

Protect, care and invest to create a better borough



Telford & Wrekin Local Cycling & Walking Infrastructure Plan

8 June 2022



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1. Study Overview

Introduction Vision and Design Approach Study Overview

Introduction

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

The Telford and Wrekin LCWIP outlines a long-term plan (10+ years) to enhance active travel in the borough. It has considered the full extent of the borough of Telford and Wrekin (as shown in Figure 1), with an emphasis on links to key trip attractors and destinations that will help encourage a greater mode share for walking and cycling.

The study approach follows Department for Transport (DfT) guidance for an LCWIP¹, the core outputs of which are:

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

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



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

- » Make walking and cycling safe, attractive and convenient modes of transport for everyone, regardless of age, gender and ability.
- » Expand the existing cycle network and establish an extensive, continuous active travel network for the borough.
- » Enhance mobility in the borough with improved access and connectivity in the areas around railway stations, local high streets and commercial areas, schools, employment areas, and other key destinations.
- » Foster a high quality of life in Telford and Wrekin for its residents, visitors, and workers by supporting a wide range of social, economic, health, and environmental aspirations.

Development of the LCWIP will also support a refresh of our Cycling and Walking Strategy (separate study) and other broader objectives related to health, well-being, climate change, the environment, and equity.

Methodology

In order to meet the objectives of the LCWIP, the project was divided into the key tasks identified below and presented within Figure 2.

Further information is presented in the Study Overview section (page 7) and in the following chapters. The structure of the report has been developed to broadly align with these activities.

- » Review of previous studies, strategies and guidance
- » Background data analysis
- » Draft active travel network development
- » Stakeholder engagement to refine the draft proposed network
- » Prioritisation of 'Phase 1' corridors/areas using a multi-criteria assessment framework (MCAF)
- » Site visits and formal assessments using standardised tools - Walking Route Audit Tool (WRAT) and Route Selection Tool (RST)
- » Identification of potential interventions
- » Further stakeholder engagement to review the proposed interventions
- » Programme prioritisation and cost estimating



Figure 2. LCWIP process overview

Vision and Design Approach

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

- » support growth and regeneration in the borough
- » promote healthier and more sustainable travel choices
- » providing more accessible travel options
- » reduce carbon emissions to help tackle climate change
- » reducing short car journeys
- » improve access to jobs, education, healthcare, shops and leisure
- » reducing congestion and pollution

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

Additionally, local high street areas can benefit from a regeneration process which provides

spaces where people enjoy spending time, which can subsequently lead to economic and social vitality for the area.

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

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

- » Coherent
- » Direct
- » Safe
- » Comfortable
- » Attractive

Ultimately, the design strategy looks to provide short as well as long term solutions that could be applied to further designs across the borough. The full extent of the design principles and best practice is detailed in the Walking and Cycle Network Proposals sections on page 35 and page 85, respectively.

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



Study Overview

This section provides a brief overview and synopsis of the key activities undertaken during development of the LCWIP. Further information for element of the study can be found in the following chapters of this report.

Stakeholder Engagement

Early engagement was a key element of the LCWIP as it ensured that the views and knowledge of local stakeholders were taken into account.

Prior to the commencement of the LCWIP, we undertook a survey to engage local residents on their views and perceptions related to active travel. These responses helped shape ideas and inform the LCWIP, such identifying key barriers and preferences for different types of infrastructure.

During the study, two workshops were held with internal stakeholders. The first workshop obtained feedback on existing issues and the identification of draft walking and cycling routes. The second workshop reviewed the proposed infrastructure interventions.

Walking and Cycle Network Selection

Key findings from the review of previous studies, data analysis, and stakeholder engagement sessions were used to inform the development of the walking and cycling networks and route selection process.

The assessment process involved two stages. Firstly, a 'long-list' was developed using both gualitative and guantitative information to identify a comprehensive active travel network and focus areas across the borough. The cycle elements included corridors linking key destinations and population centres, while the walking elements focused on 'core walking zones' (CWZs) which identified areas with high propensity for walking in the borough. primarily around town centres and local high streets/commercial areas. The output was the aspirational networks for walking and cycling in Telford and Wrekin, which included 14 CWZs and 26 cycle corridors (see Figure 3 on page 9).

The second stage of the LCWIP utilised a multi-criteria assessment to prioritise the aspirational network and select a 'short list' for further analysis as part of the LCWIP. These 'Phase 1' elements of the network were selected for development of infrastructure improvements, which included 5 cycle corridors and 7 CWZs, as shown in Figure 4 on page 10).

Routes not selected for the development of the first set of potential interventions (Phase 1) are retained as part of the aspirational network (referred to as Phases 2 and 3) and may be developed further at a later stage.

Proposed Interventions

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

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

For the Phase 1 areas, a high-level package of proposed interventions was identified that

incorporates current design best practice, providing short and long term concepts that could be further developed and implemented.

The proposed interventions for walking and cycling are summarised on page 35 and page 85, respectively.

Route Prioritisation

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

The prioritisation process included criteria related to potential usage, the infrastructure proposals, and access. These categories were intended to reflect the potential usage of each route, the potential feasibility of the proposed schemes, 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 key destinations. A weighting was given to interventions which may provide a greater anticipated benefit over the existing condition, as this could support a more substantial uplift in walking and cycling.

Costing

Outline costs have been estimated for the proposed design measures. These estimates are reflective of the early concept design stage and are intended to provide an indicative, rough order-of-magnitude construction cost only. The figures also reflect the diversity of route intervention proposals, which varied significantly in terms of size and complexity. Costs vary from £2.3m to £10.6m for the cycle corridors and from £600k to £13.8m for the CWZs.

The costs for each route and mode (walking and cycling) were evaluated separately. This method provided a stand alone cost for each cycle corridor and CWZ and allows the proposals to be considered independently. However, if viewed as a network-wide package of improvements, there is an opportunity for savings.

Next Steps

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

transport policies, strategies and delivery plans, as per the DfT guidance.

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

The LCWIP should be viewed as a 'living document' and reviewed and updated periodically to reflect evolving needs and opportunities. This could be in response to significant changes in local circumstances, such as the publication of new policies or strategies. Additional active travel opportunities may also be identified and incorporated into the LCWIP in response to major new development sites and as walking and cycling networks mature and expand.

Walking and Cycling Networks

Figure 3 illustrates the aspirational walking and cycling network identified through the LCWIP, including the cycle corridors and core walking zones.



Figure 3. Telford and Wrekin LCWIP aspirational walking and cycling networks

Phase 1 Walking Areas and Cycle corridors

Figure 4 highlights the Phase 1 elements of the network, for which the LCWIP developed high-level proposals to improve facilities for walking and cycling (see page 35 and page 85 respectively). The Phase 1 areas included:

Phase 1 Core Walking Zones:

- 1 Telford
- Oakengates
- 3 Wellington
- 4 Ironbridge
- 5 Newport
- 6 Dawley
- 7 Madeley

Phase 1 Cycle corridors

- Great Dawley (Silkin Way)
- 5 Hadley Castle Hortonwood Loop Connector
- 10 Oakengates to Telford Centre
- **15** Shawbirch to Arleston (via Wellington)
- Madeley to Ironbridge (via Ironbridge/ Madeley Road)



Figure 4. Telford and Wrekin LCWIP Phase 1 cycle corridors and core walking zones

2. Previous Studies

Introduction Previous Studies & Policy Context Relevant Schemes Public Surveys/Consultation Other Studies

Introduction

The Telford and Wrekin Local Cycling and Walking Infrastructure Plan (LCWIP) is supported and informed by existing and emerging policies, previous and on-going studies, and existing scheme proposals. It is expected that many of the proposals included in this study will build upon their findings and recommendations.

This chapter reviews previous work relevant to the LCWIP to inform the:

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

Previous Studies & Policy Context

Cycling and Walking Investment Strategy (2017)

The Department for Transport (DfT) published the Cycling and Walking Investment Strategy (CWIS) 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. The intent is for walking and cycling to be a normal part of everyday life, and the natural choices for shorter journeys such as going to school, college or work, travelling to the station and for simple enjoyment.

The CWIS sets out the following targets to achieve by 2025:

- $\,\,$ » To double cycling to 1.6 billion cycle stages 1 in 2025.
- » To increase walking stages to 300 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. The development of the Telford and Wrekin LCWIP will support the achievement of the CWIS objectives and targets locally.

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

In 2020, the DfT published Gear Change and its updated Cycle Infrastructure Design (Local Transport Note 1/20) (see Figure 2-1). Both publications advance DfT's ambitions for a step-change in the provision of cycle infrastructure, a modal shift to cycling nationally, and establishing cycling as a form of mass transit. This supports issues related to public health, well-being, the economy and local business, climate change, the environment and air quality, and congestion.

Gear Change outlines 4 key themes to achieve as a step-change in cycling:

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

LTN 1/20 provides a refresh of national cycle infrastructure design guidance (previously LTN 2/08), reflective of latest best practices.

It is intended to support the delivery of the high-quality infrastructure necessary to achieve

Note – Trips consist of one or more stages. A new stage is defined when there is a change in the mode of transport



Figure 5. Cover pages of 'Cycle Infrastructure Design' & 'Gear Change: A bold Vision for cycling and walking'

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.

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

TWC Local Transport Plan 2011-2026

Telford & Wrekin Council's LTP3 covers the period 2011-2025 and is an update to our second LTP. The publication sets out our long-term ambitions to improve local transport in the area. The LTP recognises the role that transport plans play in achieving a place people want to live, work and play in. The report highlights that current travel behaviours are unsustainable and highlights issues with car dependence and density. The plan sets out key challenges as:

- » To manage traffic from new developments and provide access to key services.
- » Accommodate increasing travel without increasing carbon emissions and maintain the reduction in road accident casualties.
- » Through regeneration and new development, create an urban form that encourages cycling and walking trips.
- » Enhance the image of public transport.

The six Local Transport Plan goals which will help achieve the overall vision in 2026 are:

- » Making travel more reliable and efficient, to attract jobs and support growth and regeneration.
- » Maintain highways effectively and efficiently.
- » Reduce carbon emissions to help tackle climate change.
- » Allow everyone to access jobs, education, healthcare, shops and leisure.
- » Improve safety and security on the transport network and promote active travel choices which encourage people to be healthier.

» Improve the quality of life by reducing the visual, noise, air quality and other impacts of transport on people and the local environment.

LTP3 provides a strategy and policies to improve local transport to achieve our economic, social and environmental ambitions.

The development of the Telford and Wrekin LCWIP will support the objectives of the TWC LTP3 by encouraging a shift in mode-share towards walking and cycling. In turn, this will support the above vision by reducing pressure on the existing road network, supporting a new urban form, promote active travel choices, reduce carbon emissions and improve overall quality of life. The Cycling and Walking Strategy, written in 2017, sets out a long-term plan to encourage and support residents of Telford and Wrekin to walk and cycle more. The Action Plan that supports the strategy will guide priorities and funding on those measures that are considered to be the most effective methods to improve cycling and walking rates in the borough. The Action Plan and the Strategy will therefore identify awareness raising measures, new and improved infrastructure and wider supporting initiatives required to be in place. The key challenges the plan sets out are: A healthier population; Improved economy; Environmental benefits; and a Happier Community. See Figure 6 for headline facts for residents.

The strategy also sets out objectives on how to overcome the outlined changes, these include:

- » Taking a holistic approach to improving health and well-being through walking and cycling.
- » Create long-term behaviour changes towards more sustainable and healthier travel choices.
- » Make the cycle and walking network more accessible to residents and visitors.
- » Integrating community resources to deliver the strategy.
- » Integrate walking and cycling with other modes of public transport.

The development of the Telford and Wrekin LCWIP will support improvements to walking and cycling networks and will therefore subsequently support the objectives outlined in the TWC Cycling and Walking Strategy.

- Nearly a 1/3 of adults are obese
- Nearly ³/₄ of people drive to work
- Child obesity levels are around 2 percentage points higher than the national average
- Significant variations in Perceived Health across the Borough
- 19% of all adults walk as a major part of their commuting trip
- 41% of all resident's commuter trips are less than 5km
- 2% of travel to work trips are made by bike

*Data from 2017

Figure 6. Headline statistics on commuter trips and health in Telford and Wrekin (Telford & Wrekin Cycling and Walking Strategy, 2017)

Emerging work on Telford Local Plan, LTP4 and BSIP

Work is underway on several plans for the Council relevant to the LCWIP. While the work is in-progress and the plans are emerging, they help provide additional background information to inform the LCWIP.

Bus Service Improvement Plan (BSIP)

We submitted our BSIP to DfT in October 2021. The aspirations of this £41 million bid are summarised in Figure 7.

Local Transport Plan Evidence Base

We have begun work on the LTP by developing a discussion paper which outlines some of the key transport issues that the Council is facing over the coming Local Transport Plan period and provides evidence to support this. This work will:

- » Set the scene regarding the transport system in Telford.
- » Explore the issues identified in the Telford Local Transport Plan evidence base and the internal Council workshop (July 2021).
- » Include a set of key questions which seek to understand how the people of Telford prioritise these various issues and capture public opinion on the future of the transport system.

The outputs from this work can be used to define the key issues that will shape the new Local Transport Plan and ensure that they are aligned with the priorities of the borough and its residents. Some of the issues identified from the work are:

- » Redressing the balance between public transport, active transport and private transport.
- » Accessibility of the transport system from a physical, social and financial perspective.
- » Managing the growth of Telford sustainably to build thriving new communities who are well-connected to the existing transport system and have a variety of travel options available to them.

Telford Local Plan Evidence Base

Similarly, we have begun to develop a structured scenario planning process to inform

the policy approaches for transport within the Local Plan following the Issues and Options Consultation. This work will:

- » Explore the issues identified in the Issues and Options Consultation paper.
- » Review the evidence from Telford & Wrekin Council, as well as broader sources, to better understand the background and implications of future change in the local area.
- » Identify the most critical themes and drivers to inform the development of scenarios for Telford's transport system.

» Use an established methodology of scenario planning to define a set of scenarios and policy approaches.

The outputs from this work can be used to establish the direction of travel for the borough in terms of land use models, priorities for the economy and their transport implications.

Summary

The evidence base work has helped to set the scene for the transport and urban planning challenges that Telford and Wrekin is facing. The work is currently in progress; however, the above results have been taken into consideration to help set the scene for the issues and challenges that this LCWIP will help support Telford and Wrekin to overcome.

Figure 7. Aspirations set out in the TWC Bus Service Improvement Plan bid





Figure 8. Existing and proposed cycling infrastructure (Transport Growth Strategy)

TWC Transport Growth Strategy

The Transport Growth Strategy (TGS) was adopted by Telford & Wrekin Council in January 2016. The strategy sets out the transport infrastructure and investment that is required to accommodate future housing, business and population growth within Telford and Wrekin ensuring that the borough retains its competitiveness to attract inward investment, create jobs and improve quality of life for residents and visitors.

The plan highlights principles for the provision of walking and cycling infrastructure including travel plans as well as funding for transport schemes. Figure 8 shows the existing and proposed cycle infrastructure in Telford and Wrekin. The TGS identified mitigations regarding new routes, extensions to routes, crossing points, and area-wide measures where required.

At the outset of the LCWIP, the TGS proposed mitigation measures were reviewed to identify which have been implemented and which may no longer be relevant. As elements of the LCWIP network are identified, the TGS measures will be considered to reflect network connectivity and/or build upon existing infrastructure proposals. This will ensure there is a coherent interface between the LCWIP and the proposed schemes set out in the Transport Growth Strategy.

TWC Health and Well-being Strategy 2020-2023

The Telford & Wrekin Council Health and Well-being Strategy aims to drive improvements in health and well-being in Telford and Wrekin. The proposal was published in February 2020 before the COVID-19 pandemic; however, the foreword stresses the objectives of the strategy are still pertinent. The strategy outlines its vision, framework of delivery, priorities and outcomes. The priorities listed by the strategy are:

- » Driving progress to reduce health inequalities
- » Building community capacity and resilience
- » Prevention and healthy lifestyles
- » Early access to advice and information
- » Integrated care and support pathways
- » Emotional and mental well-being

This LCWIP will aim to support a mode shift from car to walking and cycling for short journeys as well as expanding the geographies where active travel is the go-to choice for travel for all demographics. This will help to increase the amount of exercise that is carried out in people's daily life resulting in associated health and well-being benefits.

Relevant Schemes

Silkin Way Investment Package (2021)

The Silkin Way Investment Package sets out a long-term investment strategy for Silkin Way, a well-known 14-mile green corridor for people walking and cycling between Bratton and Coalport which supports both leisure and commuter travel for residents and visitors, linking many places of interest in the borough (see Figure 9).

The package contains a review of the key assets located along the route, which includes the following:

- » Surface condition
- » Highway sections and crossing points
- » Lighting
- » Street furniture
- » Signage and information boards

Initial proposals and high-level cost estimates have been put forward for the improvement of these key assets, which have informed a potential investment package for the Silkin Way. An online survey was launched to establish existing views about current infrastructure and any potential areas of improvement, which could shape the investment plans. Works are planned to commence in 2022, and could be financed via various funding opportunities including Section 106 developer contributions, the Travel Telford Sustainable Travel Fund and future DfT Active Travel funding. As one of the borough's most popular walking and cycling routes, investment along Silkin Way will be crucial to encouraging more active travel and supporting the wider improvements proposed in the LCWIP.

Towns Funding - Telford Central, Oakengates, and Wellington Stations

The Towns Funding is an investment plan for three areas within Telford and Wrekin. They include Oakengates Theatre Quarter, Wellington and Telford Station Quarter. Work is in progress, however, the focus is on creating new public realm spaces for dwellings so new developments are appealing to new people living, working and visiting the areas and encouraging people to do this by bike or on foot in the future. Highlights for the walking and cycling interventions associated with each of the areas are noted below:

- » Oakengates Theatre Quarter Public realm to be redesigned to improve the 'look and feel' of the area around the Theatre
- » Wellington Re-vitalisation of historic centre including improving Market Square and public realm associated with it.
- » Station Quarter the most developed out of the three schemes, its masterplan contains a strong focus on sustainability.

This LCWIP will consider information for the investment plan proposals provided for



Figure 9. The Silkin Way Route (purple; source: Silkin Way Investment Package)

Oakengates Theatre Quarter, Wellington and Station Quarter. In addition, consideration will be given to how the LCWIP can integrate its proposals with those outlined above. Where specific locations are stated then consideration will be made for how these can be further enhanced through the LCWIP, e.g., through further links connecting to the route/facility.

Pride in Our Community Programme

The Pride in Our Community Programme is a highway maintenance and works programme for TWC in partnership with Balfour Beatty. £50 million is being spent as part of these works between 2018 and 2022. The programme pledges that the works be focussed on working with local people to improve the borough for all residents. The works include:

- » Road safety schemes around schools
- » Residential parking spaces in local neighbourhoods
- » Road improvements
- » Footpath improvements
- » Drainage Works
- » Structure's maintenance

The programme also stipulates that all projects are in response to issues raised by residents, elected councillors, and local town parish councils. Finally, part of this funding is also to support community projects to improve neighbourhoods and high streets.

The programme of works includes work type (as outlined above), location and expected delivery date. The type of works outlined in Pride in Our Community Programme are to be delivered by 2022. Although the LCWIP is a long-term plan, any programmed works which are expected to impact the street layout or road network will be considered when developing this LCWIP to ensure there is coherence and integration of any proposed interventions identified in the LCWIP. Works identified in the Pride in Our Community Programme related to traffic calming, 20mph speed limits, and school safety zones may be of particular relevance to the LCWIP and active travel.

The Ironbridge Gorge World Heritage Site - Management Plan (2017)

The Ironbridge Gorge is universally significant for its role in the development of the Industrial Revolution that largely originated in Britain in the 18th century, and later spread across the rest of the world. As a United Nations Education, Scientific and Cultural Organisation (UNESCO) World Heritage Site (WHS), it is required to have a Management Plan to ensure it is effectively protected and managed.

The plan identifies the attributes that must be protected, and the key issues, threats and challenges that need to be managed. There is continued pressure for change within the WHS through small-scale alterations and inappropriate modernisation and development. For example, parking within the WHS is limited but is still required to serve the 4,000 residents, tourists and hundreds of businesses located in the area, which can cause congestion issues at peak periods and environmental degradation. Whilst a Park and Ride facility has reduced parking pressures, there are still areas in the WHS which suffer from congestion and gridlock at times.

In response to challenges like the above and others, the plan provides 11 objectives which will seek to support the management of the WHS. The third and fourth of these are noted below:



THE IRONBRIDGE GORGE WORLD HERITAGE SITE

Management Plan



February 2017

Figure 10. The Ironbridge Gorge World Heritage Site: Management Plan cover page

- » Produce a Sustainable Access Strategy for the WHS.
- » Work to reduce car use in the Gorge and raise awareness and use of the Park and Ride facility.

The LCWIP will be an important mechanism for encouraging alternative forms of transport into and out of the Gorge for residents and tourists. The development of improved cycling and walking routes and paths from key destinations in the wider area could help to reduce private vehicle use and help develop the WHS into a green environmental tourist destination.

The plan notes that there is a high-quality network of 33 kilometres of paths, bridleways and cycleways in the local area; however, some of these are under-utilised and could be improved. Moreover, it suggests that there is much scope to improve cycle links and to work towards providing the 'missing links' in a network that would enable safer, easier and more rewarding routes between the principal attractions for residents and visitors. For example, connectivity to Telford Town Centre, the railway station, and the Town Park are all in need of improvement, especially the linked cycle corridor to the Gorge.

Newport Innovation and Enterprise Package

Newport was identified as a town with potential growth for Local Enterprise Partnership areas in the Marches Strategic Economic Plan. The 'Newport Innovation and Enterprise Package' is a planned investment package which aims to address the traffic growth and congestion in and around Newport associated with committed and proposed developments in support of the enterprise and science park which is being explored as part of the proposals called Ni-Park. Some works have commenced and detailed design for infrastructure for all works have now been completed to provide suitable access to Ni-Park, improve network capacity along the A41 and A518 corridors and to improve safety on the local road network. The infrastructure development works include;

- » Roundabout 1 A41/A518 (Stafford Road) roundabout capacity improvements
- » Roundabout 2 A41/A518 roundabout capacity improvements
- » Roundabout 3 A518/Audley Avenue/Ni.PARK new roundabout junction
- » Junction 4 A518/Ni-Park new 'Left in/Left out' junction between Audley Avenue and Station Road
- » Dual carriageway Conversion of the section of the A518 between the A41 and Audley Avenue to dual carriageway with a parallel off-road cycle and pedestrian route alongside.
- » Pedestrian crossing New signalised Toucan crossing between Audley Avenue and Ni-Park

- » Development access road A new road will be built linking Roundabout 3 to junction 4 and providing access to plots within the site
- » Speed limit The proposed Speed Limit will be reduced to 40mph between the A41/Stafford Road/A518 roundabout and the A518/Station Road roundabout
- » Public realm Improvements to street lighting, drainage, signage and road marking for the above-mentioned areas.

Local road improvements:

- » 6 School Safety Schemes to be delivered including electronic signs at each location
- » Boughey Road/Wellington Road speed limit changes
- » Chester Road Safety Scheme in vicinity of St Peter and St Paul School
- » Stafford Street Car Park Short stay/Long stay parking scheme
- » Station Road pedestrian crossing improvements
- » Pave Lane gateway improvements and HGV restrictions.

This LCWIP will consider the improvements outlined in the above package of works for the Newport site. The LCWIP will consider the above proposals to ensure that they are integrated in a coherent way to complement and add to the cycling and walking network in Telford and Wrekin.

Public Surveys / Consultation

Cycling and Walking Public Consultation 2021

As outlined above, the Cycling and Walking Strategy sets out a long-term plan to encourage further walking and cycling in Telford and Wrekin. A consultation survey was carried out in 2021 to begin working together as a borough and build upon the growth in active travel which has been noted since 2017 and during the COVID-19 pandemic. The consultation sought to focus on people and places which have not felt the momentum in cycling and walking growth as strongly. The survey received 513 responses.

The consultation survey also gathered input on perceptions of barriers to active travel and user preferences for different types of infrastructure and interventions to support an uptake in active travel. As part of the LCWIP, these responses were tabulated to understand existing barriers and preferences regarding potential active travel infrastructure measures. The development of the Telford and Wrekin LCWIP will seek to increase the number of utility trips made by walking and cycling in the borough by incorporating the types of infrastructure measures highlighted in the survey.

The key findings are listed below and illustrated in the following charts.

» Regarding cycle infrastructure, there is a strong preference for cycle facilities physically separated from motor vehicle traffic (segregated cycle lanes, shared use paths, or off-road dedicated cycle corridors), as shown in Figure 11. This is generally consistent with the design principles of DfT's LTN 1/20.

- » The most commonly referenced barrier to cycling was road safety (i.e. speed of vehicles, number of vehicles on the road), which was noted by 56% of responses. Other commonly cited barriers were uneven/unsafe road surface (39%) and lack of cycling and walking routes (31%).
- » Aligned with the perceived barriers and preferences for physically segregated cycle facilities, by far the top responses which would encourage more cycling were more cycle corridor (65%) and segregated cycle corridors (63%). These are shown in Figure 12.
- » Related to walking, personal safety was the top perceived barrier to walking more (35% of responses). Other more common barriers cited included time (24%), lighting (21%), and lack of footpaths (20%).
- » To encourage more walking trips, a number of infrastructure measures generated responses, all of which reflect improvements to personal security; safety in relation to vehicle traffic; and/ or creating a more attractive and convenient walking route by reducing the amount of traffic along the route, improving pedestrian priority, and/or providing additional crossing

opportunities. The responses are illustrated in Figure 13 and include:

- Pavement parking ban (28%)
- Lighting (27%)
- Priority given to pedestrians (25%)
- Traffic free streets / neighbourhoods (24%)
- More pedestrian crossing points (21%)







Figure 12. Preferred measures that would encourage more cycling trips (Telford and Wrekin active travel consultation survey, 2021)





Violence Against Women & Girls survey

The violence against women survey was produced in May 2021 and had 809 respondents with 92% being female. Respondents were asked 'What locations make you feel unsafe/ vulnerable?' with respect to public locations in Telford and Wrekin. These included (but are not exhaustive):

- » Railway stations
- » Car Parks
- » Walking routes e.g., Silkin Way
- » Clubs/Pubs
- » Parks
- » Public Transport
- » Alleyways
- » Educational premises

Respondents were then asked to rank them on a scale of 1 to 5 from 1 (uncomfortable) to 5 (extremely unsafe). A summary of the responses relating to questions regarding the public realm such as alleyways, walking routes, parks and underpass which this LCWIP could influence are detailed below.

- » Silkin Way 34% of respondents stated that they felt '5 (extremely unsafe)' along the route
- » Underpasses 29-32% questions regarding underpasses, respondents stated that they felt '5 (extremely unsafe)'

» Alleyways - 46% of respondents stated they felt
'5 (extremely unsafe)' when using them

This LCWIP will consider these responses when developing the walking and cycling proposals for Telford and Wrekin, taking consideration for public locations outlined above which create a sense of discomfort and unsafeness for women and girls. Perceptions of personal security can be a critical barrier to uptake in active travel, and measures can be considered to improve personal security.

Other Studies

The following works listed below have also been considered as part of the review and compilation of background information and previous studies. However, they are not discussed in the main section as they are less relevant to this LCWIP:

- » West Midlands Stations Alliance Station Prospectus - Telford Central, Oakengates, and Wellington Stations.
- » Access for All funding Wellington Railway Station.
- » TWC's Highway Asset Management Policy and Strategy.

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3. Evidence Base

Introduction Background Data Summary

Introduction

To support development of the Telford and Wrekin LCWIP, a range of existing spatial data was compiled and reviewed. This data helped to provide an understanding of existing and potential demand, issues, and barriers for active travel. Where appropriate, the data was mapped to overlay different pieces of information. This background data informed the identification of core walking zones and key cycling routes, which are discussed in following chapters.

The analysis included the following data sets:

- » Protected areas
- » Key destinations, employment sites and development areas
- » Existing walking and cycling networks and infrastructure
- » Railway, bus and road networks
- » Topography
- » Pedestrian and cyclists collision data
- » Local demographics, such as resident and workplace population, and car ownership
- » Indices on multiple deprivation
- » Propensity to Cycle Tool data
- » Travel to school data
- » Barriers and topography

A summary of the data analysis is provided in the following section. Mapping and summaries for each of the datasets can be found in "Appendix 1: Review of Background Data".

Background Data Summary

The data analysis has identified the following key points, which were considered in the development of the walking and cycling networks in Telford and Wrekin:

- » Data on population density, employment, existing and future land use, public transport sites, and PCT commuter and cycling trips illustrates that demand is heavily concentrated within the built-up area to the centre and south of the borough.
- » Town centres such as Telford and Newport are key spaces of work, education, leisure and travel within the borough. These are urban areas with more employment opportunities, schools, a higher population density, compact development, transport interchanges, and a denser road network.
- » This data also indicates that Newport is a separate target area for cycling and walking interventions in the northeast of the borough.
- » Key regional attractions within the borough include the Ironbridge Gorge UNESCO site to the south.
- » Car and van ownership per household is high outside of the main urban areas in the borough, with households in these areas generally owning more than one car, reflecting the dominance of vehicles within the borough. However, car trips in these locations are generally longer compared

to the shorter car trips (<5km) that are evident in the more built-up areas.

» Analysing the PCT data is particularly key to the development of the walking and cycling routes in the LCWIP. In terms of cycle commuter trips, future 'Go Dutch' and 'E Bike' scenarios highlight that there is the potential for significant growth in cycle trips within the Telford urban area and linking to Newport. Commuter cycling trips from the more rural areas could also increase, particularly from High Ercall and Crudgington. In addition, the PCT data highlights the potential for shorter car commuter trips (i.e., under 5km) within and into the urban areas to be replaced by more active modes. The PCT school travel scenarios illustrate similar trends in potential areas for uptake of cycling.

4. Walking Network Development

Introduction Development of the Aspirational List Identification of Phase 1 Core Walking Zones

Introduction

This chapter summarises the identification of the walking network for the Telford and Wrekin LCWIP. The walking network was developed over two key stages:

- » Development of the 'aspirational list' Aim to focus the CWZs in the borough's town centres, combined with identification of other potential focal areas of pedestrian activity in the borough. In total, 14 areas were initially identified.
- » Selection of the 'short list' Prioritisation of the 7 town centre areas as 'Phase 1' CWZs for further assessment and concept development as part of the LCWIP.

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

Development of the Aspirational List

Development of the walking network for the Telford and Wrekin LCWIP focused on identification of CWZs, as per the DfT's LCWIP technical guidance, which is illustrated in Figure 14.

The CWZs represent nodes of relatively high pedestrian activity within the borough, typically consisting of several walking trip generators that are located close together – such as a high street, schools, or employment areas / business parks. CWZs are intended to enhance the pedestrian environment around these key trip generators rather than longer, linear routes. The CWZs play a significant role in promoting walking to key trip attractors, supporting the local economy, and achieving the LCWIP objective of encouraging more short, utilitarian trips to be made on foot.

It should be noted that the CWZs were identified via two methods. Firstly, the CWZs were to be located in the borough's main town centres. Secondly, key data that had been collected and analysed for the Evidence Base (Chapter 3) was considered to help support the identification of CWZs across the borough, as well as to support TWC's aim for the CWZ to be located in the town centres.

The aspirational list of CWZs were identified using designations from the local plan (Telford town centre, market towns and district centres). These were supplemented with additional commercial areas identified using information from Google Maps' 'areas of interest' data layer. The CWZs were created using 250m isochrones around the high street areas. This was in keeping with DfT guidance that a CWZ should be a minimum diameter of 400m (approximately a 5-minute walk). The extent of the CWZ covers the main commercial area/high street and main access corridors.

This process identified 14 candidate CWZs around local commercial areas within the borough, which are shown in Figure 15.



Figure 14. Process of identifying the walking network (DfT, LCWIP - Technical Guidance for Local Authorities)



The background data compiled and summarised in Chapter 3 (page 25) was then used to create a qualitative 'heat map' of pedestrian issues and opportunities, where the overlap of relevant criteria suggests locations with a higher propensity for walking trips and greater potential benefit from infrastructure interventions.

The criteria included:

- » Destinations and trip attractors.
- » Development sites.
- » Public transport (bus stops).
- » Walking isochrones from rail stations (10 minutes).
- » Population and workplace density.
- » Collisions involving pedestrians.
- » Travel to work short trips with potential for mode shift (<2km).

The pedestrian opportunities/issues heat map was used to support an initial, qualitative sifting of the identified CWZs and categorising them as Phase 1 (higher priority) or Phase 2 (lower priority). As shown in Figure 16, the candidate CWZs were overlaid on the heat map, and the higher intensity colour indicates a potential higher demand for utilitarian walking trips or pedestrian improvements. The heat map also confirmed that the town centre CWZs were broadly aligned with the areas of highest potential benefit across the borough, supporting prioritisation of the town centre CWZs.



Figure 16. Qualitative 'heatmap' of pedestrian issues and opportunities, overlaid with the Core Walking Zones aspirational list

Based on the data reviewed and evidence base compiled, potential demand and propensity for short, utilitarian walking trips is highest in the southern area of the borough, which tends to have a denser population and more compact, urban development patterns. Hence, the majority of local commercial areas are also located in the south of the borough.

Figure 17 shows the initial categorisation of the 'Aspirational List.' The draft CWZ aspirational list was reviewed with internal stakeholders during the first workshop (workshop #1). Attendees were generally in agreement with the identified core walking zones (CWZs). No suggestions were received for additional CWZs or to reclassify any as Phase 1 or 2. Comments largely provided background on the issues, needs, opportunities, and/or constraints within the various CWZs.

Table 1 on the following page lists the CWZs comprising the aspirational list, as well as key feedback from the first workshop.



Figure 17. 'Aspirational List' of Core Walking Zones in Telford and Wrekin (CWZ ID# labelled)

ID	Core Walking Zone	Description	Stakeholder Workshop 1 Comments	Phase
1	Telford town centre	This large CWZ includes Telford Centre, the key retail destination in the borough, and the access routes to it. It also encompasses the northern section of Telford Town Park.	Support received.	Phase 1
2	Oakengates	Focuses around the town centre of Oakengates, encompassing the Railway and Bus Stations and the key retail areas. The CWZ also includes radial routes which provide access into and out of the town.	Support received.	Phase 1
3	Wellington	The CWZ encompasses the commercial/shopping/ retail hub of Wellington, which also includes the Railway and Bus Stations.	Support received.	Phase 1
4	Ironbridge	Focused around the eastern and western approaches to Ironbridge High Street, as well as the High Street. The CWZ also encompasses the Iron Bridge and the local access routes to it.	Support received.	Phase 1
5	Newport	Focused around the High Street which is the town's main commercial hub.	Support received.	Phase 1
6	Dawley	Focused around Dawley's High Street which is the town's main commercial hub.	Support received. Feedback noted that there should be links to Mainslee.	Phase 1
7	Madeley	Focused around the main commercial area on the High Street and the main access routes to it, in addition to Parkway which bypasses the High Street to the north.	Support received. Feedback suggested that it was crucial that connections were provided to the Woodside and Sutton Hill areas.	Phase 1
8	Hadley	Focused around the High Street and Manse Road which are the retail destinations in the village.	Support received.	
9	AFC Telford United	Incorporates the key access routes to the local football club.	Support received.	Phase 2

Table 1. Summary of stakeholder feedback on Core Walking Zone aspirational list

ID	Core Walking Zone	Description	Stakeholder Workshop 1 Comments	Phase
10	Lawley	Focuses on the commercial area around the junction between the A5223 and B5072.	Support received.	Phase 2
11	Wrekin Retail Park	Encompasses the Wrekin Retail Park which is home to a number of large retail stores, located north-west of the junction between the M54 and A5223.	Support received.	Phase 2
12	Donnington	Focuses on Wrekin Drive and the retail stores adjacent to it.	General support received.	Phase 2
13	Telford Retail Park	Encompasses Telford Retail Park and the key access routes through the Park.	General support received.	Phase 2
14	Garden Centre & Hotel	Focuses on the Mere Park Garden Centre, Premier Inn Newport/Telford and the junction between the A41/A518/A41.	General support received.	Phase 2

"Table 1. Summary of stakeholder feedback on Core Walking Zone aspirational list", continued

Identification of Phase 1 Core Walking Zones

Phase 1 Walking Areas

As summarised in the previous section, seven CWZs were selected as Phase 1 areas. This follows our approach to focus on the town centres areas, which was also supported by the evidence base review and stakeholder feedback.

The selected Phase 1 CWZs are listed and illustrated in Figure 18.

The seven Phase 1 CWZs were advanced through the remainder of the Telford and Wrekin LCWIP activities, including a review of existing conditions and the development of initial concept proposals.

Walking Route Audits

Once the Phase 1 CWZs were identified, key pedestrian routes within the CWZs were assessed using the DfT's Walking Route Assessment Tool (WRAT).¹ The assessment provided a baseline for existing conditions and helped identified existing deficiencies and key issues in the area. The CWZs were audited in January 2022 and the results are presented in the Appendix.



Figure 18. Core Walking Zones – Phase 1 Short List

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

5. Walking Network Proposals

Methodology Phase 1 Proposed Walking Interventions

Methodology

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

Design Outcomes

Potential improvements for walking were developed following a set of desired core design outcomes (adapted from the WRAT and LTN 1/20) to encourage more people to make short local journeys in Telford and Wrekin by foot. These are applicable not only to the Phase 1 CWZs of the LCWIP, but can be applied on projects borough-wide as opportunities arise.

- » Attractiveness Walking infrastructure should enhance the public realm. It should foster a welcoming environment for people walking that encourages more trips on foot and preserve the historic environment and setting of listed buildings.
- » Comfort Walking facilities should be fit for purpose, well constructed, and well maintained. It should support a comfortable environment for walking for people of all ages and abilities.
- » Directness Walking improvements should seek to accommodate movements along desire lines, provide continuous routes, eliminate unnecessary obstacles, and minimise delay.

- » Safety Infrastructure should be safe and improve perceptions of safety for people walking to encourage more trips by foot. Safety applies both to interactions with motorised traffic as well as concerns related to personal safety and security.
- » **Coherence** Infrastructure should be legible, intuitive, inclusive, and routes interconnected. It should be easy to navigate and understandable for all users.

Guiding Principles

To support the desired design outcomes, the walking improvements follow several general principles, which can be applied throughout Telford and Wrekin. Examples of design elements that support these principles are shown on the following pages.

- » Desire lines People walking tend to follow the shortest path to a destination, and are likely to bypass or not use facilities that require a notable deviation to the length of their journey. Therefore, improvements should seek to accommodate and enhance movements along preferred desire lines as closely as possible.
- » Access to key destinations Safe, attractive walking routes are essential to encourage active travel to key local trip attractors, such as local commercial areas, schools, parks, etc.
- » **Footway width** The minimum unobstructed footway width for people walking should

generally be 2.0m, which facilitates two people in wheelchairs to pass each other comfortably. Additional width should be considered in areas with higher pedestrian activity (Inclusive Mobility / Manual for Streets).

- » Lower traffic speeds High vehicle speeds can reduce the attractiveness of a route for people walking and make them feel unsafe. Vehicle speeds of 20mph or lower are preferred in key pedestrian areas. Design elements such as vertical deflection (e.g., speed cushions, raised tables/raised junctions) or horizontal deflection (e.g., kerb build-outs, tight kerb radii, priority working) may be used, as appropriate, to support the desired vehicle speeds and create an environment where the speed limit is self-regulating.
- Pedestrian crossings Appropriate crossing facilities should be provided along pedestrian desire lines to maintain the continuity of a walking route, improve safety, and reduce severance. The type of facility will depend on the context of the crossing. At a minimum, crossings should have appropriate tactile paving and dropped kerbs. Additional provisions for uncontrolled crossings could include raised tables, refuge islands, and/or reduced kerb radii to shorten a crossing and reduce vehicle speed. At locations requiring greater priority for people walking (e.g., locations with higher traffic volumes and/or speeds, or higher pedestrian
flows) zebra or signal-controlled crossings may be appropriate.

- » Pedestrian priority Design measures should seek to enhance pedestrian priority, improving the continuity, directness, and coherence of the primary walking routes. Design tools such as side road entry treatments (raised tables, continuous footways), raised carriageway, vehicle access restrictions, or use of different materials to highlight pedestrian crossings or delineate space for different users may be considered.
- » Place function of the street Streets have both a place and movement function, and interventions should seek to balance these purposes appropriately. As the CWZs are focused around high street areas, they are likely to have a relatively high place function. Walking-related interventions should consider measures that enhance the place function and thereby encourage pedestrian activity in the area, such as expanding the public realm, providing places to rest and plantings, and/or reallocating carriageway space to other uses.
- Wayfinding Good sight lines and visibility of destinations and of walking routes are important elements that effect how easy a route or area is to navigate, how many people walking use the route, and perceived personal security.
 Wayfinding signage should be used to aid navigation and encourage use of designated routes. Appropriate signage can improve confidence in using the route and encourage more walking trips, particularly for those unfamiliar with the area. A consistent wayfinding

system should be applied on walking routes throughout the borough.

- Context sensitive design Improvements should complement and enhance the character of urban, rural, and historical environments. The high-level concepts developed in the LCWIP should be suitable for the setting, and design guidance should be adapted to fit the local context and space constraints. Particular attention should be paid to the treatment of heritage assets.
- » **Inclusive design -** Walking facilities should provide equal access for people with disabilities and ensure that streets meet the requirements for all users, regardless of age, gender and ability.
- » Adaptability Improvements should be developed to accommodate all types of users, and potential growth in the numbers of people walking.
- » Tactical urbanism During implementation, consider temporary, low cost measures as demonstration projects to test concepts and experiment with different designs. Temporary measures can be a valuable tool to illustrate how the public highway space can be re-imagined and reallocated to different road users, and help build public support. Low cost, temporary materials such as paint, planters, or bollards can be used to widen footways or tighten side road junctions.

- » Design Standards As proposed walking improvements are advanced, design stages should utilise the latest best practice design guidance and standards available at the time, such as:
 - Inclusive Mobility (Department for Transport)
 - Manual for Streets / Manual for Streets
 2 (Chartered Institution of Highways & Transportation)¹
 - Streetscape Guidance (Transport for London)
 - Healthy Streets Approach (Transport for London / Department of Transport)
 - Local Transport Note 1/20 Cycle Infrastructure Design (Department for Transport)

¹ Design standards to be updated following anticipated Manual for Streets' update in 2022.

Example Design Tools - Walking



Uncontrolled Crossing

Provides accessible crossing opportunities along walking routes, including tactile paving and dropped kerbs at side roads and at desire lines where visibility is good and traffic speeds and flows are low. If the carriageway width allows, a refuge island can also be provided to facilitate the crossing, particularly where traffic flows are higher.



Zebra Crossing Provides priority for people walking at a crossing location, minimising the delay and improving the directness of the route. A parallel crossing can also accommodate both people walking and cycling.



Signalised Crossing (Puffin/Pelican/Toucan) Provides a controlled crossing at busy streets and/ or where vehicle speeds are high, thus improving user comfort and safety, reducing delay at crossings of busy streets where there are limited gaps in traffic. A toucan crossing can be implemented where cyclists also use the crossing, connecting off-carriageway cycle facilities.



Raised Table (Side Road Entry Treatment) Encourages motorists to reduce speeds, indicates pedestrian activity, and encourages more driver attention and care when turning. Also enhances priority for people walking and makes the side road crossing easier and more convenient for people walking by maintaining the continuity of the route at footway level.



Continuous Footway (Side Road Entry Treatment) Similar to a raised table, but also maintains continuity of the footway surfacing across the side road and locates the stop line at the rear of the footway. Thus, it further emphasises to drivers pedestrian priority and continuity of the pedestrian space.



Raised Junction

Similar to the raised table, a raised junction encourages motorists to reduce speeds at a junction. It also provides crossings at all arms of a junction and facilitates uncontrolled pedestrian crossings at footway level. (*image: Google Street View*)

Example Design Tools - Walking



Review On-Street Parking

Manages and/or relocates on-street parking to support a more attractive and safer walking environment, allow safer and easier informal crossings, improve visibility, and/or provide wider footways and public realm.



Raised Parking / Loading Bays Reallocates carriageway space to the footway, providing a wider, more comfortable pedestrian environment. The bays may be used for servicing or parking as needed, but allows a more flexible use of space to better accommodate pedestrians. Ensures that the carriageway remains 'narrow' to reinforce low speeds.



Recessed / Inset Parking / Loading Bays Provides an opportunity to control on-street parking and widen footways to facilitate informal crossings, improve visibility, and/or provide public realm enhancements. (*image: Google Street View*)



Central Reservation Decreases the auto-dominance of the street and facilitates informal pedestrian crossings. May be particularly applicable in areas with higher levels of pedestrian activity and numerous destinations along both sides of the street, such as shops along a high street. (*image: TfL*)



Walking / Cycling Priority Street Reduces vehicle dominance of the street and prioritises people walking and cycling. Elements may include a shared space environment, raised carriageway and removal of kerbs to provide a more flexible space for all users, materials to delineate space for different users, and low traffic speeds, and vehicle access restrictions.



Public Realm

Redesign of a street to create a more vibrant and attractive street environment. Key aspects may include footway widening, resurfaced footways with blocked paving, raising the carriageway to footway level, street trees, plantings, seating, and/or outdoor dining. (*image: Google Street View*)

Example Design Tools - Walking



Modal Filter / Low Traffic Neighbourhood Supports a safer, more attractive environment for walking and cycling by reducing motor vehicle traffic and permitting more direct, convenient access by foot or by cycle. Modal filters may be configured to permit access by certain vehicles (e.g., emergency vehicles, buses, blue badge holders). (*image: kingsheathltn.co.uk*)



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



Lower Traffic Speeds

Improves safety for all road users and fosters a more comfortable environment for cycling and walking. Should be supported by traffic calming measures, as needed, to make the speed limit self-enforcing. A borough-wide policy could also be considered rather than changes on a street by street basis. (*image: WestLeedsDispatch.com*)



Wayfinding

Improves the coherence of the walking network, making it easier for people navigate through the borough and encouraging more trips to be taken by foot. A consistent system should be applied borough-wide.

Phase 1 Proposed Walking Interventions

The following sections present potential design measures to enhance the Phase 1 core walking zones identified in the previous chapter. The proposed interventions are high-level and identify concepts for further consideration in the next stage of design. They seek to address issues and deficiencies identified during the audit activities, incorporate comments and issues noted during early stakeholder engagement (workshop #2), as well as to incorporate proposals from previous studies. They aim to be aspirational, ambitious, and reflect long-term timescales of the LCWIP, seeking to support a step-change in active travel and incorporate recent best practice quidance.

For walking improvements, this includes a range of strategies from relatively minor interventions (e.g., improved dropped kerbs and tactile paving) to new crossings, footway widening, or reconfiguration of the public highway. All proposed measures would be subject to varying levels of future additional analysis, feasibility assessment, and design.¹ Next stages of scheme development would develop the concepts in greater detail,

during which further observations, data, and information would be obtained to continually refine and improve the initial proposals.

The proposed interventions are presented by core walking zone on the following pages. While these proposals are focused on the Phase 1 CWZs, they also provide examples of the types of interventions that can be implemented borough-wide as needs or opportunities arise.

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

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

¹ The design stage of the LCWIP proposals is concept development. All the proposed interventions are subject to further assessment during feasibility planning and design, such as topographic survey, traffic modelling, vehicle swept path analysis, utility survey, traffic/speed survey, availability of land, further stakeholder input, etc., as applicable.



Figure 19. Proposals for Core Walking Zone 1: Ironbridge

Core Walking Zone 1: Ironbridge

Proposed Interventions:

1 Madeley Road/ High Street/ Waterloo Street roundabout area: Review potential for road space reallocation to widen the footways on the roundabout. To the extent feasible, tighten the radii on the roundabout to reduce traffic speeds and improve visibility. Investigate the opportunity to restrict HGV movements to reduce the need for wide turning radii. (see Figure 20)

Investigate upgrading the existing uncontrolled crossings (on the Madeley Road approach to the roundabout and on Waterloo Street at the car park exit) to zebra crossings to improve access to the High Street and reduce traffic speeds. Provide an uncontrolled crossing on Madeley Road at the car park exit and investigate the opportunity to introduce a



Figure 20. Footways on Madeley Road/ High Street/ Waterloo Street roundabout are narrow with obstacles reducing the effective footway width.



Figure 21. Lay-bys on the High Street minimising the available space for pedestrians and restricting the view to the Ironbridge)

refuge island at the proposed crossing to improve pedestrian safety and to operate as a traffic calming measure.

High Street: Propose section of the street 2 as Pedestrian and Cycle priority street. This could include filling in lay-bys to widen the footways on the approach to the Ironbridge World Heritage site. Restrict on-street parking and improve the public realm with added planting and seating. Improve access to the bridge with additional uncontrolled crossings (raised tables or dropped kerbs) and accessible ramps to the off-carriageway paths along the River Severn. Review the potential impact of the proposals to the flood barriers during the next stages of the design. All measures to follow Heritage design guides. (see Figure 21)

Long-term aspirational proposal: Investigate closing the High Street to general traffic during weekends and bank holidays (along the section between the two car parks). Allow bus services through the pedestrianised area at slow speeds.

- 3 Wharfage: Introduce localised widening of the footways at pinch points (at the trees, where the footway width is less than 1.5m), which may operate as priority working for motorised traffic (if needed) and side road treatments with continuous footways. Propose uncontrolled crossings at key locations, including at the exit of the car park and where the footway terminates on the north side.
- 4 Improve access to the river path by introducing a new accessible ramp east of the car park.
- 5 Dale End: Propose a zebra crossing on Dale End on the approach to Wharfage/ Dale Street roundabout to improve access to the school and provide a traffic calming measure.
- 6 Investigation of 20mph zone: Investigate the potential to expand the existing 20mph zone to include Aspis Telford School (Dale Road) and the entirety of the main settlement area (Wharfage, Madeley Road, and Waterloo Street), if compliant and feasible.



Figure 22. Proposals for Core Walking Zone 2: Madeley

Core Walking Zone 2: Madeley

Proposed Interventions:

- Halesfield Access: Improve the subway to the Halesfield industrial area to enhance access and perceptions of personal safety. Measures may include improved lighting along the subway and at the entrances, removing graffiti and adding CCTV. Widen the off-carriageway path to the extent feasible to improve access and sightlines / visibility. (see Figure 23)
- 2 Queen Street: Localised footway widening to provide a more comfortable pedestrian environment. Side road treatments with raised tables¹ and continuous footways to give priority to pedestrians. Introduce a zebra crossing west of Hills Lane Drive for access to the bus stops and the local shops. (see Figure 24)
- 3 Madeley roundabout: Widen the footways on the roundabout by reallocating space from the carriageway. To the extent feasible, tighten the radii on the approaches to the roundabout to reduce traffic speeds and improve visibility. Introduce a toucan crossing at Parkway (north-west arm), a puffin crossing at Legges Way (south arm), a toucan crossing at Kemberton Road on the approach to Miners Arms bus stop (east arm), and improve the existing uncontrolled crossing



Figure 23. Brockton Way Subway: Graffiti and low brightness lights affect the feeling of personal safety. Unsurfaced path reduces the accessibility.



Figure 24. Queen Street: proposed side road treatment (cyan) and zebra crossing on the approach to the local commercial area and the bus stops (yellow). (source: *Google Street View*)

on Kemberton Road on the approach to Madeley roundabout. Investigate the desire line and improve crossing on High Street on the approach to the roundabout and Silkin Way.

- 4 Barkers Court Station Road: Consider raising the carriageway to footway level to provide a shared space for pedestrians, cyclists and motorised traffic. Parking survey to estimate the parking needs and delineate parking bays with buildouts (which can be used as uncontrolled crossings to reduce crossing distance). Improve access to Silkin Way by widening the footway on the north side by reallocating space from the carriageway. Reduce the vegetation on the approach to the crossing to improve intervisibility with motorised traffic.
- 5 High Street: Reduce the carriageway width to c3.5m and widen the footways on both sides of the carriageway. Propose recessed on-street parking at the footway level at locations where the available width is more than 4m. Provide raised tables at the side roads to enhance priority for pedestrians¹. Additional public realm improvements to consider planting, seating, and bus shelter.

¹ Side road treatments and raised junctions to include additional measures such as: tactile paving, reduced radii at the side roads to widen the footways on the approaches, reduce the traffic speeds and reduce the crossing distance.

- 6 High Street/Park Avenue/Court Street junction: Tighten the junction to reduce the crossing distance across Park Avenue and to accommodate the proposed changes on all roads. Widen the north footway along the junction to accommodate cycle facilities on Court Street. Upgrade existing zebra crossing to a parallel crossing to provide safe transitions for cyclists at the junction and introduce a parallel crossing on Park Avenue. (see Figure 25)
- 7 Court Street: Remove the guardrail to increase the effective width of the footway. Resurface the east footway and propose a contra flow cycle facility. Widen the east footway at the south end of Court Street to accommodate recessed on-street parking, the proposed contra flow cycle facility, and wide footway. Propose side road treatments². Retain the advisory cycle lane on the west side.

Alternative proposal: Propose a quiet cycle route via the residential street east of Court Street to link with the proposed toucan crossing on Parkway. Provide access to Parkway via a new off-carriageway path.

- 8 Park Avenue: Propose as Pedestrian and Cycle priority street. Opportunity for a bus gate in the eastbound direction to reduce traffic flows.
- 2 Side road treatments and raised junctions to include additional measures such as: tactile paving, reduced radii at the side roads to widen the footways on the approaches, reduce the traffic speeds and reduce the crossing distance.



Figure 25. Proposal for High Street/Park Avenue/Court Street junction. Widen footways, introduce cycle facilities, fill in the lay-bys and introduce parallel crossings.

- 9 Park Avenue roundabout: Investigate converting the roundabout at the entrance to the supermarket to a priority junction, enabling wider footways, public realm, and cycle facilities. New priority crossings to be proposed at the entrance of the supermarket car park and on the west approach to the junction on raised tables.
- 10 Maddocks: Widen the existing footway by reallocating space from the verge. Introduce side road treatments and raise the junction with Bridle Road². Introduce puffin crossings at the south and east arms of Maddocks/Parkway junction and upgrade the existing toucan crossing on the west arm to a single stage crossing.
- **11** Bridle Road: Propose traffic calming improvements. Define the parking bays on

both sides of the road using buildouts to create a chicane and reduce traffic speeds. Implement side road treatments² and propose a new raised table at the exit of the off-carriageway path.

- 12 Woodside subway: Improvements to the subway to Woodside residential area to include improved lighting along the subway and at the entrances, remove graffiti and add CCTV.
- 13 Church Street Upper Road: Introduce a school safety scheme at the primary school. Propose traffic calming measures including raised junctions and side road treatments¹ and/or trialling access restrictions. Consider changing the priority in Church Street/Upper Road junction to improve the visibility, as Church Street to the east is narrow with thick vegetation and no footways. (see Figure 26)



Figure 26. Poor visibility to Church Street on the approach to the junction from Upper Road. Proposal to change the priority at the junction to provide give way lines on Church Street to reduce the collision risk on the approach to the school. (*source: Google Street View*)

- 14 Park Street: Propose traffic calming improvements including Dutch-style treatment, removal of road centre line and advisory cycle lane. Relocate parking from the south side to the north side of the road and retain the footway buildouts. Additional traffic calming measures may include raised junctions, horizontal deflection where feasible, and side road treatments². Introduce a zebra crossing at Park Street/Park Lane Avenue/Bridle Road junction.
- Park Lane Avenue: Propose traffic calming 15 improvements with horizontal deflection to reduce the carriageway width to 2.8m and allow pedestrian/cycle bypasses. Consider plantings to improve the attractiveness of the link. Widen the footpath on the approach to the toucan crossing at Parkway by reallocating space from the verge. Introduce a parallel crossing at Mounds Way on the approach to the modal filter and remove the guardrail to increase the effective width of the footway. Improve access to the modal filter by removing the wall, introducing dropped kerbs and adding double yellow markings to restrict on-street parking. Introduce raised junctions³ along the route to Park Lane Centre and the local commercial area.
- 3 Side road treatments and raised junctions to include additional measures such as: tactile paving, reduced radii at the side roads to widen the footways on the approaches, reduce the traffic speeds and reduce the crossing distance.

- 16 Parkway/Park Street/Glendinning Way/ Ironbridge Road/Mound Way roundabout: Widen the footways on the roundabout by reallocating space from the carriageway. Tighten to the extent feasible the radii on the approaches to the roundabout to reduce traffic speeds and improve visibility. Introduce toucan crossings on the east and south arms of the roundabout.
- 17 Ironbridge Road: Investigate reducing the speed limit to 20mph and propose a 2.5m two-way cycle track on the south side of Ironbridge Road up to the existing toucan crossing. West of the toucan crossing propose traffic calming improvements and Dutch-style cycle lane provision (removal of the centre line and advisory cycle lanes with coloured surfacing).
- 18 Parkway Woodside roundabout: Propose widening the existing pedestrian and cycle facilities to accommodate a 2.5m cycle track and 2m footway, and retain the buffer between the cycle track and motorised traffic. Introduce a toucan crossing on the east arm of the roundabout to link Parkway with the residential area south of the roundabout.



Figure 27. Google Street View image (June 2019) showing the need for wide footways on the west side of Castlefields Way at school times.

- Castlefields Way: Reallocate space from 19 the verge to widen the east footway on the approach to the school. Investigate upgrading the existing crossing near the school to a single stage toucan crossing. Additional side road treatments³ to improve access to the school. Improve access to Rough Park Way footpath by replacing the steps with an accessible ramp. Widen the west footway at the north section on the approach to Castlefields Roundabout and retain the verge as a buffer between pedestrians and motorised traffic. Investigate introducing signalised pedestrian crossings on the west (A4169) and north (Maiestic Wav) arms of the roundabout to the residential area north of Queensway. (see Figure 27)
- 20 Town Centre 20mph zone: Investigate introducing a 20mph zone in Madeley town centre, including all streets inside Parkway and the High Street - Park Street corridor.



Figure 28. Proposals for Core Walking Zone 3: Dawley

Core Walking Zone 3: Dawley

Proposed Interventions:

 Spring Hill Road / Portley Road Junction: Reduce guardrailing and provide a raised table side road entry treatment (SRET). Reduce Portley Road (a one-way street) from one-lane to two-lanes at the junction to reduce the crossing distance. Provide a pedestrian refuge island to facilitate crossing of Spring Hill Road. (see Figure 29)



Figure 29. Pedestrian desire lines (indicated in red) at Springhill Road / Portley Road junction [source: Google imagery]

- 2 Telford Langley School/Leisure Centre: Investigate a potential school safety scheme at the school entrance on Duce Street and at the car park, such as installing school zig-zags with monitoring at key times to discourage drop-off/ pick-ups directly in front of the school and mitigate congestion at the school entrance.
- 3 King Street (south): Provide dropped kerbs and tactile paving at the crossing of Lancaster Avenue. Provide a raised junction at King Street/Captain Webb Drive junction to support 20mph zone and various desire lines. Reduce the length of the parking bays along King Street and widen the footway. (see Figure 30)



Figure 30. Proposed raised junction (yellow), footway widening (blue), and uncontrolled crossing (red) [source: Google imagery]

Dawley High Street: Provide/improve 4 wayfinding. Provide a raised junction at Doseley Road/ George Street / car park access.

> Consider potential enhancements to emphasise the High Street as a pedestrian-priority street. This could include a 'shared space' arrangement, raising the carriageway to footway level and resurfacing with footway-type paving (consider lower cost, standard carriageway construction options which can achieve a similar effect to special paving materials). Widen the footway where possible. Consider trialling an extension of the existing vehicular access restrictions to include additional days of the week to further reduce vehicular traffic [long-term *aspiration*]. (see Figure 31)



Figure 31. Existing High Street shown in photos at left. Above, an example before/after image of a scheme in Bordeaux, France, which created a pedestrian-focused or 'shared space' type environment by narrowing the carriageway, raising it to footway level, and using different materials with colour contrast to indicate space for different road users. The scheme provided wider footways, facilitated informal pedestrian crossings, and encouraged lower traffic speeds. (source: https://www.

- 5 Dawley Primary School: Investigate a school safety scheme to improve and prioritise pedestrian and cycling access to the school and park, e.g., explore trialling access restrictions at school arrival/ dismissal times. Doseley Road is a good candidate as it is not a through route and also there are a limited number of other uses outside the park.
- 6 Heath Hill Roundabout: Extend footways along Captain Webb Drive to reach the roundabout. Widen the pedestrian refuge on the Springhill Road crossing arm. Investigate providing a zebra crossing (or similar) on the Captain Webb Drive arm and reducing the number of entry lanes from two to one.
- 7 King Street (north): Provide a raised table SRET at Purbeck Drive and tighten the kerb radii. Investigate providing a zebra crossing (or similar) aligned to support access to the bus stop and convenience store.
- 8 Alma Avenue/ Brunel Road: Investigate potential to provide footways on Alma Way (eastern side) and Brunel Road (northern side) adjacent to the church yard, further studies required to gauge feasibility and available highway space (see Figure 32).



Figure 32. Proposed footway improvements on Alma Avenue and Brunel Road (indicated in orange) [source: Google imagery]



Figure 33. Proposals for Core Walking Zone 4: Telford

Core Walking Zone 4: Telford

Proposed Interventions:

1 Stafford Park: Investigate reducing speed limit from 40 to 30mph and resurface stretches along the northern side of the footway. Explore tightening of all junction accesses and provide footway delineation at all private accesses [long-term aspiration].

Provide three evenly spaced crossings with one signalised toucan at the western end



Figure 34. Existing poor footway condition (top) and wide side road crossings (bottom) along Stafford Park.

tying in with the segregated path ramp leading to Dark Lane (shared use path).

- 2 Dark Lane: Along Dark Lane path and footpath through campus provide lighting where currently missing, resurface footway where currently in poor condition and prune vegetation where encroaching. Provide wayfinding at access to Dark Lane path (Shifnal Road and Dale Acre Way). Improve the crossings at Shifnal Road and Dale Acre Way. (see Figure 35)
- 3 Wolverhampton University Campus: Provide wayfinding towards the university and pedestrian overpass via Dark Lane.
- 4 Telford Station: Improve public realm and wayfinding at the station forecourt. Improve the walking route between the station and A5 signalised crossing, such as: widen Euston Way footway where vehicle parking overhangs and reduces the effective width. Introduce a zebra crossing on Euston Way where the footway switches from the east to the west side of the carriageway (Figure 36). Introduce a raised junction with a zebra crossing where the one-way bus route meets Euston Way.
- 5 Dale Acre Way: Supplement existing traffic calming by implementing side road entry treatments (SRETs), such as raised tables and/or tightening junction radii, to further reinforce lower vehicle speeds. Improve path crossovers by providing dropped kerbs and tactile paving where missing. Provide improved crossings at bus

Figure 35. Proposed zebra/parallel crossing location

Figure 35. Proposed zebra/parallel crossing location (indicated in orange) at Dark Lane shared-use path crossing of Shifnal Road. [source: Google imagery]



Figure 36. Vehicles encroaching on footway along Euston Way and existing uncontrolled crossing proposed to . *[source: Google imagery]*

stops near Downemead, Dinchope Drive and Dallamoor.

6 Hollinswood: Improve the footpath network linking the residential area to the town centre through widening, lighting, resurfacing and vegetation pruning where required.

- 7 Stirchley Avenue: Resurface footway and prune vegetation. Improve crossing at bus stop.
- 8 St Quentin's Gate: Investigate tightening roundabout junction arms to reduce speeds and crossing distance. Provide connecting footway on eastern side of St Quentin's Gate, filling a gap in the footway network.
- 9 Box Road (north): Provide new footway on west side to connect with Ironmasters Way. Upgrade the existing signal at the car park access to integrate a controlled pedestrian crossing of the access point. Investigate a new pedestrian crossing (e.g., signalised or zebra) to link the footway to Ironmasters Way. Provide wayfinding.
- 10 Box Road (south): Delineate footway across vehicle crossovers to enhance footway continuity and pedestrian priority. Improve access to Brown Elm Car Park via new footways on the northern side of Southwater Way including a diagonal route into the car park.
- **11** Box Road (west): Investigate providing controlled crossings on Malinsgate and Hall Park Way roundabout arms and reducing the number of entry lanes from two to one to shorten the crossings.



Figure 37. Existing uncontrolled, 40mph, three-lane crossing at the Rampart Way (A5) roundabout is a major barrier for pedestrian movement. *[source: Google imagery]*

- 12 Forge Roundabout: Investigate providing controlled crossings at Rampart Way and Forge Gate Junction arms to protect footway connections. Investigate reducing the crossing width at Forge Gate from two lanes to one. (see Figure 37)
- **13** Spout Lane: Prune vegetation and provide street lighting where currently missing.
- 14 Retail Park Path: Improve lighting, surfacing and prune vegetation where required.



Figure 38. Proposed location for controlled crossing to link shared-footway network near the Thomas Telford School. *[source: Google imagery]*

15 Thomas Telford School: Reduce severance and enhance continuity of the shared footway network by investigating provision of a toucan crossing on West Centre Way and a parallel crossing on Caledonian Way. (see Figure 38)



Figure 39. Examples of existing pedestrian provisions within the Telford Town Centre area and linking to Telford railway station.









Figure 40. Proposals for Core Walking Zone 5: Oakengates

Core Walking Zone 5: Oakengates

Proposed Interventions:

- 1 Hartshill: Investigate providing an uncontrolled pedestrian crossing (e.g., pedestrian refuge) at the bus stops near Hartshill Avenue. Investigate widening the existing south footway where overgrown (subject to review of highway boundary and topographic constraints).
- 2 Bridge Street: Investigate widening the north footway, west of Hadley Road by reducing the carriageway width to 6.5m (subject to topographic survey and review of approach to the railway underbridge; see Figure 41).
- 3 Church Street: Tighten the side road junction by reducing the carriageway width and widening the east footway, improving the public realm, visibility, and footway access around the pedestrian passage under the railway. Provide a raised table crossing side road treatment. Review lighting in the pedestrian underbridge. (see Figure 41)
- 4 Church Street: Provide raised junctions to reinforce slow traffic speeds and improve informal pedestrian crossings.
- 5 Station Road: Interventions proposed as part of Cycle Corridor 10 measures. (see page 101)



Figure 41. Indicative mark-up (orange) of potential footway widening on north side of Bridge Street (item 2) and proposed side road junction treatment at Church Street and improvements to railway passage access (item 3). [source: Google imagery]

- 6 Canongate / Silkin Way: Introduce a parallel crossing on the Silkin Way. Provide wayfinding. Clear vegetation at crossing area to improve visibility and improve access points (e.g., replace guardrail with bollards). (see Figure 42)
- 7 Canongate: Provide a new section of footway where there is currently a gap in the footway network on the south side, approaching Furnace Road (subject to review of highway boundary).



Figure 42. Indicative mark-up (orange) of proposed parallel crossing at the Silkin Way, replacing guardrail with bollards, and tightening adjacent side road junction (item 6). [source: Google imagery]

Market Street / Oxford Street: The 8 local high street area is generally in good condition following a significant public realm improvement scheme approximately 8-10 years prior. On-street parking currently dominates the street frontage and reduces permeability of the street for informal pedestrian crossings between shops. Investigate opportunities to further enhance the public realm and activate the high street, such as providing additional seating, kerb buildouts / wider footway, plantings, cycle parking, and / or parklets by reallocating space from on-street parking bays. Small mobility hubs can incorporate elements such as parklets, cycle parking, and/or EV charging to enhance placemaking and encourage sustainable travel modes. (see Figure 43)

Provide wayfinding, particularly to enhance the linkage to the railway station.

Rationalise signage and street furniture to declutter the public realm to the extent practical. Review kerb layout at parking bay entry/exit points and mark measured bays to help rationalise the parking layout and to discourage drivers from mounting the footways when parking. Figure 43. Market Street frontage dominated by on-street parking (right, Google imagery). Opportunity for public realm enhancements to reallocate space to more active street space, such as parklets or small mobility hubs featuring seating adjacent to cafés / restaurants, cycle parking, planting, or EV charging / car club spaces. Illustrative examples below of parklet in Hackney, London (below left, source: wearepossible. org), parklet in Leeds (below right, source: yorkshireeveningpost.co.uk), and local mobility hub in South Woodford, London.





- **9** Station Hill: Investigate opportunities to enhance and soften the public realm under the A442 bridge through additional lighting, mural, and/or plantings. The space functions as the main pedestrian gateway from the north east.
- 10 Slaney Street: Provide a kerb buildout and widen the footway between the Alexandra pub and Stafford Road, where the footway is currently narrow. Reallocate space from the right-turn lane into the car park to enable the widening. Provide an uncontrolled crossing to link with the car park.

General Items:

- » Review on-street parking provisions and mitigate conflicts with pedestrian movement, where feasible, such as footway parking or parking close to junctions or crossings which impede visibility. Areas with potential conflicts between parking and pedestrian movement are indicated in Figure 40.
- » As indicated in Figure 40, along key walking corridors linking to the town centre area, provide:
 - Dropped kerbs and tactile paving where missing.
 - Raised table or continuous footway side road entry treatments to enhance pedestrian priority, encourage lower vehicle speeds, and, where applicable, support the existing 20mph zone within the town centre.



Figure 44. Proposals for Core Walking Zone 6: Wellington

Core Walking Zone 6: Wellington

Proposed Interventions:

- Wellington Town Centre 20mph zone: Investigate introduction of an area-wide 20mph speed limit on all streets within the core town centre area. Consider associated traffic calming measures to reinforce the 20mph speed limit, if necessary. Most of the 'ring' roads are unlikely to be included because the existing character of the streets may make 20mph more difficult to achieve. King Street and Victoria Road north of Glebe Street to be included as part of Cycle Corridor 15 proposals (see page 105).
- 2 Town Centre North: Review vehicle circulation in the town centre north of the railway and potential options to reduce or discourage motor vehicle traffic. Potential options could include changes to the one-way system and/or time of day access restrictions for general traffic (e.g., 10am-6pm). Potential changes would be subject to review of vehicle access requirements and swept-path analysis (e.g., to/from the railway station). Potential modifications to circulation may provide an opportunity to improve the public realm along Church Street approaching the town centre from the north, such as narrowing the carriageway and widening the footway along the shops. (see Figure 45)

Consider a mini-roundabout at Church Street/Vineyard Road junction to slow traffic and remove guardrail around the junction.

3 Railway Station: Provide additional wayfinding to enhance connectivity between the railway station, bus station, and town centre. The level differences and buildings between these areas prevents intervisibility and inhibits natural wayfinding. (see Figure 46)

At the bus station, remove the staggered zebra crossing linking to the town centre and provide a single stage zebra crossing.

As a long-term aspiration, investigate the feasibility of extending the existing railway bridge which connects the eastbound and westbound station platforms to link it to the bus station. The bridge is at a similar level to the bus station and would facilitate a more direct, visible link between the two services. It would also support improvements to station accessibility. Feasibility would be subject to discussions with Network Rail and potential heritage constraints. [long-term aspiration]



Figure 45. Existing arrangement on Church Street. Potential opportunity to widen footway and improve public realm along west footway in front of shops to reduce vehicle dominance, following review of area access and circulation (item 2).



Figure 46. Wayfinding proposed to help link the railway station, bus station, and town centre (existing pedestrian routes shown in red). Remove stagger in crossing between town centre and bus station (teal). Investigate extending railway station bridge to link to bus station (yellow). (item 3) [source: Google imagery]



Figure 47. Potential to improve public realm along Market Street and Walker Street as western gateways to the pedestrianised town centre (top); Market Street (middle); narrow footways and street clutter on Walker Street (bottom) [source: Google imagery]

- 4 Market Street: Enhance Market Street as a pedestrian gateway to the town centre from the west. Improve the public realm by widening and resurfacing footways, providing kerb buildouts to recess on-street parking, and reducing parking to facilitate informal pedestrian crossings and wider footways. (see Figure 47)
- 5 Walker Street: Enhance Walker Street as a pedestrian gateway to the town centre from the west, linking to the new signalised crossing at the Haygate Road junction. Improve the public realm by widening and resurfacing footways, decluttering, providing kerb buildouts to recess on-street parking, and reducing parking to facilitate informal pedestrian crossings, wider footways, and visibility of the town centre. (Figure 47)
- 6 Tan Bank: Enhance Tan Bank as a pedestrian gateway to the town centre from the south. Upgrade the existing uncontrolled crossing island to a parallel crossing and remove guardrailing to facilitate crossings for people walking and cycling.
- 7 High Street: Upgrade the existing signalised crossing to a toucan crossing to improve cycle access to the town centre.
- 8 Holyhead Road: Review the speed limit within the built-up area. Consider associated traffic calming measures to support any changes, if necessary. [long-term aspiration]

- **9** King Street / High Street: Investigate introducing kerb buildouts to realign the junction closer to a standard perpendicular t-junction. The adjustment would reduce the crossing distance, decrease vehicle speeds in/out of the side road, and improve intervisibility for drivers.
- **10** Mill Bank / Holyhead Road: Provide signalised pedestrian crossings within the existing signalised junction.
- **11** Regent Street: Introduce a modal filter as part of a 'quiet route' cycle scheme (see Cycle Corridor 15 on page 105).
- 12 King Street: Introduce proposals related to Cycle Corridor 15, including side road entry treatments and a 20mph speed limit (see page 105). Provide kerb buildouts to tighten the Park Street side road junction, widen the footways, and prevent parking at the junction (see Figure 48). Park Street



Figure 48. Mark-up of example side road treatment (shown in orange) at Park Street to tighten the junction and provide a raised table crossing [source: Google imagery]

provides an alternate walking route to the town centre from the north, linking to the crossing at Church Street.

Investigate potential modifications to the Whitchurch Road/Apley Avenue mini-roundabout, reducing the number of entry lanes to one-lane at all approaches to facilitate pedestrian crossings.

- 13 North Road: Investigate additional measures to improve safety and encourage walking and cycling to school, such as raised tables/continuous footways at side road junction, additional traffic calming features, and/or vehicle access restrictions during school arrival and dismissal times (e.g., between Marton Drive and Tern Way). (see Figure 49)
- 14 School / Residential area 20mph zone: Review the speed limit and consider an area-wide 20mph speed limit across the residential area and local streets surrounding Wrekin View and Saint Patrick's Catholic primary schools. [long-term aspiration]

General Items

- » Review on-street parking provisions and mitigate conflicts with pedestrian movement, where feasible, such as footway parking or parking close to junctions or crossings which impede visibility. Areas with potential conflicts between parking and pedestrian movement are indicated in Figure 44.
- » As indicated in Figure 44, along key walking corridors linking to the town centre area, provide:
 - Dropped kerbs and tactile paving where missing.
 - Raised table or continuous footway side road entry treatments to enhance pedestrian priority, encourage lower vehicle speeds, and, where applicable, support the proposed 20mph speed limit within the town centre.



Figure 49. Aerial view of schools along North Road (top); illustration of potential raised table / continuous footway side road junction treatments approaching the schools (bottom) [source: Google imagery]



Figure 50. Proposals for Core Walking Zone 7: Newport

Core Walking Zone 7: Newport

Proposed Interventions:

- Chetwynd End: Widen the east footway by reallocating space from the carriageway. Propose recessed parking bays at footway level where the footway width is over 4m. Improve access to the Castle House School and the town centre via a new toucan crossing on the approach to Forton Road and improved uncontrolled crossings at Lower Bar/Salters Lane roundabout.
- 2 Lower Bar High Street: Reduce the carriageway width and widen the footways on both sides of the road. Propose recessed parking at footway level (where the footway width is >4m) and relocate the bus cages in-lane with buildouts for the bus stops. Introduce new footway on the north side along St Nicholas Church by reallocating space from on-street parking. Additional proposals to include added street planting and shelters and resurfacing of the carriageway to provide a

more pedestrian friendly environment. (see Figure 51 and Figure 53)

- 3 High Street/St Mary's junction: Widen the footways at the junction to reduce the turning radii and traffic speeds. Close the section in front of St Nicolas Church to traffic and permit right turns for the northbound direction to St Mary's Street via the junction. Introduce safe crossings for pedestrians. (see Figure 52)
- 4 St Mary's Street: Propose as Pedestrian and Cycle priority street, where vehicles are permitted at low speeds. Introduce raised tables at the crossings to St Nicholas' Church and a new accessible footway on the south side by the shop frontages.
- 5 High Street Upper Bar: Review highway priorities and investigate opportunities to provide a more pedestrian-friendly environment, such as: Consider localised footway widening where parking is not permitted with buildouts supporting uncontrolled crossings with improved visibility and reduced crossing distance. Widen the footways on the approach to Upper Bar/Wellington Road junction. Provide side road treatments with raised tables¹ and continuous footways to enhance pedestrian priority. Resurface the carriageway. (see Figure 53)

1 Side road treatments and raised junctions to include additional measures such as: tactile paving, reduced radii at the side roads to widen the footways on the approaches, reduce the traffic speeds and reduce the crossing distance.

Figure 53. Public realm improvements including footway widening and parking bays at footway level as an example for localised interventions along High Street - Upper Bar. *Source: Urb-i, Lower Marsh, Lambeth, London*



(by St Nicolas' Church) and wide footway on the south

wide with on-street parking (source: Google Street View)



- 6 New Street: Investigate raising the carriageway to footway level and introducing a shared environment for pedestrians, cyclists and motorised traffic. Propose continuous footway² along High Street, introduce an uncontrolled crossing at the exit of the car park and raise New Street/Beaumaris Road junction² to reduce traffic speeds.
- 7 Beaumaris Road: Propose as pedestrian and cycle priority street, where vehicles are permitted at low speeds. Introduce raised junctions² at both ends of the section to reduce traffic speeds.
- 8 Wellington Road: Localised footway widening by filling in the lay bys. Upgrade existing crossing to a zebra crossing. Remove the refuge island to widen the western footway and trim overgrown vegetation to increase the effective width on the approach to the primary school. Side road treatments² to provide a continuous pedestrian route. (see Figure 54)
- 9 Water Lane: Improve pedestrian and cycle access to Victoria Park. Localised carriageway narrowing on both sides of the road at the exits of the car parks to propose priority working traffic and uncontrolled crossings. Add dropped kerbs and tactile paving. Raise the junctions to calm traffic and facilitate informal crossings.

- **10** Stafford Street: Reduce carriageway width to 6m and widen the footways along the shops on the west side and at narrow sections. Introduce a zebra crossing on the approach to the bus stops which will operate as a traffic calming measure.
- **11** Audley Road: Localised footway widening where parking is not permitted to provide buildouts. Introduce an uncontrolled crossing at the supermarket entrance with a refuge island at the hatched median.
- 12 Avenue Road: Introduce a school safety scheme at the junior school. Propose traffic calming measures including raised junctions and side road treatments² and/ or trialling access restrictions. Widen the footway at the school entrance and propose priority working. (see Figure 55)
- **13** Granville Avenue: Introduce a modal filter to prevent through movements and improve safety on the approach to the infant school. Add double yellow markings to restrict parking and introduce traffic calming measures including raised junctions and side road treatments². The modal filter will also support a longer quiet route to the Newport Girls' High School, linking with Shuker Close and Broadway. Consider public realm enhancements at the modal filter, such as planting or seating. (see Figure 56)



Figure 54. Existing crossing at Wellington Road with wide refuge island and narrow footways. Opportunity to replace with a zebra crossing, remove the refuge island and widen the footways (*source: Google Street View*)



Figure 55. Entrance to Newport CoE Junior School with narrow footway and poor accessibility.



Figure 56. Shucker Cl modal filter that can be replicated to Granville Avenue. (*source: Google Street View*)

² Side road treatments and raised junctions to include additional measures such as: tactile paving, reduced radii at the side roads to widen the footways on the approaches, reduce the traffic speeds and reduce the crossing distance.

- 14 Audley Avenue: Widen the footway, reallocating space from the verge. Propose traffic calming measures including raised junctions and side road treatments³. Introduce an uncontrolled crossing at the bus gate with tactile paving and dropped kerbs at the existing buildout. At the east end of the route, increase the footway width on the northeast side to propose a wide shared-use path. Introduce parallel crossings at the eastern arms of both roundabouts and provide dropped kerbs, tactile paving and formalize the refuge island on the other approaches to the roundabouts. (see Figure 57)
- 15 A518: Propose pedestrian and cycle facilities on the north side of the A518 by utilising the verge, removing vegetation and reallocating space from the hatched median on the A518. Options to consider two-way cycle track alongside a footpath and a buffer between the carriageway and the pedestrian and cycle facilities, or a shared use path depending on the available width within the highway. (see Figure 58)

3 Side road treatments and raised junctions to include additional measures such as: tactile paving, reduced radii at the side roads to widen the footways on the approaches, reduce the

traffic speeds and reduce the crossing distance.



Figure 57. Bus gate at Audley Avenue with cycle bypass and narrow footways. Footways have wide verge that can be used as footway without changes to the kerbs and the carriageway width.



Figure 58. Wide verge on the north side of the A518 can provide pedestrian and cycle facilities that will be linked with the industrial area on Audley Avenue and Newport Innovation Park via the newly installed toucan crossing. *Source: Google Street View*

- 16 Station Road: Widen the east footway to propose a shared use path which will be linked with the proposed cycle facilities on the A518. Introduce a parallel crossing at Station Road/Town Wells junction to provide a safe exit/entry point to the shared-use path. Link the proposals to the town centre with mixed traffic provision for cyclists and traffic calming measures, such as raised junctions and side road treatments³ to reduce the traffic speeds and improve road safety.
- 17 Propose walking and cycling routes to link Station Road and the A518 with Burton Borough School and the industrial area through the planned development.



Figure 59. Proposals for Core Walking Zone 7: Newport - A518 cycle connectivity

- A518 connectivity to Donnington: Propose 18 a cycle corridor along the A518 and Wellington Road to connect Newport with Lilleshall and Donnington, spanning from Kynnersly Drive to the innovation park on the A518. The proposed scheme would extend the existing, recent cycle improvements west of Kynnersly Drive. The proposed facilities include a two-way cycle track with a buffer between the cycle facility and the carriageway by reallocating space from the verge. At the roundabouts and the junctions toucan crossings are proposed to link the cycle facilities to other destinations and provide safer transitions for cyclists between the links. (see Figure 59)
- **19** Town Centre 20mph: Investigate extending the existing 20mph speed limit to encompass a wider area of the town centre.

Assessment of Proposals

Following the concept design the proposed interventions were assessed using the Walking Route Assessment Tool (WRAT) with the same criteria used for the assessment of the existing situation of the walking corridors within the core walking zones.

The WRAT facilitates a high-level, comprehensive review of existing conditions for people walking along a route based on the key metrics of attractiveness, comfort, directness, safety and coherence. Lower scores suggest a poorer quality route, which may benefit from infrastructure interventions (i.e., to improve safety or comfort).

The results of each walking route within the core walking zone are presented in detail in "Appendix 3: Walking Route Assessment Tool (WRAT)" for both the existing situation and the proposals. Table 2 and Table 4 present the total scores of each category in the existing situation and Table 3 and Table 5 the estimated score if the interventions were implemented, along with the relative change of the score in each category¹. Table 2. WRAT results - Existing

	Ironbridge	Madeley	Dawley
Attractiveness	73%	63%	61%
Comfort	46%	13%	53%
Directness	80%	70%	71%
Safety	40%	55%	54%
Coherence	27%	33%	15%
Total	57%	43%	55%

Table 3. WRAT results - Proposed interventions

	Ironbridge		Madeley		Dawley	
	Proposed Score	Improvement from existing	Score	Improvement from existing	Score	Improvement from existing
Attractiveness	78%	5%	78%	15%	69%	7%
Comfort	55%	9%	79%	66%	63%	10%
Directness	89%	9%	91%	20%	86%	15%
Safety	67%	27%	67%	12%	67%	13%
Coherence	47%	20%	90%	57%	38%	23%
Total	68%	11%	82%	38%	67%	12%

¹ A score of 70% should normally be regarded as a minimum level of provision overall. Routes which score below should be used to identify where improvements are required (Source: Annex C: Walking Route Audit Tool, LCWIP Technical Guidance for Local Authorities, DfT, 2017).

Table 4. WRAT results - Existing

	Telford	Oakengates	Wellington	Newport	
Attractiveness	49%	48%	56%	76%	
Comfort	54%	56%	53%	61%	
Directness	71%	73%	74%	82%	
Safety	52%	58%	65%	59%	
Coherence	53%	33%	28%	30%	
Total	57%	56%	57%	66%	

Result

The WRAT results of the existing situation, shown in Table 2 and Table 4, demonstrate that all seven selected CWZs (Ironbridge, Madeley, Dawley, Telford, Oakengates, Wellington and Newport) have an overall score below the 'minimum level of provision' according to the LCWIP Technical Guidance for Local Authorities (70% WRAT score). This indicates the potential opportunity for and benefit of improvements along routes within these CWZs. The WRAT results of the proposed interventions have shown increases in every criteria for each CWZ. Overall, each CWZ is expected to improve, with total WRAT scores ranging from 64% to 82%, an improvement from the existing of 8% to 38%.

Table 5. WRAT results - Proposed interventions

	Telford		Oakengates		Wellington		Newport	
	Proposed Score	Improvement from existing	Score	Improvement from existing	Score	Improvement from existing	Score	Improvement from existing
Attractiveness	55%	6%	56%	8%	62%	6%	82%	5%
Comfort	61%	8%	64%	8%	60%	7%	77%	16%
Directness	80%	9%	81%	7%	89%	15%	95%	13%
Safety	59%	7%	62%	5%	70%	6%	66%	7%
Coherence	67%	14%	45%	12%	36%	8%	66%	35%
Total	65%	8%	64%	8%	66%	9%	80%	14%

6. Cycle Network Development

Introduction Methodology Identification of Phase 1 Cycle Corridors

Introduction

This chapter summarises the identification of the cycle network for the Telford and Wrekin LCWIP. The proposed network aims to address gaps in the borough's strategic cycling network, connecting settlements both to each other and to clusters of key destinations (e.g. town centres, schools, railway stations, etc.). This is illustrated in the schematic in Figure 60. While the proposals are focused around these strategic corridors, they also provide examples of the types of improvements that can be implemented borough-wide as needs or opportunities arise.

Development of the cycle network had two key stages:

- » Development of the 'aspirational list', which identified key cycle corridors in the borough. In total, 17 areas were initially identified.
- » Selection of the 'short list', which prioritised five corridors as 'Phase 1' for further assessment and concept development as part of the LCWIP.

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

Methodology

Telford and Wrekin has the potential for growth in its levels of cycling. Generally, its cycling infrastructure is not comfortable or attractive for people who are new to cycling or less confident when cycling with traffic. Consequently, short trips into town centres, railway stations, schools, and leisure assets are overwhelmingly made by private car.

In order to identify and close the gaps, a network of preferred routes has been defined drawing on the analysis from the existing data. The background information included mapping trip origins and destinations, identifying desire lines for cycle movement, and using the PCT to understand potential demand for cycling across the borough.

The development of the cycling aspect of the Telford and Wrekin LCWIP focused on identification of a Cycling Network Map detailing preferred routes for further development, as per the DfT's LCWIP technical guidance.

Identification of Cycling Corridors

In Telford and Wrekin there is a wealth of background information that can inform cycling patterns and highlight areas in need of improvement. The aim of this analysis piece is to meet the goal of significant mode shift to more sustainable travel, targeting short trips and utility trips such as school travel and commuting, as well as access to town centres and areas of leisure that can allow active and sustainable travel habits to appeal to the residents of the borough.



Figure 60. Clusters of trip origins and destinations and desire lines connecting them (DfT LCWIP Technical Guidance)
The methodology used to identify key links in the study areas involved the gradual overlaying of the following information to create a qualitative 'Heat Map' (see Figure 61) where the intersection of relevant criteria suggests locations where infrastructure improvements could provide the greatest level of service, connectivity, access, and safety benefits.

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

» Key Trip attractors: railway station, retail centres and high streets, schools, workplace areas, parks, and others, along with their catchment areas (i.e. 20-minute cycle catchment areas for the rail station, 5 minutes to schools).

- » Key Trip origins: such as denser residential areas and planned developments.
- » Propensity to Cycle Tool: highlighting areas with important existing cycle commuter and school flows, 2011 Census.
- » Origin-Destination data: highlighting the routes, origins, and destinations of short motor vehicle commuter trips (<5km) which could reasonably be replaced by cycling trips.
- » Cycle Collision points for the latest five years of available data.
- » Index of Multiple Deprivation and areas of low car-ownership (targeting areas of higher deprivation and lower car ownership, which would benefit from cycle route improvements).
- » Existing cycle facilities.

Mapping this data illustrates areas of overlapping issues and opportunities in higher intensity colour, which indicates a potential higher demand for utilitarian cycling trips or where there is higher potential for mode shift or new users. The output of this initial corridor identification process is illustrated in Figure 61 to Figure 63.



Figure 61. 'Heat Map' showing the various data elements overlaid to show concentration of issues and opportunities

Figure 62. 'X-Ray Map' highlighting areas to consider as primary cycling corridors

Figure 63. The initial Cycling Network Map resulting from the 'X-Ray' analysis

Aspirational Cycle Network

The outcome of the 'Heat Map' approach is an aspirational cycling network, where potential trip demand and destinations intersect. This full network has been refined and prioritised, drawing on further data analysis, stakeholder input, and desktop investigations to create a core aspirational cycle network, as shown in Figure 43¹. The network includes 12 corridors categorised as Phase 1, 4 at Phase 2, plus an additional route categorised as Phase 3 for future consideration to enhance network connectivity.

The phasing categories are intended to assist with the prioritisation process, whereby the candidate Phase 1 corridors would be carried forward for further prioritisation. These reflect a higher propensity for cycle trips based on the data analysis. However, all the cycle links (including Phase 2 and 3) are retained as part of the 'aspirational' network for future consideration as opportunities arise.

Based on the data reviewed and evidence base compiled, potential demand and propensity for short, utilitarian cycling trips is highest in the central and southern section of the borough, which tends to have a denser population and more compact, urban development patterns. Hence, the identified cycle network is also denser in this area of the borough.



Figure 64. Aspirational cycle network

Table 6 on the following page lists the Phase 1, 2 and 3 cycle corridors comprising the aspirational list, as well as pertinent feedback from the first stakeholder workshop (where applicable).

¹ The map shows the location of the proposed corridors from the 'x-ray' analysis along with cycle corridors proposed during the early engagement workshop (workshop #1) with local stakeholders.

ID	Cycle Corridor	Length (km)	Description	Stakeholder Workshop 1 Comments
1	Newport to Telford (via A518)	5.4	Strategic north-east/south-west link between Telford and Newport. The corridor has high vehicle speeds and flows, with segregated cycle paths in some places and crossing facilities in place at key junctions along the length of the link. For some stretches, there are currently no cycle paths adjacent to the highway.	
2	Donnington to Arleston	9.3	 The route is split into three separate links, much of which follows Route 81 of the National Cycle Network (NCN). 2a) Follows National Cycle Route 81 from Wellington to Hadley Manor 2b) Follows National Cycle Route 81 from Hadley Manor to Trench Lock 2c) East-west link between the A442/A518 roundabout and the junction Wellington Road and School Road. 	
3	Waterloo Road	1.3	North-south link between Hadley Manor and Ketley, providing access to Hadley Learning Community Secondary School. Currently there are no cycling facilities along the corridor, which has moderate traffic flows and gradient in parts.	
4	Great Dawley (Silkin Way)	4.2	North-south link between Telford Town Centre and Madeley which joins with Silkin Way as it crosses through Telford Town Park. The off-road route through the park is inconsistently lit but largely flat, with an unbound/semi-bound gravel surface.	
5	Hadley Castle - Hortonwood Loop Connector		Loop route which follows Hadley Park Road, an off-road track (part of the Silkin Way) and the A442 to circumnavigate an employment area (cluster of manufacturing and industry parks) as well as a residential area. Connects to Route 2a and 2b. Off-road cycle tracks are provided along the high traffic flow links (e.g. A442). The route requires cyclists to navigate three large junctions in the eastern section of the route.	

ID	Cycle Corridor	Length (km)	Description	Stakeholder Workshop 1 Comments
6	Donnington to Telford Central		This is a predominantly segregated off-highway route which follows along the NCN 55 on Donnington Wood Way, Redhill Way, Telford Way and Priorslee Village off-road path. The areas connected are Donnington, St George, Priorslee Village and Telford Central. A number of sections have challenging transitions for cyclists and pedestrians.	Following feedback from client progress meetings and Stakeholder Workshop 1, this route was realigned between Telford and Donnington to follow the existing NCN 55 instead of a more direct on-road route. Issues raised from feedback were regarding perceived constraints and feasibility of significant improvements of an on-road link.
10	Donnington to Stafford Park	6.8	 Route is split into two connected sections: 6a) North-south route which connects Donnington Wood Way to Redhill Way, via two roundabouts. An off-road cycle track is provided for much of the length of the route, providing a safe route away from the high traffic flows travelling at high speeds. Route does require cyclists to cross the highway at two roundabouts. 6b) Route mostly follows the A5 between the Limkiln Bank Roundabout and Priorsless Roundabout, before utilising minor roads and off-road tracks as part of NCN 55 to provide access to Stafford Park 1. 	
7	Madeley to Brookside	2.8	North-south route following Castlefields Way between Brookside and Madeley, split by Castlefields Roundabout. Off-carriageway cycle tracks are provided on one or both sides of Castlefields Way for much of the route.	

ID	Cycle Corridor	Length (km)	Description	Stakeholder Workshop 1 Comments	
8	Silkin Way	13.4	Route is split into five sections, which are not connected but are split across the existing Silkin Way	Following discussions during the workshop and the importance of the 'Silkin Way' as a spine route for Telford, it was retained in the	
			8a) Mostly off-road track crossing east-west through Dothill Local Nature Reserve.	cycle network long-list.	
			8b) Mostly off-road cycle paths between The Princess Royal Hospital and Hadley Park Road, passing a primary school and community centre.		
			8c) Off-road cycle paths between Hadley Park Roundabout to Oakengates, following sections of National Cycle Route 81.		
			8d) Mostly off-road route between Telford Centre to the centre of Telford Town Park.		
			8e) Mostly off-road route between Madeley and Coalport.		
9	Telford Shopping Centre Loop	7.3	The route covers some of the key access routes into the town centre and circulates Telford Centre. In addition, the route utilises a bridge over the A442 to connect to Stafford Park.	Following feedback regarding improving connectivity to Stafford Park Industrial Park, Route 9 was extended via the bridge over the A442 where there are currently some existing cycle facilities.	
10	Oakengates to Telford Central	5.5	Two options are provided to connect Telford Central and Oakengates Stations.	Following feedback regarding better connectivity between Telford Central and Oakengates, two options were provided (see left) as	
			10a) Existing off-road path between Telford Central and Station Road, providing access to Oakengates Railway Station.	previously no route was captured in the long-list as the Silkin V was also previously not included.	
			10b) The route connects Oakengates Station and Telford Central using the Silkin Way route.		
11	Newdale to Telford 1.5 Eastern access route between Telford Centre and Old Park Central Roundabout, providing access to Thomas Telford School and Telford Bridge Retail Park. Off-carriageway shared use paths are provided along the length of the route.		Eastern access route between Telford Centre and Old Park Roundabout, providing access to Thomas Telford School and Telford Bridge Retail Park. Off-carriageway shared use paths are provided along the length of the route.		

ID	Cycle Corridor	Length (km)	Description	Stakeholder Workshop 1 Comments
12	Newport to Harper Adams Uni (via B5062)	3.3	B5062 connects Newport with Harper Adams University Campus. The east-west route follows a narrow carriageway with no existing cycle facilities.	
13	Newport Local	4.8	Urban town route providing access into and around Newport town centre. The routes providing access into the town centre pass through residential and industrial areas with limited cycling facilities. On the narrow and busy High Street, vehicles are parked on either side with small roundabouts on the western and eastern ends of the street.	
14	Arleston to Oakengates (via B5061)	5.5	East-west route between Arleston and Oakengates on the B5061. The route passes through one major junction and a number of signalised junctions, with limited cycle facilities.	
15	Shawbirch to Arleston (via Wellington)	3.3	North-south route between Shawbirch Roundabout and Telford Football Club. The route comprises a mixture of existing off-carriageway shared use paths, off-road cycle tracks, and limited cycle provision on key highway routes to Wellington town centre. It helps improve access between the town centre, residential areas, railway station, eight schools, and Royal Princess Hospital.	
16	The Rock to Aqueduct (via B4373/King Street)	3.1	North-south route between the Old Park Roundabout and the Southall Road/Castlefield Way junction which provides access to nine schools, and passes through one roundabout and one challenging junction. The existing route comprises an off-carriageway shared use path with narrow routes through residential areas.	

ID	Cycle Corridor	Length (km)	Description	Stakeholder Workshop 1 Comments
17	Madeley Loop	4.4	The route connects the east and west of Madeley, and includes a loop which connects Madeley Town Centre and Parkway which bypasses the town centre. The route includes 3 major roundabouts, tight and steep urban streets with parked vehicles on one side. The route also has spurs that extend down Madeley Road to Haberdashers' Abraham Darby School and along a partly off-road section adjacent to Kemberton and Halesfield Road.	Following issues raised regarding the steep gradient along Madeley Road towards Ironbridge, the Madeley Road section of the route was shortened terminating at Haberdashers' Abraham Darby School. Additionally, issues were raised regarding improving connectivity to Halesfield Industrial Park. Subsequently, a connecting link from the route was extended into Halesfield via the A4169.
18	Telford Central to Brookside (via 'The Avenues')4.4North-south route connecting the southern area of Telford Central with the residential area of Brookside. The route requires cyclists to travel through a small roundabout and multiple smaller junctions. Inconsistent application of off-carriageway shared-use paths along the route.		North-south route connecting the southern area of Telford Central with the residential area of Brookside. The route requires cyclists to travel through a small roundabout and multiple smaller junctions. Inconsistent application of off-carriageway shared-use paths along the route.	

*A route following the B4374 (Mossey Green Way) was removed from the long-list because of the undesirability of a poorly overlooked route along an elevated dual carriageway; the retention of the Silkin Way was preferred and could serve a similar alignment purpose.

Identification of Phase 1 Cycle Corridors

Methodology

Once the aspirational cycle network was identified, an assessment using both qualitative and quantitative criteria was carried out to provide an initial prioritisation of the network proposals and identify a first phase of corridors to progress to concept design.

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

The criteria were categorised in five main groupings:

» Link Performance – reflects the number of key destinations along or in close proximity to the corridor (within 200m), to which cycle access would be improved, such as local high streets and commercial areas, potential development areas, and railway stations. A higher number of destinations would indicate a greater propensity for cycling trips and therefore a higher score. The category also includes the number of collisions involving cyclists per km along the route. A higher rate would suggest existing safety issues and a greater need or benefit from cycle interventions

- » Potential demand (school trips) this is based on the number of schools in close proximity to the cycle corridor and the PCT School flows (Go Dutch scenario) along the route. A higher score indicates higher potential demand.
- » **Potential demand (commuter trips)** this is based on the PCT commuter flows (Go Dutch scenario) along the route. A higher score indicates higher potential demand.
- » Cycle Network this includes the centrality of the route to the broader cycle network (i.e., how many connections it provides to the rest of the network). It also includes a high-level, qualitative desktop review of the route to estimate the potential for improvements, based on factors such as approximate carriageway width. Higher scores indicate greater importance to network connectivity and greater opportunity for improvements.
- **Deliverability** these criteria aim to » characterise the potential for changes to be implemented, based on stakeholder support and high-level, desktop review of potential constraints (e.g., extent junction modifications likely to be required). High scores indicate known support for the corridor or potentially relatively few constraints to implementation. Lower scores are given to areas with considerable constraints where significant improvements may not be feasible or are very difficult (e.g., land constraints, railway underpasses, etc.). Scoring was based on comments from the workshops and a cursory review via StreetView imagery. As the team had not been to site at this stage, this category has a lower weighting than the others.

The MCAF criteria for the selection of the Phase 1 cycle corridors are listed in Table 7 on the following pages.

Each criterion was scored on a scale from 1 (low) to 3 (high). Within each category, the criteria were also given a relative weighting of 1 (low) to 3 (high), allowing some criteria to be weighted more heavily (e.g., PCT flows).

The MCAF criteria and weightings for each criteria are summarised in Table 7 on the following pages.

Table 7. C	ycling	network	MCAF	criteria
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Category	Criterion [sub-category weightings, 1 (low) to 3 (high)]	Scoring thresholds (1 = low, 3 = high score)
	Commercial areas served by corridor [2]	1: no obvious ones 2: a small number (e.g. a small parade of shops) 3: several (e.g. a town centre)
	Development Areas [1]	1: < 20 housing units 2: ≥ 20 units 3: > 70 units (# dwelling units)
Link performance	Railway Station Access [2]	1: 0 stations 2: 1 station 3: ≥ 2 stations (# of stations within 400m of corridor)
	Pedal cycle collision rate [3]	1: < 0.5/km 2: ≥ 0.5/km 3: > 1/km (# pedal cycle collisions per km)

Category	Criterion [sub-category weightings, 1 (low) to 3 (high)]	Scoring thresholds (1 = low, 3 = high score)
Demand	Number of Schools [2]	1: < 3 schools 2: ≥ 3 school 3: ≥ 5 schools (# of schools)
(school)	PCT Flows (Go Dutch scenario) [3]	1: < 60 2: ≥ 60 3: > 120 (# school trips by cycle)
Demand (commuter)	PCT Flows (Go Dutch scenario) [3]	1: < 250 2: ≥ 250 3: > 400 (# commuter trips by cycle)

"Table 7. Cycling network MCAF criteria", continued

Category	Criterion [sub-category weightings, 1 (low) to 3 (high)]	Scoring thresholds (1 = low, 3 = high score)
	Connectivity to existing facilities [1]	1: < 1.5links 2: ≥ 1.5 links 3: > 2.5 links
	Existing cycle route [1]	1: no 2: partial 3: yes (full extent)
Cycle network	Connectivity to the Silkin Way [3]	1: no connection 2: Links to Silkin Way 3: Overlaps Silkin Way
	Potential to improve existing conditions [1]	1: very limited potential (e.g. narrow carriageway/ footways, no verges)
		2: moderate potential (e.g. space for a minimum width cycle track from existing wide lanes, centre hatching, verge etc.)
		3: strong potential (space for a recommended-width cycle track from existing wide lanes, centre hatching, verge etc.)

Category	Criterion [sub-category weightings, 1 (low) to 3 (high)]	Scoring thresholds (1 = low, 3 = high score)
Deliverability	Ease of implementation [2]	 could require major junction treatment (e.g. new signals); significant works outside highway boundary; or third party works (e.g. changes to a level crossing) could be provided with moderate junction treatments; limited works outside highway boundary; expected interface with complex environments (e.g. town centres) could be provided within the existing kerb lines, and with minimal junction treatment
	Stakeholder feedback [3]	1: < 1 2: ≥ 1 3: > 2 (# of votes during workshop #1)

Phase 1 Cycle Corridors

The MCAF outlined in the methodology above was applied to the Telford and Wrekin aspirational cycle network (candidate Phase 1/2/3 corridors). The MCAF scoring and output is provided in the appendix for reference. The selected Phase 1 cycle corridors are illustrated in Figure 65 and listed below:

- » Route 4. Great Dawley (Silkin Way).
- » Route 5. Hadley Castle Hortonwood Loop Connector (Silkin Way).
- » Route 10. Telford to Oakengates
 - Route 10b (Silkin Way) and Route 10 (existing off-road path and Station Road) reviewed on-site
 - Route 10 preferred due to it being more direct with a flatter gradient
- » Route 15. Shawbirch to Arleston (via Wellington).
- » Route 17. Madeley Loop.

The five Phase 1 cycle corridors were advanced through the remainder of the Telford and Wrekin LCWIP activities, including review of existing conditions and development of initial concept proposals.

Cycle Route Audits

Once the Phase 1 corridors were identified, they were assessed using the DfT's Route Selection Tool (RST).¹ The assessment provided a baseline for existing conditions and helped identify existing deficiencies and key issues in the area. The results are presented in "Appendix



Figure 65. Phase 1 Cycle Corridors

4: Route Selection Tool (RST)" on page 168. The routes were also cycled in January 2022 to observe the existing condition and review potential opportunities and constraints.

¹ The RST is a framework for providing a high level assessment of a cycle corridor, covering the key parameters of directness, gradient, safety, connectivity, and comfort.

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7. Cycle Network Proposals

Methodology Phase 1 Proposed Cycling Interventions

Methodology

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

These guidelines aim to make cycling more attractive and encourage more users to make journeys within the borough by cycle. They are particularly aimed at supporting growth in cycling for short, utilitarian journeys and making cycling an attractive, enjoyable option for people of all ages and abilities.

Design Outcomes

Potential improvements for cycling were developed seeking to follow the desired core design outcomes stated in DfT's LTN 1/20 design guidance. These include¹:

- » Coherent Cycle networks should be planned and designed to allow people to reach their day to day destinations easily, along routes that connect, are simple to navigate and are of a consistently high quality.
- » Direct Cycle corridors should be at least as direct - and preferably more direct - than those available for private motor vehicles.

- » **Safe -** Not only must cycle infrastructure be safe, it should also be perceived to be safe so that more people feel able to cycle.
- » **Comfortable -** Comfortable conditions for cycling require routes with good quality, well maintained - smooth surfaces, adequate width for the volume of users, minimal stopping and starting and avoiding steep gradients.
- » **Attractive -** Cycle infrastructure should help to deliver public spaces that are well designed and finished in attractive materials and be places that people want to spend time using.

Guiding Principles

To support the desired design outcomes, the cycling improvements follow several general principles, which can be applied throughout the borough. Examples of design elements that support these principles are shown on the following pages.

» Cycle facility typology - The type of cycle facility appropriate for a given street is highly dependent on its context, including vehicle flows and speeds, carriageway space, surrounding development, and general character. However, selection of an appropriate cycle facility should follow the cycle design principles of segregation from traffic or low traffic speeds/volumes.² Segregated facilities are typically preferred, creating a comfortable and attractive facility for users of all ages and abilities and providing the greatest potential to encourage mode shift to cycling. Alternatively, cycle corridor alignments or design measures to support low traffic speeds (\leq 20mph) and flows may provide an attractive option if the route is direct.

- » Lower traffic speeds High vehicle speeds reduce comfort and safety for people cycling. Motor vehicle speeds of \leq 20mph are preferred to minimise speed differential with people cycling³. Design elements such as vertical deflection (e.g. speed cushions, raised tables/ raised junctions) or horizontal deflection (e.g. kerb build-outs, tight kerb radii, priority working) may be used, as appropriate, to support the desired vehicle speeds and create an environment where the speed limit is self-regulating. Traffic calming measures should also consider design elements to mitigate impacts on people cycling, such as providing cycle bypasses at kerb build-outs to manage potential conflicts with other road users.
- » Reduce motor vehicle flows Strategies to reduce motor vehicle flows (e.g. access or turn-movement restrictions, time restrictions, or modal filters) should be considered on cycle corridors where segregation is not feasible to

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

² see LTN 1/20 Figure 4.1

³ Studies shown that 20 mph zones would be beneficial to encourage cycling, particularly by women.

improve comfort for people cycling and create a more attractive cycle corridor.

- Review on-street parking On-street parking provisions can create potential conflict points between people cycling and motor vehicles, particularly where there is high parking turnover. Conflicts can arise from either vehicles entering/ leaving a parking space or opening of vehicle doors, or when parking obstructs visibility. Reducing parking could enable carriageway space to be reallocated for active uses, such as improvements for people walking or cycling. Where parking is retained, providing in recessed bays or parking on raised pads can provide wider, more flexible footway space and encourage slower speeds by reducing the carriageway width.
- » Junction and crossing improvements -Improvements should seek to improve priority for people cycling and visibility at junctions, enhancing safety and continuity of the cycle corridor. At uncontrolled junctions and side roads, improvements should seek to maintain cycle priority along the route and reduce motor vehicle speeds (e.g., tighten junctions, reduce bellmouth at side roads, increase vehicle deflection at roundabouts).
- » **Uphill cycling** Steep gradients are a significant constraint to cycling in some areas of the borough. Design should seek to incorporate provisions that enhance separation from motor vehicles for people cycling uphill, as the speed differential between motor vehicles and people travelling uphill is greater.

- » Wayfinding Good sight lines and visibility of destinations and of cycle corridors are important elements that affect how easy a route is to navigate, how many people cycling use the route, and perceived personal security. Wayfinding signage should be used to aid navigation and encourage use of the designated routes. Appropriate signage can improve confidence in using the route and encourage more cycling trips, particularly for those unfamiliar with the area. Signage that includes a distance and estimated travel time can also help avoid overestimating the time it takes to make a trip by cycle, encouraging increased cycle use for short journeys. A consistent wayfinding system should be applied on cycling routes throughout the borough.
- » **Compete with motor vehicle journey times.** By considering the alignment of the route and the nature of the interventions it can help to promote the mode of travel as an equal to motorised modes.
- » Access to key destinations The cycle network should be developed so that residential areas across the borough have access to safe, convenient, and attractive routes to/from local town centres, schools, and other key destinations.
- » Trip length Target short to medium length (1-5km) routes, which can be easily cycled.
- » **Collision history** Aim to address routes/ locations with a history of collisions involving people cycling. These areas are important to concentrate on and will be reflected in both

the route alignment and the nature of the infrastructure proposed.

- » **Cycle parking** Offer a variety of cycle parking to improve convenience and security.
- » **Design for utility** Cater for utilitarian journeys.
- » **Context sensitive design** Improvements should complement and enhance the character of urban and rural environments. The high-level concepts developed in the LCWIP should be suitable for the setting, and design guidance should be adapted to fit the local context and space constraints. Particular attention should be paid to the treatment of heritage assets.
- » **Inclusive design** Cycle infrastructure should be accessible to everyone, regardless of age, gender, ethnicity, or disability, and does not create hazards for vulnerable pedestrians.
- » Adaptability Improvements should be developed to accommodate all types of users, and potential growth in the numbers of people cycling.
- » Design Standards As proposed cycle improvements are advanced, design stages should utilise the latest best practice design guidance and standards available at the time, such as:
- » Cycle Infrastructure Design (DfT, LTN 1/20).
- » CD 195 Designing for Cycle Traffic (Highways England).

Example Design Tools - Cycling



Segregated Cycle Lane / Cycle Track Provides raised, physical separation between people cycling and motor vehicles (typically fully kerbed), providing a more comfortable, more attractive, and safer facility for people cycling of all ages and abilities. *(image: london-se1.co.uk)*



Lightly Segregated Cycle Lane Provides some physical barrier between people cycling and motor vehicles to improve comfort for people cycling. May be applicable where space constraints limit segregation options. Types of segregation could include sections of kerbing, bollards (as shown above), planters, or armadillo humps. *(image: transport-network.co.uk)*



Shared Use Path (park / open space) Provides an off-carriageway facility shared with people walking. While segregated from motor vehicles, conflicts between people walking and cycling may arise, depending on relative flows of each. Light segregation may be considered to encourage separation of people walking and cycling. *(image: trafficchoices.co.uk)*



Stepped cycle track Provides raised separation between people cycling, motor vehicles and pedestrians without the need of additional horizontal segregation. The cycle track is provided at an intermediate level between the carriageway and footway. It is preferred along roads with lower speeds and moderate volumes. (*image: Google*)



Mandatory Cycle Lane Provides a dedicated space for people cycling within the carriageway, separated by road markings only. Motor vehicles are not permitted to enter the cycle lane. (*image: rosslydall.workpress.com*)



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

Example Design Tools - Cycling



Dutch-style facility

Delineates a space for people cycling within the carriageway that seeks to prioritise people cycling over motor vehicles, typically through surfacing treatments and/or removal of the centre-line.



Quiet Mixed Traffic Street Where traffic flows are light and speeds are low, people cycling are likely to be able to cycle on-carriageway without segregation. Traffic calming and traffic

without segregation. Traffic calming and traffic management measures may be required to reduce traffic flows and/or speeds to provide appropriate conditions for an inclusive and attractive facility. (*image: Google*)



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



Contraflow Cycle Lane Improves the convenience, directness, and attractiveness of cycling by accommodating contraflow cycling on one-way streets, shortening cycle trips and improving cycle access. Contraflow cycle lanes may be segregated or non-segregated, depending on context and available width. *(image: LTN 1/20)*



Contraflow Cycling (quiet streets provision) Permits cycling in both directions of travel on narrow streets where traffic flows and speeds are low, and a cycle lane may not be necessary.

Example Design Tools - Cycling



Dutch or Segregated Roundabout Provides a segregated facility and enables priority to cyclists over vehicular traffic on all arms of the roundabout. *(image: rac.co.uk)*



Cyclops Junction Cycle Optimised Protected Signals, provide separate facilities for pedestrians, cyclists, and motor vehicles. Cyclists use the junction as a signalised roundabout and motor vehicles as a typical 4-arm junction. *(image: dailymail.co.uk)*



Toucan Crossing

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



Parallel Crossing / Tiger Crossing Provides priority for people walking and cycling at a crossing location, minimising the delay for people cycling, improving the directness of the route, and connecting off-carriageway cycle facilities.



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

Phase 1 Proposed Cycling Interventions

The following sections present the potential design measures to enhance the Phase 1 cycling corridors identified in the previous chapter. The proposed interventions are high-level and identify concepts for further consideration in the next stage of design. They seek to address issues and deficiencies identified during the audit activities, incorporate comments and issues noted during early stakeholder engagement (workshop #2), as well as to incorporate proposals from previous studies. They aim to be aspirational, ambitious, and reflect long-term timescales of the LCWIP, seeking to support a step-change in active travel and incorporate recent best practice guidance. The intent is to improve the cycling environment to a high standard following DfT's LTN 1/20 technical guidance.

At this early stage of concept development, the interventions for cycling are intended to identify preferred facility typologies, needs for crossing or junction improvements, etc. All proposed measures would be subject to varying levels of future additional analysis, feasibility assessment, and design.¹ Next stages of scheme development would develop the concepts in greater detail and during which further observations, data, and information would be obtained to continually refine and improve the initial proposals.

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

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

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

¹ The design stage of the LCWIP proposals is concept development. All the proposed interventions are subject to further assessment during feasibility planning and design, such as topographic survey, traffic modelling, vehicle swept path analysis, utility survey, availability of land, traffic/speed survey, further stakeholder input, etc., as applicable.



Proposed Interventions: Cycle Route 4, Great Dalwey

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Figure 66. Route 4: Great Dawley

Cycling Route 4: Great Dawley

The proposed route will link the Telford town centre retail area with Telford Park and Madeley. The majority of the route follows the Silkin Way.

Proposed Interventions:

 Telford Park: Shared use path of approximately 5m width between Southwater Library and the cycle hub.



Figure 67. Existing off-carriageway path in Telford Park along the cycle hub. Wide path can accommodate segregation between pedestrians and cyclists to organise cyclist movements and reduce the risk of collisions.

2 Telford Park: Segregated two-way cycle track of 2.5m width (minimum) alongside a footpath of approximately 2.5m width towards Stichley Avenue.

- Silkin Way: Investigate improvements to 3 the Silkin Way east of the Wonderland. This section of the Silkin Way is a bridleway and proposed changes will need to accommodate horse riders. Propose widening of the existing path to 4m to accommodate segregated two-way cycle track of 2.5m and 1.5m footpath (majority of pedestrians estimated to use Dark Lane) and remove the vegetation and resurface the verge alongside the path for horse riders. Proposed improvements to the path to be investigated following environmental surveys and review of usage by equestrians.
- 4 Silkin Way: Improvements to the junction where the two paths meet. Trim vegetation to improve visibility between the paths and give priority to cyclists along the Silkin Way.
- 5 Silkin Way: Consider improvements to accommodate pedestrians, cyclists and horse riders. Propose segregated two-way cycle track of 2.5m along the existing path, trim the vegetation and resurface the verge alongside the path to accommodate horse riders. Additional improvements to the path may include: added lighting, drainage, and an additional buffer along the path to protect the route from overgrown vegetation. Proposed improvements to the path to be investigated following environmental surveys and review of usage by equestrians.



Figure 68. The Silkin Way east of Wonderland has the potential to be widened on both sides to accommodate pedestrians, cyclists and horse riders along the verge.



Figure 69. Junction between the Silkin Way and the off-carriageway path from Dark Lane.



Figure 70. The Silkin Way at a pinch point. At locations where widening cannot be accommodated to provide segregation between users, a wide shared-use path should be proposed.

- 6 Silkin Way at Chapel Lane: Consider an improved crossing point, such as a priority crossing on the raised table at Chapel Lane and trim overgrown vegetation to improve intervisibility.
- 7 Silkin Way: Investigate improvements including resurfacing of the path to remove the existing level difference, widening of the path to provide a 2.5m two-way cycle track and 2m footpath with light segregation (trapezoidal strip; subject to environmental surveys).



Figure 71. Existing priority crossing at Chapel Lane: Raised table and give way lines for motorized traffic.

- 8 Silkin Way: Consider improvements to the access ramp between the Silkin Way and Court Road off-street path to reduce the gradient, provide a wider turning radii, and trim the vegetation to improve intervisibility.
- 9 Court Road shared-use path: Provide a shared-use path along the football court of 3.5m width (minimum). Remove the existing segregation and trim the overgrown vegetation to increase the



Figure 73. Ramp between the off-carriageway path along the football court and the Silkin Way with poor surface, poor visibility, and significant gradient.

effective width of the path and improve lighting.

- **10** Court Road: Propose a raised table at the exit of the path to reduce traffic speeds and improve access to the path. Additional measures to include reduce turning radii at the junction to improve intervisibility.
- 11 Court Road: Mixed traffic provision to link movements between the shared-use path and the existing cycle facilities on Parkway. Investigate reducing the speed limit to 20mph to improve safety and user comfort for cycling with mixed traffic.
- 12 Parkway junction: Introduce advanced STOP lines at the existing traffic signals to give cyclists priority over motorised traffic. Propose low-level cycle signal heads at junction and investigate the opportunity to provide early release for cyclists at the junction (re-modelling of the signal timing may be required).



Figure 72. Existing kerbed segregation along the Silkin Way, providing a narrow cycle track.



Figure 74. Off-carriageway path along the football court with a verge for segregation, providing two narrow paths



Figure 75. Junction of Court Road / Parkway, opportunity to incorporate cycle measures at existing signals

13 Wayfinding: Update the existing wayfinding along Silkin Way, as needed, and introduce additional wayfinding posts and signage at key decision points to enhance the legibility and coherence of the proposed route.



Figure 77. Existing wayfinding totem in Telford town centre at northern section of the route.



Figure 76. Silkin Way



Proposed Interventions: Cycle Route 5, Hortonwood Loop Connector

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Figure 78. Route 5: Hadley Castle - Hortonwood Loop Connector

Cycling Route 5: Hadley Castle -Hortonwood Loop Connector

The proposed route will create a circular route between the residential area in Hadley and the industrial area in Hadley Castle, which will be linked to Wellington, Trench and Donnington via existing cycle facilities.

Proposed Interventions:

- Leegate Ave/Hadley Park Rd junction: Improve access to the existing facilities to/ from Telford College (NCN 81) by adding a toucan crossing on Leegate Avenue. Widen the footway on the north side of Hadley Park Road to introduce a two-way cycle track to access the proposed toucan crossing. Reduce the turning radii Hadley Park Road to reduce the traffic speeds and the crossing distance. Propose an additional parallel crossing on Hadley Park Road to link the proposed cycle track with the facilities on Hadley Park Road.
- 2 Hadley Park Rd: Provide a raised table at the exit of the cul-de-sac to reduce traffic speeds and improve access to the path. Additional measures to include reduced turning radii at the junction to improve intervisibility.
- 3 NCN 81: Improve access to National Cycle Route 81 at the southern end of the cul-desac by widening the dropped kerbs, and adding double yellow markings to restrict on-street parking.



Figure 79. Proposed improvements on Hadley Park and Leegate Avenue/Hadley Park junction: Buildouts to reduce the turning radii at the junctions, raised junction and side road treatment. Two-way cycle track south of Leegate Avenue to link with existing facilities and the proposed toucan crossing. Two-way cycle track on the west side of Hadley Park to link to the proposed toucan crossing. Advisory cycle lanes on Hadley Park.

Hadley Park Road: Investigate the opportunity to introduce Dutch-style treatment along Hadley Park Road. The interventions could include speed limit reductions to 20mph, removal of road centre line and inclusion of coloured surfacing for cycling (advisory cycle lanes). Formalise on-street parking where required, such as the west side of the road along the cemetery, and provide cycle by-passes with road markings or mixed traffic provision for cyclists at these locations. Additional traffic calming and road safety measures to support the speed limit reduction could include raised junctions with reduced turning radii and raised tables on the approach to the off-carriageway path crossings, as well as horizontal deflection where feasible to reduce the width of the traffic lanes.

4



Figure 80. Existing cul-de-sac at the exit of National Cycle Route 81, with poor surface quality and bollards restricting the effective width.



Figure 81. Hadley Park Road: narrow carriageway width, investigate potential 'Dutch-style' treatment. On-street parking may be retained at locations where necessary.

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- 5 Silkin Way: Introduce a raised table with a parallel crossing at the junctions of the Silkin Way and Hadley Park Road.
- 6 Okehampton Road crossing: Introduce a parallel crossing at the buildout on Okehampton Road to give priority to pedestrians and cyclists. Remove the guardrail to improve the access to the path.
- 7 Silkin Way: Off-carriageway shared-use path. Clear vegetation along the path to increase the effective width.
- 8 Silkin Way: Off-carriageway shared-use path. Clear vegetation and widen the path to the extend of the fences. Add lighting to improve personal safety.
- 9 Silkin Way: Realign the off-carriageway path on the approach to the existing cycle track along the A442 to improve visibility between the paths.

- **10** A442: Widen the existing facilities to a minimum 2.5m two-way cycle track with a 1.5m buffer from motorised traffic along the A442 by reallocating space from the carriageway (reduce the width of the running lanes).
- 11 A442/Hortonwood 30 roundabout: Remove the stagger on the toucan crossing at the north arm of the roundabout to improve cycle access. Two-stage signal timing of the crossing likely to be maintained due to traffic flow requirements (to be reviewed at next stage). Introduce a new toucan crossing at the eastern arm roundabout. Upgrade the existing uncontrolled crossings on the western arms of the roundabout (for access to the services and the car park) to parallel crossings for the continuity of the existing cycle facilities along Queensway.





Figure 82. Existing uncontrolled crossing on Okehampton Road with buildouts and rumble strips so vehicles will reduce their speed. Guardrail is added to slow down cyclists and pedestrians on the approach to the road.



Figure 83. Existing off-carriageway path with average width of 2.5 - 3m. No lighting is provided at the eastern section of the path and thick vegetation reduces the effective width.



Figure 85. The existing toucan crossing on the north arm of A442/Hortonwood 30 roundabout.

- 12 Hortonwood 30: Widen the existing cycle facilities along Hortwood 30 to 2.5m (minimum) two-way cycle track by reallocating space from the verge. Introduce parallel crossings on Hortonwood 30/ Hortonwood 1 roundabout on the south and west arms to link the proposed facility with existing paths.
- **13** Hortonwood 1: Propose new 2.5m (minimum) two-way cycle track on the east side of Hortonwood 1 by reallocating space from the wide verge. Additional crossing points along Hortonwood 1 to be considered as a long term aspiration.
- **14** Hortonwood 7 junction: Introduce a priority crossing at Hortonwood 7. Tighten the turning radii to reduce the traffic speeds and the crossing distance.
- **15** Silkin Way access: Replace existing gate with bollard to improve cycle accessibility to/from the off-road path.



Figure 87. Wide verge on Hortonwood 1 (east side) to be proposed as two-way cycle track. Available space between lighting columns and utility boxes to be investigated in the next stages of design.



Figure 88. Off-carriageway path south of Hortonwood 1.



Figure 86. Existing uncontrolled crossing on Hortonwood 30/ Hortonwood 1 roundabout (south arm)



Figure 89. Uncontrolled crossing on the A518

- **16** Silkin Way: Improve existing off-carriageway shared-use path. Remove the vegetation to increase the effective width of the path and resurface the path on the approach to Hortonwood 1.
- 17 Silkin Way / A518 crossing: Upgrade the existing uncontrolled crossing on A518 to a parallel crossing to serve the proposed cycle corridor and National Cycle Route 81.
- **18** Horton Road/Trench Road junction: Raise junction to improve the access to the off-carriageway path and reduce the traffic speeds on Trench Road.



Proposed Interventions: Cycle Route 10, Telford to Oakengates

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Figure 90. Route 10: Telford to Oakengates

Cycling Route 10: Telford to Oakengates

The proposed route will link Telford Railway Station and the town centre with Oakengates Railway Station and town centre, primarily utilising existing off-carriageway paths.

Proposed Interventions:

- 1 Station Road roundabout: Introduce parallel crossings on the south and east arm of Station Road/Uxacona Way/Lion Street roundabout to improve access to the railway station. Widen the footway on the south side to propose a short section of shared-use path which will accommodate cyclists' movements on the approach to the parallel crossings.
- 2 Station Road: Investigate cycle facility options through this section, subject to highway boundary information and topographic survey. Due to highway constraints, options could include a 'hybrid' approach, with on-street facilities in the downhill direction (e.g., advisory cycle lane, reduced speed limit) and segregated in the uphill direction (e.g., cycle track).

Aspirational proposal: Reduce the carriageway width and propose stepped cycle tracks in both directions of travel to provide segregation between cyclists and motorised traffic. (subject to highway boundary information and topographic survey)

- 3 Station Road/Canongate junction: Raise junction and introduce a priority crossing for southbound cyclists. Additional measures to include reduce turning radii at the junction to improve intervisibility and reduce the traffic speeds and the crossing distance. Measures will support the proposed reduction of the speed limit on Station Road.
- 4 Station Road near Newlands Road: Upgrade existing zebra crossing to a parallel crossing to link the off-carriageway facilities with the proposed advisory cycle lane and the one-way cycle track on the east side of Station Road.
- **5** Off-road path: Widen existing path to accommodate 2.5m cycle track and 2m footpath (minimum).
- 6 Off-road path subways: Resurface the paths in subways to remove the level difference and propose a trapezoidal strip for segregation between pedestrians and cyclists. Investigate the opportunity to widen the existing facilities by removing the verge on the approaches to the roundabout. Trim the vegetation and the branches on the trees to improve the sight lines and visibility. Improve the lighting in the subways.



Figure 91. Station Road: Wide verge on the east side to allow footway widening which will accommodate one-way cycle track.



Figure 92. Existing zebra crossing to be upgraded to parallel



Figure 93. Cycle track/Footpath in the subways on Greyhound roundabout. Seasonal foliage and overgrown vegetation are reducing the effective width of the paths. The trees are restricting the sight lines, reducing the visibility, and reduce the natural light at the path increasing the fear of personal safety.

- 7 Off-road path: Widen existing path to accommodate 2.5m cycle track and 2m footpath (minimum). Resurface the path where needed to remove defects. Improve the vegetated buffer along the path on the east side to reduce the noise from Queensway.
- 8 Off-road path, bridge: Resurface the bridge to improve the access to the off-carriageway path east of Queensway and the Silkin Way and propose a shared-use path. Add wayfinding and lighting to the path.
- **9** A5 crossing: Improve access to the toucan crossing on the A5 by widening the turning radius of the existing paths.

- **10** A5: Swap pedestrian and cyclists positions at the existing facilities (cyclists to be placed near the carriageway) and widen the two-way cycle track to 2.5m by reallocating space from the verge. Introduce a 0.5m buffer from motorised traffic (minimum).
- 11 Ironmasters Way: Propose a 2.5m (minimum) two-way cycle track at the wide footway.
- 12 Alternative proposals: Link Greyhound Roundabout to Oakengates Railway Station via Holyhead Road and Station Fields. Reallocate spaced from central hatching and southern footway to propose a two-way stepped track on the north side of Holyhead Road. Resurface Station Fields to propose mixed traffic provision with low traffic flows. Discuss with Network Rail improved access to the railway station via new gate. Cyclists to be linked to Station Road via the new bridge.



Figure 94. Existing path on the west side of Queensway.



Figure 95. Existing cycle facilities on Ironmasters Way. (source: Google Street View)



Figure 96. Holyhead Road as an alternative route to Station Road. (*source: Google Street View*)



Figure 97. Existing toucan crossing on Rampart Way at the exit of the off-carriageway path (under Telford Railway Station bridge) that links to the railway station and the town centre



Proposed Interventions: Cycle Route 15, Shawbirch to Arleston (via Wellington)

Cycling Route 15: Shawbirch to Arleston (via Wellington)

The proposed route will connect Wellington town centre and the railway station with the residential area of Dothill, The Princess Royal Hospital, and Telford College. The route links to existing cycle facilities to the north, the Silkin Way and National Cycle Route 81.

Proposed Interventions:

- 1 Whitchurch Drive: Widen the existing two-way cycle track to 2.5m (minimum) by reallocating space from the eastern verge.
- 2 Whitchurch Road / cycleway junction: Raise the junction to improve the access to and movements between the two-way cycle track and the off-carriageway shared use path to the east. Additional measures to include reduced turning radii at the junction to improve intervisibility, which will reduce the traffic speeds and the crossing distance.

- 3 Off-carriageway shared use path: Clear vegetation to increase the effective width of the path and remove the light segregation to provide a wider facility for both pedestrians and cyclists.
- 4 Apley Castle shared-use path crossing: Introduce a raised table at the exit of the off-carriageway path to improve the access to the path and slow motorised traffic.
- 5 Whitchurch Road: Extend the one-way system on Severn Drive to Whitchurch Road to reallocate space from the carriageway for pedestrian and cycle facilities and reduce the number of turning movements at the junctions. Propose a contra flow cycle lane (northbound) of 1.5m width (minimum) on the east side of the road to link to the off-street facilities.
- 6 Whitchurch Road: Propose a Dutch-style treatment along Whitchurch Road including speed limit reductions to 20mph, removal of road centre line and coloured surfacing to emphasise space for cycling (advisory cycle lanes). Additional traffic calming measures to include raised junctions and horizontal deflection where feasible.
- 7 Whitchurch Road: Two-way cycle track of 2.5m (minimum) south of the existing toucan crossing on Whitchurch Road on the east side of the road. Reallocate space from the carriageway and the verge along the existing footpath.



Figure 100. Existing cycle track on Whitchurch Drive



Figure 101. North end of Whitchurch Road at the junction with the off-carriageway paths: north (ahead) to Whitchurch Drive and east (right) to Apley Woods. (*source: Google Street View*)



Figure 102. Existing toucan crossing at Carlton School on Whitchurch Road to allow safe transition for people cycling between the proposed facilities. (*source: Google Street View*)

- 8 Whitchurch Road/Apley Avenue junction: Introduce toucan crossing at the east arm (currently uncontrolled) of Whitchurch Road/Apley Ave roundabout to provide safe transition between the two-way cycle track and the facilities south of the roundabout.
- 9 Whitchurch Road/Apley Avenue junction: Propose one-way cycle track on the west side of Whitchurch Road to provide a safe cycle bypass for northbound cyclists at the roundabout. Investigate reducing the number of approach lanes to one at each arm, facilitating pedestrian crossings and space for cycle bypasses.
- 10 Whitchurch Road: Investigate the opportunity to introduce cycle lanes and review the speed limits. Consider Dutch-style treatment along Whitchurch Road that includes measures such as speed limit reductions to 20mph, removal of road centre line and coloured surfacing to emphasise space for cycling (advisory cycle lanes). Additional traffic calming measures to include raised junctions and horizontal deflection where feasible.



Figure 103. Proposal for cycle by-pass for cyclists at Whitchurch Road/Apley Ave roundabout. One-way cycle tracks (light blue) on the west side and on the south east side with safe transitions to the advisory cycle lanes (purple) along Whitchurch Road. New toucan crossings on north and east arms to link to the proposed two-way cycle track (dark blue) north of the roundabout.



Figure 104. View from King Street/Whitchurch Road/ Railway Station/National Cycle Route 81 roundabout, facing northeast. (*source: Google Street View*)

- 11 Whitchurch Road: Propose one-way cycle tracks of 1.5m (minimum) on each side of the Whitchurch Road by reallocating space from the carriageway and the verge. Introduce priority crossings at raised tables on the side roads and additional measures such as reduced turning radii at the side road junction to improve intervisibility, which will reduce the traffic speeds and the crossing distance for people cycling and pedestrians.
- 12 King Street roundabout: Introduce parallel crossings on each arm of the King Street/ Whitchurch Road/Railway Station/National Cycle Route 81 roundabout alongside two-way cycle tracks by reallocating space from the verge to provide safe transition between the proposed facilities and safe access to the railway station.
- **13** National Cycle Route 81: Propose advisory cycle lanes of 1.5m (minimum) along National Cycle Route 81 between the roundabout and the existing toucan crossing at Victoria Avenue.

Aspirational proposal: Investigate the opportunity to provide stepped tracks (instead of advisory cycle lanes) on each side of the road to secure the segregation between cyclists and motorised traffic.

- 14 Off-carriageway shared use path: Improve the access to the existing toucan crossing on National Cycle Route 81 by removing the light segregation on the path to increase the effective width for both pedestrians and people cycling. Investigate the opportunity to widen the path and improve the turning radius.
- 15 Victoria Avenue: Change the priority on Victoria Avenue/New Hall Road junction to give priority to west-east movements. Consider a raised junction to improve the road safety and reduce the traffic speeds.
- **16** Victoria Avenue: Mixed traffic provision along Victoria Avenue, a quiet residential street. Width may allow for mandatory cycle lanes but flows and speeds are assumed to be low, and on-street parking is needed to be retained.
- **17** King Street/Victoria Avenue/Regent Street junction: Raise junction to improve access and continuity between the Victoria Avenue



Figure 105. Off-carriageway path at Victoria Avenue leading to a toucan crossing on National Cycle Route 81. (*source: Google Street View*)

and Regent Street quietways. The proposal will operate as a traffic calming measure. Additional measures to include reduced turning radii to improve intervisibility and reduce crossing distance.

Regent Street: Mixed traffic provision along 18 Regent Street, Retain on-street parking and propose buildouts on both sides of the road to define the parking bays, introduce uncontrolled crossings with reduced crossing distance and enhance public realm with added planting. Introduce a modal filter between Mill Lane and Bank Road to prevent through movements and rat-running, reduce traffic on the quiet route, and prioritise cycle and pedestrian movement. Consider incorporating planting and seating into the modal filter as part of a Healthy Streets approach to improve the quality of the route.

Tighten the Regent Street/Mill Lane junction for opportunity to widen the



Figure 106. Regent Street: Residential street with on-street parking and speed humps. (*source: Google Street View*)

footways and improve vehicle movements at the junctions.

Remove the existing speed humps along Regent Street to improve the surface for cycling and improve comfort.

Reinforce priority for cyclists across side roads with cycle markings in a primary cycling position.

At existing advanced STOP lines at Regent Street / Walting Street junction, provide low-level cycle signal heads and investigate the opportunity to provide an early release for cyclists at the junction (re-modelling of the traffic signal timing may be required).

19 Alternative alignment to the railway station via King Street, with mixed traffic provision and reduced speed limit to 20mph. Additional measures could be investigated to reduce the traffic flows along King Street, as anecdotal informations suggests that it is used as a rat-run to avoid congestion on other routes.

A broader traffic study of the area would help to understand existing circulation patterns, identify traffic issues in Wellington, and identify potential mitigation measures to discourage traffic and rat-running through the town centre area and along Cycle Corridor 15.


Cycling Route 17: Madeley Loop

The proposed route extends across Madeley town centre with two alignments: (1) via the High Street, (2) via Parkway. The route links to Halesfield industrial area to the east, Woodside residential area to the west and connects with proposed Route 4: Great Dawley and the Silkin Way.

Proposed Interventions:

- 1 A4169: Propose a 2.5m (minimum) two-way cycle track on the south side of Kemberton Road - A4169 (utilise verge).
- 2 A4169 roundabouts: Introduce toucan crossings at Cuckoo Oak roundabout, Halesfield roundabout and A4169/ Halesfield roundabout along the proposed two-way cycle track and to link the proposed facility with existing facilities.
- 3 Kemberton Road: Propose a 2.5m (minimum) two-way cycle track on the north side of Kemberton Road on the approach to Madeley roundabout. Widen the existing footway and retain verge as buffer.
- 4 Kemberton Road: Introduce a toucan crossing on the approach to Miners Arms bus stop to link the proposed facilities on both sides of Kemberton Road.
- 5 Madeley roundabout: Widen the footways on Madeley roundabout by reallocating space from the carriageway. Tighten the radii on the roundabout approaches to the



Figure 108. Kemberton Road on the approach to Miners Arms bus stop and indicative location for the proposed toucan crossing (yellow) and two-way cycle tracks (blue). (source: Google Street View)

extent feasible to reduce traffic speeds and improve visibility.

6 Madeley roundabout: Propose a toucan crossing at Parkway on the approach to Madeley roundabout to link the proposed two-way cycle track on Kemberton Road to the town centre and the Silkin Way.



Figure 109. Parkway on the approach to Madeley roundabout. Wide carriageway width can be reallocated to footways. Indicative location of the proposed crossing. *(source: Google Street View)*

- 7 Parkway: Propose a 2.5m (minimum) two-way cycle track on the north side of Parkway by reallocating space from the verge. Retain 1m of verge as a buffer from motorised traffic.
- 8 Parkway: Widen the existing two-way cycle track along Parkway to 2.5m and the existing footway to 2m (minimum). Retain the segregation between pedestrians and cyclists by introducing a trapezoidal strip. Propose 0.5-1m (minimum) buffer where feasible.
- **9** Parkway: Improve existing toucan crossing at the retail area by removing the guardrail and widening the shared-use path on the approach to the crossing.
- **10** High Street: Mixed traffic provision with added cycle logos for the continuity of the network.
- 11 High Street/Park Avenue/Court Street junction: Tighten junction to reduce the crossing distance across Park Avenue and to accommodate the proposed changes at all roads. Widen the northern footway along the junction to accommodate the proposed cycle facilities along Court Road. Upgrade existing zebra crossing to a parallel crossing to provide safe transitions for cyclists at the junction and introduce a parallel crossing at Park Avenue.

12 Court Street: Existing advisory cycle lane for northbound cyclists. Resurface the east footway and propose a southbound contra flow cycle facility at footway level. Widen the east footway north of Park Avenue to accommodate recessed on-street parking, the proposed contra flow cycle facility, and wide footway. Introduce a 20mph zone. Propose low-level cycle signal heads at the traffic signals and investigate providing an early release for cyclists at the junction (re-modelling of the signal timing may be required).

Aspirational proposal: Upgrade the existing advisory cycle lane to stepped track for northbound cyclists.

Alternative alignment: Propose a quiet cycle route via the residential street east of Court Street to link with the proposed toucan crossing on Parkway. Provide access to Parkway via a new off-carriageway path.

- **13** Park Avenue: Propose section of Park Avenue as pedestrian and cycle priority street. Opportunity for a bus gate in the eastbound direction to reduce traffic flows.
- 14 Park Avenue roundabout: Convert the roundabout at the entrance to the supermarket to a priority junction, providing an opportunity to widen the footways. New priority crossings to be proposed at the entrance of the car park and on the west approach to the junction.

- **15** Park Street: Propose one-way cycle tracks on both sides of Park Street to provide a safe cycle bypass at the roundabout. Introduce a 20mph zone.
- **16** Off-carriageway shared-use path: Permit access to cyclists at the path and improve the access by removing the guardrail.
- 17 Alternative alignment: Propose stepped tracks on Maddocks by reallocating space from the verge and the carriageway. Introduce toucan crossings on the south arm of Parkway / Maddocks junction and advanced STOP lines with low-level cycle signal heads at the traffic signals. Investigate providing an early release for cyclists at the junction (re-modelling of the signal timing may be required).
- **18** Park Street: Propose Dutch-style treatment along Park Street including speed limit reduction to 20mph, removal of road centre line and inclusion of coloured surfacing for cycle facilities (advisory cycle lanes) for the westbound direction (uphill). Relocate parking from the south side to the north side of the road to allow safe cycle facilities for cyclists moving uphill (westbound). Eastbound cyclists (downhill) to be in mixed traffic provision with low traffic speeds, where the traffic flows are estimated to be low. Modify the existing buildouts throughout the section to allow cycle bypasses. Additional traffic calming measures to include raised junctions,



Figure 110. Existing advisory cycle lane (purple) and proposed contra flow cycle lane (light blue) on Court St. Alternative proposal: Two-way cycle track on east side (dark blue), mixed traffic on the quiet residential street (red) and off-carriageway path to access Parkway (green).



Figure 111. Reconfigure the roundabout on Park Avenue to a priority junction with added crossings and bus gate.

horizontal deflection where feasible, and side road treatments.

- **19** Park Street/Park Lane Avenue/Bridle Road junction: Raise junction and tidy the movements at the junction with widened footways.
- 20 Parkway/Park Street/Glendinning Way/ Ironbridge Road/Mound Way roundabout: Introduce toucan crossings at the east and south arms, linking the proposed cycle facilities.
- 21 Parkway/Park Street/Glendinning Way/ Ironbridge Road/Mound Way roundabout: Widen the footways by reallocating space from the carriageway to accommodate the proposals for cyclists and pedestrians. To the extent feasible, tighten the radii on the approaches to the roundabout to reduce traffic speeds and improve visibility.
- 22 Ironbridge Road: Propose a 2.5m (minimum) two-way cycle track on the south side of the road to the existing toucan crossing. Utilise the verge, widen the existing footway and propose segregation between pedestrians and cyclists with a trapezoidal strip.
- 23 Ironbridge Road: Propose Dutch-style treatment along Ironbridge Road, including speed limit reductions to 20mph, removal of road centre line and inclusion of coloured surfacing for cycle facilities (advisory cycle lanes). Additional traffic

calming measures to include horizontal deflection where feasible.

- 24 Mounds Way: Propose a 2.5m (minimum) two-way cycle track on the west side of Mounds Way up to the existing cycle facilities. Utilise the verge, widen the existing footway and propose segregation between pedestrians and cyclists with a trapezoidal strip.
- 25 Mounds Way/Park Lane junction: Raise junction to improve access at the cycle facilities. The proposal would operate as a traffic calming measure. Additional measures to include reduced turning radii to improve intervisibility and reduced crossing distance.
- 26 Park Lane modal filter: Introduce a parallel crossing. Remove the guardrail to increase the effective width of the footway. Improve the access to the modal filter by removing the wall, introducing dropped kerbs and adding double yellow markings to restrict on-street parking.
- 27 Mounds Way: Widen the existing two-way cycle track to 2.5m (minimum) by utilising the verge. Widen the raised tables at the side roads and remove the bollards from the cycle lane.



Figure 112. Cycle bypass at buildout (similar to proposals for Park Street). (source: Cycle Highway Manual)



Figure 113. Proposed location of parallel crossing on Mounds Way at the Park Lane modal filter. (source: Google Street View

- **28** Alternative proposal along Parkway: Propose a 2.5m (minimum) two-way cycle track on the east side along the verge. Retain verge of 1.5m width as a buffer.
- **29** Alternative proposal along Parkway: Introduce a toucan crossing at the east arm of Woodside roundabout to link the existing facilities with the proposed cycle track on Parkway to the south.

Assessment of Proposals

Following the initial concept design the proposed interventions were assessed using the Route Selection Tool (RST) with the same criteria used for the assessment of the existing situation of the corridors.

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

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

A summary of the results for each corridor within the first phase of proposals are presented in the following tables and each assessment is presented in "Appendix 4: Route Selection Tool (RST)".

Undertaking the RST helps indicate which options provide the greatest benefit when compared to a 'do-nothing' scenario. This subsequently was used as an input to suggest relative prioritisation of the Phase 1 cycle corridors (see "Assessment of the Phase 1 CWZ & Cycle Routes" on page 119).

With the proposed interventions, an improvement is anticipated on every cycle corridor in terms of comfort and safety since the proposals include segregated facilities on at least a portion of the corridors and/or reduced speed limits that will facilitate safer interaction with motorised traffic. The metrics for gradient and connectivity generally remain the same, as the alignments in the existing and proposed are unchanged.

Cycle corridors 4 and 10 extend along existing cycle facilities through green areas, hence the high scores on the existing route and the relative lower improvements compared to the other three routes, which are primarily along the road network through town centres.

The final score for cycle corridor 5 is also relatively high as the extent of the corridor is proposed via segregated facilities and/or within a lower traffic speed environment. Cycle corridors 15 and 17 do not score as high as the other cycle corridors as proposals include sections on the carriageway, either as mixed traffic or with advisory cycle lanes with high traffic flows (>2500 vehicles per day), due to geometry constraints. The corridors are improved from the existing as the proposals include lower speed limits and priority crossings.

	Route 4: Great Dawley		Route 5: Hadley Castle – Hortonwood Loop Connector		Route 10: Telford to Oakengates	
	Existing	Potential	Existing	Potential	Existing	Potential
Directness	5.00	5.00	5.00	5.00	5.00	5.00
Gradient	3.22	3.22	3.69	3.69	3.18	3.18
Safety	3.52	4.03	2.21	4.03	3.47	3.70
Connectivity	5.00	5.00	5.00	5.00	5.00	5.00
Comfort	2.07	3.09	1.20	2.37	1.78	3.00
Total	18.80	20.33	17.10	20.09	18.43	19.88
Improvement (compared to existing)		1.53 (8.12%)		2.99 (17.47%)		1.45 (7.84%)

Table 8. RST results - Cycle Corridors 4, 5, and 10

Table 9. RST results - Cycle Corridors 15 and 17

	Route 15: Shawbirch to Arleston (via Wellington)		Route 17: M	adeley Loop
	Existing	Potential	Existing	Potential
Directness	5.00	5.00	5.00	5.00
Gradient	3.68	3.72	1.80	1.80
Safety	2.05	2.89	1.48	3.93
Connectivity	5.00	5.00	5.00	5.00
Comfort	0.24	0.93	0.00	2.48
Total	15.97	17.55	13.28	18.21
Improvement (compared to existing)		1.57 (9.84%)		4.92 (37.06%)

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8. Route Prioritisation and Costings

Introduction Indicative Costs Estimates

Introduction

This chapter summarises the potential prioritisation for implementing the selected cycle corridors and core walking zones and indicative scheme costs for each package of cycle corridor and CWZ proposals.

The prioritisation is high-level and indicates the relative importance of the Phase 1 areas and their package of proposed interventions, based on the methodology described in the following section. 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.

Prioritisation of the 'aspirational' lists

As mentioned in the previous sections, the 'aspirational' or 'long-list' of CWZs and cycle corridors were prioritised to identify the Phase 1 areas for further assessment within the LCWIP (see "Identification of Phase 1 Core Walking Zones" on page 34 and "Identification of Phase 1 Cycle Corridors" on page 80).

This process was used to suggest potential relative timescales for further development of schemes, categorising the core walking zones and the cycle corridors into:

- » Phase 1 high priority / short term (2 years).
- » Phase 2 medium priority / medium term (< 10 years).</p>

Due to the number of routes, the Phase 2 cycle corridors were classified into two categories (Medium Term and Long Term) to suggest a potential order for further development of the remaining 21 cycle corridors. The order of further development will ultimately be dependent on external factors as well, such as funding opportunities or synergy with other schemes or development activity.

The prioritisation of the aspirational lists is summarised in the following tables and figures (cycle corridors - Table 10, Figure 114; core walking zones - Table 11, Figure 115). Table 10. Prioritisation table for the aspirational list of Cycle Corridors

Cycle Corridor	Priority / Timescale
15 Shawbirch to Arleston (via Wellington)	High/Short Term
4 Great Dawley	High/Short Term
10 Telford to Oakengates	High/Short Term
5 Hadley Castle – Hortonwood Loop Connector	High/Short Term
17 Madeley Loop	High/Short Term
2b Donnington to Arleston - Hadley	Medium/Med.Term
2a Donnington to Arleston - Wellington	Medium/Med.Term
7 Madeley to Brookside	Medium/Med.Term
8d Silkin Way - Telford	Medium/Med.Term
10b Telford to Oakengates - Alternative Route (Silkin Way)	Medium/Med.Term
2c Donnington to Arleston - Donnington	Medium/Med.Term
14 Arleston to Oakengates (via B5061)	Medium/Med.Term
9 Telford Shopping Centre Loop	Medium/Med.Term
18 Telford to Brookside	Medium/Med.Term
8e Silkin Way - Sutton Hill	Medium/Med.Term

Cycle Corridor	Priority / Timescale
6b Donnington to Stafford Park - Priorslee	Low/Long Term
8c Silkin Way - Oakengates	Low/Long Term
13 Newport Local	Low/Long Term
16 The Rock to Aqueduct (via B4373/King Street)	Low/Long Term
8a Silkin Way - Wellington	Low/Long Term
8b Silkin Way - Leegomery	Low/Long Term
11 Newdale to Telford Central	Low/Long Term
1 Newport to Telford (via A518)	Low/Long Term
6a Donnington to Stafford Park - Donnington	Low/Long Term
3 Waterloo Rd	Low/Long Term
12 Newport to Harper Adams Uni (via B5062)	Low/Long Term



Figure 114. Suggested prioritisation of the identified cycle corridors aspirational network.

Table 11. Prioritisation table for the aspirational list of Core Walking Zones

Core Walking Zone (ID)	Priority / Timescale
Telford (1)	High/Short Term
Oakengates (2)	High/Short Term
Wellington (3)	High/Short Term
Ironbridge (4)	High/Short Term
Newport (5)	High/Short Term
Dawley (6)	High/Short Term
Madeley (7)	High/Short Term
Hadley (8)	Medium/Med.Term
AFC Telford United (9)	Medium/Med.Term
Lawley (10)	Medium/Med.Term
Wrekin Retail Park (11)	Medium/Med.Term
Donnington (12)	Medium/Med.Term
Telford Retail Parks (The Forge and Telford Bridge) (13)	Medium/Med.Term
Garden Centre and Hotel (14)	Medium/Med.Term



Figure 115. Suggested prioritisation of the identified CWZ aspirational network.

Assessment of the Phase 1 CWZ & Cycle Routes

The core walking zones and cycle routes included in Phase 1 were assessed using the criteria summarised below. The further assessment of the routes will assist in understanding where improvements to core walking zones and cycling corridors may have the greater potential benefits for users. The Phase 1 assessment was undertaken using additional criteria to the previous prioritisation of the aspirational networks. Criteria were rated on a scale from 1 to 3 (low to high) and included considerations of the proposed interventions.

Scoring Criteria

Demand Criteria

- » Collision data: historic collisions along the cycle routes (per km) and within the core walking zone (total number).
- » Potential flows [cycling only]: a score was derived based on the highest increase of the users for each route, calculated from Propensity to Cycle Tool (PCT) data using the uplift from the 2011 Census to the Go Dutch scenario.
- » Population [walking only]: based on the estimated cumulative population in mid-2020 (ONS data) that the core walking zone serves (within 10-minute walk of the CWZ). A higher score has a greater number of potential users benefiting by the proposals.
- » Workplace population [walking only]: based on the cumulative workplace population in Census 2011 that the that the core walking

zone serves (within 10-minute walk of the CWZ). This will prioritise the areas with higher daytime activity related to employment.

» Development sites [walking only]: Scores the number of dwellings that the core walking zone will serve, to estimate the increase of potential users (within 10-minute walk of the CWZ).

Quality of Improvements Criteria

These criteria intended to capture the potential of the improvements to encourage new walking and cycling trips.

- » Quality of design safety [cycling only]: The criterion reflects the expected change for the RST safety metric. Proposed changes that result in a more significant increase in the safety metric would be expected to have a higher net benefit than a route that scores relatively well in the current condition.
- » Quality of design comfort [cycling only]: The criterion reflects the expected change for the RST comfort metric. Proposed changes that result in a more significant increase in the comfort metric would be expected to have a higher net benefit than a route that scores relatively well in the current condition.
- » Quality of improvements [walking only]: based on the before/after total WRAT scoring. Proposed changes that result in a more significant increase in all the metrics would be expected to have a higher net benefit than a route that scores relatively well in the current condition.

» Contributes to improved cycling network [cycling only]: scores the connectivity of the proposed corridor with other cycle links in the area (existing routes and the aspirational cycle network).

Access Criteria

Access criteria are intended to capture whether the routes help improve pedestrian and cycle access to several key destinations. Criteria were generally scored as 'yes' (3) if at least one destination is identified, or 'no' (1), unless otherwise noted where they are scored based on the number of destinations the cycle corridor and core walking zone serve. For the cycle routes, additional destinations within 400m from the route were assessed and scored with (2).

- » Education (e.g. school, college, library, etc.)
- » Transport facilities (railway station or bus stop (walking only))
- » High Street/Commercial area [cycling only, as the CWZs are all based around town centre areas]
- » Employment allocations [walking only]
- » Other key destination (green areas, leisure centres, business parks, tourist attractions, etc.)

Deliverability Criteria

Intended to reflect the deliverability/feasibility of the proposed schemes along the routes.

» Ease of implementation: qualitative score that seeks to capture major constraints that may make implementation more difficult, such as potential need for third party land or traffic changes

» LTN 1/20 compliance of improvements [cycling only]: scores the compliance of the proposed interventions to LTN 1/20 guidance. All proposed interventions were considered using LTN 1/20 guidance; however, in some sections significant constraints (e.g., geometric constraints, limited land) may not permit segregated facilities.

Total Score and Factor Weighting

A score for each of the four criteria categories was calculated by summing the sub-criteria within the category. To calculate a total score for each route, the main categories were then weighted as follows:

- » Demand 20%
- » Quality of improvements 30%
- » Access 20%
- » Deliverability 30%

The weightings were intended to give a slightly higher input to the design factors, as proposed interventions with a greater anticipated impact over the existing condition could support a more substantial uplift in walking and cycling. Additionally, factors related to potential usage and access were previously incorporated into the route selection methodology at the start of the LCWIP process.

Assessment Results - cycling

The cycling assessment table presents the relative assessment of the cycling routes and their associated package of proposed interventions. Full details of the assessment can be found within "Appendix 6: Phase 1 Prioritisation Assessment".

Cycle corridor 17: Madeley Loop is ranked the highest in the prioritisation due to the connectivity to key destinations and the improved comfort and safety relative to the existing situation.

Cycle corridor 4: Great Dawley (Silkin Way) is ranked as fifth amongst the Phase 1 cycle corridors, due in part to the relatively good quality of the existing situation (cycle facility away from motorised traffic) and therefore lower improvement in the safety and comfort scores following the proposed interventions.

Cycle corridor	Length (km)	Score	Rank
17. Madeley Loop	6.097	76.7%	1
10. Telford to Oakengates	2.039	76.7%	2
15. Hadley Castle – Hortonwood Loop Connector	3.927	71.7%	3
15. Shawbirch to Arleston (via Wellington)	3.451	56.7%	4
4. Great Dawley	4.696	55.0%	5

Table 12. Prioritisation table for the Phase 1 cycle corridors

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Assessment Results - Walking

The walking assessment table presents the relative assessment of the core walking zones and their associated package of proposed interventions. Full details of the assessment can be found within "Appendix 6: Phase 1 Prioritisation Assessment".

CWZ 2: Madeley is ranked the highest in the prioritisation due to the its access to key attractors and its potential improvement from the aspirational proposals.

CWZ 1: Ironbridge is ranked 7th as it has limited access to key attractors and low levels of deliverability due to constraints in the area.



Figure 117. Prioritisation for the Phase 1 Core Walking Zones

Core Walking Zones	Score	Rank
2. Madeley	95.0%	1
4. Telford	70.0%	2
3. Dawley	66.1%	3
7. Newport	64.44%	4
5. Oakengates	61.67%	5
6. Wellington	60.0%	6
1. Ironbridge	53.33%	7

Figure 118. Prioritisation for the Phase 1 core walking zones

Indicative Cost Estimates

Methodology

Outline costs were estimated for the proposed design measures. The estimates are reflective of the early concept stage and intended to provide an indicative, rough order-of-magnitude cost only. Costs can vary significantly depending on local site conditions.

Depending on the type of intervention, costs were estimated by two methods:

Readily Available Unit Cost Information

Where available, unit cost information for common types of infrastructure improvements were obtained from data from DfT¹, Wiltshire Council², and Greater Manchester³ (e.g. type of crossing, type of cycle facility). Cost estimates were then calculated based on the approximate quantity of facilities proposed (e.g., number of toucan crossings, kilometres of cycle track). For these costs, it was assumed that the indicative unit cost available included all aspects of installation, such as allowances for preliminaries, risk, costs associated with the need for utility diversions, etc. Where the data source provided a range of costs, the high cost was used to provide a more conservative estimate at this early concept stage.

 $3\;$ Greater Manchester Cycling design guidance, March 2014.

Costing for Bespoke Elements

For scheme elements where unit cost information was not readily available, more bespoke estimates were developed. These cost estimates include allowances for items which can currently be quantified (at initial concept design level), unknown or unquantifiable items, and risk. The estimates included the following assumptions:

Quantifiable items (the basic costs of a scheme before allowing for risks):

» Engineering judgement was used to estimate material quantities (what would be covered by multiple items in a standard bill of quantities developed in detailed design⁴).

Unknown or unquantifiable items:

- » Allowance for those items which have not or cannot be quantified at this stage of design (25% of quantified costs).
- » Allowance for preliminaries and traffic management (15% of quantified costs).
- » Allowance for risk (20% of quantified costs).
- » Allowance for statutory undertakers diversions (15% of quantified costs).

Other assumptions:

- » Each option is delivered individually and so no estimate of the efficiency from a combined delivery is applied.
- » Prices from the various sources were adjusted to a 2021 base year, based on inflation referencing the Consumer Price Index (CPI).
- » Does not include costs associated with the need for third party land acquisition (if required).
- » Assumes a standard material palette. Higher specification or a heritage materials palette may be preferred in some areas, which would be considered in detailed design and may require additional cost.
- » Where alternative options are noted in the initial concepts, only the indicative cost of the main proposal is included. Items noted as 'long-term aspirations' are also not costed at this stage.
- » Does not include additional 'soft costs', such as design, feasibility studies, traffic modelling, maintenance actions (e.g., trimming vegetation), parking review, lighting review, legal (e.g., traffic regulation orders), interim/pilot interventions, consultation, etc.
- » Does not include a provision for contingency.
- » Does not include optimism bias.

¹ Typical costs of cycling interventions, Interim analysis of Cycle City Ambition schemes, January 2017.

² Costs of highway works, Wiltshire Council (https://www. wiltshire.gov.uk/highways-works-cost)

⁴ An example would be length of kerbing or area of new carriageway. Kerbing was estimated as a combined single rate but in later stages this would broken down to include the kerb, kerb bed, and kerb backing. For carriageway, the later stages would separately identify formation, capping, sub-base, road base, and surfacing.

Estimated costs were tabulated by core walking zone and cycle route. Therefore, each core walking zone/cycle route and each mode (walking and cycling) were evaluated separately. This method provided a stand alone cost for each core walking zone and cycle route so they may be considered independently. However, if viewed as a network-wide package of improvements, there is opportunity for savings associated with a combined delivery programme.

The indicative cost estimates for the package of improvements along each cycle route and core walking zone are presented in Table 13 and Table 14, respectively. The unit cost references are summarised in "Appendix 5: Indicative Unit Cost Estimates" on page 170.

Cost estimates will be revised in future stages as the schemes are developed, the proposals are more defined and more information is known. Table 13. Indicative high level costs for the proposed cycling improvements

Route	Indicative Scheme Costs
Cycle Corridors	
Route 4: Great Dawley	£4,920,000
Route 5: Hadley Castle - Hortonwood Loop Connector	£4,460,000
Route 10: Telford to Oakengates	£2,280,000
Route 15: Shawbirch to Arleston (via Wellington)	£3,880,000
Route 17: Madeley Loop	£10,610,000

Table 14. Indicative high level costs for the proposed walking improvements

Core Walking Zone	Indicative Scheme Costs			
Core Walking Zones				
CWZ 1: Ironbridge	£550,000			
CWZ 2: Madeley	£11,760,000			
CWZ 3: Dawley	£1,540,000			
CWZ 4: Telford	£6,080,000			
CWZ 5: Oakengates	£1,180,000			
CWZ 6: Wellington ¹	£2,250,000			
CWZ 7: Newport	£13,800,000			

1 does not include cost of potential bridge extension at Wellington bus and railway stations (long-term aspiration proposal)

9. Conclusions

Next Steps

Next Steps

The Telford and Wrekin LCWIP sets out a long-term strategy of potential infrastructure measures to improve conditions for active travel in the borough and support a shift from car journeys to sustainable modes. Whilst some concepts are ambitious and will require more detailed analysis of issues and constraints, they identify how sustainable growth and modal shift could be achieved.

This LCWIP report should be used to support the case for further stages of design, assessment and stakeholder engagement and secure funding to progress interventions for the corridors and areas identified. As an LCWIP is intended to facilitate a long-term approach to developing active travel proposals over a period of approximately 10 years, all of the corridors identified within the active travel network maps are recommended to progress to concept design at an appropriate time in the life of the LCWIP implementation.

Future opportunities to further expand the proposed network should also be considered, including corridors not identified within the current LCWIP, with the aim to deliver a high-quality network which reflects an appropriate density of routes.

Feasibility Design

The next stage of LCWIP implementation will be to advance the Phase 1 high-level concepts to feasibility design. This will allow a more detailed review of individual routes or interventions, evaluation of constraints, and refinement of the proposed measures. Further scheme development is likely to be dependent on availability of funding, such as Active Travel Fund (ATF), Levelling-Up Funding, developer contributions, or other funding opportunities.

Depending on the funding mechanisms available, various approaches to implementation could be considered, such as:

- » Advance the Phase 1 areas in full.
- » Advance a subset of proposed measures in a Phase 1 CWZ or cycle corridor.
- » Identify potential 'quick win' interventions, which may implemented relatively easily in the short-term.

Beyond Feasibility Design

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

The LCWIP should be viewed as a 'living document' and reviewed and updated periodically to reflect evolving needs and opportunities. This could be in response to significant changes in local circumstances, such as the publication of new policies or strategies. Additional active travel opportunities may also be identified and incorporated into the LCWIP in response to major new development sites, and as walking and cycling networks mature and expand.

Finally, to facilitate implementation, the LCWIP outputs should also be integrated into local planning and transport policies, strategies and delivery plans.

Appendices

- 1. Review of Background Data
- 2. Multi-Criteria Assessment Framework
- 3. Walking Route Assessment Tool (WRAT)
- 4 Route Selection Tool (RST)
- 5. Indicative Unit Cost Estimates
- 6. Phase 1 Prioritisation Assessment

Appendix 1: Review of Background Data

Introduction

This chapter compiles the data analysis and GIS mapping that has been undertaken as part of Task 2 in the development of the Telford and Wrekin Local Cycling and Walking Infrastructure Plan (LCWIP). The purpose of this task has been to examine the key land uses, travel networks and patterns, and demographic data within the borough in order to inform the development of a walking and cycling network in Telford and Wrekin borough.

With regards to the study area, Telford and Wrekin is a unitary authority in the county of Shropshire which has borough status. To the east the borough borders the county of Staffordshire, with the remaining parts of the borough bordered by Shropshire.

The borough's major settlement, and the largest settlement in the county (by population), is the town of Telford. Telford was designated in the 1960s and 1970s as a new town, and like other planned towns of that era it merged together existing towns and settlements such as Wellington, Oakengates, Madeley and Dawley, all of which are highlighted in Figure 119.

The next largest settlement is Newport, a market town located in the northeast of the borough surrounded by predominantly rural areas.



Figure 119. Study area

Protected Areas

The Green Network, which comprises most of the highlighted space in Figure 120, is a concept that emerged through the planning of Telford as a 'New Town' in the 1960s and 1970s. The green space in Figure 120 can be understood as a strategic interconnected network of open spaces within the borough which have important ecological, conservation and recreational values. Like the other spatial areas highlighted in Figure 120, such as the Conservation Areas and Local Nature Reserves, these valuable spaces are to be protected by the planning system.

Other protected spaces in the borough include the Ironbridge Gorge UNESCO World Heritage Site at the southern end of the borough, which was a key site in the birth of the Industrial Revolution in the 18th century.

The green network and protected areas reflect potential locations of demand for leisure trips. The UNESCO site in particular is a major tourist attraction.



Figure 120. Green and protected network

Key destinations

The large majority of the primary and secondary schools, commercial areas, and medical care accommodations are located in the urban areas of Telford and Newport, with these key destinations likely to generate many trips. Some primary schools are located outside of these urban areas in smaller towns and villages in the western and northern areas of the borough, with likely large catchment areas for pupils.

The Princess Royal Hospital is located in Apley Castle in Telford, and is the only hospital within the borough. In terms of higher or university education, Harper Adams University is located to the north-west of Newport whilst one of the University of Wolverhampton campuses is situated in the east of Telford.

Bus stations are located in Telford, Oakengates, Wellington providing access to multiple bus routes.

Chewynd Airfield is located to the south-east of Sambrook and is used by the Royal Air Force (RAF), however it is understood that the airfield does not generate a significant number of trips.



Figure 121. Key destinations

Employment Sites

Key employment sites already displayed in Figure 121 include the commercial areas and the hospital. These represent key trip destinations within the borough.

The Telford and Wrekin Local Plan (2011-2031) also identifies strategic employment areas in Madeley, Telford, Donnington and Newport which are expected to deliver B Use Classes (General Industrial/Storage or Distribution) and Sui Generis uses. In addition to this, the Local Plan allocates land within the borough for employment developments as well as developments for conferences and exhibitions. The LCWIP will need to be mindful that these highlighted areas may generate significant trips in the future.



Figure 122. Employment sites

Development sites

The Telford and Wrekin Local Plan (2011-2031) has allocated key sites in the borough for residential development. Figure 123 highlights that these are all to be located in the Telford urban area, with the largest three of these in Priorslee (1100 houses), Stirchley (300 houses) and Lawley West (250 houses).

These indicate areas of future growth and potential additional demand for active travel and consideration of connectivity with key destinations in the area (e.g., schools, commercial areas, etc.).



Figure 123. Housing allocations

Existing walking network

Figure 124 displays the public right of way network in Telford and Wrekin. Paths which the public have a right to use are categorised as per the below:

- » **Bridleway** There is a right on foot, horseback and leading a horse with an additional right for cyclists.
- » Footpath There is a right of way on foot.
- » **Restricted Byway** There is a right on foot, horseback, for cyclists and additionally carriage drivers. There is no right for motorised vehicles.
- » **Bridleway Open to All Traffic** All of the above with additional access for motorised vehicles.

Footpaths make up the majority of the network, which covers both urban and rural areas across the borough.



Figure 124. Public rights of way

Existing cycling network - NCN

Four routes on the National Cycle Network pass through the borough. These provide an existing network of strategic routes through Telford and Wrekin which the LCWIP may either identify improvements along and/or identify routes which expand the network and provide connectivity with these existing facilities.

- » **552** Quiet lane route between Newport and Nantwich.
- » **55** Runs in sections between Ironbridge in the south of the borough to Telford, and further north in another section of the route to Newport.
- » 81 Runs east-west across the borough, providing access to Shrewsbury in the west and Wolverhampton in the east.
- » **45** Section of this route runs through the Ironbridge Gorge in the south of the borough.



Figure 125. Existing National Cycle Network routes through Telford and Wrekin

Existing cycling network -Strategic network

In addition to the National Cycle Network, there are a number of strategic cycle routes that run across the southern half of the borough. As with the NCN, these provide an existing network which the LCWIP can enhance and expand.

- » **Silkin Way** Popular cycle route that follows disused railway lines and canal beds.
- » **Telford Strategic Cycle Route** A primarily traffic-free route that connects some of the key destinations in Telford.
- » **Around the Wrekin** Cycle route around the 'The Wrekin', a prominent and well-known hill in the south-western corner of the borough.



Figure 126. Existing strategic cycle routes through Telford and Wrekin (non-NCN)

Existing cycling network - facility type

In terms of surface type, there are a mix of cycle track (uneven terrain), traffic-free and on-road routes across the borough. On-road routes follow the key highway routes which link the larger towns in the borough, supporting longer distance journeys. Existing cycle tracks are primarily concentrated in the south-eastern corner of the borough and generally support shorter, more local journeys. The Strategic Cycle Route (shown previously in Figure 126) consists largely of traffic-free routes, linking the key destinations in the borough.



Figure 127. Existing cycle facilities, by facility type

Existing cycling network - suitability

Previous work assessed the suitability of the cycle network in Telford and Wrekin for people with different levels of cycling ability. Facilities were rated by the following levels, and the output is depicted in Figure 128:

- » A Suitable for families and less experienced riders.
- » B Suitable for more confident riders or less experienced riders/children with support.
- » C Suitable for experienced road cyclists only.
- » D Challenging route suitable for experienced riders, recommend use of a mountain bike.

A significant portion the existing cycle network is appropriate for families and less experienced cyclists, making it more accessible and attractive for a large segment of the population. This is owing to the traffic free and cycle track facilities illustrated previously in Figure 127. This is particularly true within the built-up area in central/south of the borough.

Longer distance routes in the west (e.g., linkages to Shropshire) and the northeast between Donnington and Newport are suitable for road cyclists only. This suggests a potential need to improve the infrastructure to make it more accessible and attractive for a larger number of people, and hence support an uptake in cycling.



Figure 128. Existing cycle facilities, by difficulty

Cycle Audits

During Summer and Autumn 2020, Telford & Wrekin Council undertook audits of all cycling routes, and reported on the issues that were identified along these routes.

As highlighted in Figure 129, these issues have been categorised into the following groups:

- » Markings & Signage Line markings and signage (missing, broken etc.)
- » Drain Covers & Gullies
- » **Surface Quality** Broken/uneven surfaces, tree routes.
- » Street Furniture Street furniture, bollards.
- » Other

Figure 129 demonstrates where these issues were identified across the cycle network, with the heatmap highlighting particular hotspots where multiple issues were identified. This information will be helpful in understanding issues with the existing cycle network and opportunities for improvements.



Figure 129. Cycling Audits - Reported issues

Rail Network

The borough is connected to the national rail network and has direct services to destinations such as Shrewsbury, Wolverhampton and Birmingham (with direct services to London twice a day). It has three railway stations; Telford Central, Oakengates and Wellington. The railway stations are key destinations, with an opportunity to encourage access to the stations by cycle or on foot.

The West Midlands Stations Alliance has developed a Station Prospectus for each station, which identifies the existing facilities, issues, and opportunities for station enhancements.¹ National Cycle Network routes provide access to or near each of the stations in the borough (NCN 81 at Oakengates and Wellington; NCN 55 at Telford Central). There are opportunities to improve the quality of these facilities and connectivity between the stations and the NCN routes.

There is existing cycle parking provided at each station with the following capacity:

- » Telford Central: 40 cycles; cycle theft was the most commonly reported crime at the station in 2019/20.
- » Oakengates: 8 cycles.
- » Wellington: 26 cycles.



Figure 130. Railway network

At each of the stations, the station prospectuses identified opportunities to improve the quality, security, and capacity of cycle parking facilities.

¹ http://wmre.org.uk/strategy/west-midlands-stations-alliance/

Bus Network

Figure 131 demonstrates the bus network in Telford and Wrekin borough in terms of the bus routes available and the stops at which passengers can access bus routes. Bus routes connect the main towns and villages across the borough, with bus stops located regularly along these routes. The bus stop locations indicate areas of demand for short walking trips, linking bus passengers with surrounding residential areas or trip attractors. There is a relatively high density of stops (and hence short walking trips) around the built-up areas surrounding greater-Telford (i.e., central/southern parts of the borough) and Newport.



Figure 131. Bus network

Road Classification

Telford and Wrekin's only motorway, the M54, runs east to west and splits the southern and northern areas of the borough. A Roads and B Roads connect the main towns within the borough, and provides links to destinations outside of Telford and Wrekin. Local and Minor Roads are present across the whole borough, and within the more rural areas to the north are key access routes to small villages.

The road network presented in Figure 132 clearly illustrates the built-up areas of the borough where there is a higher density of streets, which present an opportunity for more active travel routes in these areas. Within this built-up area are several cul-de-sacs, particularly in the south, and therefore there could be an opportunity to link these to support low-traffic routes across the southern half of the borough.



Figure 132. Road network classification

Topography

It is considered that the topography of an area will affect the choice of cycling and walking routes. Routes that have a greater slope will correspond to difficulty in cycling and walking. This difficulty is often experienced more significantly amongst groups with disabilities and mobility impairments.

The northern half of the borough is relatively low-lying, with the steeper land found more to the south and the south-west, particularly around 'The Wrekin'.



Figure 133. Topography

Collision data

A review of incidents was undertaken to identify patterns of collisions, particularly relating to people walking and cycling. The collision history helps to identify potential existing safety issues and areas of existing walking and cycling activity. Collision data was reviewed showing pedestrian and cyclist collisions between 2016 and 2021, categorised according to collision severity.

Pedestrian collisions

The data in Figure 134 shows that there are clusters of pedestrian collisions in each town in the borough. Areas where a relatively high concentration of pedestrian collisions are evident are noted below:

- » High Street, Newport
- » Bridge Street, Oakengates
- » Sutton Way, Sutton Hill
- » Centre of Dawley
- » B4373 & Parkway, Madeley



Figure 134. Pedestrian collisions (2016 - 2021)

Cyclist collisions

The data in Figure 135 shows the location of recent cyclist collisions within Telford and Wrekin. Areas where a higher concentration of cyclist collisions are evident are noted below:

- » A518
- » Haybridge Road and Britannia Way
- » First Avenue, Oakengates
- » Madeley
- » Ironbridge Gorge



Figure 135. Cyclist collisions (2016 - 2021)
Local demographics

Population data

Figure 136 shows the distribution of population within the borough. The population can give an idea of the potential demand for cycling and walking trips. Many trips begin or end at home, therefore higher population densities can indicate a higher propensity for walking or cycling trips. It is apparent that the most densely populated areas are in Newport, Donnington, Wellington, Woodside to the north-west of Madeley, Brookside and Stirchley.

Conversely the least populated areas are in the northern and western areas of the borough. It is in these less-densely populated areas where reliance on cars will be greatest, due to greater distances to trip attractors, and where service frequency and access to public transport will typically be lower.

In comparing Figure 136 and Figure 139, a correlation has been noted between population density and the number of households without access to a car or van, whereby the more densely populated areas of the borough are generally where households have fewer cars.



Figure 136. Population density (mid 2020)

Employment

Figure 137 analyses Census (2011) data to highlight the proportion of residents across the borough who are economically active and in some form of employment. There is some correlation between the areas that are more economically inactive, and the areas which are more deprived (see Figure 141). In general, economically active residents are spread across the borough with some concentration evident in urban areas near Oakengates, Dawley and Madeley. With residents in the rural areas to the north and west generally economically active, but with few employment opportunities in these respective areas (see Figure 122), it would suggest that longer commuting distances are common amongst residents living in these areas.

Figure 138 highlights the key workplace zones within the borough, primarily located within

urban areas such as Newport, Donnington, Telford and Wellington. The majority of commuter trips will therefore end in these locations.



Figure 137. Economic active population (2011)

Figure 138. Workplace zones (2011)

Car/Van availability

Figure 139 and Figure 140 show the proportion of households in the borough with access to a car or van, and the average number of cars and vans per household, respectively.

These maps indicate the areas where access to a car or van is lower within the borough and where there might also be greater reliance on walking, cycling or public transport. Census data from 2011 indicates that 90% households in the northern and western rural areas of the borough own a car or van, whereas in the more urban areas such as Telford and Newport this drops to in some cases between 50-60% of households.

In addition, in these rural areas to the north and west of the borough there is a general trend of households owning more than one car. Across the central and south-eastern urban areas of the borough there is evidence that some households do not own a car at all.



Figure 139. Proportion of households with car or van

Figure 140. Car or van per household

Index of Multiple Deprivation

Figure 141 shows the 2019 indices of multiple deprivation. The index of Multiple Deprivation is a measure of relative deprivation for small areas/ neighbourhoods in England. It measures income, employment, health, education, crime, living environment and barriers to housing and services. Areas in the first decile represent the most deprived areas, whereas the 10th decile represents least deprived areas. The information was used for the identification of under served areas and therefore what areas would benefit the most from walking and cycle route improvements.

From this figure, it can be observed that there are large disparities between high and low areas of deprivation in the borough, with some areas within decile 1 (the 10% most deprived areas), and several locations within deciles 2, 3 and 4.

In general, it can be observed that the majority of the least deprived areas (highest decile) are within the north-eastern and western rural areas of the borough, with the more deprived areas located within urban areas such as Madeley, Dawley, Donnington and Wellington.



Figure 141. Index of multiple deprivation (2019)

Propensity to Cycle Tool (PCT)

The PCT was used to determine demand for cycling within the borough. The PCT is a tool developed by the Department of Transport (DfT) based on commuting and cycle-toschool data from the 2011 Census. Additional factors such as hilliness and trip distance are used by the PCT to develop an estimate of the proportion of users who may choose to cycle within a given area.

The PCT assessment also enables the routes considered the fastest for journeys to be identified. Whilst there are a number of factors which determine route choice, directness is considered one the most important. As directness is often measured as a comparison between a cycle route length and the most direct route for motorised traffic, it provides a key consideration for potential users who may be more attracted to a cycle route that is perceived to be fast. For this reason, the fastest routes for commuter trips have been identified in Figure 142.



Figure 142. PCT - Fast routes

Cycle commuter trips

There are a range of scenarios which can be modelled through this tool, which are summarised below and presented in the borough in Figure 143 to Figure 146.

- » **Government Target** This scenario represents a doubling of the level of cycling, in line with the government's target to double the number of 'stages' (legs of a trip using a single mode) cycled by 2025.
- » **Go Dutch** This scenario represents the proportion of commuters that would be expected to cycle if all areas of England had the same infrastructure and cycling culture as the Netherlands (but retained their hilliness and commute distance patterns).
- » E-Bikes This scenario models the additional increase in cycling that would be achieved through the widespread uptake of electric cycles ('E-Bikes').

The PCT outputs illustrate the potential for growth in cycling in Telford and Wrekin. As would be expected from the population data and key destination mapping summarised in the previous sections, the greatest potential for growth in commuter cycling is in the built-up area of Telford, including links between Wellington, Oakengates, Donnington, Shawbirch, Dawley, and Madeley. Anticipated flows are highest along the main roads linking



Figure 143. PCT - Existing cycle commuter trips

these areas, which provide the most direct routes.

There is also potential for growth in and around Newport. This includes linkages from Newport southwest towards Donnington and the Telford built-up area, as well as to the west towards Harper Adams University. Due to the journey length, potential flows between Newport and the Telford area are highest in the e-bike scenario.



Figure 145. PCT - Cycle commuter trips - Go Dutch scenario

Figure 146. PCT - Cycle commuter trips - E-Bike scenario

Short car commuter trips

It is considered that those driving short distances could replace their journey by an active mode (i.e. walking or cycling). Whilst this does assume that there are no obstacles or barriers to uptake of active travel, it helps to identify where these current short car trips are occurring and consequently where interventions could be targeted to encourage modal shift.

Two PCT assessments were carried out: one for trips less than 2km (Figure 147), and one for those less than 5km (Figure 148). It is considered that those up to 5km could be replaced by cycling and those less than 2km could be replaced by walking and/or cycling.



Figure 147. PCT - Short car commuter trips (< 2km)

Telford and Wrekin LCWIP

Commuter trips on foot

Figure 149 highlights the number of existing commuter trips that are undertaken on foot. Although there are a relatively small number of commuter trips that are undertaken by foot, those trips are concentrated in urban areas in the borough where the distance between residential areas and places of employment are shorter, and therefore walking is more attractive as a mode of travel for residents.



Figure 149. Commuter trips on foot

Travel to school data

Population data

Figure 150 highlights the concentration of school children across the borough, relative to the total population. Residential areas in Donnington, Wellington, Telford, Dawley, Madeley and Woodside have a high proportion of school children relative to the total population of each area. This can be partly explained by the fact that the majority of schools in the borough are located in the urban areas in the south of the borough, and therefore these residential areas are within the catchment areas of multiple schools.

The concentration of school-age population helps illustrate the relative potential demand for active travel to facilitate trips to school across the borough.



Figure 150. School age children

Data taken from the Office for National Statistics 'Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2020'

PCT - School trips on bike

Based on cycle to school data from the 2011 National School Census (NSC), and additional factors such as hilliness and trip distance, the PCT develops an estimate of the proportion of users who may choose to cycle to school within a given area.

Figure 151 demonstrates the number of existing cycle trips to school, which as can be seen as

very few and mostly located in Shawbirch and Madeley.

As noted previously, the PCT allows a number of scenarios to be modelled. Figure 152 demonstrates the 'Go Cambridge' scenario, which models the level of cycling expected if English school children cycled to school as much as children in the local authority of Cambridge (30% in the National School Census, twice as high as the second highest local authority), taking in account differences in the local constraints of hilliness and trip distance. It can be seen that there is a large uplift along particular routes, particularly on routes to Newport, within Wellington and Shawbirch, and within Dawley and Madeley.



Figure 151. PCT – School bike trips - existing

Figure 152. PCT – School bike trips – Cambridge scenario

Travel to school survey

Figure 153 to Figure 156 highlight the locations of all primary and secondary schools in the borough, as well as other schools such as academies and special educational needs schools.

Annual School Travel Survey Data for October 2020 was received from Telford & Wrekin Council for 75 schools, showing the number of pupils travelling by different modes. It should be noted that the number of pupils travelling by private car may have been disproportionately high at the time of the survey compared to

other years due to COVID-19 restrictions and Government health advice.

The heatmaps and pie charts in Figure 153 to Figure 158 represent mode share amongst schools who completed the survey. The deeper the shade of the colour in the heatmaps. the larger the respective mode share. The heatmaps generally highlight that a relatively large proportion of primary and secondary pupils walk to school. This is slightly higher amongst primary pupils, which is likely to be because of their smaller catchment areas which are more conducive to walking.

Relatively few primary and secondary pupils cycle to school, with bus use more common amongst secondary school pupils and pupils at private and special educational needs (SEN) schools.

Areas with relatively higher levels of walking appear to be in Newport, Donnington, Shawbirch/Wellington, Madeley area. The area with the highest level of cycling appears to be in Newport.¹

¹ Based on the mode share reported in the Annual School Travel Survey Data for October 2020. Note that data was not available for all schools in the borough, such as Adam's Grammar School in Newport.



Figure 153. Travel to school data - Walking heatmap





Bus - Dedicated school bus Bus - Public Service Bus
Car
CarShare
Cycle
Scoot
Taxi
Train

Figure 157. Primary Schools - Annual School Travel Survey Mode Share (2020) Figure 158. Secondary Schools - Annual School Travel Survey Mode Share (2020)



Figure 159. Other Schools (SEN, Private) - Annual School Travel Survey Mode Share (2020)



Figure 155. Travel to school data – Car use heatmap

Figure 156. Travel to school data – Public transport heatmap

Barriers and constraints

Transport infrastructure such as motorways, A and B roads and railways can act as a barrier to active travel in the borough, creating a physical and psychological barrier to the movement of pedestrians and cyclists.

Severance can create a barrier to accessing local resources such as green spaces, as well as to key services and opportunities. As such, it can affect the health and well-being of residents through their use of health services, ability to actively travel and by affecting feelings of community cohesion.

For pedestrians and cyclists, infrastructure such as that demonstrated in Figure 160 can lead to physical barriers, omission barriers (e.g. lack of crossing facilities) and attitudinal barriers (fear for personal safety) which can in total contribute to a reduction in active travel. As can be seen in Figure 160, much of the transport infrastructure that contributes to this severance is located in the Telford urban area.



Figure 160. Severance

Appendix 2: Multi-Criteria Assessment Framework (MCAF)

Cycle Corridors																	
Criterion			Linkpe	arformance		Deman	d (Schools)	Demand (Commuting)		Cycle	Network		Deliverability				
Description		Non-commuter destinations served by corridor	Development Areas (number of dwellings)	Rail Station access (number of stations within 400m of route)	Pedal cycle collision rate (cycle collisions per km)	Number of Schools along corridor	School PCT (Go Dutch, number of daily school trips)	PCT Tool (Go Dutch, number o daily commuters)	f cycling network - Connectivity to existing links	Contributes to improved cycling network - Existing cycle route	Connectivity to Silkin Way	Potential to improve existing conditions (to a high and accessible standard)	Ease of implementation	Stakeholder feedback - Workshog (number of Stakeholder votes)	P Total % Score	Rank	
Rating Rules	Length (km)	1 = no obvious ones 2 = within 400m buffer 3 = direct access	1:<20 2:<70 3:≥70	1: <1 2: <2 3: ≥2	1:≺0.5 2:≺1 3:≥1	1: < 3 2: < 5 3: 2 5	1: < 60 2: < 120 3: ≿ 120	1: < 250 2: < 400 3: ≿ 400	1:≺1.5 2:≺2.5 3:≥2.5	1 = No 2 = Partial 3 = Yes (full extent)	1 = No connection 2 = Links to Silkin Way 3 = Section of Silkin Way	1 - very limited potential 6.g., narrow carriageway/footway, no verges1 2 - moderate potential (e.g. space for a minimum width cycle track from existing wide lanes, centre hatching, verge etc.) 3 - strong potential (space for a recommended-width cycle track from existing wide lanes, centre hatching, verge etc.)	1 - could regular angle junction training log, some starting of the second second second second second second second second second second second 2 - could be gradied with moderative junction training second second second second second second be second second second second second second be gradied within the second second second with misinal junction treatment	1: <1 2: <2 3: 22	Score	(ascending)	
Weighting		2	2	2	3	2	3	3	1	1	3	1	2	3			
Max Score		3	3	3	3	3	3	3	3	3	3	3	3	3	84 1009	6	strikethrough – not eligible for short list consideration
1.Newport to Telford (via A518)	5.376	1	1	1	3	1	2	1	1	2	1	3	2	3	48 57%	23	1.Newport to Telford (via A518)
2a.Donnington to Arleston - Welling	p 4.11	3	1	2	2	3	2	3	2	3	2	2	2	2	62 74%	7	2a.Donnington to Arleston - Wellington
2b.Donnington to Arleston - Hadley	1.901	3	1	1	3	1	3	3	3	2	2	3	2	2	63 75%	6	2b.Donnington to Arleston - Hadley
2c.Donnington to Arleston - Donnin	g 3.262	2	3	1	2	2	2	3	2	2	2	3	2	1	57 68%	11	2c.Donnington to Arleston - Donnington
3.Waterloo Rd	1.251	3	1	1	1	1	2	3	1	1	1	2	2	1	44 52%	25	3.Waterloo Rd
4.Great Dawley	4.246	3	2	1	2	2	2	2	3	2	3	3	3	3	66 79%	2	4.Great Dawley
5.Hadley Castle – Hortonwood Loop	p 3.929	3	1	1	2	2	3	3	3	2	3	3	2	2	65 77%	4	5.Hadley Castle – Hortonwood Loop Connector
6a.Donnington to Stafford Park - Do	or 4.177	1	1	1	2	2	1	2	2	3	1	3	3	1	45 54%	24	6a.Donnington to Stafford Park - Donnington
6b.Donnington to Stafford Park - Pri	ic 2.622	2	3	1	1	2	1	3	3	2	1	3	3	2	54 64%	16	6b.Donnington to Stafford Park - Priorslee
7.Madeley to Brookside	2.801	2	3	1	3	3	3	2	2	1	2	3	2	1	61 73%	8	7.Madeley to Brookside
8a.Silkin Way - Wellington	3.911	1	2	1	1	2	2	1	1	3	3	3	2	3	53 63%	20	8a.Silkin Way - Wellington
8b.Silkin Way - Leegomery	1.552	1	2	1	1	1	2	1	3	3	3	3	2	3	53 63%	20	8b.Silkin Way - Leegomery
8c.Silkin Way - Oakengates	2.348	2	1	2	1	2	1	1	3	3	3	3	2	3	54 64%	16	8c.Silkin Way - Oakengates
8d.Silkin Way - Telford	2.061	3	1	1	3	2	1	2	3	3	3	3	1	3	61 73%	8	8d.Silkin Way - Telford
8e.Silkin Way - Sutton Hill	3.57	3	2	1	1	1	2	1	1	3	3	3	2	3	55 65%	15	8e.Silkin Way - Sutton Hill
9. Telford Shopping Centre Loop	7.34	3	1	2	2	1	1	3	2	2	3	3	1	2	56 67%	13	9.Telford Shopping Centre Loop
10. Telford to Oakengates	2.75	3	1	3	2	2	1	3	1	2	3	2	2	2	60 71%	10	10.Telford to Oakengates
10b.Telford to Oakengates - Alterna	at 2.79	3	3	3	3	2	1	2	3	2	3	2	2	2	66 79%	2	10b.Telford to Oakengates - Alternative Route (Sill
11.Newdale to Telford Central	1.534	3	3	1	1	1	1	1	3	2	2	3	2	2	49 58%	22	11.Newdale to Telford Central
12.Newport to Harper Adams Uni (v	/i: 3.297	1	1	1	2	1	2	1	1	1	1	1	2	3	42 50%	26	12.Newport to Harper Adams Uni (via B5062)
13.Newport Local	4.813	3	1	1	2	3	3	1	1	2	1	1	2	3	54 64%	16	13.Newport Local
14.Arleston to Oakengates (via B50	6 5.534	3	1	2	2	3	3	3	1	1	1	2	1	2	57 68%	11	14.Arleston to Oakengates (via B5061)
15.Shawbirch to Arleston (via Wellin	ng 3.321	3	2	2	3	3	3	2	2	2	3	2	2	2	69 82%	1	15.Shawbirch to Arleston (via Wellington)
16. The Rock to Aqueduct (via B437	3 3.128	3	1	1	2	3	3	3	1	1	1	2	2	1	54 64%	16	16.The Rock to Aqueduct (via B4373/King Street)
17.Madeley Loop	4.408	3	2	1	3	3	3	2	1	1	2	3	1	3	64 76%	5	17.Madeley Loop
18. Telford to Brookside	4.354	3	2	1	3	3	2	2	2	1	2	1	2	1	56 67%	13	18. Telford to Brookside

Table 15. MCAF output table for cycling aspirational list

Appendix 3: Walking Route Assessment Tool (WRAT)

Table 16. WRAT results for walking links - existing & proposals (i)

CWZs							WRAT - S	SCORES					WRAT - PE	RCENTILE				w	RAT - PROPO	SED SCORE	S	
Core Walking Rout	te LengtHink	road_name Start	End	length (m)	Attractiveness	Comfort	Directness	Safety	Coherence	Total	Attractiveness	Comfort	Directness	Safety	Coherence	Total	Attractiveness	Comfort	Directness	Safety	Coherence	Total
Ironbridge	2553 1.1	High Street Church Hill	Paradise	791	11	12	12	3	3	41	92%	60%	86%	50%	50%	71%	11	13	13	5	4	46
Ironbridge	2553 1.2	High Street Paradise	Strethill Road	d 265	8	11	13	3	3	38	67%	55%	93%	50%	50%	66%	11	14	13	4	4	46
Ironbridge	2553 1.3	Dale Road The Wharfa	lg∉Paradise	689	8	11	11	1	0	31	67%	55%	79%	17%	0%	53%	8	14	13	3	3	41
Ironbridge	2553 1.4	New Road Church Hill	High Street	373	9	6	11	4	0	30	75%	30%	79%	67%	0%	52%	9	6	12	4	0	31
Ironbridge	2553 1.5	Waterloo - MaCar Park	St Luke's Ro	a 435	8	6	9	1	2	26	67%	30%	64%	17%	33%	45%	8	8	11	4	3	34
Madeley	5927 2.1	High Street Parkway	Madeley Rou	ır 547	6	9	12	2	3	32	50%	45%	86%	33%	50%	55%	10	16	14	4	5	49
Madeley	5927 2.2	Park Avenue High Street	Maddocks	307	9	1	11	5	5	31	75%	5%	79%	83%	83%	53%	11	19	14	5	6	55
Madeley	5927 2.3	Maddocks Park Avenu	e Parkway	198	5	1	6	1	2	15	42%	5%	43%	17%	33%	26%	9	16	12	1	5	43
Madeley	5927 2.4	Parkway Maddocks	Castlefileds \	۸ 316	7	0	7	1	2	17	58%	0%	50%	17%	33%	29%	9	18	12	1	6	46
Madeley	5927 2.5	Castelfields WParkway	Woodside Av	/ 495	7	0	12	2	1	22	58%	0%	86%	33%	17%	38%	9	20	14	2	5	50
Madeley	5927 2.6	Victoria Road Maddocks	Subway path	209	8	2	11	4	0	25	67%	10%	79%	67%	0%	43%	9	16	13	5	5	48
Madeley	5927 2.7	Subway Path Bridle Court	Mound Way	255	8	2	9	6	2	27	67%	10%	64%	100%	33%	47%	9	16	12	6	6	49
Madeley	5927 2.8	Park Street Park Avenu	e Parkway	/31	/	1	1	2	0	1/	58%	5%	50%	33%	0%	29%	8	14	12	5	6	45
Madeley	5927 2.9	Ironbridge Ro Parkway	Woodside Av	/ 495	9	10	10	2	4	35	75%	50%	/1%	33%	67%	60%	10	19	12	3	6	50
Madeley	5927 210	Park Lane Park Street	Primary Scho	586	/	2	12	4	0	25	58%	10%	86%	67%	0%	43%	9	14	13	6	6	48
Madeley	5927 2.11	Church Street Park Street	Primary Scho	558	9	2	11	5	1	28	75%	10%	79%	83%	17%	48%	10	14	13	5	5	47
Madeley	5927 2.12	Station Road High Street	Silkin Way	304	8	0	10	4	1	23	67%	0%	71%	67%	1/%	40%	10	12	12	5	5	44
Madeley	5927 2.13	Silkin Way Station Roa	d Sutton Way	- 247	8	5	10	5	6	34	67%	25%	71%	83%	100%	59%	9	14	12	5	6	40
Madeley	5927 2.14	Queen Street High Street	Bridghorth R	0 679	1	1	10	3	1	22	58%	5%	/1%	50%	17%	38%	9	14	13	3	4	43
Dawley	3170 3.1	High Street King Street	Doseley Roa	c 294	10	15	13	3	1	42	83%	75%	93%	00%	17%	72%	10	10	14	0	5	52
Dawley	3170 3.2	King Official Road High Street	Vicarage Gro	250	8	10	10	5	2	35	07%	50%	71%	83%	33%	00%	9	12	12	0	2	41
Dawley	3170 3.3	King Street Bus Station	New Street	100	9	10	13	5	0	37	75%	00%	93%	03%	0%	70%	10	10	13	5	3	51
Dawley	3170 3.4	Duce Drive New Street	Uxiord Road	- 510	12	10	11	4	3	40	100%	80%	79%	07%	50%	79%	12	10	14	2	4	20
Dawley	3170 3.5	King Street (Rus Street	Webb Cresc	e 513	3	5 10	0	2	1	10	20%	20%	57%	50%	170/	50%	3	0 11	12	3	1	20
Dawley	3170 3.0	King Street - (Bus Station	Heath Hill Ro	0 357 / 470	7	10	6	3	1	29	56%	20%	57%	50%	0%	26%	6	7	13	3	2	26
Dawley	3170 3.7	King Street Captain We	bt Dawley Bank	479	0	12	10	3	0	21	20%	30%	43%	179/	0%	30%	0	15	10	1	1	20
Talford	12001 4 1	Northfield We St Questin	Collection of the Rest	- 401 - 1745	4	10	10	5	0	20	939/	00%	649/	0.20/	67%	40 70	4	15	12	5	0	50
Tellord	12991 4.1	Ironmasters VWoodbouss	CEorge Cote	506	7	0	9	5	4	44	59%	45%	71%	83%	67%	60%	7	0	10	5	0	35
Telford	12001 4 3	Forme Cote UWoodhouse	Colliers Way	647	6	11	10	1	4	32	50%	55%	71%	17%	67%	55%	6	11	10	2	4	33
Telford	12001 4.0	Holl Park Way Colliers Way	Coolliers Way	4 107	0	0	0	0	4	0	0%	0%	0%	0%	0%	0%	0	0	10	2	-	0
Telford	12991 4.5	Hall Park Way Telford Brid	geThomas Telf	0 704	7	11	12	1	4	35	58%	55%	86%	17%	67%	60%	8	14	12	1	5	40
Telford	12991 4 6	Mallinsgate Woodbouse	West Centre	1 322	7	15	12	2	3	30	58%	75%	86%	33%	50%	67%	7	15	13	2	3	40
Telford	12991 4 7	Southwater WWest Centre	e \Silkin Way	685	3	12	10	4	5	34	25%	60%	71%	67%	83%	59%	3	15	12	4	6	40
Telford	12991 4 8	Telford Town Southwater	W Dark Lane	676	11	17	9	5	5	47	92%	85%	64%	83%	83%	81%	11	17	9	5	5	40
Telford	12991 4.9	Old Park Prim Southwater	WSpout Lane	540	8	13	11	3	4	39	67%	65%	79%	50%	67%	67%	10	13	11	3	4	41
Telford	12991 4.10	Spout Lane- / Old Park Pr	im Brunel Road	385	6	7	8	3	0	24	50%	35%	57%	50%	0%	41%	6	11	12	4	2	35
Telford	12991 4.11	Church Road Alma Road	King Street	371	8	13	12	2	3	38	67%	65%	86%	33%	50%	66%	8	14	14	2	4	42
Telford	12991 4.12	St Quentin G: Northfield S	treDate Acre W	a 404	5	13	8	1	4	31	42%	65%	57%	17%	67%	53%	5	14	9	2	4	34
Telford	12991 4.13	Stirchlev Aver St Quentin	G∈Randlav Ave	n 525	2	7	10	2	4	25	17%	35%	71%	33%	67%	43%	3	9	10	3	4	29
Telford	12991 4.14	Dale Acre WaSt Quentin	Sti Grange Cent	r 1738	6	6	12	2	1	27	50%	30%	86%	33%	17%	47%	7	10	14	4	3	38
Telford	12991 4.15	Telford Centra Ironmasters	V Telford Cent	ra 300	4	15	11	6	6	42	33%	75%	79%	100%	100%	72%	4	15	11	6	6	42
Telford	12991 4.16	Euston Way Telford Cen	tra Telford Wav	301	7	14	9	5	3	38	58%	70%	64%	83%	50%	66%	9	15	12	5	4	45
Telford	12991 4.17	Stafford Park Telford Way	/ Stafford Park	(1549	3	4	8	2	0	17	25%	20%	57%	33%	0%	29%	5	11	13	3	3	35
Telford	12991 4.18	Priorslee Path Shifnal Roa	d Dale Acre W	a 924	4	11	13	5	4	37	33%	55%	93%	83%	67%	64%	8	14	13	6	6	47
Telford	12991 4.19	Shifnal Road Prioslee Pat	th University of	۷ 472	8	10	14	5	2	39	67%	50%	100%	83%	33%	67%	8	10	14	5	3	40

	CWZs					WRA	T - PROPOSE	D PERCEN	TILE		w	RAT - IMPROVI	EMENT PROPO	SED SCORES			W	RAT - IMPR	OVEMENT PRO	OPOSED PE	RCENTILE	
Core Walkin(Ro	ute Lengtllink	road_name Start	End	length (m)	Attractiveness	Comfort	Directness	Safety	Coherence	Total	Attractiveness Comfort	Directness	s Safety	Coherence	Total	4	Attractiveness	Comfort	Directness	Safety	Coherence	Total
Ironbridge	2553 1.1	High Street Church Hill	Paradise	791	92%	65%	93%	83%	67%	79%	0	1	1	2	1	5	0%	5%	7%	33%	17%	9%
Ironbridge	2553 1.2	High Street Paradise	Strethill Roa	id 265	92%	70%	93%	67%	67%	79%	3	3	0	1	1	8	25%	15%	0%	17%	17%	14%
Ironbridge	2553 1.3	Dale Road The Wharfa	ag Paradise	689	67%	70%	93%	50%	50%	71%	0	3	2	2	3	10	0%	15%	14%	33%	50%	17%
Ironbridge	2553 1.4	New Road Church Hill	High Street	373	75%	30%	86%	67%	0%	53%	0	0	1	0	0	1	0%	0%	7%	0%	0%	2%
Ironbridge	2553 1.5	Waterloo - MaCar Park	St Luke's Ro	D€ 435	67%	40%	79%	67%	50%	59%	0	2	2	3	1	8	0%	10%	14%	50%	17%	14%
Madeley	5927 2.1	High Street Parkway	Madeley Ro	u 547	83%	80%	100%	67%	83%	84%	4	7	2	2	2	17	33%	35%	14%	33%	33%	29%
Madeley	5927 2.2	Park Avenue High Street	t Maddocks	307	92%	95%	100%	83%	100%	95%	2	18	3	0	1	24	17%	90%	21%	0%	17%	41%
Madeley	5927 2.3	Maddocks Park Avenu	ue Parkway	198	75%	80%	86%	17%	83%	74%	4	15	6	0	3	28	33%	75%	43%	0%	50%	48%
Madeley	5927 2.4	Parkway Maddocks	Castlefileds	V 316	75%	90%	86%	17%	100%	79%	2	18	5	0	4	29	17%	90%	36%	0%	67%	50%
Madeley	5927 2.5	Castelfields V Parkway	Woodside A	v 495	75%	100%	100%	33%	83%	86%	2	20	2	0	4	28	17%	100%	14%	0%	67%	48%
Madeley	5927 2.6	Victoria Road Maddocks	Subway pati	n 209	75%	80%	93%	83%	83%	83%	1	14	2	1	5	23	8%	70%	14%	17%	83%	40%
Madeley	5927 2.7	Subway Path Bridle Cour	t Mound Way	255	75%	80%	86%	100%	100%	84%	1	14	3	0	4	22	8%	70%	21%	0%	67%	38%
Madeley	5927 2.8	Park Street Park Avenu	le Parkway	731	67%	70%	86%	83%	100%	78%	1	13	5	3	6	28	8%	65%	36%	50%	100%	48%
Madeley	5927 2.9	Ironbridge Ro Parkway	Woodside A	v 495	83%	95%	86%	50%	100%	86%	1	9	2	1	2	15	8%	45%	14%	17%	33%	26%
Madeley	5927 210	Park Lane Park Street	Primary Scr	0 580	75%	70%	93%	100%	100%	83%	2	12	2	2	4	23	17%	60%	1%	33%	100%	40%
Madeley	5927 2.11	Church Stree Park Street	Primary Scr	0 558	83%	70%	93%	83%	83%	81%	1	12	2	1	4	19	8%	60%	14%	0%	67%	33%
Madeley	5927 2.12	Station Road High Street	Slikin way	304	83%	00%	80%	83%	83%	70%	2	12	2	1	4	12	17%	60%	14%	17%	67%	30%
Madeley	5927 2.13	Slikin way Station Roa	ad Sutton way	247	75%	70%	80%	83%	100%	79%	1	12	2	0	2	21	8%	45%	14%	0%	0% 50%	21%
Daudau	2170 2 1	Usen Street High Street	Bridghorth F	C 679	75%	70%	93%	50%	07%	74%	2	2	3	3	3	10	17%	10%	21%	0%	50%	170/
Dawley	3170 3.1	Develop Development	Uiserege Cr	at 294	0370	60%	969/	100%	03%	710/	1	2	2	1	4	6	0%	10%	1 70	170/	07%	1/70
Dawley	3170 3.2	King Street Bug Station	Vicarage Gr	0 200	105%	75%	00%	0.00%	53%	7 1 70	6	5	2	0	2	14	070 E09/	25%	1470	0.00/	0% 50%	0.49/
Dawley	2170 2.4	Ring Street Bus Station	Outerd Deer	- F10	12370	7.5%	93%	0370	670/	0070	0	0	3	1	1	5	00%	23%	0%	170/	170/	24%
Dawley	2170 2.4	Duce Drive New Street	Webb Creek	J 510	100%	40%	70%	03% E0%	170/	00 70	0	3	3	1	1	5	0%	1.59/	21%	1770	17.70	970
Dawley	2170 2.6	King Street Bug Station	Useth Hill D	2 513	2070	40%	79%	50%	220/	4070	0	1	5	0	1	7	0%	F9/	2170	0.00/	1770	1470
Dawley	3170 3.0	King Street Cantain We		0 557 k 470	50%	35%	93% 64%	50%	17%	45%	0	1	3	0	1	5	0%	5%	21%	0%	17 %	0%
Dawley	3170 3.8	Heath Hill Captain We		k 4/3	33%	75%	71%	17%	0%	4J //	0	2	0	0	0	2	0%	10%	0%	0%	0%	3%
Telford	12001 / 1	Northfield-Wc St Ouentin	G: Northfielf St	re 1745	83%	80%	93%	83%	100%	86%	0	0	4	0	2	6	0%	0%	20%	0%	33%	10%
Telford	12991 4 2	Ironmasters VWoodhouse	e (Forne Gate	506	58%	45%	71%	83%	67%	60%	0 0	Ő	0	0	0	õ	0%	0%	0%	0%	0%	0%
Telford	12991 4 3	Forge Gate - Woodhouse	e (Colliers Wa	647	50%	55%	71%	33%	67%	57%	Ő	Ő	Ő	1	0	1	0%	0%	0%	17%	0%	2%
Telford	12991 4 4	Hall Park Wa Colliers Wa	av Telford Brid	, 017 n/ 197	0%	0%	0%	0%	0%	0%	Ő	Ő	Ő	0	0	0	0%	0%	0%	0%	0%	0%
Telford	12991 4.5	Hall Park Wa Telford Brid	de Thomas Tel	fc 704	67%	70%	86%	17%	83%	69%	1	3	0	0	1	5	8%	15%	0%	0%	17%	9%
Telford	12991 4.6	Mallinsgate Woodhouse	e (West Centre	322	58%	75%	93%	33%	50%	69%	0	0	1	0	0	1	0%	0%	7%	0%	0%	2%
Telford	12991 4.7	Southwater WWest Centr	re 'Silkin Wav	685	25%	75%	86%	67%	100%	69%	0	3	2	0	1	6	0%	15%	14%	0%	17%	10%
Telford	12991 4.8	Telford Town Southwater	WDark Lane	676	92%	85%	64%	83%	83%	81%	Ó	0	0	0	0	0	0%	0%	0%	0%	0%	0%
Telford	12991 4.9	Old Park Prin Southwater	V Spout Lane	540	83%	65%	79%	50%	67%	71%	2	0	0	0	0	2	17%	0%	0%	0%	0%	3%
Telford	12991 410	Spout Lane- / Old Park Pr	rin Brunel Road	385	50%	55%	86%	67%	33%	60%	0	4	4	1	2	11	0%	20%	29%	17%	33%	19%
Telford	12991 4.11	Church Road Alma Road	King Street	371	67%	70%	100%	33%	67%	72%	0	1	2	0	1	4	0%	5%	14%	0%	17%	7%
Telford	12991 4.12	St Quentin G: Northfield S	Str Date Acre V	Va 404	42%	70%	64%	33%	67%	59%	0	1	1	1	0	3	0%	5%	7%	17%	0%	5%
Telford	12991 4.13	Stirchley Ave St Quentin	Gandlay Ave	er 525	25%	45%	71%	50%	67%	50%	1	2	0	1	0	4	8%	10%	0%	17%	0%	7%
Telford	12991 4.14	Dale Acre WaSt Quentin	St Grange Cen	tr 1738	58%	50%	100%	67%	50%	66%	1	4	2	2	2	11	8%	20%	14%	33%	33%	19%
Telford	12991 4.15	Telford Centr: Ironmasters	s V Telford Cen	tr; 300	33%	75%	79%	100%	100%	72%	0	0	0	0	0	0	0%	0%	0%	0%	0%	0%
Telford	12991 4.16	Euston Way Telford Cer	ntri Telford Way	301	75%	75%	86%	83%	67%	78%	2	1	3	0	1	7	17%	5%	21%	0%	17%	12%
Telford	12991 4.17	Stafford Park Telford Wa	y Stafford Par	k 1549	42%	55%	93%	50%	50%	60%	2	7	5	1	3	18	17%	35%	36%	17%	50%	31%
Telford	12991 4.18	Priorslee Patl Shifnal Roa	ad Dale Acre V	/៖ 924	67%	70%	93%	100%	100%	81%	4	3	0	1	2	10	33%	15%	0%	17%	33%	17%
Telford	12991 4.19	Shifnal Road Prioslee Pa	ath University o	f' 472	67%	50%	100%	83%	50%	69%	0	0	0	0	1	1	0%	0%	0%	0%	17%	2%

Table 17. WRAT results for walking links - existing & proposals (ii)

				WRAT - S	SCORES					WRAT - PE	RCENTILE				w	RAT - PROPO	SED SCOR	ES				
Core Walking Rou	ute LengtHink	road_name Start	End	length (m)	ttractiveness	Comfort	Directness	Safety	Coherence	Total	Attractiveness	Comfort	Directness	Safety	Coherence	Total	Attractiveness	Comfort	Directness	Safety	Coherence	Total
Oakengates	3602 5.1	Market Street Uxacona W	ayLion Street	254	8	16	12	5	3	44	67%	80%	86%	83%	50%	76%	11	17	14	6	5	53
Oakengates	3602 5.2	Oxford Street Market Street	et Lion Street	101	8	16	12	6	2	44	67%	80%	86%	100%	33%	76%	10	17	13	6	4	50
Oakengates	3602 5.3	Lion Street Station App	ro Bridge Street	228	4	12	10	2	2	30	33%	60%	71%	33%	33%	52%	4	13	10	2	4	33
Oakengates	3602 5.4	New Street Bridge Stree	et Stafford Roa	325	4	14	12	4	3	37	33%	70%	86%	67%	50%	64%	4	15	13	4	3	39
Oakengates	3602 5.5	Uxacona WaySlaney Stree	et Station Hill	186	5	14	8	2	3	32	42%	70%	57%	33%	50%	55%	5	14	8	2	3	32
Oakengates	3602 5.6	Station Hill Station App	ro Silkin Way	206	4	6	9	5	1	25	33%	30%	64%	83%	17%	43%	8	9	9	5	1	32
Oakengates	3602 5.7	Station Appro Station Hill	Canongate	246	4	14	8	2	2	30	33%	70%	57%	33%	33%	52%	4	14	10	2	4	34
Oakengates	3602 5.8	Canongate Station App	ro Stafford Stre	763	6	5	12	2	1	26	50%	25%	86%	33%	17%	45%	6	7	13	2	1	29
Oakengates	3602 5.9	Bridge Street Lion Street	Hartsbridge F	8 616	7	11	11	3	3	35	58%	55%	79%	50%	50%	60%	7	14	13	3	3	40
Oakengates	3602 510	Chartlon StreeBridge Stree	et Holyhead Ro	409	7	8	11	5	1	32	58%	40%	79%	83%	17%	55%	9	11	13	6	1	40
Oakengates	3602 5.11	New Street/CISlaney Street	et Church Para	268	6	8	8	2	1	25	50%	40%	57%	33%	17%	43%	6	10	8	3	1	28
Wellington	9338 6.1	New/Crown/DVictoria Roa	ad Walker St - N	1 601	11	15	13	6	6	51	92%	75%	93%	100%	100%	88%	11	15	13	6	6	51
Wellington	9338 6.2	The Parade - Victoria Roa	ad Church Stree	t 262	4	13	8	5	1	31	33%	65%	57%	83%	17%	53%	6	14	13	5	2	40
Wellington	9338 6.3	Market Street Church Stre	etBridge Road	190	7	12	12	5	2	38	58%	60%	86%	83%	33%	66%	10	19	14	6	5	54
Wellington	9338 6.4	Church Streel Market Stree	et Vineyard Roa	257	10	15	13	6	0	44	83%	75%	93%	100%	0%	76%	11	18	13	6	0	48
Wellington	9338 6.5	Tan Bank - W Bell Street	Wellington Li	393	6	12	10	5	1	34	50%	60%	71%	83%	17%	59%	6	12	13	5	1	37
Wellington	9338 6.6	Tan Bank Victoria Roa	d Roseway	139	7	11	12	5	3	38	58%	55%	86%	83%	50%	66%	7	13	14	5	3	42
Wellington	9338 6.7	Walker Street Wellington L	it Bridge Road	199	7	12	12	5	4	40	58%	60%	86%	83%	67%	69%	11	17	12	6	5	51
Wellington	9338 6.8	Haygate Road Bridge Road	d Hollies Road	458	5	8	11	4	0	28	42%	40%	79%	67%	0%	48%	5	10	11	4	0	30
Wellington	9338 6.9	Bridge Road - Market Stree	et King Street	910	6	11	8	3	3	31	50%	55%	57%	50%	50%	53%	6	11	13	3	3	36
Wellington	9338 610	Wrekin Road Victoria Roa	ad Holvhead Ro	527	7	6	10	2	0	25	58%	30%	71%	33%	0%	43%	7	8	10	2	0	27
Wellington	9338 6.11	Bridge Road Market Stree	et North Road	447	6	8	10	3	0	27	50%	40%	71%	50%	0%	47%	6	8	14	3	0	31
Wellington	9338 6.12	North Road Spring Hill	Apley Avenu	940	9	9	13	3	3	37	75%	45%	93%	50%	50%	64%	10	9	14	5	5	43
Wellington	9338 6.13	Apley Avenue King Street	Princess Roy	593	8	15	8	4	3	38	67%	75%	57%	67%	50%	66%	8	15	11	4	4	42
Wellington	9338 6.14	King Street Apley Avenu	ue Victoria Road	709	4	7	12	3	0	26	33%	35%	86%	50%	0%	45%	4	7	14	4	1	30
Wellington	9338 6.15	King Street Victoria Roa	ad Mill Bank	577	6	7	10	3	1	27	50%	35%	71%	50%	17%	47%	6	9	13	3	1	32
Wellington	9338 6.16	Glebe Street · Victoria Roa	ad Watling Stree	815	6	7	8	3	1	25	50%	35%	57%	50%	17%	43%	6	9	12	3	1	31
Wellington	9338 6.17	Watling Stree Hevbridge R	Ro Mill Bank	368	4	11	8	2	1	26	33%	55%	57%	33%	17%	45%	4	11	11	2	1	29
Wellington	9338 6.18	Holvhead Ros Mill Bank	Wrekin Road	953	8	11	9	3	1	32	67%	55%	64%	50%	17%	55%	9	11	9	4	1	34
Newport	6351 7.1	Chetwynd En(Forton Road	d Water Lane	230	10	12	9	3	4	38	83%	60%	64%	50%	67%	66%	11	16	12	4	5	48
Newport	6351 7.2	Lower Bar Water Lane	St Mary's Str	143	11	18	12	4	3	48	92%	90%	86%	67%	50%	83%	11	20	13	4	4	52
Newport	6351 7.3	High Street St Mary's St	treSt Mary's Str	200	11	17	12	3	2	45	92%	85%	86%	50%	33%	78%	11	19	13	3	4	50
Newport	6351 7.4	St Mary's Stre High Street	High Street	232	11	16	11	5	2	45	92%	80%	79%	83%	33%	78%	11	16	13	5	4	49
Newport	6351 7.5	High Street St Mary's St	tre Wellington R	279	10	18	12	4	2	46	83%	90%	86%	67%	33%	79%	10	19	13	4	5	51
Newport	6351 7 6	Lipper Bar Willington R	na Graville Road	236	8	11	11	3	2	35	67%	55%	79%	50%	33%	60%	9	14	13	3	3	42
Newport	6351 7 7	New Street - High Street	Salters Lane	445	8	9	10	4	2	33	67%	45%	71%	67%	33%	57%	9	13	12	4	4	42
Newport	6351 7.8	Salters Lane Lower Bar	Beaumaris R	277	9	8	11	2	2	32	75%	40%	79%	33%	33%	55%	10	12	14	. 3	4	43
Newport	6351 7 9	Water Lane Lower Bar	Stafford Stre	439	4	6	9	2	0	21	33%	30%	64%	33%	0%	36%	6	13	12	3		37
Newport	6351 7 10	Stafford Stree High Street	Water Lane	211	10	10	12	-	2	38	83%	50%	86%	67%	33%	66%	10	17	14	4	5	50
Newport	6351 7 11	Stafford RoadWater Lane	Broadway	505	8	11	11	3	2	35	67%	55%	79%	50%	33%	60%	9	15	13	4	4	45
Newport	6351 7.12	Audley Road Stafford Str	ee Meadow Ros	(307	9	15	13	3	1	41	75%	75%	93%	50%	17%	71%	10	17	14	3	3	43
Newport	6351 7 13	Audiey Road/ Meadow Po		107	9	13	12	3	1	38	75%	65%	86%	50%	17%	66%	۱0 ۵	1/	13	3	3	42
Newport	6351 7 14		u High Street	, 197 200	10	13	13	5	1	42	83%	65%	93%	83%	17%	72%	11	16	13	5	4	+2 50
Newport	6351 7 15		ad 4518 (Innov	1 1095	10	10	12	5	2	30	83%	50%	86%	83%	33%	67%	10	15	14	5	4	 _/R
Newport	6351 7 16	Graville Aveni Audley Aven		647	9	9	11	4	2	35	75%	45%	70%	67%	33%	60%	10	13	14	6	4	+0 ⊿7
Newport	6351 7.10	Wellington Do Ligh Street	Brookside A:	, 610	9	9 11	13	4	2	37	75%	4J70 55%	03%	50%	17%	64%	10	1/	14	1	4	47
newpoir	03017.17	weilington Rumign Street	DIOOKSIDE AV	, 019	9		13	3		51	7370	00%	9370	50%	17.70	0470	10	14	14	4	4	40

Table 18. WRAT results for walking links - existing & proposals (iii)

		CWZs			WRA	T - PROPOSE	D PERCENT	ILE		w	RAT - IMPROVE	EMENT PROPO	SED SCORES			WRAT - IMP	ROVEMENT PR	OPOSED PE	RCENTILE	
Core Walkin(Rou	ute LengtHink	road_name Start End	length (m)	Attractiveness	Comfort	Directness	Safety	Coherence	Total	Attractiveness Comfort	Directness	Safety	Coherence	Total	Attractiven	ss Comfort	Directness	Safety	Coherence	Total
Oakengates	3602 5.1	Market Street Uxacona Way Lion S	treet 254	92%	85%	100%	100%	83%	91%	3	1	2	1	2	9 25%	5%	14%	17%	33%	16%
Oakengates	3602 5.2	Oxford Street Market Street Lion S	treet 101	83%	85%	93%	100%	67%	86%	2	1	1	0	2	6 17%	5%	7%	0%	33%	10%
Oakengates	3602 5.3	Lion Street Station Apprc Bridge	Street 228	33%	65%	71%	33%	67%	57%	0	1	0	0	2	3 0%	5%	0%	0%	33%	5%
Oakengates	3602 5.4	New Street Bridge Street Staffo	d Roac 325	33%	75%	93%	67%	50%	67%	0	1	1	0	0	2 0%	5%	7%	0%	0%	3%
Oakengates	3602 5.5	Uxacona Waj Slaney Street Station	i Hill 186	42%	70%	57%	33%	50%	55%	0	0	0	0	0	0 0%	0%	0%	0%	0%	0%
Oakengates	3602 5.6	Station Hill Station Apprc Silkin	Vay 206	67%	45%	64%	83%	17%	55%	4	3	0	0	0	7 33%	15%	0%	0%	0%	12%
Oakengates	3602 5.7	Station Appre Station Hill Canor	gate 246	33%	70%	71%	33%	67%	59%	0	0	2	0	2	4 0%	0%	14%	0%	33%	7%
Oakengates	3602 5.8	Canongate Station Apprc Staffo	d Stre∈ 763	50%	35%	93%	33%	17%	50%	0	2	1	0	0	3 0%	10%	7%	0%	0%	5%
Oakengates	3602 5.9	Bridge Street Lion Street Hartst	ridge F 616	58%	70%	93%	50%	50%	69%	0	3	2	0	0	5 0%	15%	14%	0%	0%	9%
Oakengates	3602 510	Chartlon Stre Bridge Street Holyhe	ad Roa 409	75%	55%	93%	100%	17%	69%	2	3	2	1	0	8 17%	15%	14%	17%	0%	14%
Oakengates	3602 5.11	New Street/C Slaney Street Churc	n Parac 268	50%	50%	57%	50%	17%	48%	0	2	0	1	0	3 0%	10%	0%	17%	0%	5%
Wellington	9338 6.1	New/Crown/DVictoria RoadWalke	r St - N 601	92%	75%	93%	100%	100%	88%	0	0	0	0	0	0 0%	0%	0%	0%	0%	0%
Wellington	9338 6.2	The Parade - Victoria Road Churc	n Stree 262	50%	70%	93%	83%	33%	69%	2	1	5	0	1	9 17%	5%	36%	0%	17%	16%
Wellington	9338 6.3	Market Street Church Stree Bridge	Road 190	83%	95%	100%	100%	83%	93%	3	7	2	1	3 '	6 25%	35%	14%	17%	50%	28%
Wellington	9338 6.4	Church Stree Market Street Vineya	rd Roa 257	92%	90%	93%	100%	0%	83%	1	3	0	0	0	4 8%	15%	0%	0%	0%	7%
Wellington	9338 6.5	Tan Bank - WBell Street Wellin	gton Lil 393	50%	60%	93%	83%	17%	64%	0	0	3	0	0	3 0%	0%	21%	0%	0%	5%
Wellington	9338 6.6	Tan Bank Victoria Road Rosev	ay 139	58%	65%	100%	83%	50%	72%	0	2	2	0	0	4 0%	10%	14%	0%	0%	7%
Wellington	9338 6.7	Walker Stree Wellington Lil Bridge	Road 199	92%	85%	86%	100%	83%	88%	4	5	0	1	1 '	1 33%	25%	0%	17%	17%	19%
Wellington	9338 6.8	Haygate Roa Bridge Road Hollies	Road 458	42%	50%	79%	67%	0%	52%	0	2	0	0	0	2 0%	10%	0%	0%	0%	3%
Wellington	9338 6.9	Bridge Road · Market Street King S	treet 910	50%	55%	93%	50%	50%	62%	0	0	5	0	0	5 0%	0%	36%	0%	0%	9%
Wellington	9338 610	Wrekin Road Victoria Road Holyhe	ad Roa 527	58%	40%	71%	33%	0%	47%	0	2	0	0	0	2 0%	10%	0%	0%	0%	3%
Wellington	9338 6.11	Bridge Road Market Street North	Road 447	50%	40%	100%	50%	0%	53%	0	0	4	0	0	4 0%	0%	29%	0%	0%	7%
Wellington	9338 6.12	North Road Spring Hill Apley	Avenue 940	83%	45%	100%	83%	83%	74%	1	0	1	2	2	6 8%	0%	7%	33%	33%	10%
Wellington	9338 6.13	Apley Avenue King Street Prince	ss Roy 593	67%	75%	79%	67%	67%	72%	0	0	3	0	1	4 0%	0%	21%	0%	17%	7%
Wellington	9338 6.14	King Street Apley Avenue Victori	a Road 709	33%	35%	100%	67%	17%	52%	0	0	2	1	1	4 0%	0%	14%	17%	17%	7%
Wellington	9338 6.15	King Street Victoria Road Mill Ba	nk 577	50%	45%	93%	50%	17%	55%	0	2	3	0	0	5 0%	10%	21%	0%	0%	9%
Wellington	9338 6.16	Glebe Street Victoria Road Watlin	g Stree 815	50%	45%	86%	50%	17%	53%	0	2	4	0	0	6 0%	10%	29%	0%	0%	10%
Wellington	9338 6.17	Watling Stree Heybridge Rc Mill Ba	nk 368	33%	55%	79%	33%	17%	50%	0	0	3	0	0	3 0%	0%	21%	0%	0%	5%
Wellington	9338 6.18	Holyhead Ro: Mill Bank Wreki	Road 953	75%	55%	64%	67%	17%	59%	1	0	0	1	0	2 8%	0%	0%	17%	0%	3%
Newport	6351 7.1	Chetwynd En Forton Road Water	Lane 230	92%	80%	86%	67%	83%	83%	1	4	3	1	1 '	0 8%	20%	21%	17%	17%	17%
Newport	6351 7.2	Lower Bar Water Lane St Ma	y's Stre 143	92%	100%	93%	67%	67%	90%	0	2	1	0	1	4 0%	10%	7%	0%	17%	7%
Newport	6351 7.3	High Street St Mary's StreSt Ma	y's Stre 200	92%	95%	93%	50%	67%	86%	0	2	1	0	2	5 0%	10%	7%	0%	33%	9%
Newport	6351 7.4	St Mary's Str∈High Street High S	treet 232	92%	80%	93%	83%	67%	84%	0	0	2	0	2	4 0%	0%	14%	0%	33%	7%
Newport	6351 7.5	High Street St Mary's StreWellin	gton Rc 279	83%	95%	93%	67%	83%	88%	0	1	1	0	3	5 0%	5%	7%	0%	50%	9%
Newport	6351 7.6	Upper Bar Wllington Ro: Gravil	e Road 236	75%	70%	93%	50%	50%	72%	1	3	2	0	1	7 8%	15%	14%	0%	17%	12%
Newport	6351 7.7	New Street - High Street Salter	Lane 445	75%	65%	86%	67%	67%	72%	1	4	2	0	2	9 8%	20%	14%	0%	33%	16%
Newport	6351 7.8	Salters Lane Lower Bar Beaun	naris Ri 277	83%	60%	100%	50%	67%	74%	1	4	3	1	2 '	1 8%	20%	21%	17%	33%	19%
Newport	6351 7.9	Water Lane Lower Bar Staffo	d Stree 439	50%	65%	86%	50%	50%	64%	2	7	3	1	3 .	6 17%	35%	21%	17%	50%	28%
Newport	6351 710	Stafford Stree High Street Water	Lane 211	83%	85%	100%	67%	83%	86%	0	7	2	0	3 .	2 0%	35%	14%	0%	50%	21%
Newport	6351 7.11	Stafford Roac Water Lane Broad	vay 505	75%	75%	93%	67%	67%	78%	1	4	2	1	2 '	0 8%	20%	14%	17%	33%	17%
Newport	6351 7.12	Audley Road Stafford Stree Meade	w Roa 307	83%	85%	100%	50%	50%	81%	1	2	1	0	2	6 8%	10%	7%	0%	33%	10%
Newport	6351 7.13	Audley Road/Meadow Roa Avenu	e Road 197	75%	70%	93%	50%	50%	72%	0	1	1	0	2	4 0%	5%	7%	0%	33%	7%
Newport	6351 7.14	Avenue Road Audley Avent High S	treet 299	92%	80%	100%	83%	67%	86%	1	3	1	0	3	8 8%	15%	7%	0%	50%	14%
Newport	6351 7.15	Audley Aven: Avenue Road A518	Innova 1085	83%	75%	100%	83%	67%	83%	0	5	2	0	2	9 0%	25%	14%	0%	33%	16%
Newport	6351 7.16	Graville Aven Audley Avent Wellin	gton R 647	83%	65%	100%	100%	67%	81%	1	4	3	2	2 '	2 8%	20%	21%	33%	33%	21%
Newport	6351 7.17	Wellington RcHigh Street Brook	ide Av 619	83%	70%	100%	67%	67%	79%	1	3	1	1	3	9 8%	15%	7%	17%	50%	16%

Table 19. WRAT results for walking links - existing & proposals (iiii)



Figure 161. Ironbridge (CWZ1) existing WRAT results



Figure 163. Madeley (CWZ2) existing WRAT results



Figure 162. Ironbridge (CWZ1) proposed WRAT results



Figure 164. Madeley (CWZ2) proposed WRAT results



Figure 165. Dawley (CWZ3) existing WRAT results



Figure 167. Telford (CWZ4) existing WRAT results



Figure 166. Dawley (CWZ3) proposed WRAT results



Figure 168. Telford (CWZ4) proposed WRAT results



Figure 169. Oakengates (CWZ2) existing WRAT results



Figure 171. Wellington (CWZ5) existing WRAT results



Figure 170. Oakengates (CWZ2) proposed WRAT results



Figure 172. Wellington (CWZ5) proposed WRAT results



Figure 173. Newport (CWZ2) existing WRAT results



Figure 174. Newport= (CWZ2) proposed WRAT results

Appendix 4: Route Selection Tool (RST)

Table 20. RST summary for Route 4

Local Cycling and Walking Infrastructure Plan: Route Selection Tool **ROUTE SUMMARY**



Table 21. RST summary for Route 5

Local Cycling and Walking Infrastructure Plan: Route Selection Tool ROUTE SUMMARY

Route Name	Route 5: H	adley Castle - Hortonwood Loop Connector
Overall Length		3.93
Name of Assessor(s)		
Date of Assessment		
	Perfe	ormance Scores
Criterion	Existing	Potential
Directness	5.00	5.00
Gradient	3.69	3.69
Safety	2.21	4.03
Connectivity	5.00	5.00
Comfort	1.20	2.37
Total	17.10	20.09



Table 22. RST summary for Route 10

Local Cycling and Walking Infrastructure Plan: Route Selection Tool **ROUTE SUMMARY**

Route Name		Route 10: Telford to Oakengates
Overall Length		2.04
Name of Assessor(s)		
Date of Assessment		
	Perfe	ormance Scores
Criterion	Existing	Potential
Directness	5.00	5.00
Gradient	3.18	3.18
Safety	3.47	3.70
Connectivity	5.00	5.00
Comfort	1.78	3.00
Total	18.43	19.88



Table 23. RST summary for Route 15

Local Cycling and Walking Infrastructure Plan: Route Selection Tool ROUTE SUMMARY



Table 24. RST summary for Route 17

Local Cycling and Walking Infrastructure Plan: Route Selection Tool ROUTE SUMMARY

Route Name		Route 17: Madeley Loop
Overall Length		6.10
Name of Assessor(s)		
Date of Assessment		
	Perfor	mance Scores
Criterion	Existing	Potential
Directness	5.00	5.00
Gradient	1.80	1.80
Safety	1.48	3.93
Connectivity	5.00	5.00
Comfort	0.00	2.48
Total	13.28	18.21



Appendix 5: Indicative Unit Cost Estimates

Table 25. Indicative base unit costs for proposed interventions¹

Intervention	Cost (2021 £)	Description
Dropped kerb	£1,100 per item	Tactile paving, kerbing, surfacing
Pedestrian refuge island	£ 13,900 per item	New crossing island including electrical works and all other associated works costs
Zebra crossing / parallel crossing	£37,700 per item	New crossing including road markings, dropped kerbs, belisha beacons and high friction surfacing on approaches
Signalised Pedestrian and Cyclist Crossing (Toucan crossing)	£77,700 per item	New crossing including traffic signals, road markings, dropped kerbs, and high friction surfacing on approaches
Upgrade Signalised Crossing	£51,600 per item	Upgrade existing traffic signals for pedestrians/cyclists and road markings for crossings
Side road treatment	£16,200 per item	Raised table crossing and associated works such as tactile paving, street lighting, signing and lining
Raised junction	£39,300 per item	Raised junction with crossing points and associated works such as tactile paving, coloured surfacing, street lighting, signing and lining
20mph zone	£17,700 per km	New signs, road markings and traffic calming measures
Widened footway	£1,100,000 per km	Widened footway, new kerbs and resurfacing of the full extent of the footway (3.0m)
Resurfaced footway	£400,000 per km	Resurfacing of the full extent of the footway (2.0m)
New street lighting	£5,000 per item	Standard street lighting column (significant ducting not included)
School street	£45,000 per item	Camera enforcement, associated signage and road markings

1 Costs are indicative only and can vary significantly depending on local site conditions. Based on indicative base unit costs available from DfT (Typical costs of cycling interventions, Interim analysis of Cycle City Ambition schemes, January 2017), Greater Manchester Cycling Design Guidance and Standards, and Wiltshire Council (https://www.wiltshire.gov.uk/highways-works-cost). Where a cost range was given, the higher value is shown to provide a more conservative estimate and reflect a potential higher degree of engineering interventions required. For more bespoke elements, engineering judgement was used to estimate material quantities (what would be covered by multiple items in a standard bill of quantities developed in detailed design) and make allowances for unknowns at this early concept stage.

Intervention	Cost (2021 £)	Description
Two-way cycle track	£1,429,000 per km	3.0m (desired minimum width) on the carriageway level with kerb segregation
One-way cycle track	£1,548,000 per km	2.0m (desired minimum width) on the carriageway level with kerb segregation (assumes cycle facility on both sides of the road)
Mandatory / advisory cycle lane	£315,000 per km	1.5m (desired minimum width) (assumes cycle facility on both sides of the road)
Mixed traffic / quiet street / 'Dutch Lanes'	£809,000 per km	Speed limit reduction, road markings, traffic calming measures, carriageway narrowing, and/or potential changes to the road to decrease traffic flows
Major junction works	£1,896,000 per item	Major junction modifications to incorporate cycle facilities

Appendix 6: Phase 1 Prioritisation Assessment

		Quality of Improvements		Delive	rability	Den	hand		Acc	ess							
	Contributes to improved cycling network (links/km - 'Aspirational' cycle network)	Quality of design - safety improvement (RST)	Quality of design - comfort improvement (RST)	Ease of implementation	LTN 1/20 Compliance of proposals	Pedal cycle collisions per km	PCT Growth (increase in commuter flows)	Access to education	Access to transport facilities	Other key destination	High Street / Commercial Area						
	1:≪2 2:≪2.5 3:≥2.5	1:≪1 2:≪2 3:⊵2	1: < 1 2: < 2 3: ⊵ 2	1 = could require major junction treatment (e.g., new signah); significant works outside highway boundary; or third party boundary; or third party works (e.g. changes to a lowed crossing) and the provided treatments; limited works outside highway boundary; expected interface with complex environments (e.g. town centres) 3 = could be provided within the existing kerb lines, and with minimal junction treatment	1 = Fail / Critical Fail 2 = Partially Suitable 3 = Suitable	1: < 0.5 2: < 1 3: ≿ 1	1: < 300 2: < 500 3: ≥ 500	Access to education e.g. echool, college, library etc 3 = yes, direct access 2 = yes, within 400m 1 = no / further than 400m	Access to railway station 3 = yes, direct access 2 = yes, within 400m 1 = no / further than 400m	Access to sports, recreation or outdoor space 3 = yes, direct access 2 = yes, within 400m 1 = no / further than 400m	Access to a High Street / Commercial Arca 3 = yes, direct access 2 = yes, within 400m 1 = no / further than 400m	Quality	Deliverabi	Demand .	Access	Total Ran	ık
Weighting	1	1	1	1	1	1	1	1	1	1	1	30%	30%	20%	20%	1	
ID Corridor Max Score	3	3	3	3	3	3	3	3	3	3	3						
4 Great Dawley	3	1	1	1	2	1	1	2	2	3	3	55.6%	50.0%	33.3%	83.3%	55.00%	
5 Hadley Castle - Hortonwood Loop Connector	2	2	2	2	3	2	3	1	1	3	1	06.7%	83.3%	83.3%	50.0%	/1.6/%	3
10 Telford to Oakengates	3	1	2	3	3	2	2	2	3	1	2	66.7%	100.0%	66.7%	66.7%	76.67%	2
15 Snawbirch to Aneston (via Wellington) 17 Madeley Loop	1	3	3	1	3	3	2	3	1	3	3	33.3%	50.0% 66.7%	вб.7% 83.3%	91.7%	76.67%	1

Table 26. MCAF output table for Phase 1 cycle corridor prioritisation

		Quality of Improvement	Deliverability		Demand (v	within CWZ)			Access (w	rithin CWZ)							
		% change total WRAT score	Ease of implementation	Population	workplace population	Residential Development Sites	# collisions within CWZ	Rail / Bus Station	Schools/Other education	Employment allocations	Other key destinations (Tourist attractions, Conference Centres or Greenspaces)						
		0	1 = Low ease of implementation 2 = Some challenges to implementation 3 = Reduced challenges to implemention	Estimated Residential population (mid-2020)	Estimated Workplace population (mid-2020)	Residential Development Site Yield	No. of Ped Collisions	Quantity within CWZ	Quantity within CWZ	Quantity within CWZ	Quantity within CWZ						
		1:<0.1	1:<1	1: < 10000	1: < 4000	1:<25	1:<4	1: < 10	1:<1	1: < 1	1:<2						
		2: < 0.2	2: < 2	2: < 15000	2: < 8000	2: < 50	2: < 7	2: < 20	2: < 2	2: < 2	2: < 3						
		3:≥0.2	3:≥2	3:≥15000	3:≥8000	3:≥50	3:≥7	3:≥20	3:≥2	3:≥2	3:≥3	Quality	Deliverab	Demand	Access T	rotal Ra	JNK
	Weighting	1	1	1	1	1	1	1	1	1	1	30%	30%	20%	20%		
	Max Score	3	3	3	3	3	3	3	3	3	3						
		2	1	1	1	3	1	1	1	1	1	66.7%	33.3%	50.0%	33.3%	46.7%	
		3	2	2	3	3	3	3	3	3	3	100.0%	66.7%	91.7%	100.0%	88.3%	
		2	3	3	1	2	2	1	3	3	2	66.7%	100.0%	66.7%	75.0%	78.3%	
		1	2	3	3	3	2	3	2	1	3	33.3%	66.7%	91.7%	75.0%	63.3%	
les		1	3	2	2	2	3	2	3	3	3	33.3%	100.0%	75.0%	91.7%	73.3%	
n		1	2	2	3	3	1	3	2	2	2	33.3%	66.7%	75.0%	75.0%	60.0%	
		2	1	2	1	1	3	2	3	3	2	66.7%	33.3%	58.3%	83.3%	58.3%	

ID Corridor 1 Ironbridge 2 Madeley 3 Dawley 4 Telford 5 Oakengates 6 Wellington 7 Newport

Table 27. MCAF output table for Phase 1 core walking zone prioritisation