Primary School to Halton Sports Playing Fields.

The route is proposed to have raised tables, speed cushions and zebra crossings at various points. Footway widening, new footway and footway resurfacing are also proposals as part of the route.

Key crossing improvements:

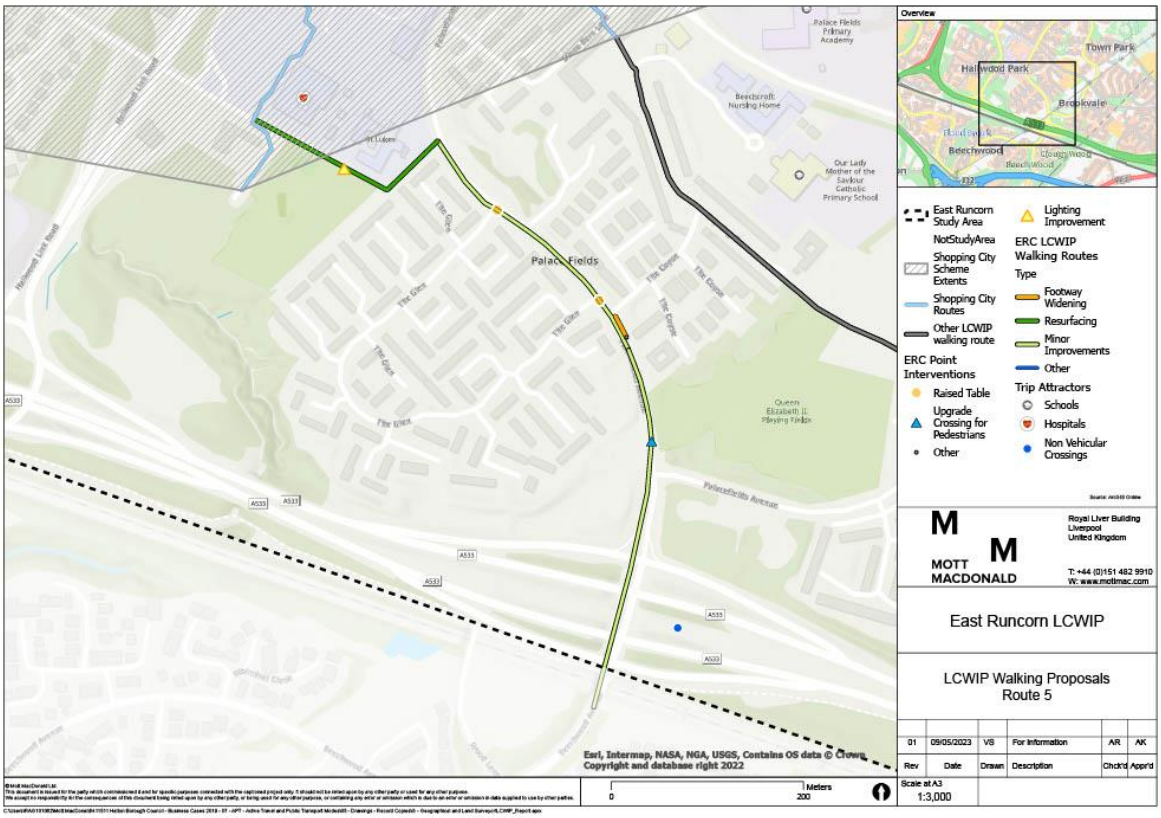
- Raised tables, speed cushion and zebra crossing at Northwich Road / Ridding Lane

Alternative alignments: none

Dependencies: Busway Cycleway Scheme

C.5 Route 5: The Glen Park to Beechwood Avenue

Figure C.15: Walking Route 5 Proposals



The route starts at St Luke's Park and ends at Beechwood Avenue.

Resurfacing, footway widening, lighting improvements and other minor improvements are proposed on this route

Key crossing improvements:

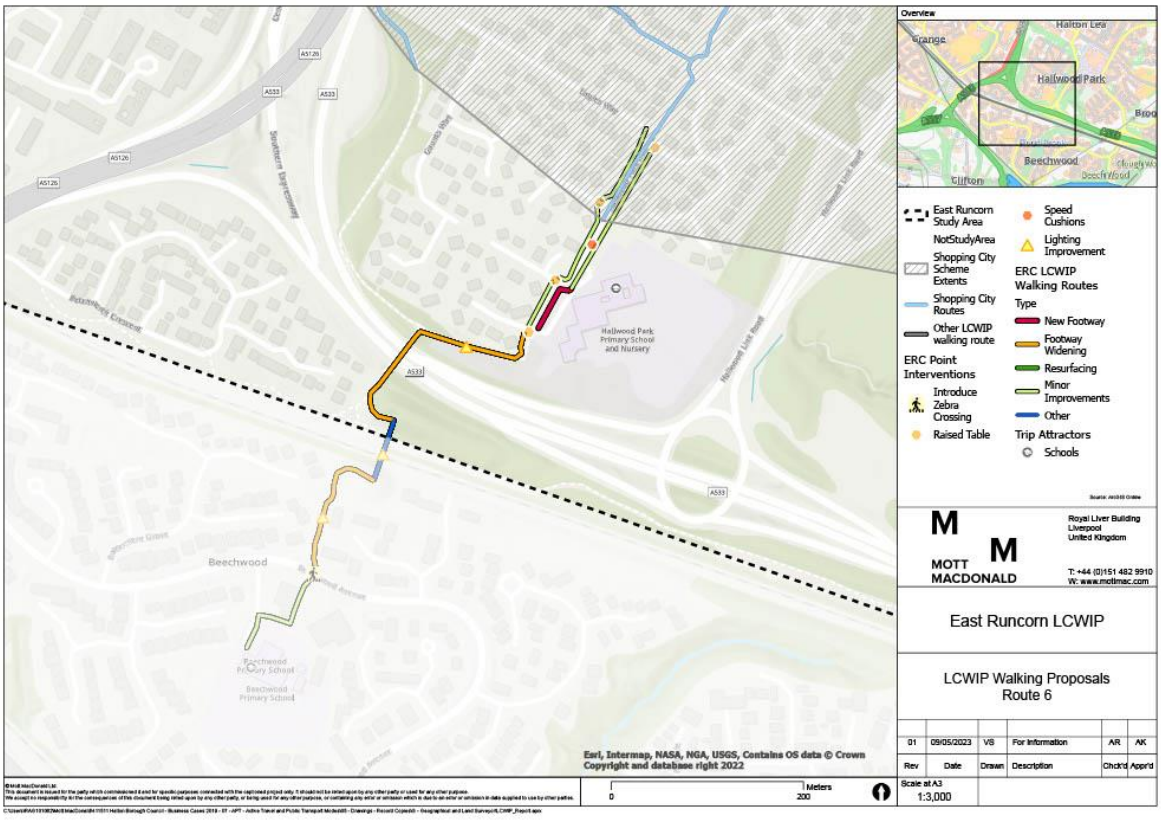
- Pedestrian crossing upgrade on Beechwood Avenue
- Raised table on Beechwood Avenue/ The Glen

Alternative alignments: none

Dependencies: Shopping City, Busway Cycleway Scheme

C.6 Route 6: Hallwood Park Avenue to Beechwood Primary School

Figure C.16: Walking Route 6 Proposals



The route starts at Hallwood Park Avenue and ends south of A533 traffic free route. The route connects north of A533 to the development at its south.

New footway, footway widening, minor surface improvements, raised table, speed cushions and lighting improvements are proposed on the route.

Key crossing improvements:

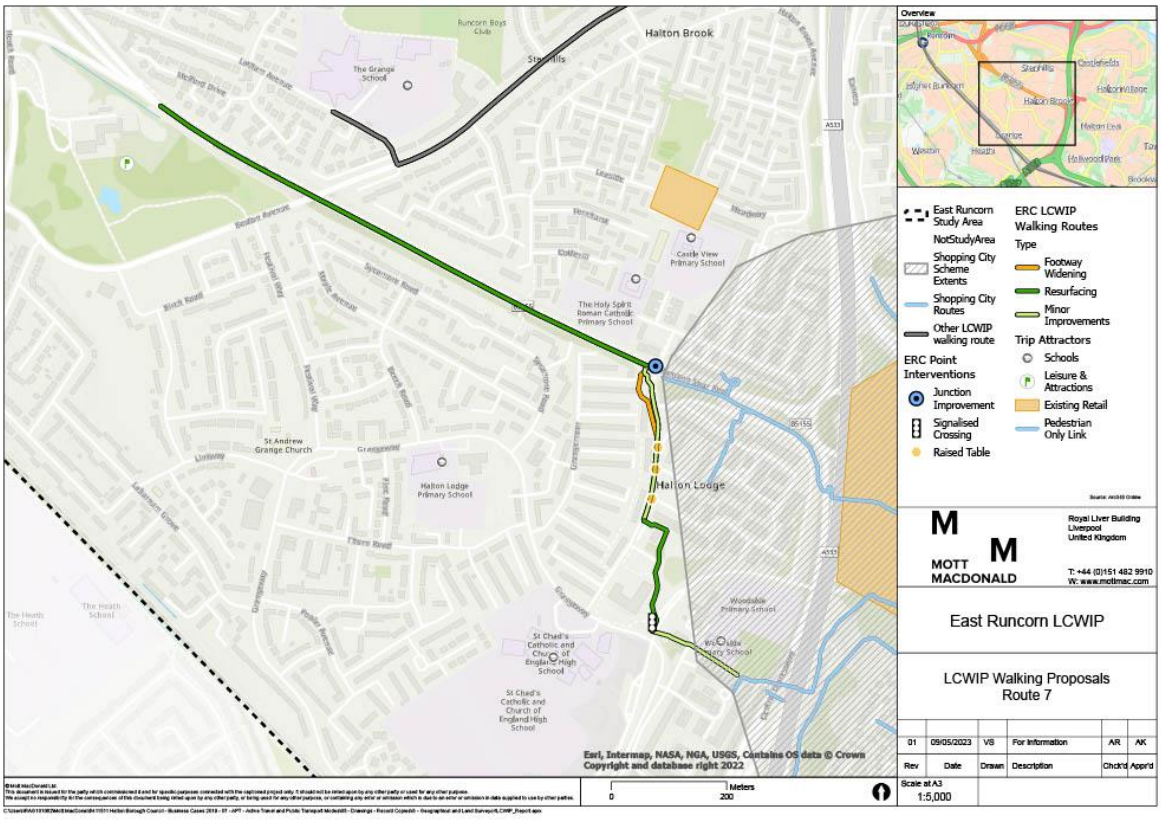
- Raised tables along Hallwood Park Avenue, south of Earl's way
- Railway bridge improvements – upgrade or replacement of concrete structure

Alternative alignments: none

Dependencies: Shopping City

C.7 Route 7: Woodside Primary School to Runcorn Spur Road

Figure C.17: Walking Route 7 Proposals



The route starts at B155 and ends at Woodside Primary School. There is an existing shared use path along Runcorn Spur Road, which is proposed to be separated out for pedestrians and cyclists to travel independently.

Resurfacing, minor surface improvements and footways widening is proposed along with wayfinding, signalised crossing and raised table.

Key crossing improvements:

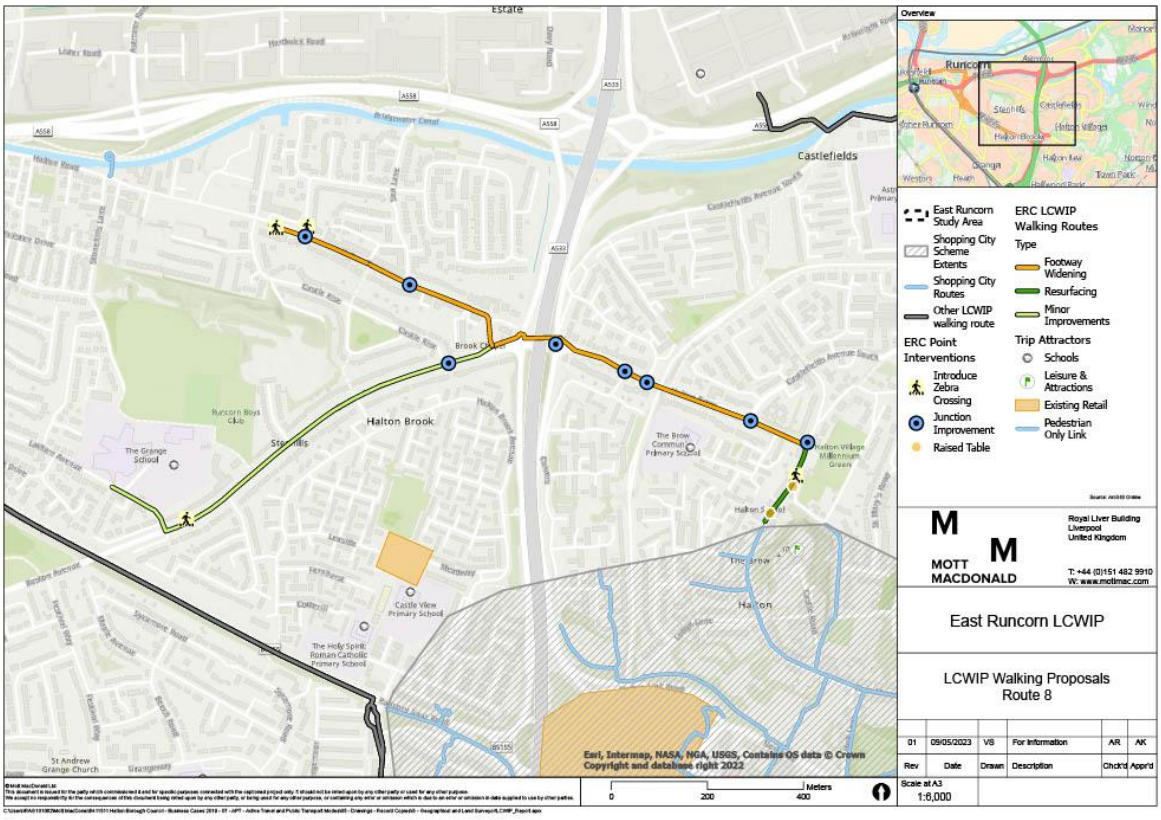
- Signalised crossing at Grangeway road near Woodside Primary School

Alternative alignments: shown on map (in blue)

Dependencies: Shopping City, Busway Cycleway Scheme, East Runcorn LCWIP cycling route 4

C.8 Route 8: Halton School to Runcorn Spur Road and Halton Road

Figure C.18: Walking Route 8 Proposals



The route starts at Halton Village, where footways are highly constrained, and ends at Halton School, with another spur terminating at Halton Road local centre.

Minor improvements and footway widening is proposed on this route along with wayfinding and zebra crossings. Along Halton Brow and Halton Road, a number of kerb radii tightenings have been proposed to reduce turning speeds of vehicles.

Key crossing improvements:

- Junction improvements at various points along Halton Road
- Zebra crossing on Halton Road and Boston Avenue

Alternative alignments: none

Dependencies: Shopping City, Busway Cycleway Scheme, East Runcorn LCWIP route 20

D. Appendix D: Officer Design Workshops

D.1 Workshop Attendees

The following Stakeholders attended the November workshop:

Halton Borough Council

- Ian Jones - Divisional Manager for Highways
- Jonathan Farmer - Service Manager
- Richard Wakefield - Highway asset officer

Liverpool City Region Combined Authority

- Stephen Cross - Development Assistant
- Rebecca Rowland - LCRCA Transport Development Analyst (working on CRSTS and Levelling Up Fund transport projects across LCR)

Cheshire Constabulary

- Alison Gabbot - Police Designing Out Crime Officer Halton

D.2 Feedback Received

Table D.2: Officer Design Workshops- Summary of Key Themes and Initial Response

Route	Location	Comment	Response
4	Runcorn Spur Road	Subway 1771 to be ramped which provides access to Victoria Road and shorter link to station	Potential relocation of crossing and route realignment for future design phase
7	Area north of Moore Primary School Off Road alignment	Include access from Moore Primary School to an off-road route west of Runcorn Road. Upgrade route to link with Moss Lane. There should be one destination to the route - Warrington via Moore Nature Reserve	Alignment initially added as an alternative to Route 7, to be investigated as part of feasibility design.
7	Canal alignment	Canal alignment widening option for route 7 is likely to be included as part of a wider waterways workstream. This can be kept in the LCWIP, but it needs to be acknowledged.	Included as part of potential dependency/pipeline.
7	Railway alignment	Route 7 option running parallel to the railway line is to be removed from consideration.	Option removed.
8	Railway crossing near Keckwick Brook	There is a feasibility study for a better railway crossing at this site.	HBC has knowledge of the organisation delivering the feasibility study. This information is to be gathered as part of feasibility or further design stages.
8	Bridgewater Canal	A shared pedestrian and cycle bridge is to be constructed as part of the development.	HBC to provide drawings which will be incorporated into feasibility design.
8	Runcorn East Station	There needs to be a crossing facility provided at Runcorn East Station.	Crossing facility added to potential intervention.
8	Area through Wood Lane	Barrier removals as well as continuity widening is required. Concerns of safety abound with potential issues around isolation and a lack of pedestrian movement. Has lighting been considered?	Wood Lane removed as primary option but kept as an alternative for feasibility design.
8	Area through Wood Lane	Improve existing provision through residential paths.	Potential rerouting to be considered in future phases.

Route	Location	Comment	Response
8	Red Brow Lane	Limited access is proposed to Red Brow Lane. This must be maintained in the LCWIP.	Limited access maintained.
8	Area to east of A533	Upgrade the crossing to a pedestrian signalised crossing.	Upgrade shown as part of potential intervention.
9	Victoria Road	With the ramping of Victoria Road subway, potential to better serve this area with a route through Ivy Street and Victoria Road.	Potential reroute - feasibility phase.
14	Preston on the Hill	Busway cycleway scheme to be implemented along with junction upgrades.	Noted.
14		<200 units - these are long term (no planning permission)	Address during feasibility study
15	Daresbury Int. Science and Tech Park	There is a potential new bridge over the canal - Keckwick Crossing to be made into a pedestrian and cycle bridge.	Bridge integrated to potential intervention. Contact HBC for design drawings as part of further design stages.
15	Keckwick Lane	Keckwick Lane is already a funded scheme.	Keckwick Lane removed from shortlist, route 15 now along Daresbury Expressway. Contact client to provide design drawings.
15	Daresbury Way	Need to include junction improvement - a new junction to be added as part of Daresbury Way.	Junction improvements added.
15	Area north of Windmill Hill	Level issues to be included.	Rerouting through subway and onto busway to be done.
15	Area North of Sandymoor School	Major junction intervention is required.	Added to potential intervention.
15	Area North of Sandymoor School	Daresbury to be shown as part of the LCWIP with segregation, traffic signals, junction improvements and a speed limit of 40 mph.	Mott Macdonald internal team has design information on this section of Route 15.
15	Darebury Science Park	Highlight the junction at the science park as having a dependency on the LCWIP	Added to dependencies.
16	Busway	Funded ATF2 scheme running through most of the route alignment	Include alignment for feasibility
19	Halton General Hospital	A route to be included through Palacefields and the Hospital.	Route to be added as alternative alignment to be considered as part of feasibility.
19	Palacefields	Uplands link- include for feasibility	Route through The Uplands to be included as an option for Feasibility.
23	Astmoor Industrial Estate	There is an existing scheme in place, but this is not LTN 1/20 compliant. There is no existing treatment at junctions and no cycle priority. Hence, an upgrade is required	Route kept as part of LCWIP to seek funding for junction improvements.
23	Runcorn Old Town and Station	Old Town Connectivity Scheme - some funding is available for the public realm. The link to Runcorn Station and the bridge is not currently funded.	Funding conditions noted. Link to station to be kept as part of LCWIP to seek funding.
23	Busway	Include lighting along the entire route.	Added to potential intervention.
Walking Route 1	Area south of Astmoor Primary School	There is a need to address the potential for conflict between pedestrians/vehicles near the health centre.	Pedestrian crossing provided as part of potential intervention.
Walking 1	Astmoor Bridge Lane	At grade pedestrian crossing connecting Astmoor bridge lane to Castlefield Ave north at Kingshead Corner	Rerouting to be added to current concept phase.

Route	Location	Comment	Response
Walking Route 1	Area north of Halton Common	There is at present a lack of footway continuity. Need to check issues with natural surveillance, wayfinding and determine a method to address safety concerns.	Footway to be proposed as part of potential intervention.
Walking Route 1	Area north of Astmoor Primary School	Provide a new footway - shared space with vehicles.	Route realigned - limited access proposed at lane apex.
Walking Route 2	Whole area and Town Park	There are potentially multiple funding schemes for this area. Implement Town Park paths recommendations (separate scheme)	Noted. Information to be passed down the design stages.
Walking Route 2	East of Town Park	Extend route to St Berteline's School	Route extended to Norton Lane – Norton Lane proposals to be considered as part of feasibility.
Walking Route 2	West of Town Park	Introduce new footways	Items added to potential intervention. New footways proposed along Norton Lane.
Walking Route 3	East of Academy	Extend route to railway station	Route lengthened to Runcorn East
Walking Route 3	Area north of Academy	Investigate need for paving in this area	New footways proposed along Palacefields Avenue.
Walking Route 3	Stockham Lane and adjacent path	Introduce wayfinding in this area	Items added to potential intervention.
Walking Route 3	Path behind Academy	Need to cut back vegetation as an ongoing maintenance issue.	Noted.
Walking Route 4	Off-road access near Brookvale	Introduce/update wayfinding.	Item added to potential intervention
Walking Route 5	Area near Palace Fields	More wayfinding and new footway are needed.	Items added to potential intervention.
Walking Route 6	Area south of A533	Issues with visibility, anti-social behaviour, vegetation and maintenance that need to be addressed	Noted.
Walking Route 6	Approach to Bridge	Issues with visibility at corners at bridge and approaching paths.	Noted. Bridge improvements proposed as part of potential intervention – to be assessed as part of feasibility.
Walking Route 7	The Grange School	Remove section to reach Grange School Destination.	Done

E. Appendix E: Prioritisation Scores[8]

This appendix summarises the potential prioritisation for implementing the selected cycle corridors and walking routes.

The prioritisation is high-level and indicates the relative importance of the prioritised areas and their package of proposed interventions, based on the methodology described in section 0. The purpose of the prioritisation is to help inform which routes or areas could be considered for further development first. At this stage of the assessment, the prioritisation is independent of cost.

Table E.3: Prioritisation Matrix

Route Type	**Cycling**										**Walking**							
Route number	**4**	**7**	**8**	**9**	**14**	**15**	**16**	**19**	**20**	**23**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Prioritisation Rank	2	5	9	16	2	2	7	14	9	1	13	18	6	7	17	14	12	9
Overall score	44	43	39	34	44	44	40	35	39	48	37	28	41	40	29	35	38	39
Criteria and scoring below. Scoring ranges from 1-5, where 5 indicates the most positive impact for a given criteria.																		
Theme: Effectiveness																		
Forecast increase in the number of walking and cycling trips	4	5	3	1	4	4	3	2	4	4	4	3	5	5	2	2	4	4
Population who directly benefit from the intervention	3	2	1	3	1	1	4	4	2	2	4	3	4	4	2	3	5	5
Proposed improvement to infrastructure	3	3	4	3	4	5	2	3	2	3	3	2	1	3	3	2	4	3
Contribution of the scheme to the overall network development	5	3	4	5	4	3	5	4	3	5	3	1	4	4	5	2	5	5
Improvement in road safety	4	4	3	3	5	5	4	3	4	5	2	2	3	3	1	4	2	2
Air quality impact	4	5	3	3	4	4	4	3	4	5	2	2	3	3	1	4	2	2
Connection to new developments	2	2	5	2	5	5	2	2	2	4	1	1	2	1	1	2	1	1
Impact on other users	4	3	3	4	3	2	3	1	3	4	3	4	3	4	4	4	3	3

[8] To be updated with input from Halton Borough Council

Route Type	**Cycling**										**Walking**							
Route number	**4**	**7**	**8**	**9**	**14**	**15**	**16**	**19**	**20**	**23**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Theme: Policy																		
Delivery against policy objectives, such as improvements to health and inclusion LTP3: promotes and enables improved health and wellbeing, LCR LTP4: Improving health through the right transport solutions, safer more attractive streets[9]	4 4	5 4	3 2	2 4	4 5	4 4	4 3	3 3	4 3	5 2	3 3	2 5	4 3	4 2	1 3	4 5	3 1	3 3
Performance against local transport plans/local plan policies, LTP3: Local carbon transport, LTP3: connectivity to employment, services and social activities, LTP3: support the economy through efficient movement of goods and people, LCR LTP4: Net Zero	5	4	5	3	4	5	4	4	3	5	5	2	4	3	3	3	4	4
Priority/importance of the intervention as defined through the engagement process[10]																		
Theme: Deliverability																		
Scheme feasibility/ deliverability including environmental constraints	4	2	2	1	4	4	3	2	3	2	2	1	3	1	1	1	1	3
Stakeholder acceptability																		
Dependency on other schemes	2	5	3	4	2	2	2	4	5	4	5	5	5	5	5	4	4	4
Benefits realisation[11]	M	S	S	S	L	M	M	S	S	S	S	M	S	S	S	M	M	S

[9] Result from AMAT health benefit (first row), and from IMD health score (second row)

[10] To be collected as part of engagement process.

[11] Short (S), Medium (M), and Long Term (L) benefits realisation, which takes into account the timeframe of development delivery and its resulting demand. This category's score does not add to the total route score, but guides prioritisation.

F. Appendix F: Cost Library

Table F.4: Unit Costs for cost estimates

Description	Unit	Rate	Comments
Links			
Bi-directional segregated 3m cycle track - urban	km	£250,000	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
Bi-directional segregated 3.5m cycle track - urban	km	£260,000	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
Bi-directional segregated 3m cycle track - verge	km	£310,000	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
Bi-directional stepped 3m cycle track - urban	km	£190,000	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
Update existing footway for shared use	km	£100,000	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
One way, 2m wide segregated track - urban (one side)	km	£210,000	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
One way, 2m wide segregated track - verge (one side)	km	£280,000	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
One way, 2m wide stepped track (one side)	km	£160,000	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
Shared use footpath, 4m wide - verge	km	£350,000	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
Carriageway resurfacing	km	£250,000	Includes resurfacing only
Localised landscaping improvements	no.	£50,000	Includes tree/planting/benches/surface improvements on localised small area
Footway 1m widening (asphalt surfacing)	km	£370,000	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
Footway 2m widening (asphalt surfacing)	km	£440,000	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
Footway resurfacing	sqm	£20	Plane and resurface with 40mm SC
Footway widening at buildout (asphalt surfacing)	sqm	£249	Average of 1m, 2m and 3m widening
New green verge and landscaping	sqm	£70	Includes tree/planting/benches/surface improvements
Carriageway widening - footway	sqm	£488	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
Carriageway widening - verge	sqm	£440	Includes kerbing, drainage alterations, excavation, surfacing, road markings and signs
Carriageway resurfacing	sqm	£40	Assumes 60-70m distancing. Includes associated signing and markings.
Cycle route wayfinding and signs	km	£16,000	Includes de-cluttering of redundant signs. Allowance of 40 per km. Includes removal
Junctions			
Raised table - side road or crossing only	nr	£10,000	Includes drainage alterations. Assumed asphalt paving
Raised table - across cycle track only	nr	£5,000	Includes drainage alterations. Assumed asphalt paving
New/relocated signalised pedestrian/parallel/Toucan crossing	nr	£100,000	
New/relocated zebra/parallel crossing	nr	£50,000	Includes belisha beacons and associated infrastructure

Adjustments to existing signalised crossing	nr	£25,000	Includes adjustments to kerb line, tactiles and relocation of signal pole(s)
Upgrade existing signalised crossing to signalised parallel crossing	nr	£50,000	Assumes pedestrian section of the crossing remains as existing
Upgrade existing signalised junction - minor junction	nr	£100,000	Includes alterations to signal infrastructure, kerbing, drainage and paving
Upgrade existing signalised junction - medium junction	nr	£250,000	Includes alterations to signal infrastructure, kerbing, drainage and paving
Upgrade existing signalised junction - major junction	nr	£500,000	Includes alterations to signal infrastructure, kerbing, drainage and paving
Compact cyclops type junction	nr	£600,000	
New/relocated uncontrolled pedestrian crossing	nr	£10,000	
Crossover/access improvements	nr	£20,000	Includes tightening of radii, adjust crossings/islands, decluttering
Priority junction general improvements - minor junction	nr	£50,000	Includes tightening of radii, adjust crossings/islands, decluttering
Priority junction general improvements - major junction	nr	£150,000	Includes tightening of radii, adjust crossings/islands, decluttering
Modal filter	nr	£50,000	Includes bollards, signing and minor adjustments to kerb lines and pavement where necessary
Miscellaneous			
Land purchase / CPO	nr	£100,000	Includes solicitor fees, negotiation, etc.
Bus stop relocation	nr	£15,000	Assumption only, structural assessment required
New/relocated lamp column	nr	£5,500	Includes electrical connections and removal work
Street furniture - i.e. bollards replacement	nr	£500	Indicative only. Rhino type
Preliminaries and contingencies			
Design Fees	%	15	
Preliminaries and Traffic Management	%	30	[10-40% depending on complexity]
Designer construction support fees	%		
Diversionary Works	%		[10-40% depending on complexity]
Risk & Contingency	%	40	[10-40% depending on design stage]