Wokingham Borough Council

LOCAL CYCLING AND WALKING INFRASTRUCTURE PLAN

Wokingham Borough

MARCH 2023

FINAL

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EXECUTIVE SUMMARY

This Local Cycling and Walking Infrastructure Plan (LCWIP) has been developed to identify specific active travel infrastructure schemes that can be incorporated into local transport policy and capital investment programmes for Wokingham Borough.

Active travel has an essential role to play in supporting transport decarbonisation, traffic decongestion, improved accessibility and delivering improvements to people's health and wellbeing across the borough. In July 2019, Wokingham Borough Council members unanimously declared a climate emergency in response to the rising concern over the urgent need for action. The declaration set out the commitment to play as full a role as possible, leading by example in achieving a carbon neutral Wokingham Borough by 2030, which includes reducing the carbon footprint of the transport sector in Wokingham Borough by promoting active and sustainable modes of travel.

In addition to an uptake of active travel contributing towards a reduction in transport related emissions, there are numerous health and wellbeing benefits to be realised. Road transport is a significant contributor to poor air quality in urban areas, which is particularly pertinent to Wokingham Borough as multiple Air Quality Management Areas (AQMA) have been declared across the borough. Furthermore, physical inactivity is now recognised as a significant contributor to both mortality and poor health in later life. Using cars for short journeys limits opportunities for incidental exercise, and within Wokingham Borough over 1 in 4 commuting trips is less than 5km. This highlights that there is a real opportunity to encourage the uptake of active travel among commuters within the borough.

Key evidence is presented within this LCWIP which outlines the case for walking, cycling and wheeling, and the benefits that active travel can have in terms of carbon emissions, decongestion, health and wellbeing, and improved accessibility. This evidence has informed our development of the LCWIP, as the measures within this report seek to support the goals of the Council's climate emergency declaration by developing a borough network plan for walking, cycling and wheeling routes and identifying infrastructure improvements where necessary to encourage people to make more sustainable travel choices.

To inform the active travel network plans developed for Wokingham Borough, an extensive information gathering exercise was undertaken. This exercise included mapping a range of information sources using Geographical Information Systems (GIS) to show existing cycle facilities, strategic connections and routes, proposed Greenways routes, existing Public Rights of Way, and areas of potential cycling and walking demand. This analysis involved the use of 2011 Census data, coupled with the Propensity to Cycle Tool (PCT) that was developed on behalf of the DfT, as well as the bespoke WSP GIS LCWIP model. Using census travel data and an agreed set of assumptions, these tools give an indication of where in Wokingham Borough there may be suppressed demand for walking, cycling and wheeling trips, and potential future demand.

The results from the information gathering exercise showed that there is a clear demand for walking and cycling trips focussed on the town centres, as well as the Major Development Areas, including Arborfield, Shinfield, and Wokingham Town (North Wokingham and South Wokingham Strategic Development Locations). Earley and Woodley were also shown to be areas of higher demand for active travel, both of which feature a high level of connectivity to Reading. The full outputs and analysis of this stage in the LCWIP can be found in the later sections of this report.

To complement these outputs, engagement was undertaken with stakeholders and the general public in 2021. This is crucial to the success of a LCWIP, as stakeholder engagement provides opinions and insights which are valuable in the early stages of developing emerging active travel networks. Feedback from the stakeholder engagement indicated that respondents feeling unsafe on the current road network when walking or cycling, largely due to the lack of protected cycling infrastructure and speeding vehicles. A more granular analysis of the responses was also conducted, as well as the identification of issue hotspot locations.

A key goal in this at this stage of the LCWIP development was to determine where the greatest propensity for active travel exists, and where targeted investment in infrastructure could generate the greatest number of journeys by sustainable modes. The information gathering and stakeholder engagement exercises undertaken were used to develop draft walking and cycling network plans for Wokingham Borough. These plans were then further refined in by presenting the draft network plans to key stakeholders, whose feedback has been used to determine the relative importance of different routes.

Following stakeholder comments, the network plans have been updated, and the final selection of primary routes were audited by trained WSP and WBC personnel visiting each route corridor on location using industry standard auditing methods, which were used to assess the suitability of each audited route in its existing condition against a range of core design outcomes.

The auditors generated high-level plans of the infrastructure improvements that would be needed to enable mode shift to walking, cycling and wheeling. These plans were further refined following comments from local cycling groups, before being presented during the second round of public engagement. The infrastructure improvements identified are concepts of the types of infrastructure which are believed possible, should be investigated further and, if implemented correctly and in appropriate packages, should bring about modal shift. The active travel network plan and infrastructure improvement plans are presented later in this report.

To help shape the outcome of the LCWIP, a second public consultation was undertaken to gather feedback on the draft network plans for walking and cycling and allow the local community to provide their thoughts on the proposed draft cycling and walking network plans. Overall, there was a significant level of response received to the second public consultation, with feedback received from a range of respondents from different demographics. The full consultation report findings are contained in the appendices.

Following the second public consultation, walking, cycling and wheeling infrastructure improvements were prioritised based on which routes were likely to have the greatest impact in increasing the number of people who choose to cycle or walk, therefore providing the largest benefit from the investment. A high-level approach to route prioritisation was applied to determine how the identified routes might be prioritised and advanced over the short, medium and longer term. The approach to prioritisation applies a set of 17 assessment criteria to individual route or area-based improvements and using a Multi-Criteria Appraisal Tool (MCAT) creates a ranked list of LCWIP improvements across the borough.

The outcome of the route prioritisation process has identified specific active travel infrastructure schemes that can be incorporated into local transport policy and capital investment programmes for Wokingham Borough. This LCWIP will represent an accompanying plan to the updated Local Transport Plan (LTP) that is currently being updated by the Council, providing a focus on where and why targeted investment in high-quality, inclusive active travel infrastructure will be taken forward within Wokingham Borough, to support the Council's declaration of a climate emergency and to promote travel by sustainable modes.

1 INTRODUCTION

1.1 BACKGROUND

1.1.1. Wokingham Borough Council is pleased to present our borough-wide Local Cycling and Walking Infrastructure Plan (LCWIP), representing our commitment to a shared ambition with Government to make active travel the natural choice for shorter journeys or as part of a longer journey.

1.1.2. This LCWIP incorporates processes and outputs that have followed technical guidance from the Department for Transport and, combined with focusing on our local priorities, this has led to active travel network plans, routes and scheme concepts being identified that will support a new active travel vision for the borough.

1.1.3. To achieve this the council recognises the need for a step change in the process of planning active travel networks, identifying and prioritising infrastructure improvements, and incorporating emerging best practice in scheme design. This will mean supporting walking, cycling and wheeling journeys for more people, for more activities, and to more destinations locally and further afield.

1.1.4. The outputs of this LCWIP will inform a comprehensive, long-term investment plan for Wokingham Borough, defining primary and secondary routes for walking, cycling and wheeling and specific scheme concepts which can be planned for implementation over time. This process has included a thorough review of previous schemes within the borough, alongside entirely new proposals developed with input from the public and community stakeholders. It is also intended that the proposals for the active travel routes within this report can be used by wheelchair users, individuals who rely on mobility aids, scooters, and where appropriate equestrians.

1.1.5. This process has helped strengthen opportunities to provide active travel infrastructure that reflects excellent design principles, enabling more walking, cycling and wheeling journeys to be made, directly supporting progress towards the council's Net Zero transport goals, and improving local air quality through reducing transport emissions.

1.1.6. Moreover, investment from this LCWIP will focus on delivering new networks, routes and schemes that will improve public health through active travel, and enhance access to education, skills training, and employment opportunities for Wokingham Borough residents.

1.1.7. This report provides a full overview of the Wokingham Borough LCWIP, presented in the following sections:

- **Section 2:** The Active Travel Context
- **Section 3:** LCWIP Geographical Scope, Vision, and Objectives
- **Section 4:** Gathering Information
- **Section 5:** Early Stakeholder Engagement
- **Section 6:** Network Planning for Walking & Cycling
- **Section 7:** Infrastructure Improvements
- **Section 8:** Public Engagement
- **Section 9:** Scheme Prioritisation and Costs
- **Section 10:** Integration and Application

1.2 THE LCWIP PROCESS

1.2.1. The five-stage LCWIP process which has been followed in the development of this report is presented below in **Figure 1-1**.

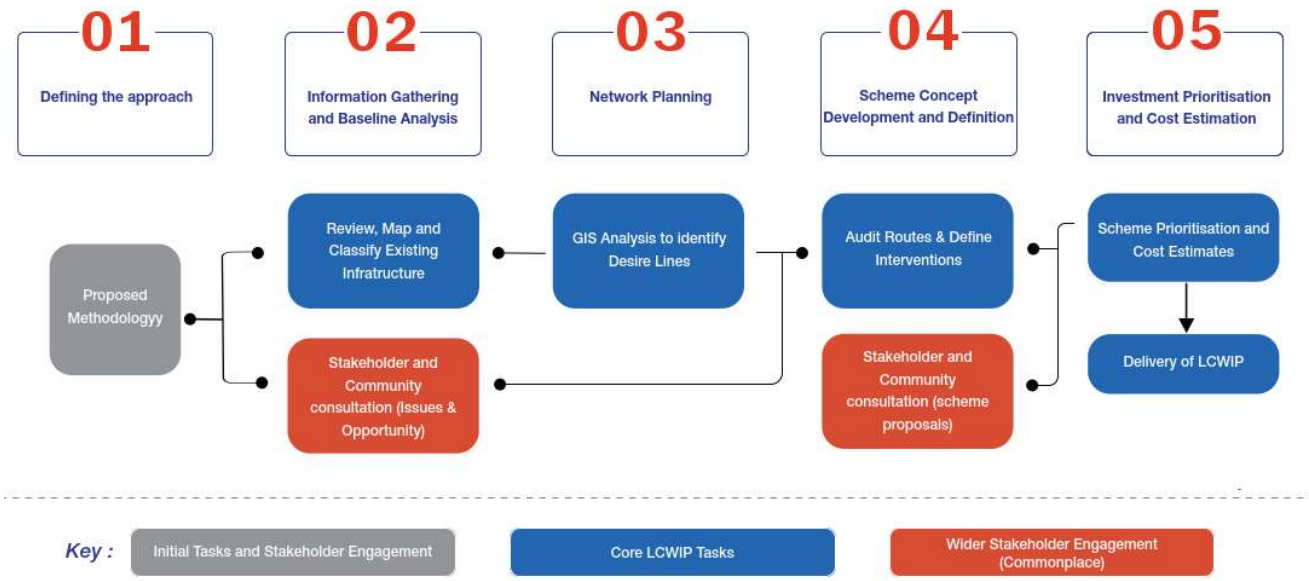


Figure 1-1 - LCWIP Process

2 THE ACTIVE TRAVEL CONTEXT

2.1 THE CASE FOR WALKING, CYCLING AND WHEELING

2.1.1. Active travel has an essential role to play in supporting transport decarbonisation, traffic decongestion, improved accessibility and delivering improvements to people's health and wellbeing across the borough. In this section we summarise this context and outline some key evidence that has informed our development of the LCWIP.

Climate Emergency

2.1.2. **Figure 2-1** shows that road, rail and shipping transport is the largest contributor to UK domestic Greenhouse Gas (GHG) emissions, accounting for 24% of total domestic GHG emissions in 2020, ahead of energy, business, residential, agriculture and waste. Also shown in **Figure 2-1** is that when measuring emissions by sector over time, other sectors have reduced their emissions whilst transport emissions have remained relatively static, albeit a decrease is noticeable in 2020 due to the impact of the Covid-19 pandemic.

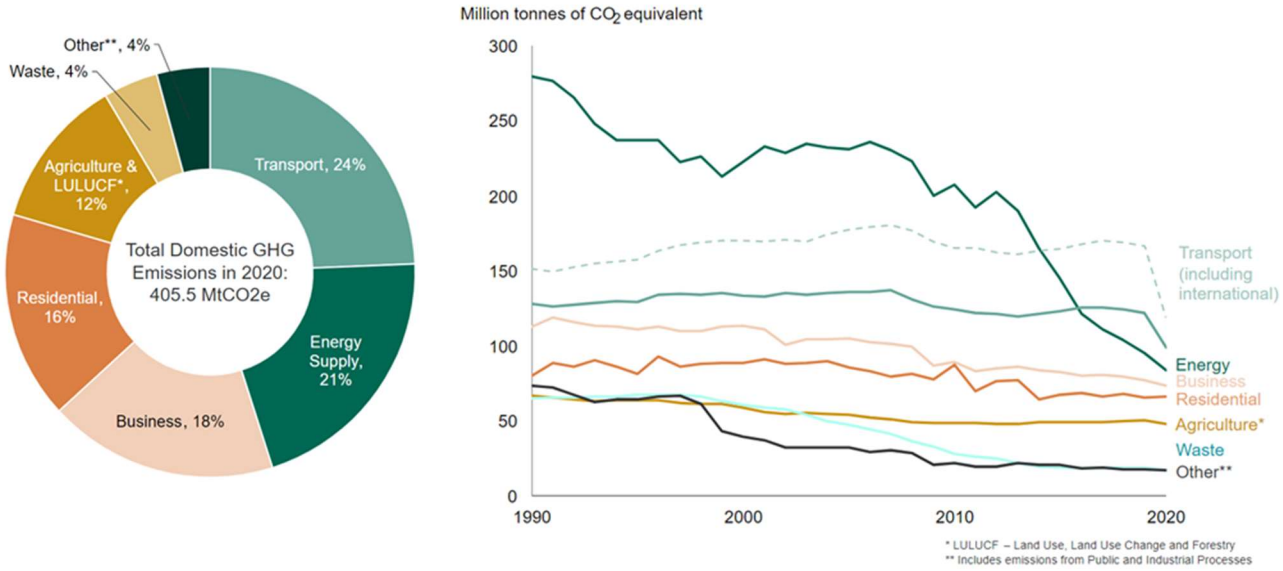


Figure 2-1 - UK Greenhouse Gas emissions by sector (Source: Department for Transport)

Source: Transport and environment statistics (DfT, 2022)

2.1.3. The DfT's Decarbonising Transport (2019) paper states that passenger cars and taxis were responsible for 67.7% of domestic transport emissions in 2019, a share that remains almost unchanged from 1990. The paper also sets out a path to net zero, citing a reduction in emissions from domestic transport as essential to meet the UK's net zero targets. One way of achieving this is by facilitating a mode shift away from passenger cars towards zero emission modes like walking,cycling and wheeling for shorter journeys.

2.1.4. A key component of the transport decarbonisation plan is ensuring that public transport, cycling and walking is the natural first choice for all who can take it. This strategic priority is to be achieved by delivering a world class cycling and walking network in England by 2040.

2.1.5. The national emphasis on the importance of the climate change agenda is mirrored at a local level. In response to the rising concern over the urgent need for action, in July 2019, Wokingham Borough Council members unanimously declared a climate emergency. The declaration set out the commitment to play as full a role as possible, leading by example in achieving a carbon neutral Wokingham Borough by 2030. Subsequently, in January 2020, the council published its first Climate Emergency Action Plan (CEAP), establishing the eight key priority areas to focus on for reducing CO_2 by 2030.

2.1.6. The plan identifies road transport as one of the two highest emitters (along with domestic gas) of carbon dioxide in the borough. As such, the first of the nine priority areas in the action plan is to "Reduce Carbon Dioxide Emissions from Transport". An extract from WBC's Second Progress Report (2021) on the CEAP is shown below in **Figure 2-2**, which illustrates Wokingham Borough's carbon footprint in 2018, of which transport is responsible for 30% of emissions. This figure excludes sectors that are completely beyond the council's scope of influence, such as emissions from major transport links (M4) as well as diesel rail transport, which are managed by Highways England and national rail companies, respectively.

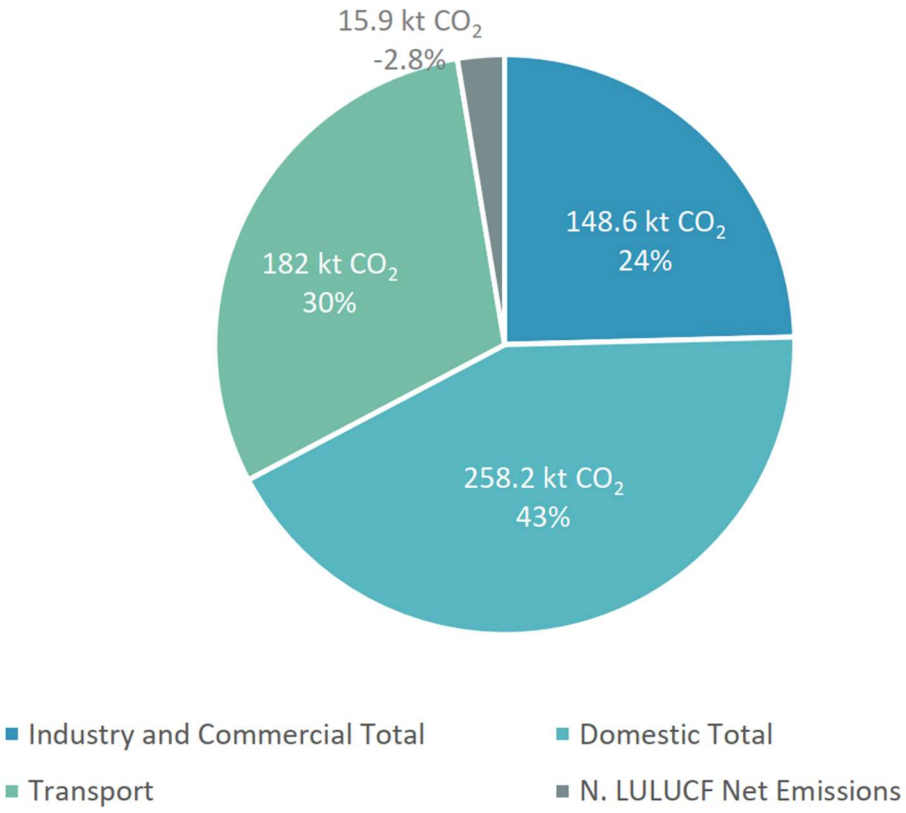


Figure 2-2 - Wokingham Borough Carbon Footprint 2018

Source: Climate Emergency Action Plan (WBC, 2021)

2.1.7. The first action identified within the CEAP to help with this priority area and reduce the carbon footprint of the transport sector in Wokingham Borough is "Promoting Active and Sustainable Transport Modes". The plan highlights that avoiding the use of private cars where possible is a council priority and it identifies the ongoing "My Journey" behaviour change programme as a key component of its plan to support this. "My Journey" aims to encourage walking, cycling and wheeling, bus and train travel as viable alternatives to the

private car, with the additional outcomes of reduced congestion, improved air quality and improved mental and physical health.

2.1.8. This LCWIP seeks to support the goals of the CEAP, by developing a borough network plan for walking, cycling and wheeling routes and identifying infrastructure improvements where necessary to encourage people to make more sustainable travel choices. The subsequent impact of people travelling by more sustainable modes will contribute towards a reduction in transport related emissions across the borough.

Health and Wellbeing

2.1.9. Road transport is a significant contributor to poor air quality in urban areas. Vehicles are the single largest source of NOx emissions and are also responsible for producing other pollutants such as PM2.5 and PM10. It is well established that these pollutants are detrimental to human health, impacting respiratory, cardiac, and cognitive health. Although increased adoption of electric cars will reduce these emissions, the wear of car parts and road surfaces will continue to produce PM2.5 and PM10 pollutants. Therefore, the most effective way to reduce the health impacts from air pollution is to encourage a shift towards zero emission modes such as walking, cycling and wheeling.

2.1.10. While national measures are being implemented to improve air quality, at a local level Wokingham Borough has declared several Air Quality Management Areas (AQMA) across the borough, which are areas that are deemed as unlikely to meet national air quality targets without targeted improvements. These AQMAs are shown below in **Figure 2-3**. This LCWIP seeks to contribute towards addressing air quality in these areas and the wider Wokingham Borough by removing barriers that discourage people from walking, cycling and wheeling, therefore resulting in an increase in active travel and reduced vehicle emissions.

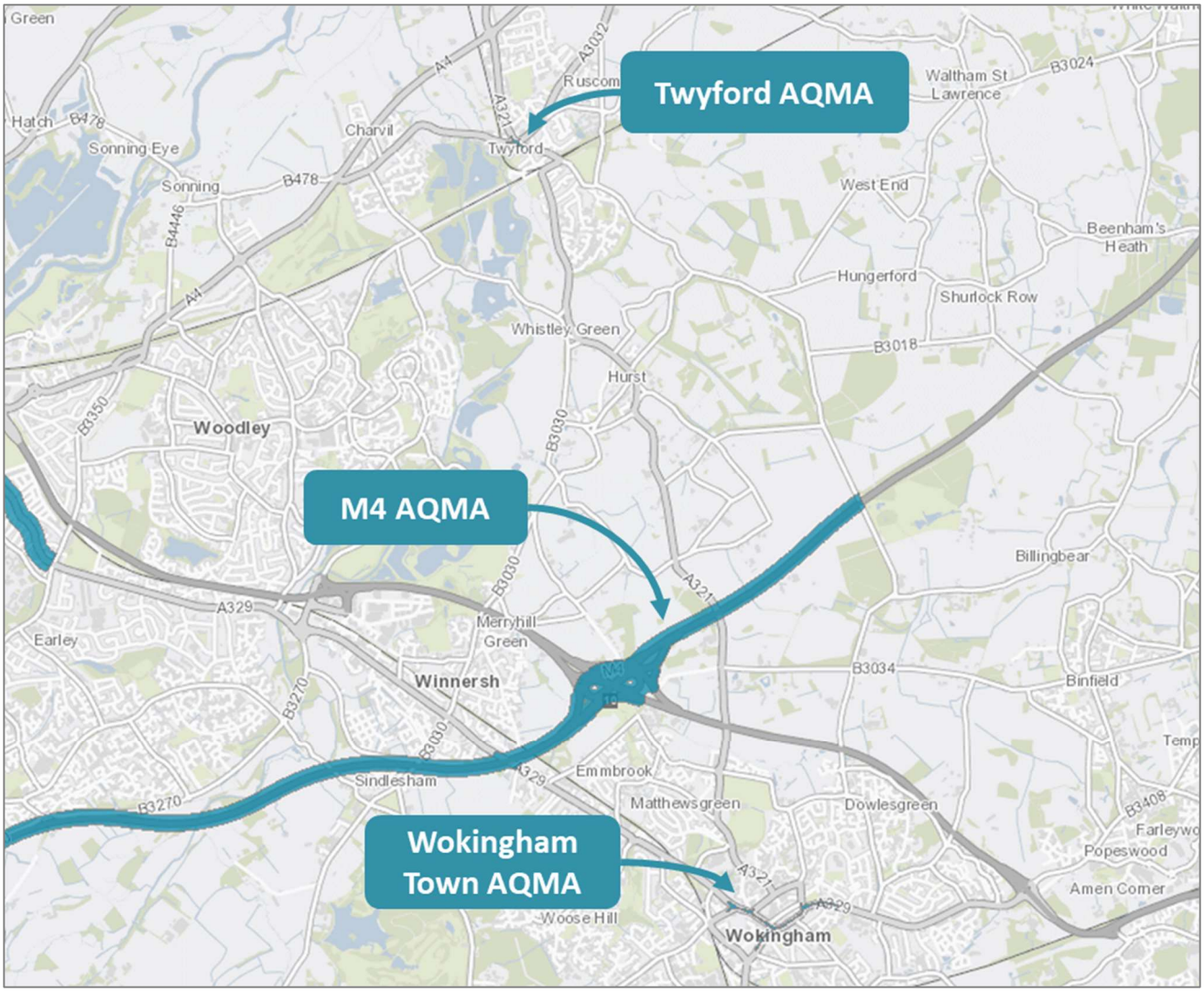


Figure 2-3 – Wokingham Borough Air Quality Management Areas

Source: Air Information Resource (DEFRA, 2022)

2.1.11. Physical inactivity is now recognised as a significant contributor to both mortality and poor health in later life. Regular physical movement and moderate exercise is necessary to maintain good physical and mental health. Using cars for short journeys limits opportunities for incidental exercise, where physical activity is incorporated into a daily routine. **Figure 2-4** shows that 56% of car journeys are under 5 miles, a distance that for some trips could be walked or cycled. Facilitating more active travel for these short trips increases the opportunities for physical activity, improving physical and mental wellbeing and reducing pressure on the NHS.

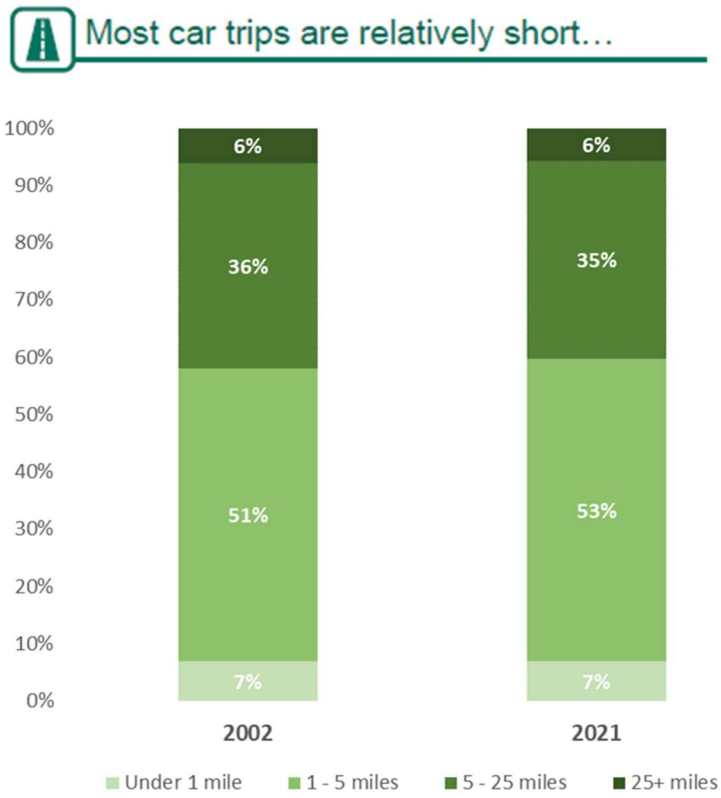


Figure 2-4 - Proportion of trips made by car by trip distance

Source: National Travel Survey (DfT, 2021)

2.1.12. Specific to Wokingham Borough, an analysis of average commute to work distances has been undertaken by studying Census 2011 data. Although COVID-19 has changed travel volumes and Census data is now over a decade old, the data provides a useful guide of the pattern of commuting trips. Additionally, **Figure 2-4** above highlights that trip distance metrics have remained relatively consistent over long time periods.

2.1.13. **Figure 2-5** illustrates the average distance travelled to work for residents of Wokingham Borough, the South East, and England, and indicates that the most common commuting distance in Wokingham Borough is between 5km and 10km (representing almost 20% of commute trips). The second most common distance is 2-5Km (17%), and over 1 in 4 commutes is less than 5km. This highlights that there is a real opportunity to encourage the uptake of active travel among commuters within the borough, with many trips being considered an acceptable length to use active travel modes of transport.

2.1.14. **Figure 2-6** depicts the same information taken from the first phase of data release from the 2021 Census. Visible from the chart is the significant increase in the proportion of people working from home, although it should be noted the impact of lockdown restrictions and remote working measures was still in effect at the time the 2021 Census was undertaken. This is particularly noticeable for Wokingham Borough, where over 50% of working residents mainly work from home, compared to the national average 32%.

Figure 2-5 - Distance travelled to work for resident adults aged 16 to 74 (2011)

Source: ONS (2011) Census, Crown Copyright 2019 (QS702EW)

Figure 2-6 - Distance travelled to work for resident adults aged 16 to 74 (2021)

Source: ONS (2021) Census

Congestion

2.1.15. **Figure 2-7** shows that motor vehicle traffic has been on continuing upward trend, with traffic levels increasing by 12% between 2010-21, while the population increased 6.3% over the same period (Census 2021). Although traffic levels fell during the 2020 pandemic, an upward trend is already apparent from 2020-21 following the end of lockdown measures which had been temporarily implemented. Continued traffic growth on the existing road network would be unsustainable and result in increased congestion. Therefore, facilitating a mode shift towards space efficient modes like walking, cycling and wheeling better utilises congested road space, moving more people than travel by car alone.

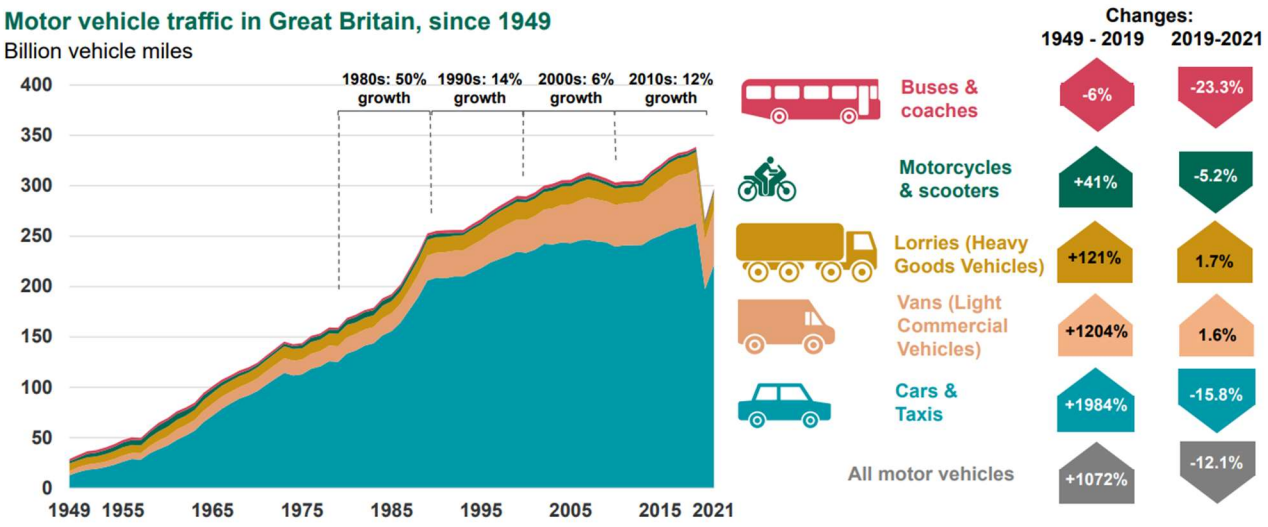


Figure 2-7 - Proportion of vehicle traffic
Source: Road Traffic Estimates (DfT, 2021)

2.1.16. Congestion is an issue which is already being tackled within Wokingham Borough through a variety of measures, including highway improvement schemes such as the Arborfield Cross Relief Road (ACRR) and Intelligent Transport Systems (ITS) technologies such as smart traffic light technology. However, as previously indicated approximately 30% of car journeys within the Borough were relatively short, and there is a real potential to swap these shorter journeys for more sustainable modes, taking more vehicles off the road providing the relief needed to the highway network.

Road danger reduction

2.1.17. Accident data for Wokingham Borough has been obtained from the DfT's Road Safety Data tables, which publish annual anonymised accounts of reported road accidents in the UK. Detailed below in **Table 2-1** is the road safety data for the five-year period between 2017 and 2021 (inclusive). This data has been classified by accident severity, as well as the proportion of casualties by road user type, with a focus on pedestrians and cyclists. The data indicates a generally decreasing number of road accidents over the study period, while the proportion of cyclists involved in these accidents tends to increase. 2021 is the only exception to this trend.

2.1.18. Worth noting is that any accidents that occurred on the M4 motorway and the A329(M) have been excluded from this analysis, for all years over the five-year study period. This decision has been made as Wokingham Borough Council have limited influence on safety measures which can be implemented along these trunk roads, and it is assumed that a significant proportion of these accidents do not involve Wokingham Borough residents considering these roads are part of the strategic road network. While removing accidents that

occurred on these roads reduces the total number of accidents in Wokingham Borough each year, it also increases the proportion of accidents that involve either pedestrians or cyclists. This is due to most accidents that occurred on the M4 or A329(M) involving motor vehicles only, which is to be expected given the characteristics of the road type.

2.1.19. The geographical distribution of the data is illustrated in **Figure 2-8**. This shows that accident clusters are mainly focussed around the urban areas of Wokingham Town, Winnersh, Earley, Woodley, and Twyford. Key inter-urban links also feature accident clusters, such as A329 Reading Road and the M4 motorway.

Table 2-1 – Accident data for Wokingham Borough (2017 to 2021)

Year	Total accidents	Accident severity (proportion, %)			Accidents involving pedestrians and cyclists (proportion, %)	
		Slight	Serious	Fatal	Pedestrians	Cyclists
2017	211	79.9%	18.0%	2.1%	13.8%	17.5%
2018	202	81.3%	17.0%	1.6%	12.6%	23.1%
2019	168	87.0%	13.0%	0.0%	14.9%	26.6%
2020	155	81.0%	17.6%	1.4%	13.4%	32.4%
2021	169	85.5%	12.9%	1.6%	12.9%	19.4%

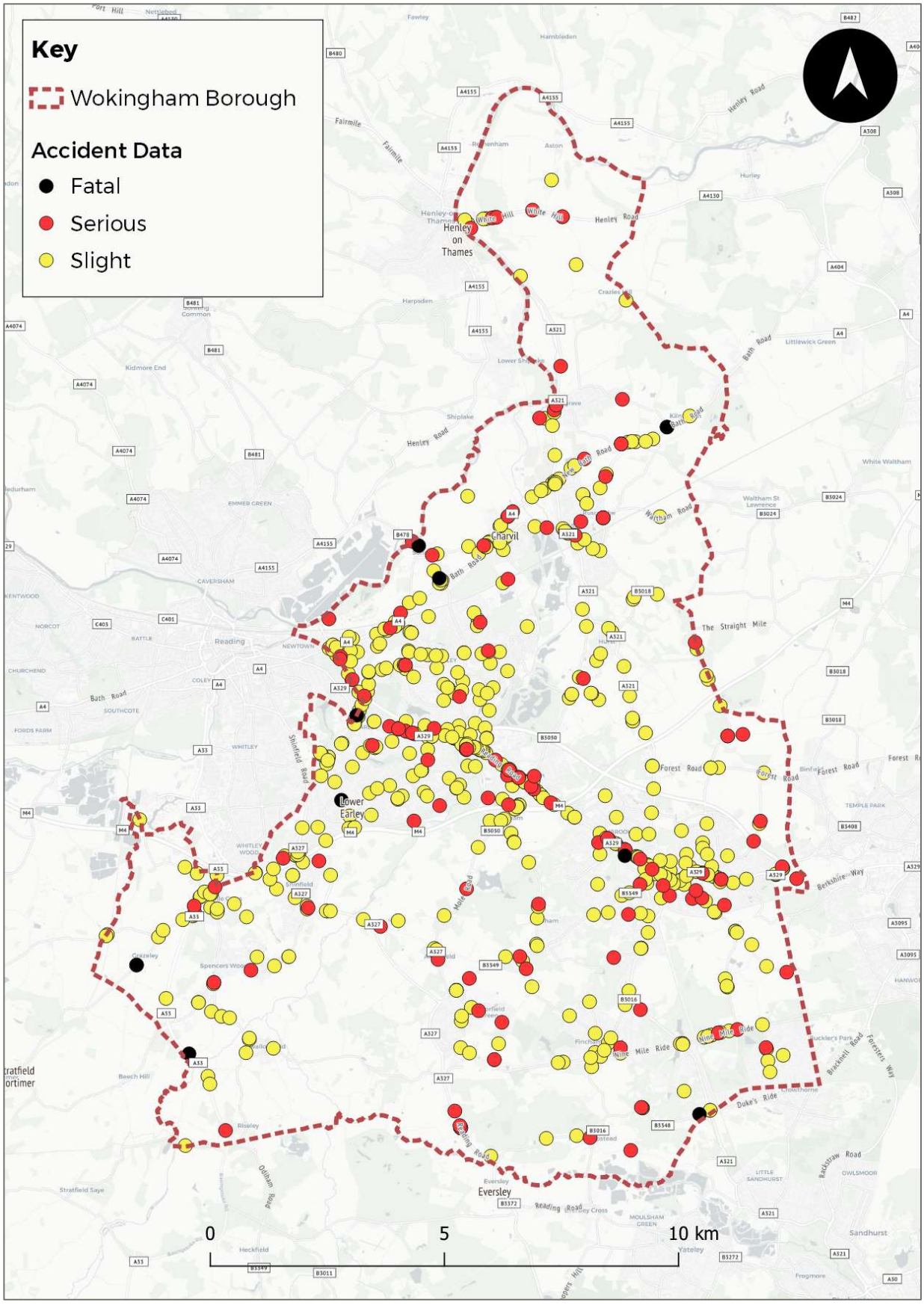


Figure 2-8 – Accident data (2017 – 2021)

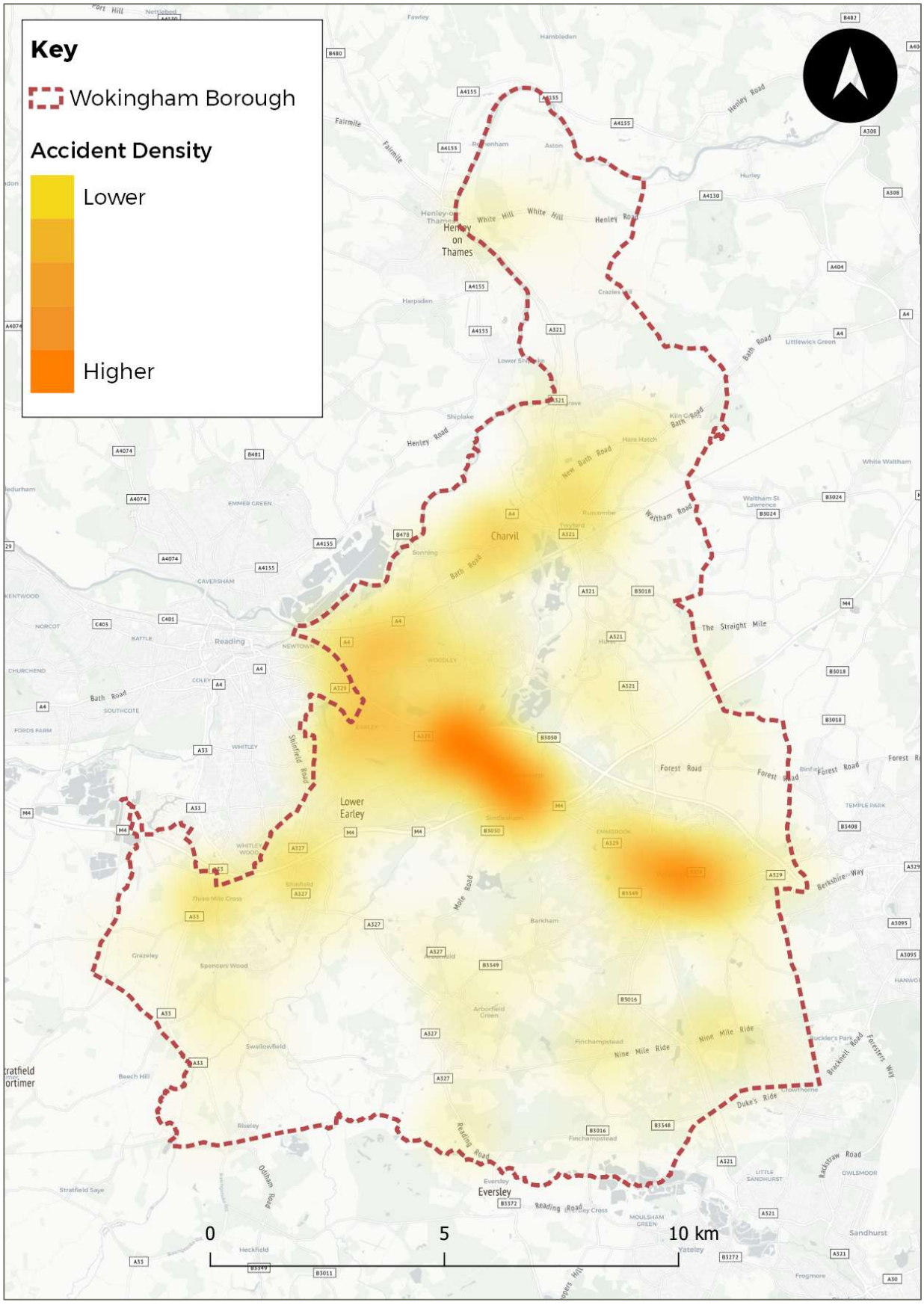


Figure 2-9 – Accident density data (2017 – 2021)

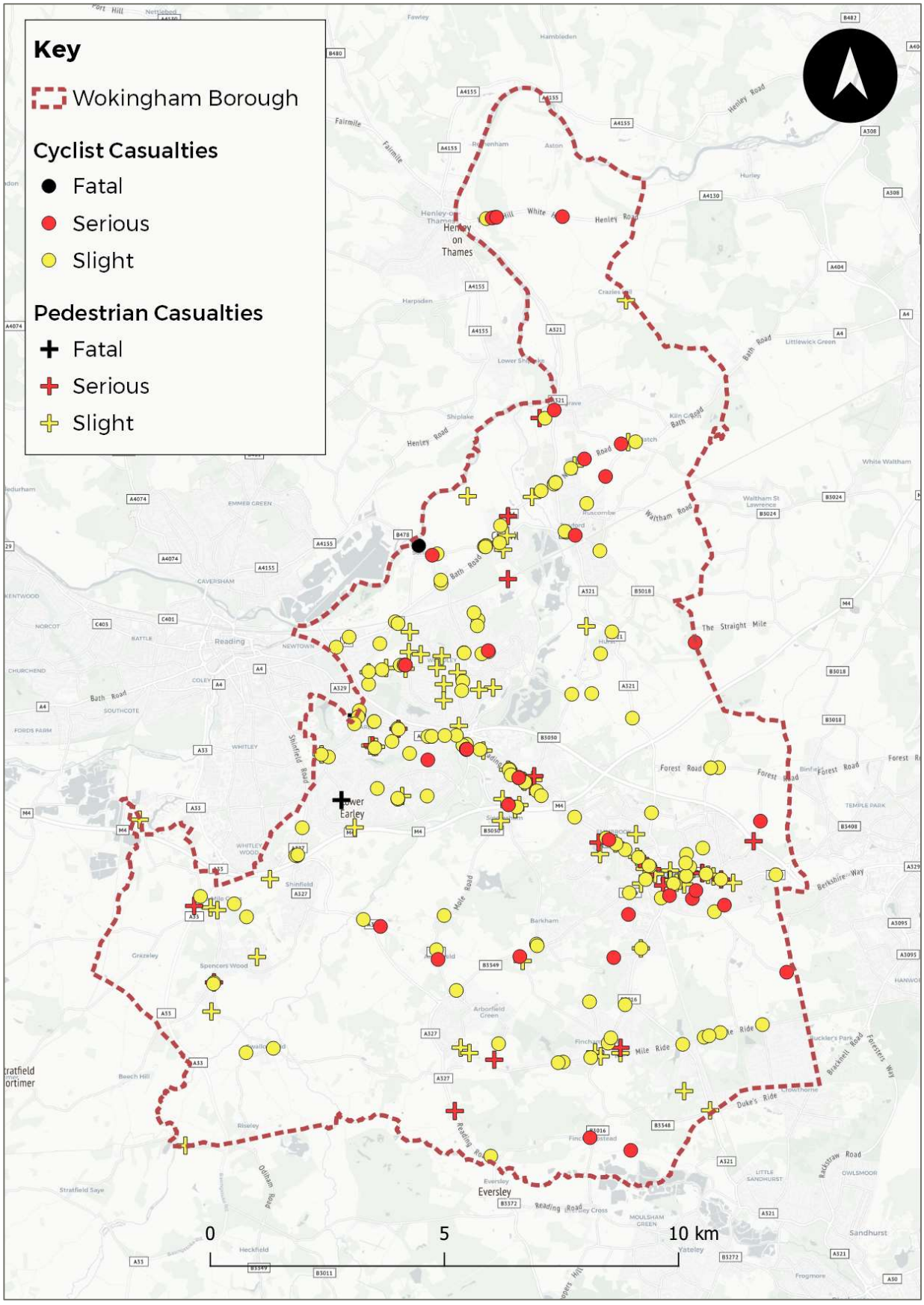


Figure 2-10 – Pedestrian and cyclist casualty data (2017 – 2021)

Accessibility

2.1.20. Within Wokingham Borough, 1 in 10 households do not have access to a car (Census 2021). While this is less than the UK average of 1 in 5, this proportion tends to increase in the lowest income bracket. Making streets more accessible to people travelling by foot, bike or public transport increases social mobility for low-income groups who do not own a car. This is particularly pertinent in the context of the current economic climate in the UK, where the cost of living is increasing significantly.

2.1.21. Studying accessibility in terms of deprivation is possible by examining the 'Geographical Barriers to Services' sub-domain of the 'Barriers to Housing and Services' domain, which is one of the domains that make up the Index of Multiple Deprivation (IMD).

2.1.22. This sub-domain analyses the travelling distances by road from key facilities and services. The result of this analysis shows that 20 of the 99 LSOAs in Wokingham Borough are within the top 10% most deprived nationally in terms of access to key facilities. Approximately 20% of the Wokingham Borough population live in these 20 LSOAs and therefore do not have easy access to facilities, services or employment.

2.1.23. Presented in **Table 2-2** below is the average minimum travel times to key services by public transport or walking for residents living in Wokingham Borough, with the same metric for the South East and England included as a comparison. The travel time applies to walks from origin to first public transport stop, from last stop to destination, and also walking directly from origin to destination without using public transport at all.

Table 2-2 – Average minimum travel time to nearest services by sustainable travel (2017)

Service	Average minimum travel time by sustainable travel (minutes)		
	Wokingham Borough	South East	England
Primary schools	11	8	9
Secondary schools	19	11	18
Further education	20	13	21
Town centre	22	12	21
Food stores	10	7	9
GPs	15	9	13
Hospitals	39	22	39
Employment centres	10	10	9

2.1.24. **Table 2-2** shows that the average time to access services is broadly similar between Wokingham Borough and the national averages. However, compared to residents from the wider South East region, they are significantly longer. Considering the travel times are provided in the context of sustainable travel, this highlights the need to ensure that the most direct active travel routes are provided to ensure this travel time is as efficient as possible, and that the quality of the active travel infrastructure is of a suitably high standard to cater for these longer journey times seen in the table above.

2.2 POLICY CONTEXT

2.2.1. Relevant policies have been reviewed as part of this LCWIP. This full review is appended to this report in **Appendix A.**

2.2.2. National policies reviewed include:

- Gear Change: A Bold Vision for Cycling and Walking (Department for Transport, 2020)
- Gear Change: One Year On (Department for Transport, 2021)
- Local Transport Note 1/20: Cycle Infrastructure Design (Department for Transport, 2020)
- The Second Cycling and Walking Investment Strategy (Department for Transport, 2022)
- A Moment of Change: Increasing Cycling Uptake (Department for Transport & Sustrans 2021)
- Future of Mobility: Urban Strategy (Department for Transport, 2019)
- The Inclusive Transport Strategy (Department for Transport, 2018)
- Inclusive Mobility: Making Transport Accessible for Passengers And Pedestrians (Department For Transport, 2022)
- Clean Air Strategy (Department for Environment, Food & Rural Affairs, 2019)
- Decarbonising Transport: A Better, Greener, Britain (Department for Transport, 2021)

2.2.3. Local policies reviewed include:

- Wokingham Local Plan (Current)
- Wokingham Local Transport Plan LTP3 (2011-2026) – *we are aware of the upcoming LTP4 document which will supersede LTP3, and this LCWIP will be reviewed and updated in due course following the release of LTP4*
- Wokingham Climate Emergency Action Plan (2020)
- Wokingham Active Travel Plan (2011-2026)
- Wokingham Joint Health & Wellbeing Strategy (2018-2021)

2.2.4. Regional Strategies reviewed include:

- Transport Strategy for the South East
- Thames Valley Local Enterprise Partnership (LEP)

2.3 COMPLEMENTARY INVESTMENT PROGRAMMES

Greenways

2.3.1. The Wokingham Greenways programme comprises a strategic network of multi-user paths, which have been developed to prioritise active travel between the major developments coming to the borough, existing communities, places of interest and employment.

2.3.2. This LCWIP has been developed with the Greenways Programme in mind, examining opportunities to add further value to the programme and support active travel connectivity through additional or enhanced

routes. This will contribute to the borough-wide active travel network, serving not only commutes and journeys to school, but create new leisure opportunities and improving access to the countryside.

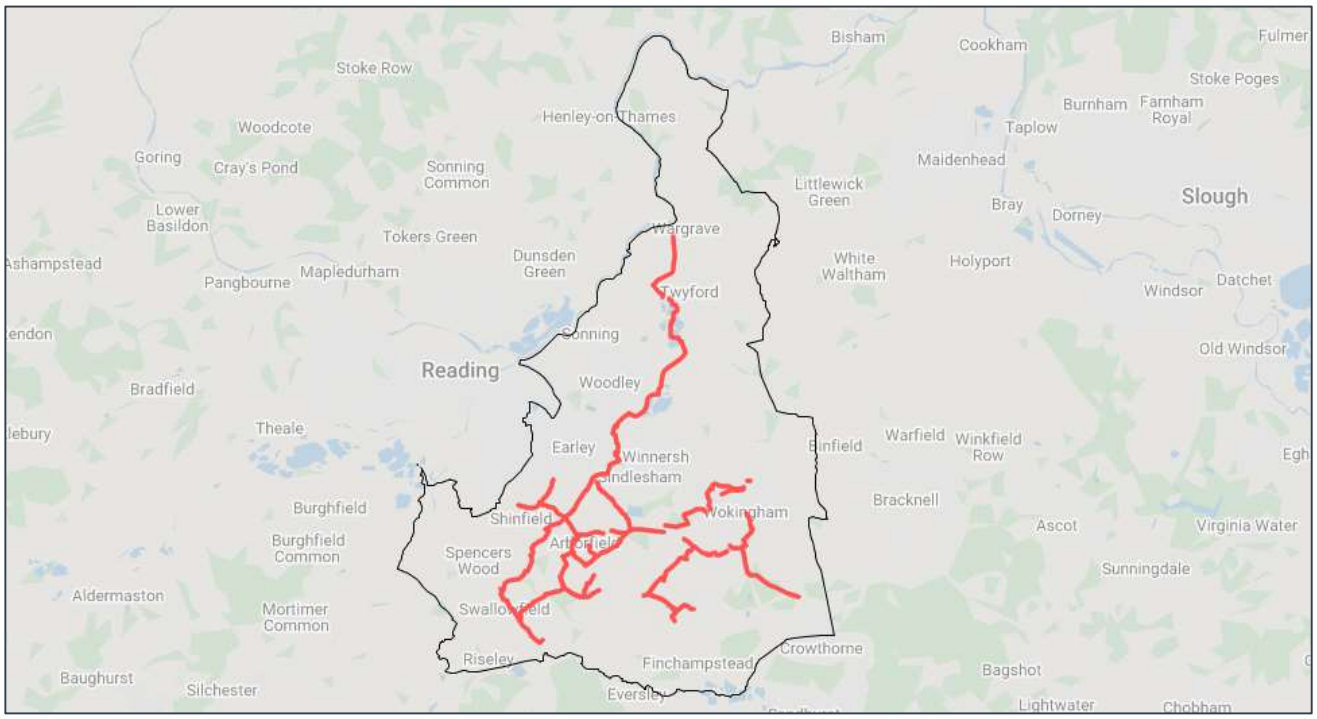


Figure 2-11 - Greenways Network

My Journey Wokingham

2.3.3. My Journey Wokingham is a borough-wide behaviour change campaign focusing on active and sustainable travel. It aims to help and inspire residents in Wokingham to travel by alternative modes, this includes organised cycle training, led walks and bike maintenance sessions, with advice on those looking to walk and cycle to work. The campaign started in 2012 and was funded through the LSTF (Local Sustainable Transport Fund) from the DfT. The My Journey website offers numerous resources including information on local walks and cycle routes available.

2.3.4. To date, My Journey Wokingham has helped residents and employees to travel more actively and sustainably for some or all of their journeys. The programme consists of a wide range of resources, with one of the prominent successes being the Bikeability training scheme. WBC has worked with all of the primary and junior schools in the borough, offering training to over 80% of Year 6 students in Bikeability Level 1/2, with the Level 3 programme rapidly expanding also, leading to WBC being awarded Local Authority of the Year in 2020 at the national Bikeability awards.

2.3.5. The scheme also ensures that bespoke welcome packs are provided for residents at each of the four major Strategic Development Locations within the borough. These provide useful information about the different modes of travel including active travel, public transport and car travel to help new residents to plan their journeys.

2.3.6. The availability of good quality and well-connected cycling routes planned and delivered through the LCWIP is something that can be promoted across communities through My Journey. This will help promote walking, cycling and wheeling as viable options for many journeys, and to a range of prospective users.

3 LCWIP GEOGRAPHICAL SCOPE, VISION AND OBJECTIVES

3.1 GEOGRAPHICAL SCOPE

3.1.1. The routes and infrastructure plans within this LCWIP are contained by the boundary of Wokingham Borough, with the geographical scope of this LCWIP shown below in **Figure 3-1**.

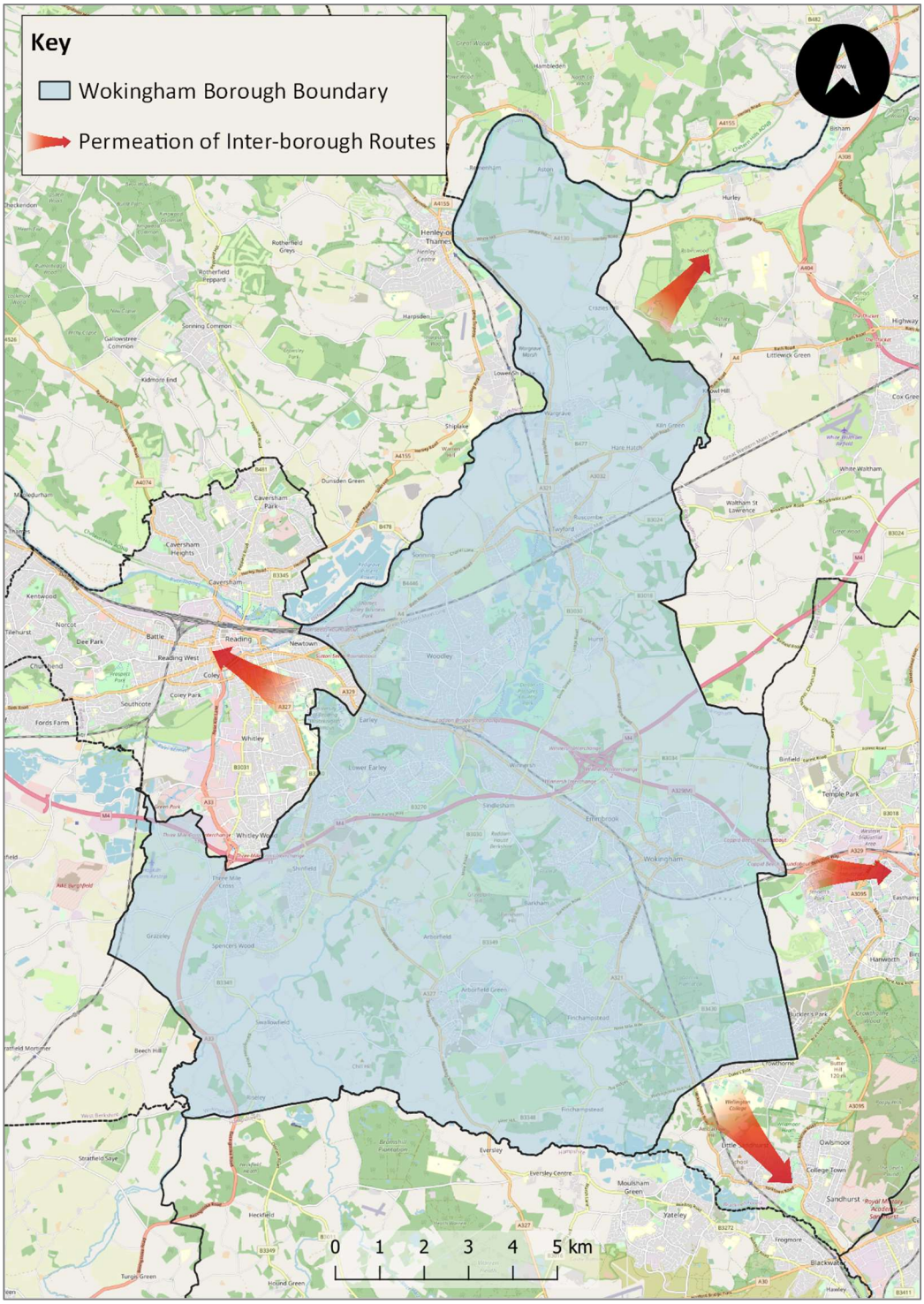


Figure 3-1 - Geographical Scope of the Wokingham Borough LCWIP

3.1.2. While this boundary reflects the entirety of the Borough of Wokingham, it is acknowledged that many key routes and links within the borough extend further than the boundary, into wider areas such as Reading and Bracknell. The importance of these inter-borough routes will be considered within the LCWIP, rather than looking at Wokingham Borough as an insular study area. This approach aligns with the Adopted Core Strategy (2010) of the Wokingham Borough Local Plan, which states that a consistency of approaches between Wokingham Borough and its neighbouring local authorities and associated cross-boundary issues is required.

3.1.3. At the time of the 2011 Census, a significant proportion of people both lived and were employed in Wokingham Borough, with 35% of people working within the Borough also living within in the Borough. However, 35% of residents commute to work at key destinations within 10 miles of Wokingham Borough, including Reading, Bracknell, Slough, Maidenhead and Windsor, while a further 30% of Wokingham Borough residents commute elsewhere.

3.1.4. An analysis of Census data regarding the levels of cross boundary commuting to and from neighbouring and nearby local or unitary authority districts is shown in **Figure 3-2**. Cross boundary commuting is at its highest between Wokingham Borough and Reading Borough with 7,778 inbound commuters and 12,616 outbound commuters. On a smaller scale, out-commuting also occurs from the Borough to most of the other local authority districts shown, with the exception of Hart and Basingstoke and Dean which both show small levels of in-commuting.

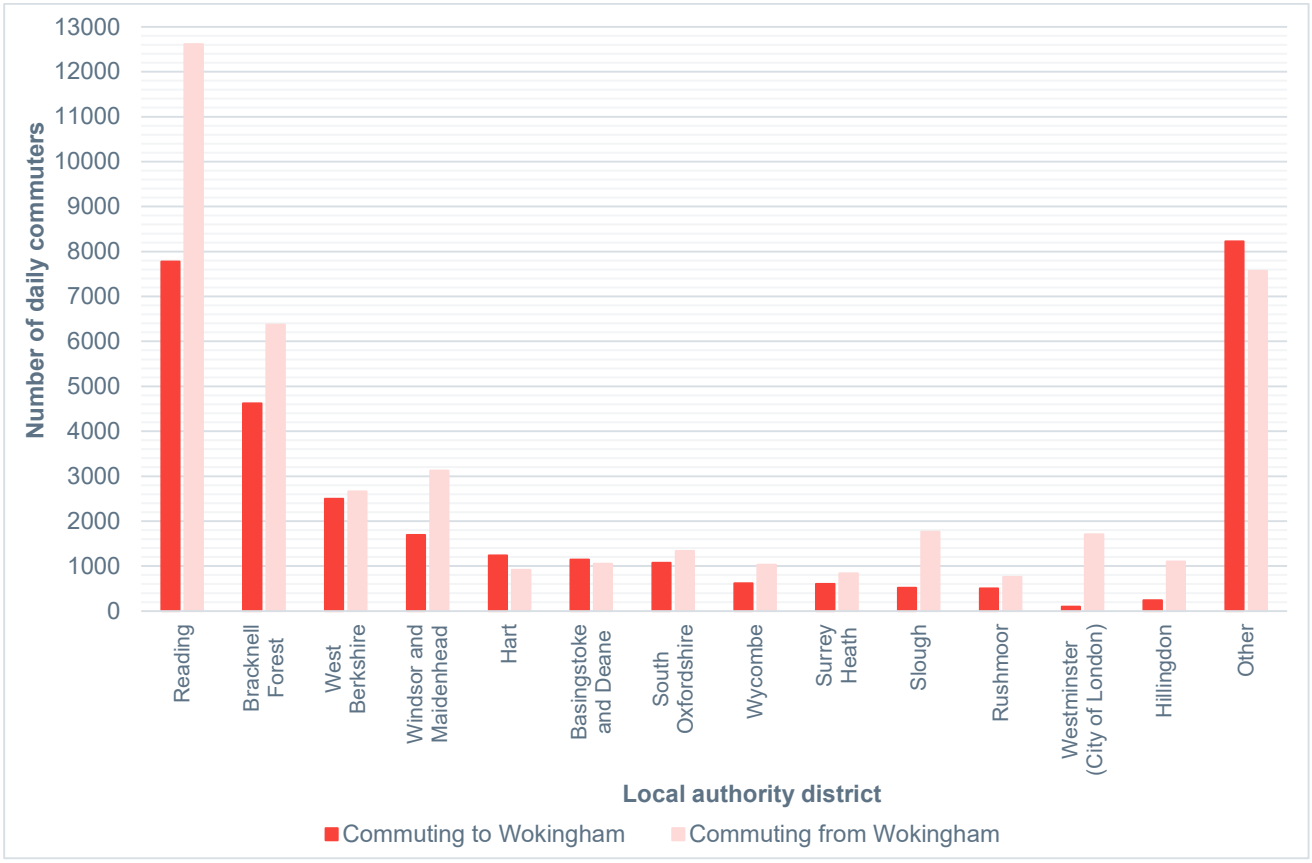


Figure 3-2 – Cross boundary commuting to and from Wokingham Borough in 2011

3.2 VISION STATEMENT & OBJECTIVES

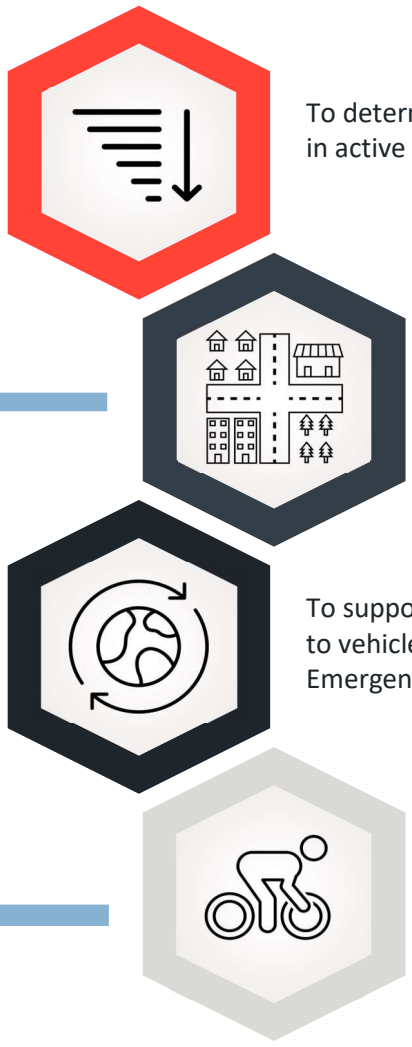
3.2.1. Having an overarching vision is useful to determine how the LCWIP can define desirable and achievable outcomes from an active travel and sustainable mobility perspective. This vision will assist in guiding the development, implementation and evolution of this LCWIP, while also supporting the national government's target of 50% of all urban journeys to be made on foot or by cycle by 2030 (Gear Change, 2020).

3.2.2. To enable this vision to be achieved, the below objectives will guide the development of this LCWIP. These objectives will form the basis for helping shape and prioritise how active travel schemes are progressed through the LCWIP to directly contribute towards transport, planning, decarbonisation and health objectives within Wokingham Borough.

Vision Statement

'Wokingham Borough will be supporting walking, cycling and wheeling as the natural choice for shorter distance journeys, or as part of a longer distance journey, facilitating access to key destinations. The borough will benefit from high quality investment in active travel infrastructure, supporting active and healthy lifestyles amongst residents, employees, and visitors.'

Objectives



To determine the council's priorities for on-going investment in active travel routes that connect people and places

To establish strategic active travel infrastructure for integration with future planned development location and to complement related investment programmes

To support an increase in cycling and walking as an alternative to vehicle trips, consistent with the council's Climate Emergency declaration

To support positive health and wellbeing outcomes by facilitating greater levels of physical activity through active travel

4 GATHERING INFORMATION

4.1 INTRODUCTION

4.1.1. The following information sources were mapped in GIS and referred to as the walking and cycling network plans were developed:

- Outputs of the Propensity to Cycle Tool
- Outputs of the WSP LCWIP GIS Model
- Existing Rights of Way
- Existing Cycle Routes and Facilities
- Proposed Greenways
- Strategic Routes / Connections

4.1.2. This section of the report introduces each of these information sources, explaining why they are relevant to the LCWIP. Sections 5 and 6 of the report explain how they were used together to develop the draft network plans.

4.1.3. Additionally, early stakeholder engagement was undertaken in 2021, which consisted of a series of stakeholder workshops and a public engagement. This was intended to gather information and ensure that stakeholder views are understood, properly considered and reflected in the draft walking and cycling network plans that were produced.

4.2 PROPENSITY TO CYCLE TOOL

Overview

4.2.1. The Propensity to Cycle Tool (PCT) was developed on behalf of the DfT between 2016-2019. It is a web-based tool designed to help authorities plan cycle networks, with LCWIPs in mind.

4.2.2. The PCT helps identify desire lines for cycle traffic for trips to work and to schools, based on Census 2011 origin-destination (OD) data that links each person's usual place of residence to the location of their workplace / school. It can also help inform network development, as its outputs can be configured to be applied to the existing network, giving 'heat maps' of indicative demand.

4.2.3. It is based on data from the 2011 Census, which is then manipulated and uplifted to represent a number of future scenarios, showing potential cycle demand patterns (2021 Census data is not available on the PCT tool at the time of writing this LCWIP). Scenarios were modelled in the study area for this LCWIP: "Government Target (Near Market)" and "Go Dutch". The latter scenario looks at the distances between homes and workplaces and applies Dutch willingness to cycle to these, imagining how many additional trips could be cycled if there was Dutch-style cycle infrastructure in the UK and Dutch levels of willingness to cycle.

4.2.4. More information on the PCT and its scenarios is on the **https://www.pct.bike** website.

PCT outputs

4.2.5. The PCT outputs for both journeys to work (top) and journeys to school (bottom) in both the "Government Target (Near Market)" and "Go Dutch" scenarios are shown at a district- wide level, applied to the network, in **Figure 4-1**. This can be found in greater resolution in **Appendix B**.

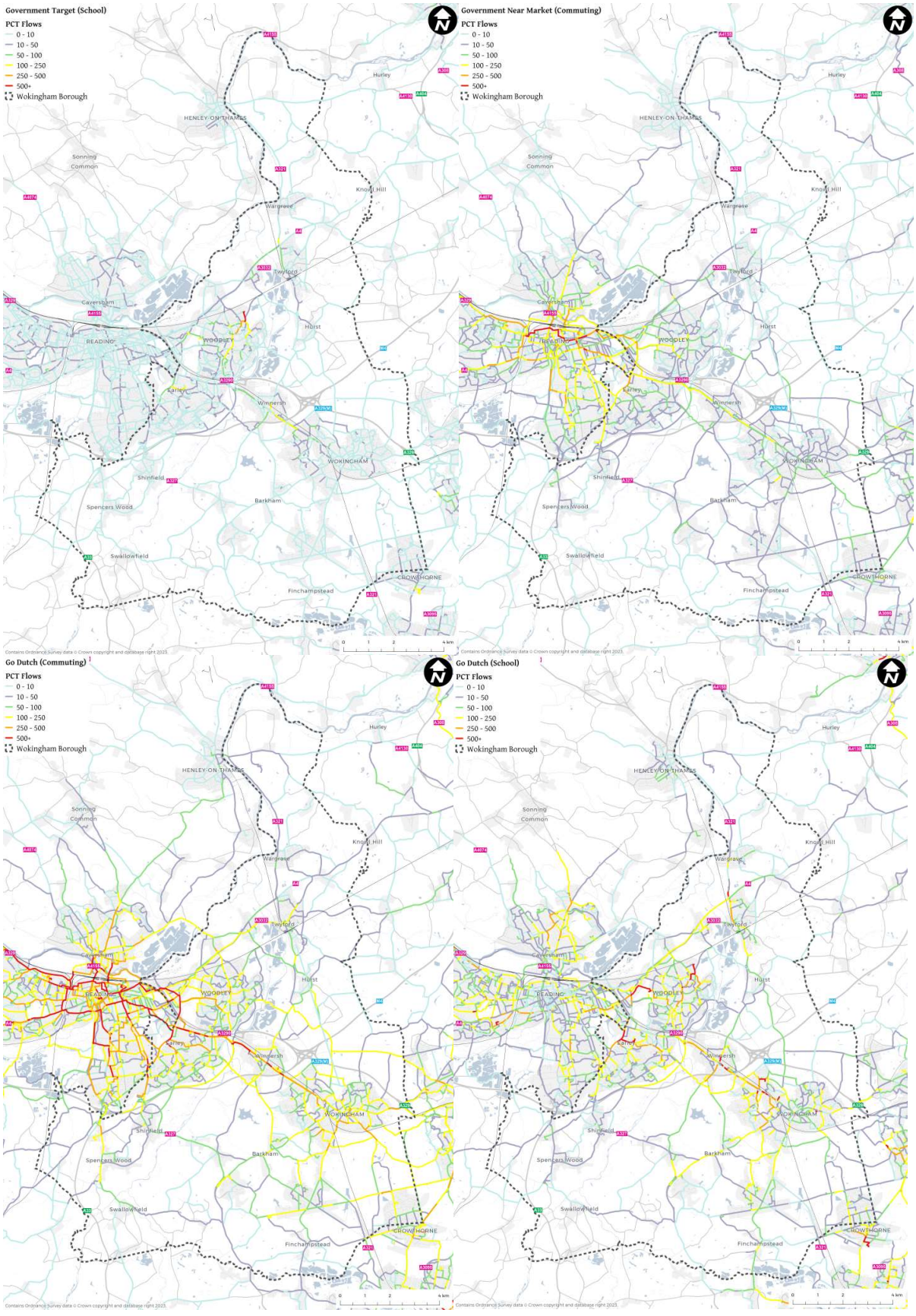


Figure 4-1 – PCT Outputs – District-wide "Government (Near Market/Target)" and "Go Dutch" Scenario

Supplementary measures

4.2.6. While the PCT is a very useful standalone tool, supplementary measures have been included in our analysis when considering potential demand for cycling to include more data at a granular level specific to Wokingham Borough.

4.2.7. As such, WSP has built a GIS-based LCWIP model for Wokingham Borough which has a similar functionality to the PCT but is customisable in terms of the origins, destinations and network that is input. The next section of the report explains this in more detail and displays and analyses the outputs of the mode.

4.2.8. This bespoke tool has been created to supplement the journeys to work and school that are provided by the PCT outputs, with data relating to shorter trips that are well-suited to cycling, such as trips to the shops, town centres and multi-modal trips via rail stations.

4.2.9. Additionally, the WSP LCWIP model can offer greater detail on new residential developments and any future planned developments, which increases the robustness of the outputs generated.

4.3 LCWIP GIS MODEL

Overview

4.3.1. WSP has built a GIS model to use in LCWIPs, which is customisable depending on assumptions agreed with WBC. This model compensates for the restrictions in the PCT by allowing the latest origin and destination data to be input and applied to a custom network. This gives us an indication of potential demand for cycle and walk trips beyond the commute and the school run, and also takes into account potential demand from housing built since 2011 and housing planned from the future.

4.3.2. As with the PCT, the LCWIP GIS model is based on 2011 Census data. While it is acknowledged that high level 2021 Census data became available at the time of writing this LCWIP, more granular multivariate data is needed to analyse origin-data trips relating to usual place of residence, school and employment. This level of detail from the 2021 Census will not be available until later in 2023, therefore it was not possible to incorporate into the LCWIP at this stage.

4.3.3. The model consists of a custom network (which trips are assigned to), a series of origin points and a series of destination points. Potential walk and cycle trips are then assigned to the network to link these origins and destinations, based on a set of assumptions agreed between WSP and WBC. This gives an indication of where in the network there may be suppressed demand for walking, cycling and wheeling trips, and potential future demand.

4.3.4. Initially a detailed understanding of the key origins and destinations (Ods) in Wokingham Borough was built by identifying where people currently move to and from, and where they may do so in the future given planned development location. A desktop study of origins and destinations was carried out to identify connections between locations within the LCWIP area that could be conducive to active travel, based on trip distance and potential demand. Geographic Information System (GIS) software was used to locate principal trip origins and destinations. These included:

- Town centre areas;
- Employment areas, or large individual employers e.g. Wokingham Borough Council
- Educational establishments;
- Hospitals;

- Supermarkets;
- Leisure Facilities; and
- Transport interchange facilities e.g. Wokingham Railway Station
- Strategic Development Locations

4.3.5. Firstly, it was necessary to consider where people make journeys from; otherwise known as trip origins. This was achieved by identifying significant residential areas in Wokingham Borough, which were then mapped in GIS software to show where the population is greatest within each area, thereby representing a greater potential for trips. Future planned residential developments with over 100 units were also taken from the current Local Plan and mapped – recognising the value in LCWIP planning to connect with anticipated future trip demands.

4.3.6. Following this it was necessary to determine where people will make local journeys to. Destinations within the Borough, otherwise known as trip-attractors, were identified. These were then categorised based on how many trips that may attract and mapped in GIS software. Local amenities such as education, leisure centres and healthcare were treated as destination points with equal demand, whereas primary destinations such as the retail centre and Wokingham Station were given a higher weighting.

Assumptions

4.3.7. The model connects the origins and destinations using the network, and gives a heat map style output, showing the relative number of trips on different parts of the network. There are a series of assumptions that inform these outputs:

- Not all origin points are linked to all destination points. For most destination types, origin points are only linked with the closest of each type (e.g. the closest library, the closest supermarket).
- For some destination types, such as schools, origin points were linked with the nearest 3 or 5 destinations of that type.
- For a small number of destination types, including town centres and key employment areas, origin points were linked with every destination of that type.
- Where origins linked with multiple destinations of a type, the model assigned more trips to closer destinations and, in the case of key employment areas, it factored in the likely number of jobs (based on the size of the key employment area) and would assign more trips to larger, closer employment sites.
- Origins are linked with destinations along the shortest route available on the network, as directness is a key factor when considering walking and cycling desire lines.
- Trips over 2km in length are excluded from the walking model, as the focus in an LCWIP is on short utility trips. 2km is length referred to in the LCWIP guidance and most people can walk this distance in 20-30 minutes.
- Trips over 8km in length are excluded from the cycling model for a similar reason. Gear Change refers to trips up to 5 miles (roughly 8km) in length as journeys 'perfectly suited to cycling' for 'many people'. Worth noting is that future iterations of the model will consider the impact of electric mobility (e.g. e-bikes, e-scooters) and that these modes of travel allow users to travel greater distances.

4.3.8. As with the Propensity to Cycle Tool, the WSP/WBC LCWIP GIS model is not a perfect representation of reality, which is true of most models in transport planning. In the case of the GIS model, for example, the assumptions detailed in the previous section have been considered, and further factors such as topography

have not been included at this stage. The intention of the WSP/WBC LCWIP GIS model is to supplement the trips to the network given by the PCT tool by providing a fuller picture of potential walking and cycling demand in Wokingham Borough.

GIS Model Outputs

4.3.9. The model outputs for the cycling model run and the walking model run are both shown at a district- wide level in **Appendix C**. The outputs from the model run indicate that areas with greater potential demand for walking and cycling trips include the following locations:

- Wokingham Town Centre (including Finchampstead Road, Barkham Road, and London Road)
- Winnersh (including Reading Road)
- Shinfield (including Cutbush Lane)
- Earley
- Woodley
- Finchampstead (including White Horse Lane, Longwater Road and Nine Mile Ride)

4.4 DISCUSSION

4.4.1. The output maps from the PCT analysis and WSP GIS Model show that there is a clear demand for walking and cycling trips focussed around the town centres, as well as the Major Development Areas, including Arborfield, Shinfield, and Wokingham Town (North Wokingham and South Wokingham Strategic Development Locations). Earley and Woodley can also be seen to be areas of higher demand for active travel, both of which show a high level of connectivity to Reading.

4.4.2. The cycling model output from the GIS Model, with the greater trip distance of up to 8km, shows high demand for inter-urban trips (e.g. between Wokingham Town, Winnersh and Earley, as well as between Shinfield, Earley, and Woodley). By contrast, the walking model output shows demand concentrated more within the towns and villages.

4.4.3. It should be noted that the numbers referenced in the legend for the GIS model outputs are relative and not absolute (i.e. they do not represent that there is more potential for cycling trips than walking trips).

5 EARLY STAKEHOLDER ENGAGEMENT

Overview

5.1.1. Early stakeholder engagement was undertaken with stakeholders and the general public in 2021. Stakeholder engagement is crucial to the success of a LCWIP. The process provides opinions and insights which are valuable in the early stages of the planning and developing emerging active travel networks, as well as providing an opportunity to work with partners and key stakeholders to promote the benefits of active travel to reinforce public health messages, which is one of the core objectives of the Wokingham Borough Active Travel Plan. This section outlines the planned stakeholder engagement approach and activities to support the development of this borough wide LCWIP.

Stakeholder Workshops

5.1.2. Two early-stage workshops were held with key internal and external stakeholders to whom this LCWIP pertains. Details of these workshops are as follows:

- Internal workshop (26th February 2021), attended by:
  - 16 attendees from Wokingham Borough Council
- External workshop (29th March 2021), attended by:
  - WATCH
  - Local Access Forum
  - Earley Cycling Club
  - Woodley Cycling
  - CLASP (provided comments separately)

5.1.3. Early-stage workshops were facilitated via videoconference. Each workshop session provided an early-stage opportunity to discuss the overarching approach to LCWIP development for the borough and focus on specific locations to identify provisional issues and opportunities for focus. These sessions also provided an opportunity to liaise with members and local cycle groups to ensure that the current recommended and heavily used cycle routes within the borough were considered at an early stage when developing this LCWIP.

5.1.4. Due to the circumstances surrounding COVID-19 it was not plausible to carry out face to face workshops where safety concerns may have arisen, therefore alternative communication channels were utilised for the purposes of the workshops.

5.1.5. This included the Miro application, which is an online collaborative whiteboard platform enabling collocated, distributed, and remote teams to communicate and collaborate across formats, tools, channels, and time zones — without the constraints of physical location, meeting space, and whiteboard. An extract of the online whiteboard used during one of the workshops is shown below in **Figure 5-1**.

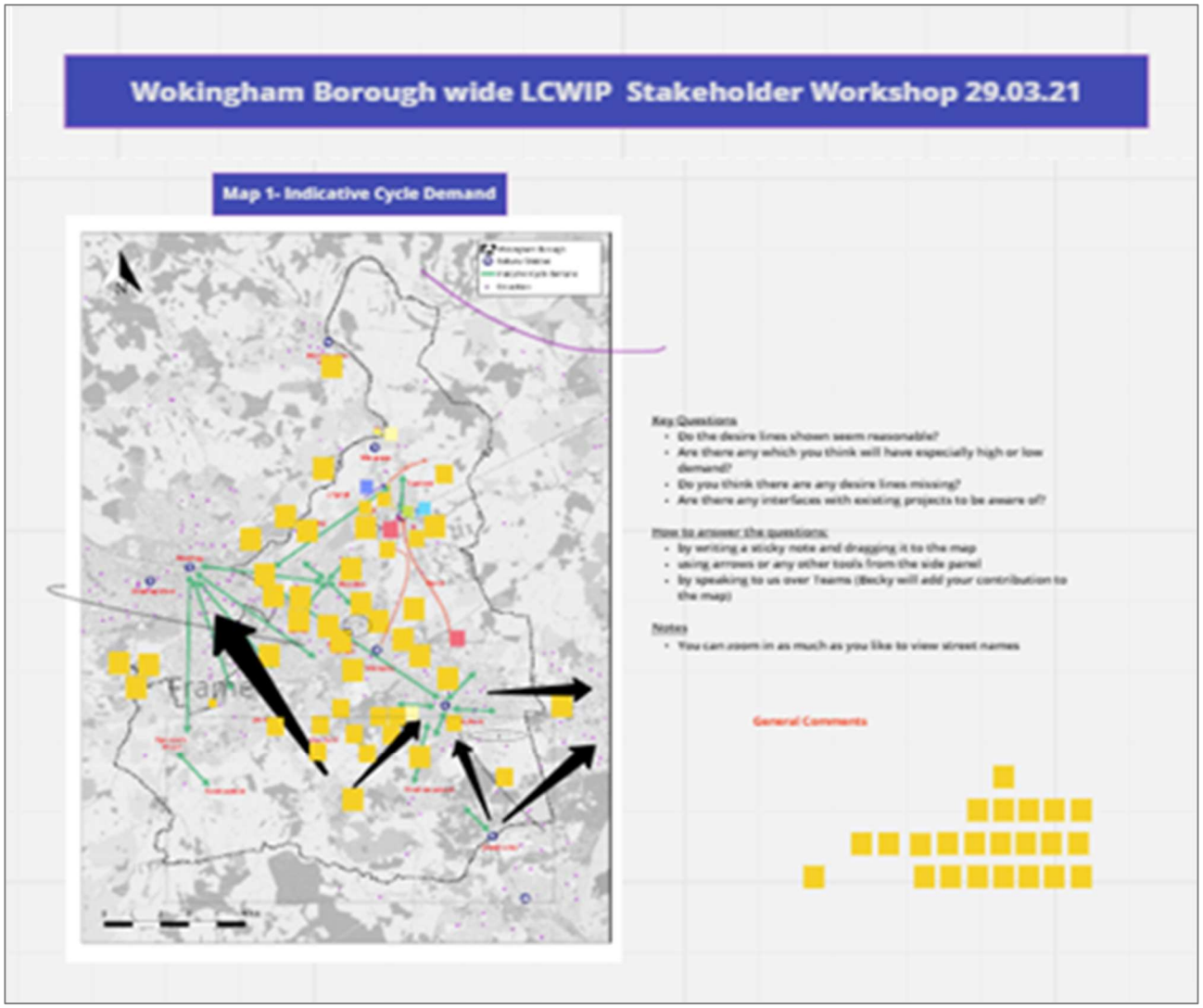
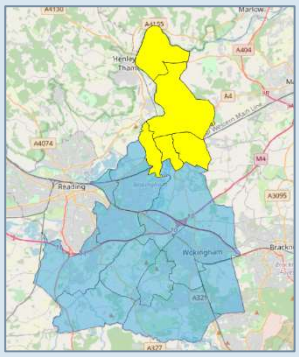


Figure 5-1 – Extract of Miro application from stakeholder workshop on 29/03/21

5.1.6. For the purposes of the engagement sessions, the borough was divided into 4 sections to identify active travel issues and comments at a more granular level. The key themes from these sessions are summarised below:



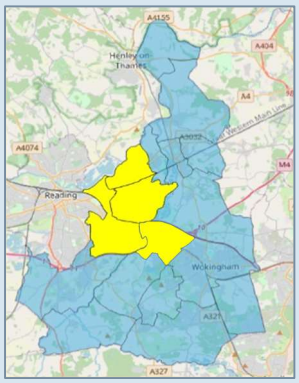
North – Twyford, Wargrave, Charvil, Sonning and Hurst

Cycling:

- Links to Twyford Railway Station
- New bridges over the River Loddon to offer cyclists a safe route to the station
- Cycle link from Woodley to Twyford Station
- Wokingham Town to Twyford route
- Route to Piggott School is narrow and feels unsafe for cyclists

Walking:

- 2 bridges across the River Loddon closed to Loddon Park and Sandford Farm
- Poorly maintained path along the A4



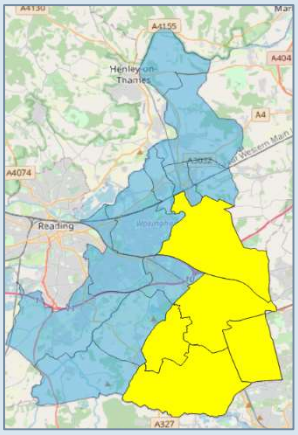
West – Winnersh, Woodley, Earley

Cycling:

- Reading Road 'backbone' route
- Links to Thames Valley Park
- Woodley to Earley is an important route for school and leisure trips

Walking:

- Walking connections between TVP and Earley & Woodley
- Adjacent communities of Maiden Erlegh and North Earley/Woodley poorly served by quiet routes. Divided by both railway and motorway



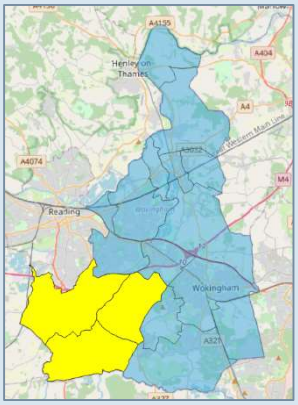
South East – Wokingham Town, Barkham and Finchampstead

Cycling:

- Wokingham Town to Bracknell (opportunity to join up with Bracknell cycleway on nine-mile ride)
- North Wokingham to Twyford Station – faster trains to London
- Crowthorne to Wokingham Town
- South Wokingham to Strategic Development Location
- Cycle route through town centre on the A329 Corridor
- Finchampstead to Wokingham Town Centre route (via Finchampstead Road)

Walking:

- Improve provision to Wokingham railway station
- Access to train station is difficult – under the bridges have narrow pavements



South West – Shinfield, Aborfield, Spencer's Wood and Swallowfield

Cycling:

- Align with Aborfield & Barkham Neighbourhood Plan
- New Railway Station opening at Green Park, South Reading

Walking:

- Consider links to and within Aborfield SDL district centre and school
- Walking links between Aborfield Garrison and town centre area

Public Engagement

5.1.7. An online public engagement was held from 15th March 2021 to 18th April 2021. The platform used for the engagement was Commonplace (an established online public engagement platform), which employs a 'Community Heatmap' system hosted online to capture geographically sentiment about an area, locality, community, facility, street or route – to ascertain what issues need addressing and the ideas for changes required to improve it for the people who live there or use it or both.

5.1.8. Commonplace uses a series of metrics to record engagement with material on the engagement webpage. This includes visitors, which records the quantity of unique page views the site receives; respondents, who

are visitors who respond to the engagement questionnaire; comments, which are text comments placed on the interactive map by visitors; and agreements, which is where a page visitor indicates they agree with a comment left by another user. The Commonplace engagement webpage received the following during the engagement period:

- 3,341 Visitors
- 984 Respondents
- 1,168 Comments
- 2,907 Agreements

5.1.9. From comments left by respondents to the engagement, the top ten most frequently mentioned issues are shown below in **Figure 5-2**. The chart shows that respondents feeling unsafe on the current road network when walking or cycling was identified as the top issue, followed by the lack of protected cycling infrastructure, and then speeding vehicles.

5.1.10. This is consistent with issues previously identified in Wokingham Borough's Climate Emergency Action Plan (CEAP), whereby one of the challenges identified to Wokingham becoming net zero carbon includes many people feeling unsafe or not confident to take up cycling in the borough. High speed limits and widths available on the carriageway for cycling was also highlighted as a challenge in the CEAP, which again is mirrored in the issues shown below.

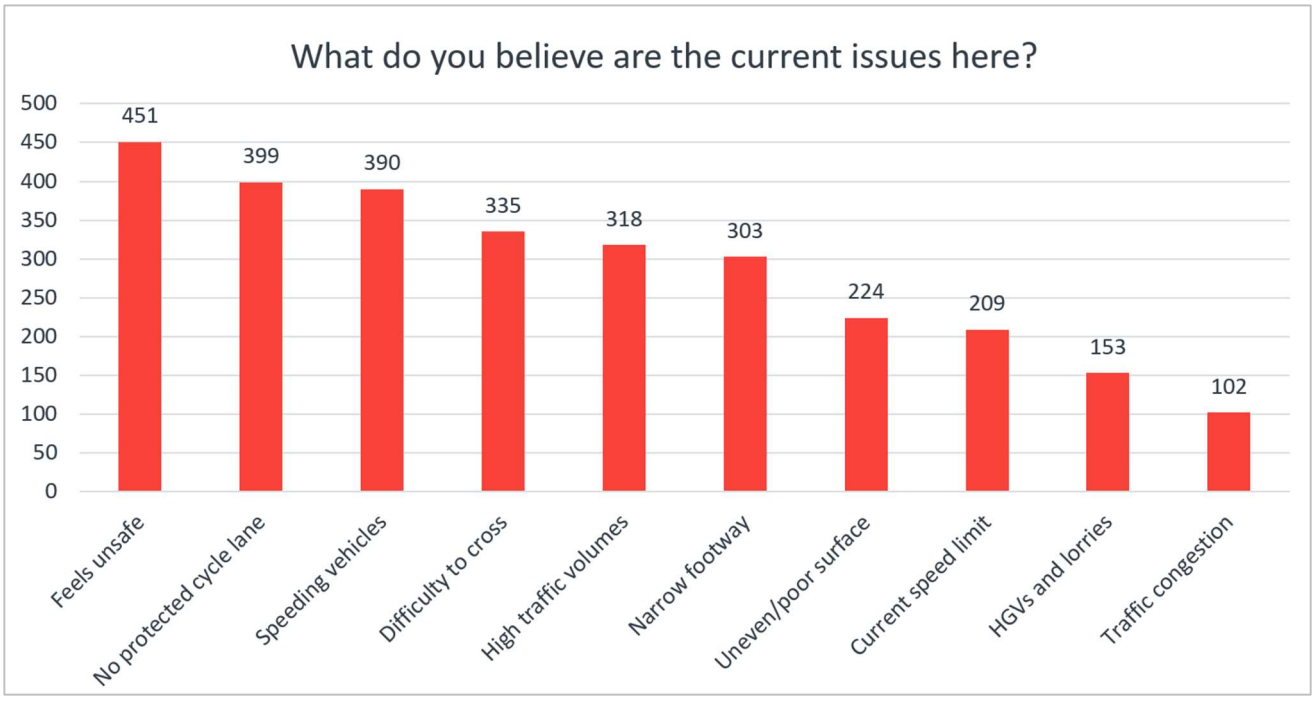


Figure 5-2 – Top ten issues identified in 2021 Commonplace engagement

5.1.11. From the issues identified above, a more granular analysis of the location and type of issue was undertaken. From this analysis, the top comments left by respondents is shown below in **Table 5-1**, ranked by the number of agreements from other respondents.

Table 5-1 – Top comments from 2021 Commonplace engagement

Comment/Location	Details	Agreements
Link to Twyford Station from the West	**Current Issues:** No link across Old River **Encourage Cycling:** Segregated cycle path **Encourage Walking:** A safe, lit, surfaced path between Park Lane and Twyford station would open up links to Woodley	71
The Ford, Whistley Mill Lane (Old River)	**Current Issues:** Slippery conditions, Difficulty to cross **Encourage Cycling/Walking :** Safe crossing points, a bridge.	21
Eastheath, Finchampstead Road	**Current Issues:** Unsafe, traffic congestion, high volumes of traffic, speeding, poor air quality. **Encourage Cycling:** Segregated cycle path **Encourage Walking:** Widen footway	18
Footpath between Shinfield and Arborfield	**Current Issues:** Uneven/poor surface, Footpath only, no bicycle access **Encourage Cycling:** Allow bicycle access, resurface, signage and way-finding	18
Walking route from Twyford to Waingels College	**Current Issues: Feels** Unsafe, no walking route **Encourage Walking:** Improve lighting	18
Bearwood Road	**Current Issues:** High traffic volumes, no protected cycle lane, speeding vehicles **Encourage Cycling:** Segregated cycle path **Encourage Walking:** A pavement, new surface	17

5.1.12. The comments left on the Commonplace engagement webpage allowed for a cluster analysis to be undertaken, which led to the identification of groupings of comments in similar or the same locations. **Figure 5-3** highlights the locations of clusters of comments relating to speeding vehicles. The clusters are relatively evenly spread across the borough, with Finchampstead Road and Nine Mile Ride being identified as significant hotspots.

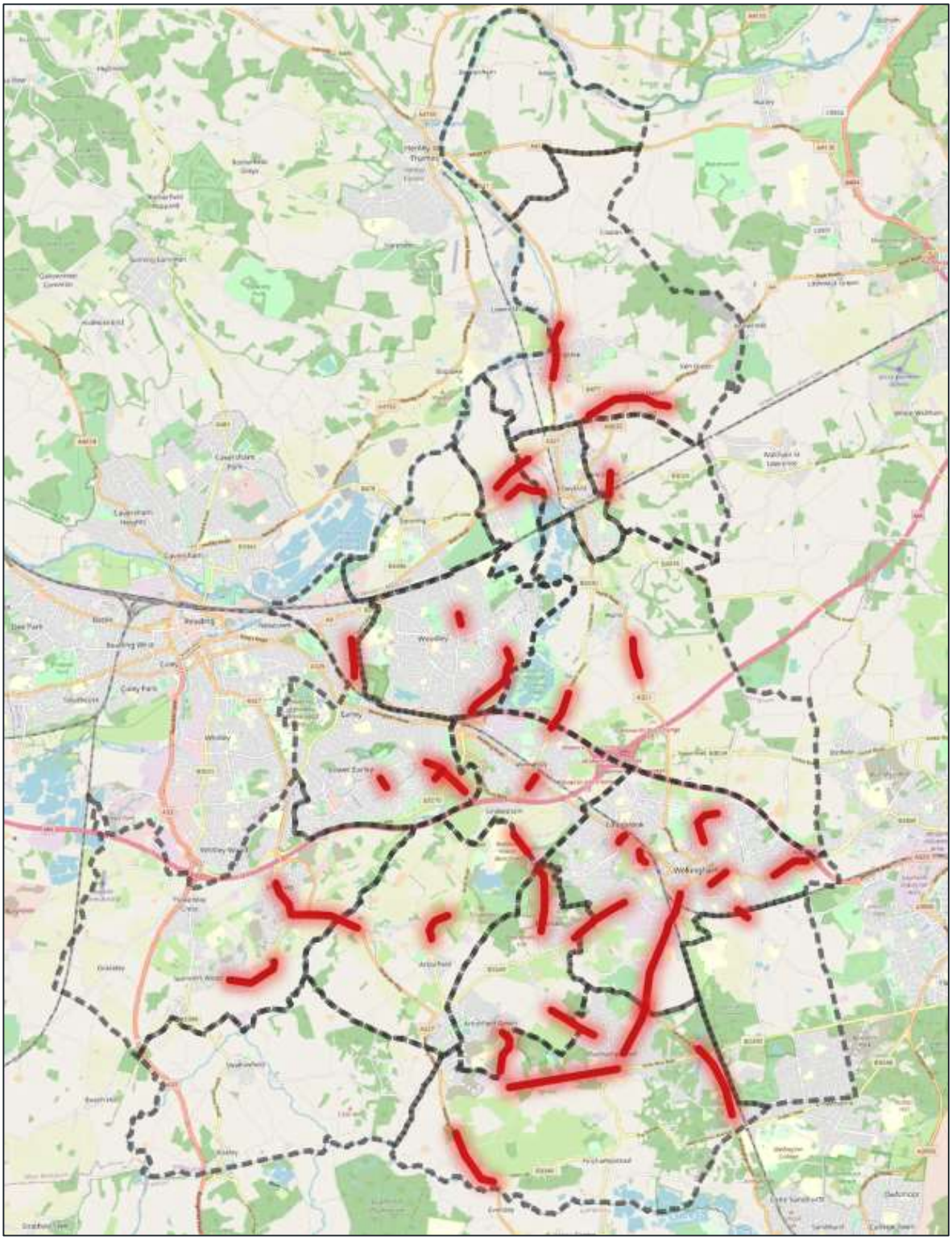


Figure 5-3 – Speeding vehicles clusters (comments from 2021 public engagement)

5.1.13. Similar to **Figure 5-3**, **Figure 5-4** highlights the locations of clusters of comments relating to areas where respondents have difficulty crossing the road or other forms of severance. The clusters are less dispersed across the borough those for speeding vehicles, with Wokingham Town being highlighted as an area of particular concern.

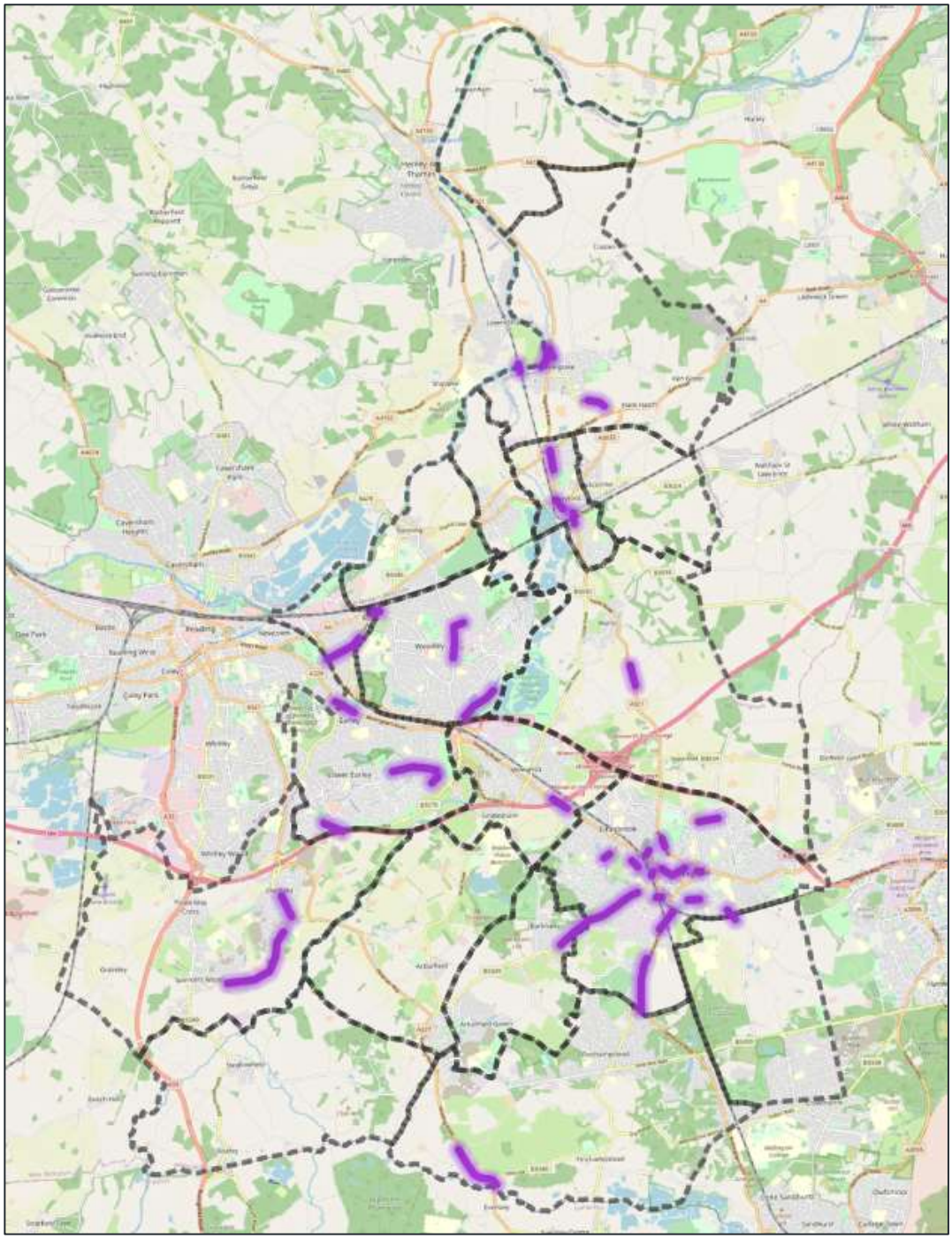
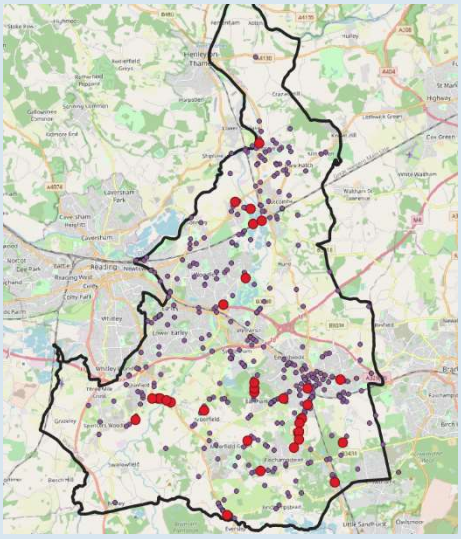


Figure 5-4 – Difficulty to cross clusters (comments from 2021 public engagement)

5.1.14. A series of further maps have been produced based on the Commonplace engagement feedback, which show the location of comments pertaining to:

- Segregated cycle paths
- Footway widening
- Crossing points

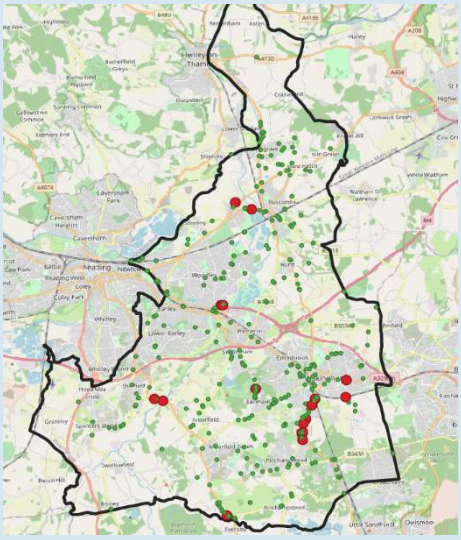
5.1.15. The result of this mapping is shown below, with locations that received ten or more agreements or individual comments highlighted on each map.



Top Areas for Segregated Cycle Path

(more than 10 agreements/points)

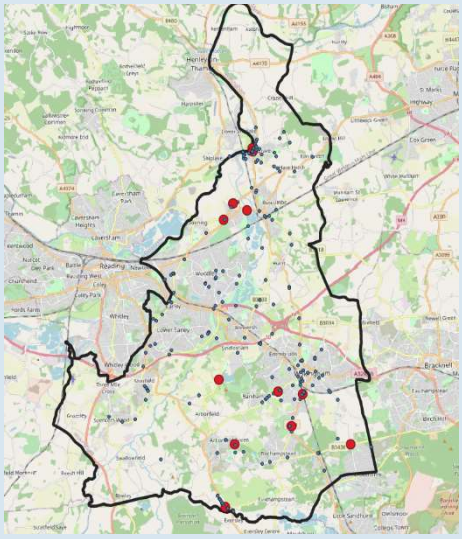
- New Bath Road
- Old Bath Road
- Sandford Lane
- The Bader Way
- Reading Road (Shinfield)
- Bearwood Road
- Commonfield Lane
- Finchampstead Road
- Reading Road (South)
- Nine Mile Road
- Sandhurst Road
- Heathlands Road
- Barkham Road
- Mole Road
- High Street Wargrave
- High End Road



Top Areas for Footway Widening

(more than 10 agreements/points)

- New Bath Road
- Old Bath Road
- The Bader Way (Winnersh Triangle)
- Reading Road
- Bearwood Road
- Finchampstead Road
- Barkham Road



Top Areas for Crossing Points

(more than 10 agreements/points)

- Wargrave High Street
- Old Bath Road
- New Bath Road
- Finchampstead Road
- Reading Road
- Park Lane
- Mole Road
- Nine Mile Road

5.1.16. In addition to issues pertaining to specific walking and cycling improvements, general comments were received regarding "rat running" and areas of concern that respondents highlighted for this behaviour. The top locations / most agreed with comments are shown below:

Park Lane: "*Park Lane is a really good route to get from the new houses at Arborfield Green and out into the area around Eversley and beyond to Bramshill Plantation etc. Unfortunately, it is used as a rat run through from Nine Mile Ride to the A327 and cars and vans speed along it, without due care towards cyclists and pedestrians*"

Oxford Road (Wokingham): "*Lorries use this road as a Rat Run, dangerous by primary school*"

5.1.17. Further locations which were highlighted as suffering from high volumes of through traffic using a minor road as a shortcut are shown below in **Table 5-2**. A quotation of the comment received on Commonplace is shown next to each location.

Table 5-2 – Top comments from 2021 Commonplace engagement related to rat running

Comment/Location	Details
Evendons Lane / Edneys Hill	*"Used as a rat run but is only single width in places and the speed limit is too high"*
Church Lane Aborfield	*"Cycling is dangerous as the lane is often used as a rat run"*
Waingels Road, Beggars Hill Road	*"Consider single lane traffic light control similar to the rail bridge crossing on Duffield Rd to provide space for wider footpath and segregated cycle path between Waingels Rd chicane and through rail tunnel. Consider blocking access to vehicles after the rail engineering access, this would reduce the rat run and school drop off traffic and encourage active travel instead. Reduce speed limit from Park Lane to Waingels School to 25mph"*
Howth Drive onto Woodlands Avenue (Woodley)	*"There is no safe cycling provision for children going to Bulmershe School as this road is used as a rat run and the junction with Woodlands Ave is too busy and not safe for children going to school unaccompanied"*
Aldbourne Avenue/ Wokingham Road	*"This is an access only road so if the road signs were observed there shouldn't be so many rat running cars that risk knocking cyclists off. Junction is no more of a risk than any other side roads"*
Warren Road	*"This road needs to have some kind of traffic restriction to encourage cyclists into Woodley"*
Oaklands Drive, Blagrove Lane	*"This residential road is used as a rat run with speeding cars. It's not fair for the people that live there when there are alternative main roads. Something blocking through traffic would make it safer"*

Summary of Stakeholder Engagement

5.1.18. The outcomes of the early engagement workshops with key stakeholders combined with the feedback received in the public engagement supported in identifying emerging areas of focus, which in subsequently helped inform the draft walking and cycling network plans. These emerging areas of focus are as follows:

- Finchampstead Road
- Barkham Road
- Twyford Cross Roads
- Old Bath Road/New Bath Road
- Wargrave
- Lower Earley – Lower Earley Way West/Cutbush Lane/Gipsy Lane
- Woodley Town Centre
- Earley – Wokingham Road/Church Road
- Bearwood Road
- Shinfield/Spencer's Wood – Hyde End Road/Hollow Way
- Wargrave River Crossing
- Links to Railway Stations

5.1.19. Discussions were also held with members of the neighbouring local authorities, to ensure that any cross-borough routes identified were developed using a consistent approach to infrastructure improvements.

5.2 CONCLUSION

5.2.1. The outcomes of the PCT analysis, the WSP GIS Model outputs, and the results of the stakeholder engagement have been considered in unison to develop the network plans for active travel presented in the subsequent sections of this LCWIP.

5.2.2. It is apparent from the information gathering exercise is that there is a strong correlation between the areas and routes identified as having a strong latent demand for cycle trips in PCT and GIS analysis and the areas highlighted as being preferable for segregated cycle paths in the stakeholder engagement. The same is also true for areas of high potential for walking trips and areas identified for footway widening interventions. This predominantly tends to focus on town centres and Major Development Areas, particularly Wokingham Town, Twyford and Shinfield, as well as Earley, Arborfield, Barkham and Winnersh.

5.2.3. Key corridors that were identified in the stakeholder engagement as areas of focus for improvement interventions were similarly correlated with areas suffering from existing issues, such as speeding vehicles and being difficult to cross. This includes Finchampstead Road, Reading Road, Barkham Road, and Old Bath Road / New Bath Road, as well as key links to town centres and railway stations. The walking and cycling trip potential analysis presents a similar picture, although there is a greater potential for cycling trips on longer inter-urban routes, such as Wokingham Town to Winnersh and on to Earley.

5.2.4. A further conclusion that can be drawn from the analysis is the relationship between Wokingham Borough and the peripheral urban areas in other boroughs, such as Reading, Bracknell, and Sandhurst. Both the plans for walking and cycling potential show trips crossing the borough boundary and continuing onwards to these towns, and comments placed by respondents on the online engagement follow key corridors which provide cross-borough connections. This highlights the need for a cohesive approach to active travel infrastructure improvements between these areas, to develop a consistent walking, cycling and wheeling network.

6 NETWORK PLANNING FOR WALKING & CYCLING

6.1 INTRODUCTION

6.1.1. This section details how the steps undertaken in Section 4 and 5 have been used to develop draft walking and cycling network plans for Wokingham Borough. These plans are then further refined in the following sections by presenting the draft network plans to key stakeholders, whose feedback has been used to determine the relative importance of different routes and thus which routes to audit and develop infrastructure plans for.

6.1.2. In addition to walking and cycling network plans, areas within the borough which are suitable for the introduction of a 'Liveable Neighbourhood' were initially considered. Liveable Neighbourhoods are intended as complementary measures to the walking and cycling network plans and seek to create areas that encourage sustainable travel and reduce the dominance of motor vehicles, achieved through reconsidering how road space is allocated to create fairer access to the street for all road users. While Liveable Neighbourhoods were initially considered during the development of this LCWIP, it was later decided that they be excluded from the study to allow this report to focus on the network plans and infrastructure improvements for walking and cycling.

6.2 CYCLING NETWORK PLAN

Overview

6.2.1. A key goal in this stage of the LCWIP was to determine where the greatest propensity for cycling exists – where targeted investment in infrastructure could generate the greatest number of new cycling journeys.

6.2.2. The methodology for developing the network plan for cycling is shown below in **Figure 6-1**.

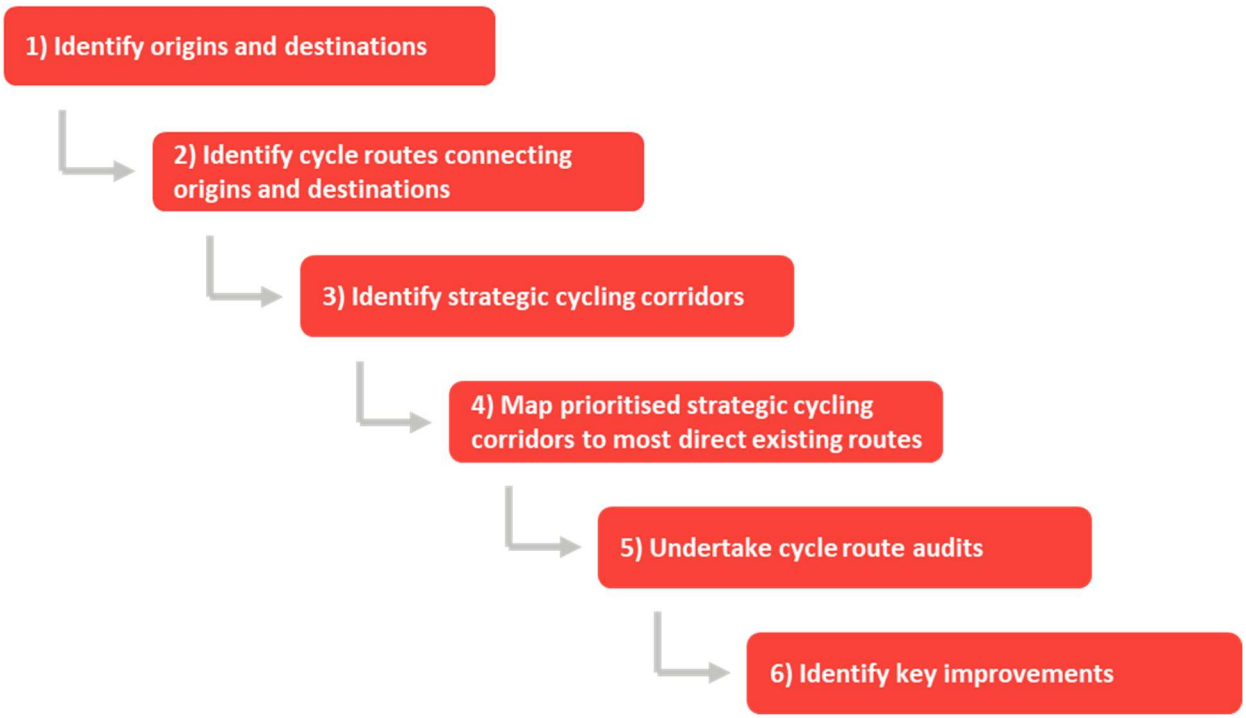


Figure 6-1 – Process for Network Planning for Cycling

6.2.3. Stages 1, 2 and 3 have already been undertaken as part of the information gathering exercises described in Section 4. The PCT tool has assisted in identifying desire lines for cycle traffic for trips to help inform network development, while the GIS LCWIP Model has analysed origin and destination data relevant to Wokingham Borough. The following sections will summarise the next stages of the methodology.

Identifying Key Cycling Routes

6.2.4. Model outputs, existing cycle facilities and strategic active travel routes and connections were mapped alongside potential future developments and key destinations (rail stations, schools and key employment areas) for reference. The LCWIP project team then used the model outputs to determine 'primary' and 'secondary' cycle desire lines across Wokingham Borough as per the definitions in the LCWIP guidance.

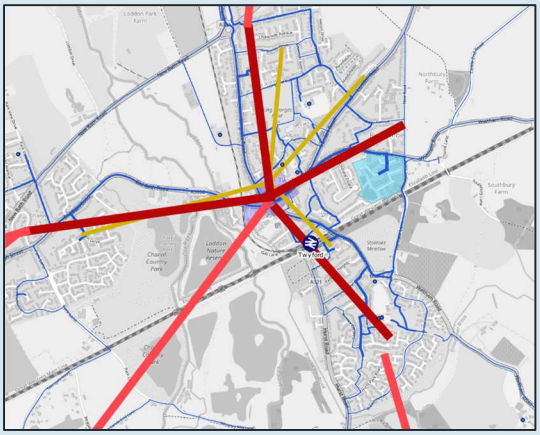
6.2.5. Where the model outputs identified desire lines with greater potential demand and/or connected large residential areas with key destinations such as town centres, these were classed as primary desire lines / primary routes. Other routes with medium forecasted cycling flows that link to attractors such as schools, colleges and employment sites were classed as secondary desire lines / secondary routes.

6.2.6. The iterative process used to define the routes included in the draft cycling network plan is detailed below:

Initial routes

The 'primary' and 'secondary' routes were checked against comments from the Miro sessions and Commonplace engagement, which led to the addition of further routes and some adjustments to already determined routes.

After initially plotting straight desire line routes, process of plotting these on the road and paths network, again using comments from Miro/Commonplace and other information sources.



Plotting routes to the network

The following information was considered as the routes were being plotted to the network:

- Greenways plans (shown in green)
- Commonplace Comments (shown in red circles)
- Existing cycle infrastructure (not shown)
- Comments from Miro workshops (not shown)

The routes from the draft Wokingham Town LCWIP have also been reviewed and incorporated. These routes had a GIS evidence base and were consulted on in two stakeholder workshops in 2019.

Draft Network Plan for Cycling

6.2.7. The draft network plan for cycling that was developed for Wokingham Borough is below, a higher resolution version can be found in **Appendix D**.

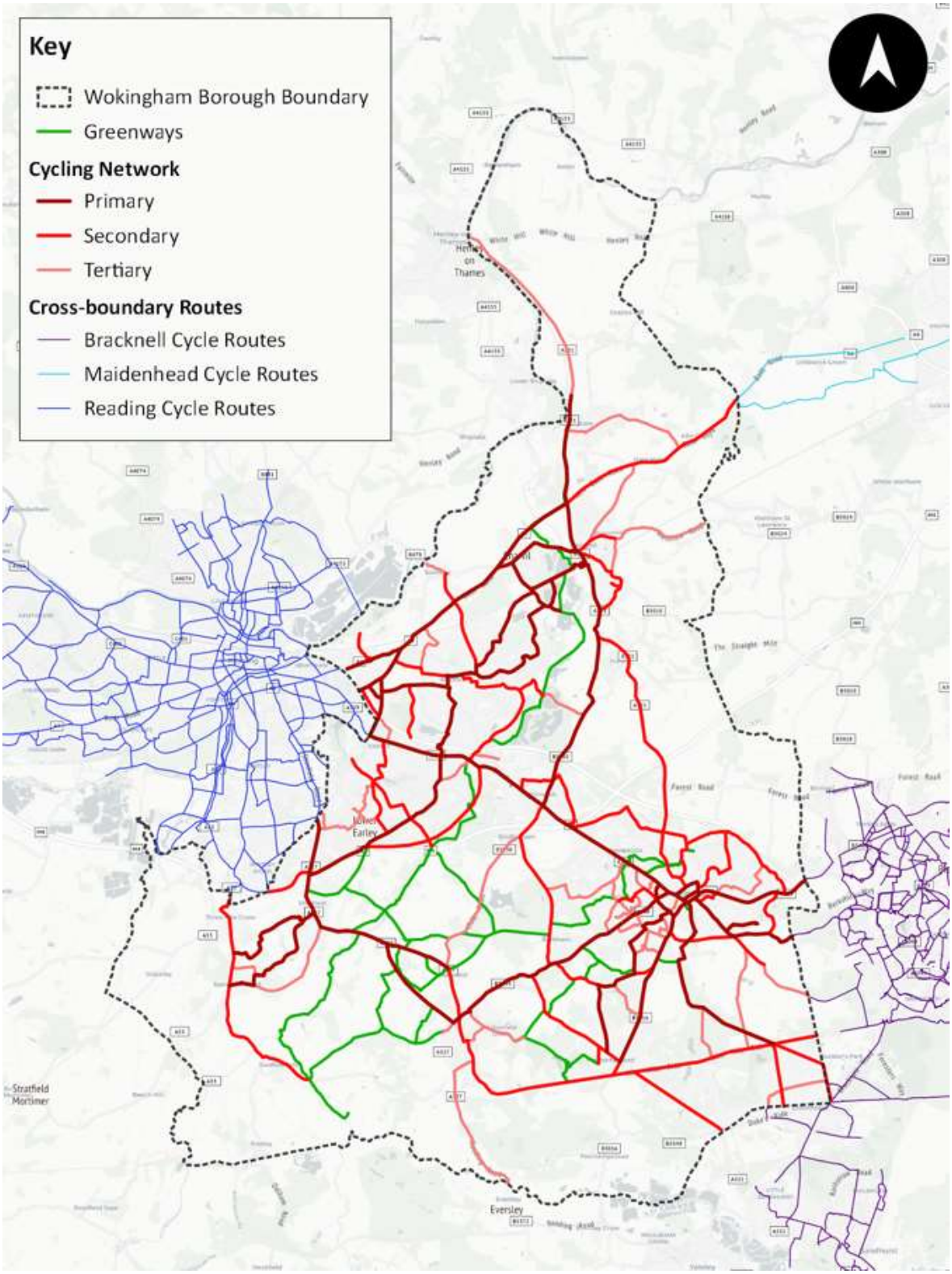


Figure 6-2 Draft Network Plan for Cycling

6.2.8. The key to the draft network plan can be understood as follows:

- **Primary cycling route:** these are high demand corridors that connect major destinations of regional importance. They form the spine of the cycle network and are often located adjacent to major roads and rail corridors. Primary routes are vital to all sorts of cycle trips, including medium or long-distance commuting, recreational, training and tourism trips
- **Secondary cycling route:** these routes have a moderate level of demand, providing connectivity between primary routes and key activity centres such as retail centres, major development areas, healthcare centres or education facilities
- **Tertiary cycling route:** these routes experience a lower level of demand than primary and secondary routes, but provide critical access to higher order routes, local amenities and recreational spaces. Predominantly located in local residential areas, local routes often support the start or end of each trip, and as such need to cater for the needs of users of all ages and abilities
- **Greenways route:** these routes are generally off-road paths that cater for a range of users, such as pedestrians, cyclists and equestrians. They are typically located in more rural environments, and provide connections to higher order routes
- **Future Development:** at the time of writing, the latest draft of the Local Plan is being considered; the outcomes from the Local Plan must feed into the LCWIP and will add/refine some of the proposed network; any new routes emerging from the Local Plan will need to be audited and proposals made to ensure that the network continues to be coherent with a high profitability of ensuring the greatest uptake of cycling in the borough

6.2.9. This draft plan was presented to key stakeholders to gain feedback on the routes selected and identify any key routes that may have been omitted or misclassified. More information on the initial round of stakeholder engagement is available in the following sub-section.

6.3 WALKING NETWORK PLAN

Overview

6.3.1. A key goal in this stage of the LCWIP was to determine where the greatest propensity for walking exists – where targeted investment in infrastructure can generate more journeys on foot. The methodology recommended by the DfT for developing the network plan for walking is shown below in **Figure 6-3**.

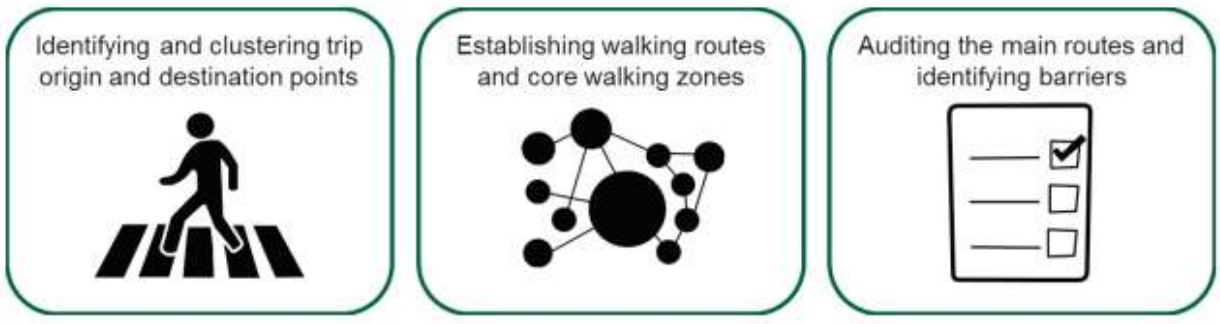


Figure 6-3 – Process for Network Planning for Walking

Source: LCWIP Technical Guidance for Local Authorities (DfT, 2017)

Identifying Key Areas of Focus

6.3.2. Using the approach outlined by the DfT in the technical guidance for the production of LCWIPs as a foundation, we developed a local approach to identifying key areas of focus for walking routes within Wokingham Borough. This was based on the information gathered within Section 4 of the LCWIP, as well as input and local knowledge from key stakeholders and members of WBC.

6.3.3. These key areas of focus for walking correlate with the previously identified pedestrian desire lines, as well as walking trip generators that are located close together – such as town centres or business parks. Within each key area of focus, all of the pedestrian infrastructure should be of a high standard to support and encourage more walking trips.

6.3.4. Four key areas of focus have been identified across Wokingham Borough, located in or around town centres in the central or northern section of the borough. These four areas are as follows:

- Woodley
- Twyford
- Winnersh
- Wokingham Town

6.3.5. The above four areas were determined as key focus areas by identifying a larger number of areas across the borough, generally focussed on town centres. Initially, every major settlement within the borough was identified as a focus area. This wider array of focus areas was presented to key stakeholders as a draft walking map during two virtual workshops. Feedback provided by stakeholders during these sessions led to a number of amendments to the draft walking map. Additionally, the number of destinations in each area was examined and how closely these destinations were clustered together, which led to several further amendments being made.

6.3.6. The extent of the final four key focus areas considered within this LCWIP are shown in **Figure 6-4**. The map mainly focuses on the central and northern section of the borough, as none of the final four key focus areas are located in the southern region.

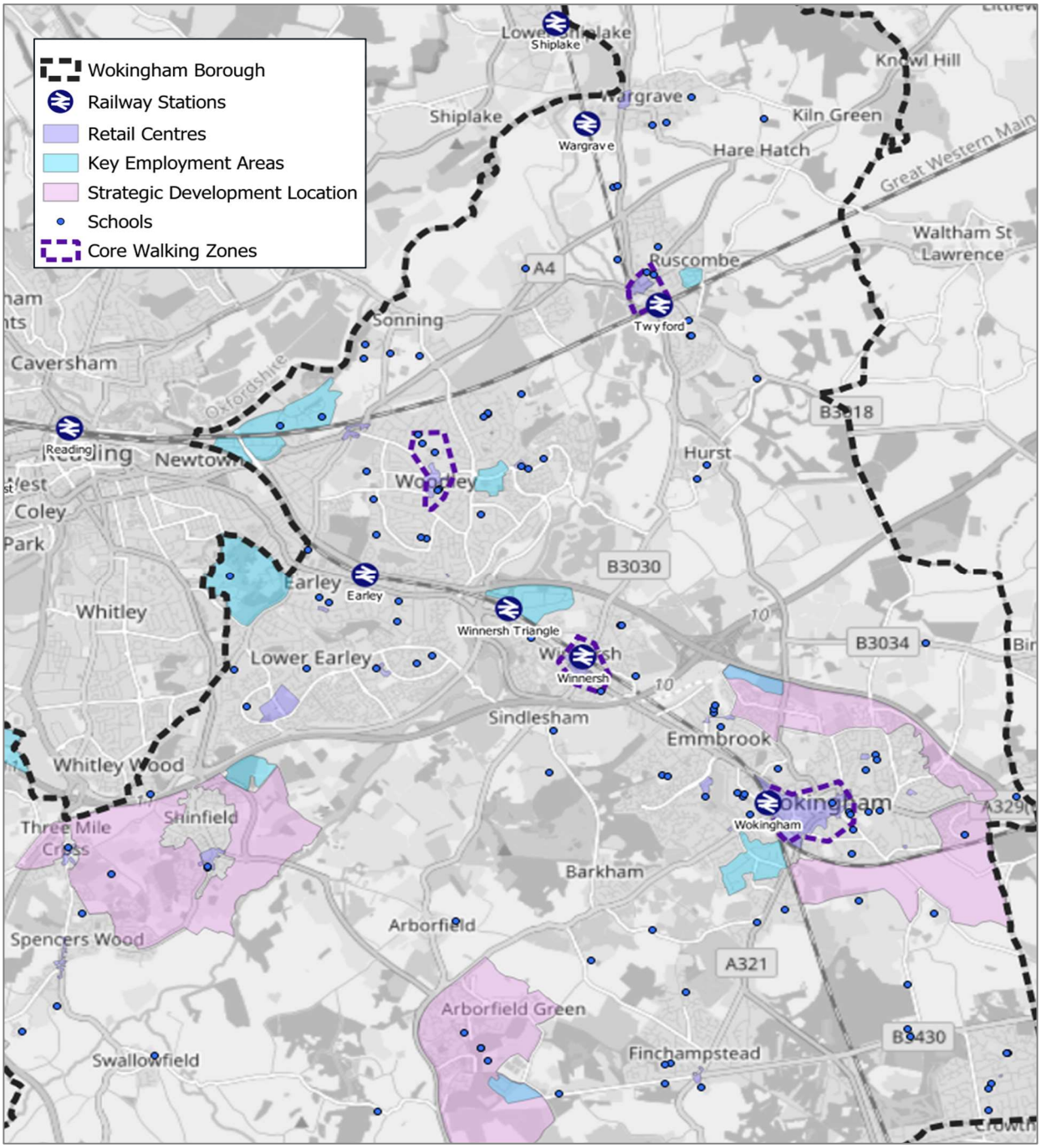
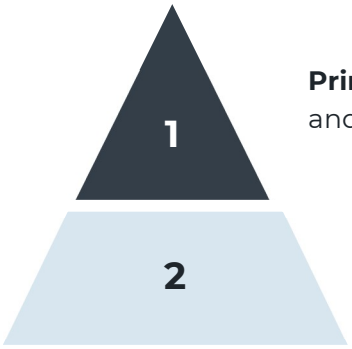


Figure 6-4 – Key Areas of Focus for Walking in Wokingham Borough

Identifying Key Walking Routes

6.3.7. The key areas of focus represent the focal points for pedestrian journeys within Wokingham Borough, and therefore the starting point for mapping walking routes is to identify those that serve these key areas.

6.3.8. For this first iteration of the LCWIP, primary routes were considered as main pedestrian routes within each of the four key areas of focus, as well as routes connecting to these areas. Secondary routes (e.g. through local areas and connecting to primary routes) were added to increase the coverage in the urban areas. The routes were prioritised using the definitions shown below in **Figure 6-5**.



Primary Walking Routes: busy urban shopping and business area, and main pedestrian routes

Secondary Walking Routes: routes through local areas feeding into primary routes, local shopping centres etc.

Figure 6-5 – Footway Hierarchy

6.3.9. The LCWIP project team used the GIS model outputs alongside the location of the key walking areas of focus, Rights of Way, strategic active travel routes and connections, potential future developments and key destinations (rail stations, schools and key employment areas to identify primary walking routes and secondary routes across the borough.

6.3.10. These routes were also influenced by the following factors, which were considered when the key walking routes were identified:

- Comments from the stakeholder engagement workshops
- Comments from the Commonplace engagement feedback
- Locations of barriers identified through stakeholder engagement and public consultation
- Locations of existing crossings

6.3.11. Regarding the location of barriers and crossings, these were mapped for the entirety of the borough to help inform key walking routes. As discussed in Wokingham Borough's Active Travel Plan, physical barriers and points of severance can have significant impact on preventing people from walking, wheeling and cycling, and therefore it is important to identify and address these barriers. This is illustrated in **Figure 6-6**, which shows the features causing severance for pedestrians within the borough, including major roads, water networks, and railway lines.

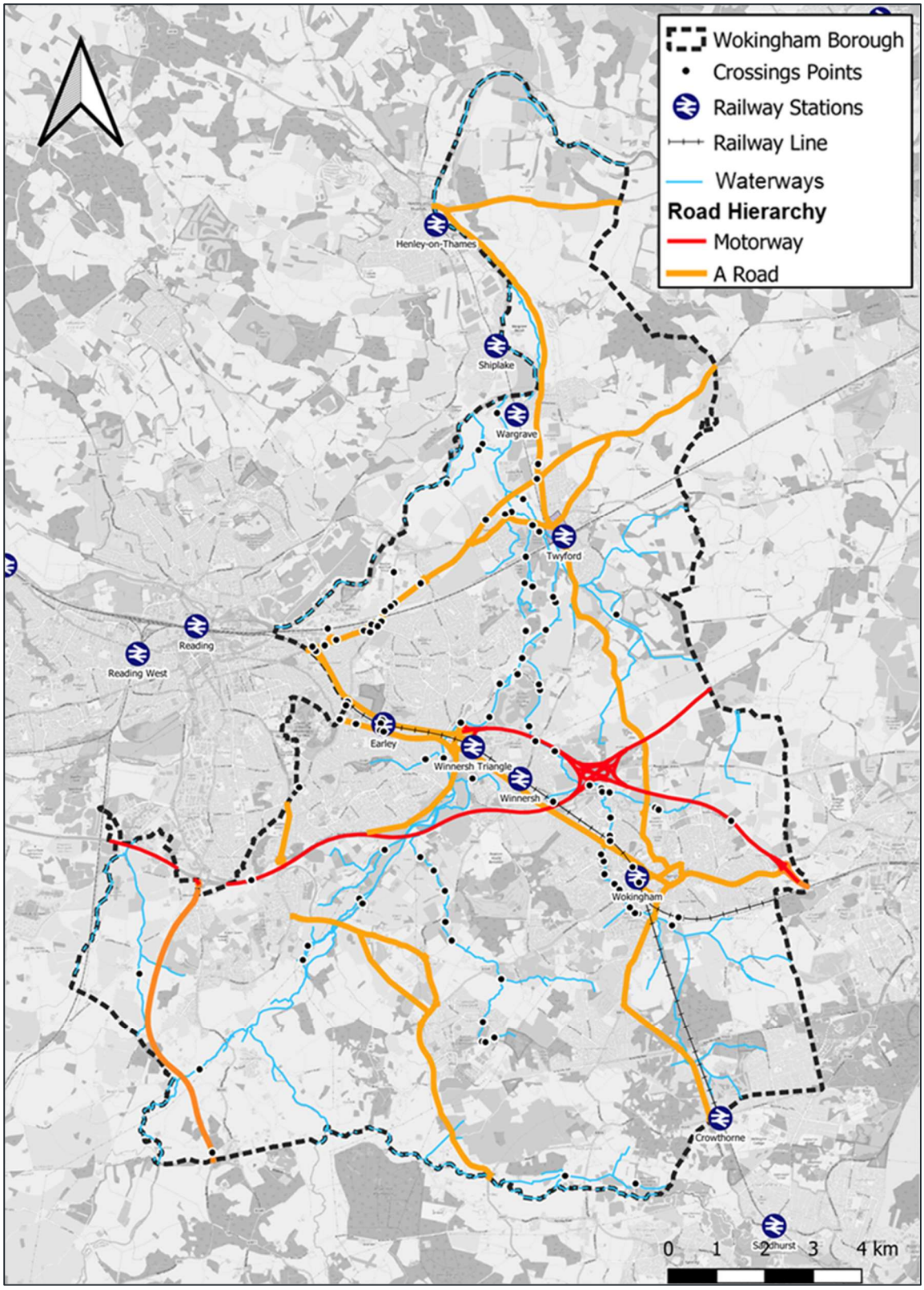


Figure 6-6 – Severance Barriers for Wokingham Borough

Draft Network Plan for Walking

6.3.12. The draft network plan for walking that was developed for Wokingham Borough is below, a higher resolution can be found in **Appendix D**.

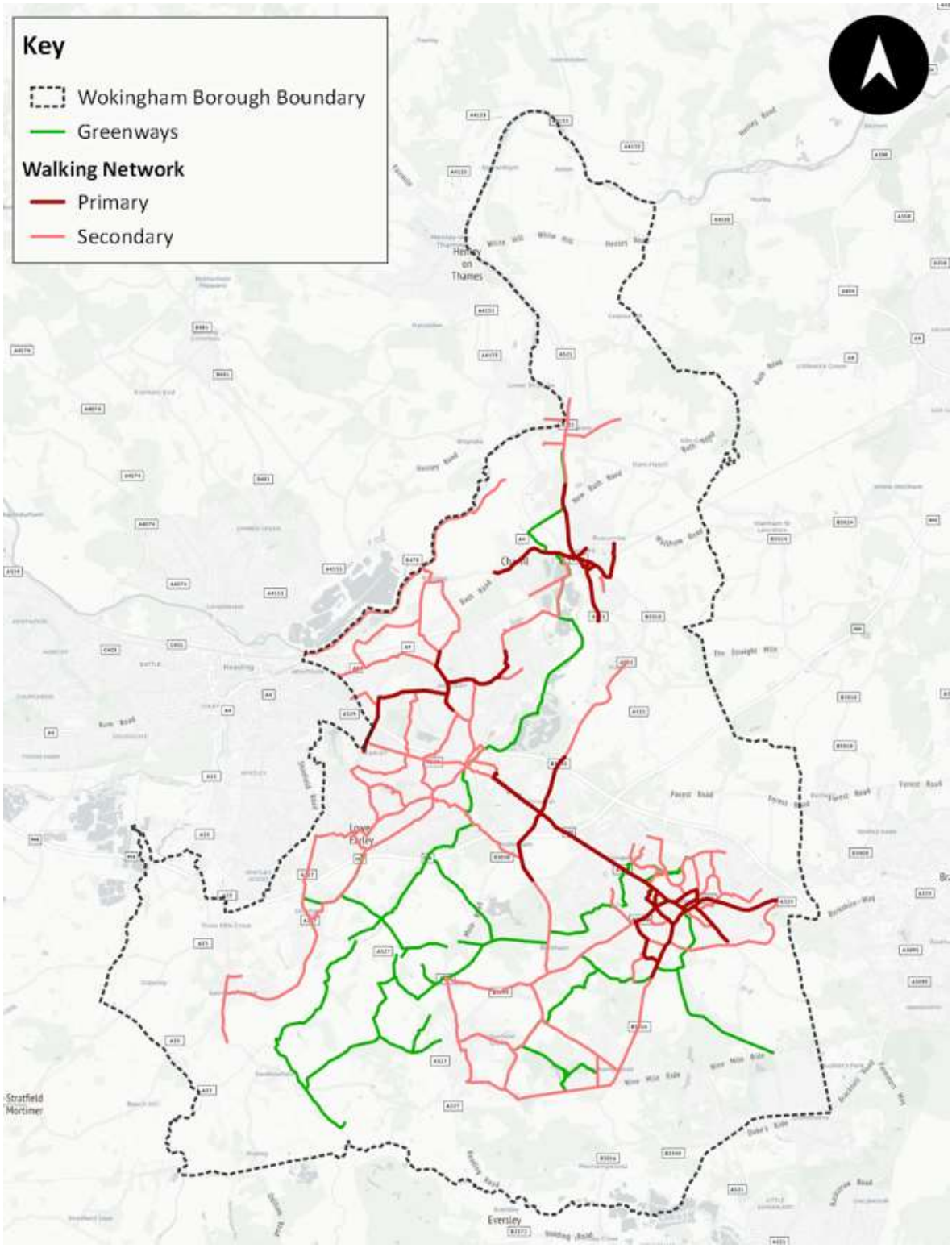


Figure 6-7 Draft Network Plan for Walking

6.3.13. This draft plan was presented to key stakeholders to gain feedback on the routes selected and identify any key routes that may have been omitted or misclassified. More information on the initial round of stakeholder engagement is available in the following sub-section.

6.3.14. Additionally, at the time of writing the latest draft of the Local Plan is being considered. The outcomes from the review of the Local Plan and any future development will feed into the LCWIP, resulting in additions and refinements to some of the proposed walking network.

6.4 STAKEHOLDER ENGAGEMENT

6.4.1. Key stakeholders were given the opportunity to provide feedback on the draft network plans for walking and cycling, review the trip attractors mapped in the data gathering process and identify any key origin points, destination points and routes that were missing from the plan.

6.4.2. Draft network plans were circulated to local authority officers from WBC, Parish Councillors and local cycling groups who were offered the opportunity to provide feedback on the primary and secondary routes identified. The draft network plans were then updated accordingly if appropriate. The WBC Greenways team and Local Plan team were also engaged with as part of the network planning process, and were worked closely with when developing the draft network plans.

6.4.3. Stakeholders provided valuable feedback in relation to the draft network plans, including:

- Identifying areas affected by heavy traffic which may deter users;
- Identifying locations where crossings would reduce severance;
- Highlighting areas where steps affect accessibility for some individuals; and
- Identifying where routes should connect to existing ROWs and greenways

6.4.4. Equestrian groups were also invited to consult at both the issues and opportunities stage of the LCWIP development, as well as at that the scheme proposal stage. Feedback provided from these groups at both stages has been taken into consideration. Greenways and quieter/rural LCWIP routes presented in the following section are intended to be used by equestrians, however where these routes extend into urban areas, they may become less suitable. The suitability of routes for equestrians will be looked at further and in greater detail at the next stage of design.

6.5 ROUTE AUDITING

6.5.1. Once the network plans were updated following stakeholder comments, the final selection of primary routes were considered for auditing. These were selected based on stakeholder feedback and discussions between WSP and WBC. Where alternative routes had been suggested following stakeholders feedback these were audited at a later stage following the same approach. Undertaking audits of borough wide pedestrian and cycle facilities forms part of the action plan of the Wokingham Borough Active Travel Plan, therefore the audits undertaken as part of this LCWIP contributes towards this this objective, although due to resource limitations secondary routes could not be audited by the LCWIP project team.

6.5.2. Audits were undertaken by trained WSP and WBC personnel visiting each route corridor on location using the Department for Transport's Route Selection Tool (RST) for cycling route audits, and the DfT's Walking Route Audit Tool (WRAT) for walking route audits. These tools were used to assess the suitability of a route in its existing condition against the core design outcomes:

- Directness;
- Gradient;
- Safety;
- Connectivity; and
- Comfort.

6.5.3. The process of scoring routes against the criteria in the RST identified issues (e.g. cyclists mixing with too high volumes of traffic) which informed the identification of infrastructure solutions (e.g. segregated infrastructure). The RST also identified critical issues at junctions to be addressed with infrastructure changes. The RST process is shown in **Figure 6-8** below.

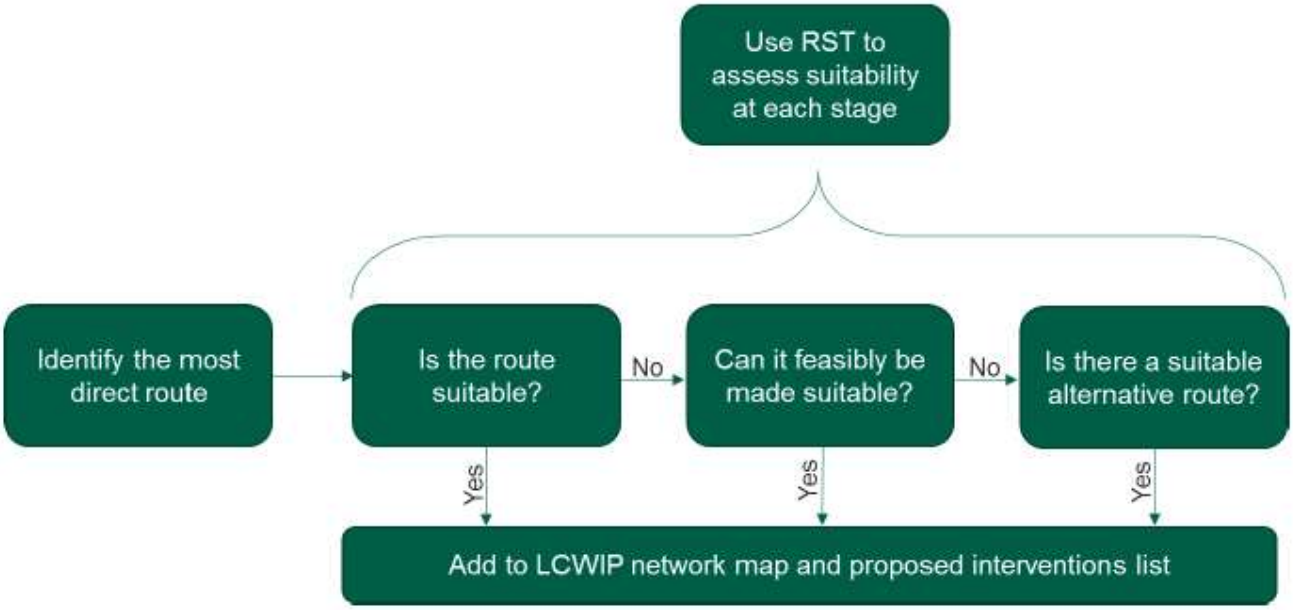


Figure 6-8 – Route Selection Tool Process

Source: LCWIP Technical Guidance for Local Authorities (DfT, 2017)

6.5.4. The WRAT process considers the needs of all users, including vulnerable pedestrians, such as those who are older; visually impaired; mobility impaired; hearing impaired; with learning difficulties; buggy users or children. The process of scoring routes against the criteria in the WRAT identified issues (e.g. lack of crossing points) which informed the identification of infrastructure solutions (e.g. new zebra or signalised crossings). The WRAT process is shown below in **Figure 6-9**.

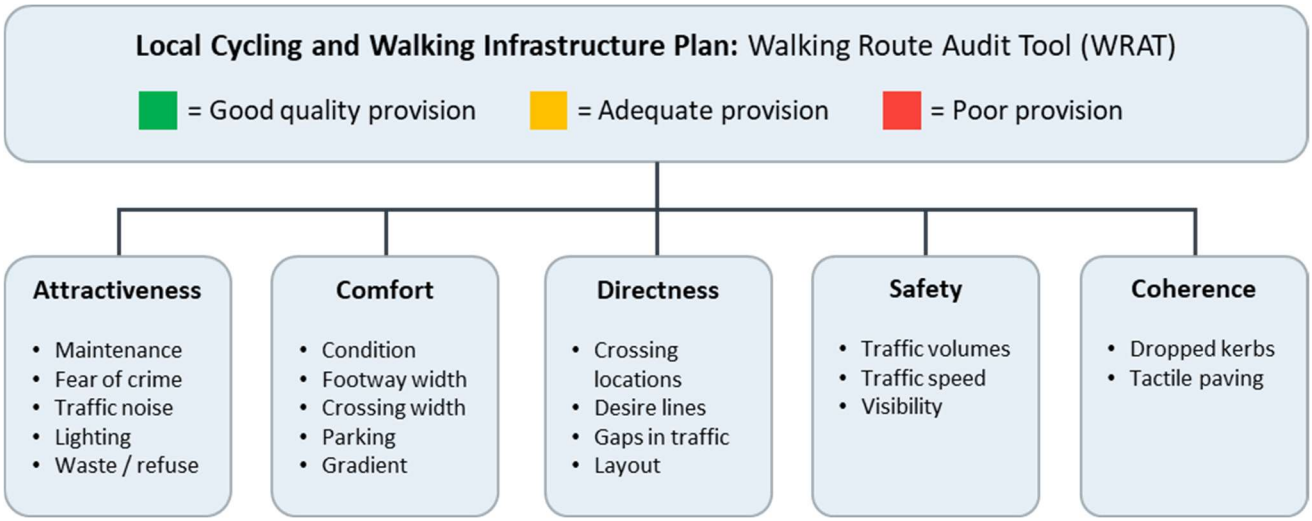


Figure 6-9 – Walking Route Audit Tool (WRAT) Process

6.5.5. Audits took place in September 2021 with staff from WBC also in attendance on certain days. On days that WBC were present, they accompanied WSP staff where they were given the opportunity to observe and

undertake audit activities. As a result of this, WBC staff became more confident in their knowledge of the process and gained the ability to undertake audits independently.

6.5.6. The majority of audits for cycling routes were undertaken by WSP and WBC personnel using bicycles, which provides a more accurate perception of the conditions along the route and challenges / issues that are present for cyclists that currently use the route. This subsequently assisted in developing infrastructure improvements that are bespoke to the issues present on each route.

6.5.7. Once route audits were complete, infrastructure improvements were identified in cycle infrastructure improvement plans. These were combined with walking infrastructure improvement plans. These are introduced and discussed in Section 8 of this report.

Non-Audited Routes

6.5.8. There are secondary routes which were identified but not fully audited in this first iteration of the LCWIP. Generally, there are no infrastructure improvements proposed on most of these routes for this reason. However, in visiting the towns and engaging with stakeholders, the LCWIP project team inevitably saw opportunities for active travel infrastructure improvements on routes that weren't formally audited. Many of these were included and presented to stakeholders in further engagement sessions discussed later in this report.

6.6 ACTIVE TRAVEL NETWORK PLAN

6.6.1. Both the waking and cycling network plans that have been developed in the previous sections are presented individually in **Appendix D**. These separate plans have then been considered in unison to provide a holistic picture of active travel routes identified for Wokingham Borough.

6.6.2. The active travel network plan for Wokingham Borough is depicted below in **Figure 6-10.**

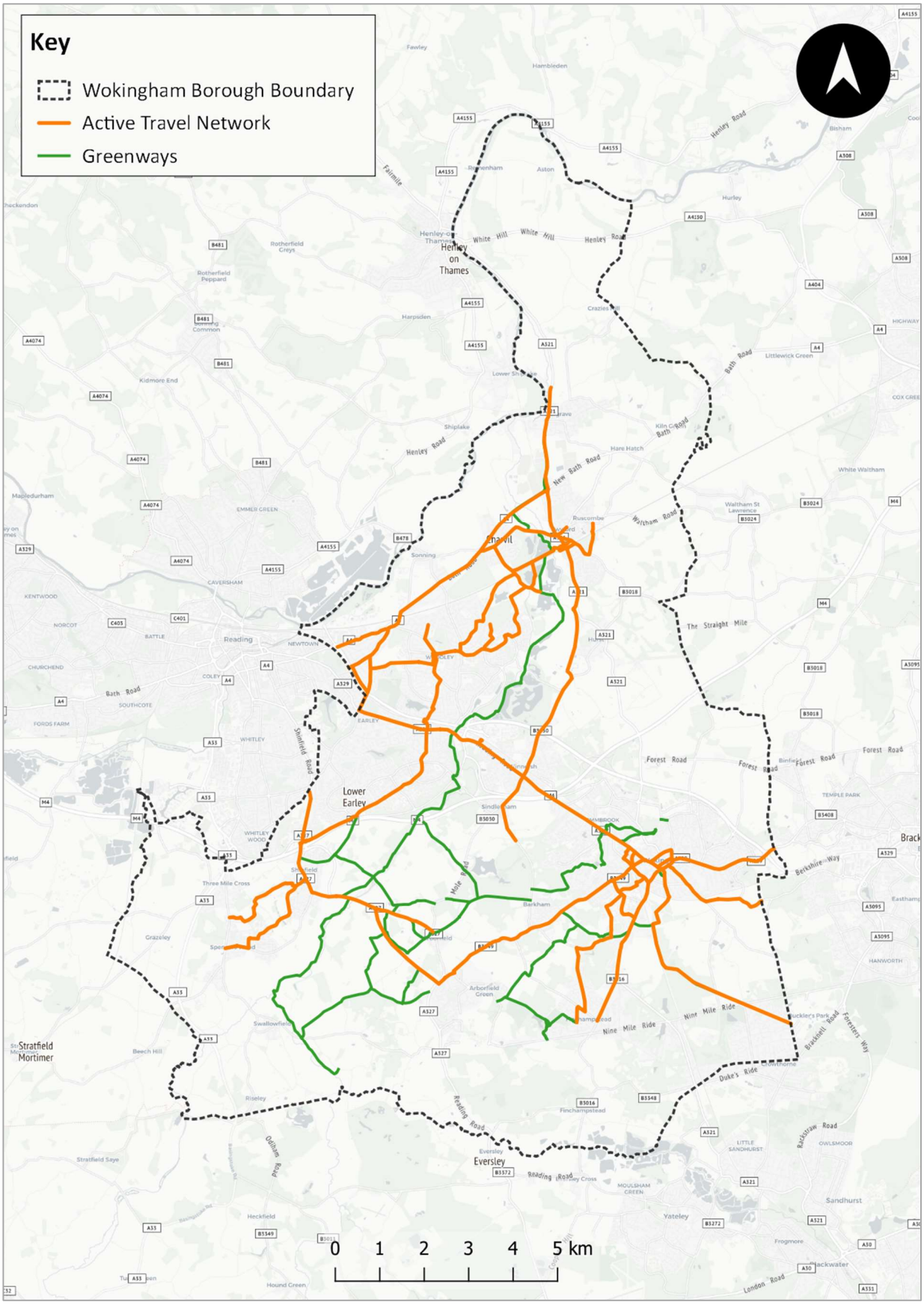


Figure 6-10 – Active Travel Network Plan

7 INFRASTRUCTURE IMPROVEMENTS

7.1.1. Following the route audits, auditors generated plans of the high-level infrastructure improvements that would be needed to enable mode shift to walking, cycling and wheeling. This process was originally undertaken as a separate exercise for both walking infrastructure improvements and cycling infrastructure improvements.

7.1.2. The plans were then cross referenced against one another to ensure there were no contradictions where walking routes and cycling routes overlapped, then combined into the infrastructure plans discussed in this section of the report. These plans were further refined following comments from local cycling groups, before being presented during the second round of public engagement.

7.1.3. The completed walking audit forms (and associated documentation) contain the specific information on what footway improvements would be needed where in order to bring walking provisions in line with current best practice (e.g. widening, resurfacing, lighting). The completed and detailed walking and cycling audit forms are not included in this report but have been retained by WBC for use when schemes are taken forward.

7.1.4. The plans shown in this section of the report and in **Appendix E** do not go into this level of detail for footway improvements as this is simply too much information to convey in the report format. The plans in the report and appendices instead identify the locations where footway improvements are needed (without specifying precisely what these are), alongside the locations where there is a need for new/improved crossings and other relevant infrastructure.

7.1.5. Regarding cycle infrastructure, all the detail of the suggested improvements is contained in this report and its appendices. Certain specifics are not included, for example bus stop treatments where segregated cycleways are proposed, but general principles and assumptions are given where possible.

7.1.6. The infrastructure improvements identified in this section of the report have not been taken through feasibility design and do not represent designs. Rather, they are concepts of the types of infrastructure which are believed possible, should be investigated further and, if implemented correctly and in appropriate packages, should bring about modal shift.

7.2 OVERVIEW OF INFRASTRUCTURE IMPROVEMENTS

7.2.1. Within this section, information on each type of intervention shown in the infrastructure plans is given, as well as example images indicative of what this intervention may look like if implemented.

7.2.2. In addition to the infrastructure improvements shown below, cycle parking, including secure on-street resident cycle parking, will be considered as part of all schemes, particularly for schemes that encompass a town centre or transport hub / key interchange. The quantity and type of cycle parking will vary by scheme, however the design principals of being fit-for-purpose, secure, well located, and take an inclusive approach to ensure all cycle users are catered for will be applied to all schemes.

Table 7-1 – Infrastructure improvements typologies

Minor junction improvement (side road)	
	• Build out the footways (to tighten junction geometry, reduce turning speeds and shorten crossing distances) • Add dropped kerbs and/or tactile paving where missing • Consider additional measures, such as banned turns, raised tables, continuous footways or modal filters
Minor junction improvement (mini roundabout)	
	• A review against LTN 1/20 guidance and potentially tightening of the junction geometry • Reducing entry/exit lanes and/or improving the crossing facilities. • In some cases, it may be better to simply replace them with 51nsignalized priority T-junctions Image source: Google
Mid-size junction improvement	
	• Pedestrian crossings and protected cycle infrastructure on all arms • In some cases, this might mean signalising the junction. Image source: WSP
Large junction improvement	
	• Pedestrian crossings and protected cycle infrastructure on all arms • Consideration has been given to innovative junction designs and best practice such as Dutch-style roundabouts and signalised 'CYCLOPS' style junctions. • Some large junctions which are roundabouts may need converting to signalised junctions to be able to provide the required improvements to pedestrians and cyclists Image source: The Times

New / improved signalised crossing

- Installation of new signalised crossings or upgrade to existing, through increasing the green time and/or repairing audit aids
- Where aligned with cycle facilities, there should be parallel crossing points for pedestrians and cyclists as opposed to toucan crossings
- Otherwise, these should be simple pedestrian crossings (i.e. puffin crossings).

Image source: LTN 1/20

New zebra / parallel crossing

- New priority crossings to reduce severance. Where these are aligned with cycle facilities these should be parallel crossings; otherwise, zebra crossings
- Where these have been proposed to replace existing uncontrolled crossings with traffic islands, this will remove pinch points for cyclists on the carriageway
- Whether a crossing should be a zebra/parallel crossing or a signalised crossing should be investigated further at the feasibility design stage

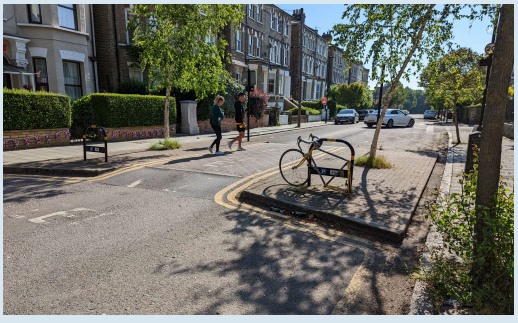
Image source: WSP

New modal filter

- These typically refer to LTN 1/20 compliant infrastructure on the carriageway which filters out vehicles but allows cyclists to pass
- This could take the form of bollards or planters and could potentially have camera enforcement
- Where these are proposed on bus routes, these would take the form of a camera-enforced bus gate (which also allows cyclists through)

Image source: WSP

Traffic calming



- Cycle-friendly traffic calming features to streets and/or reducing speed limits to safe levels for cyclists.
- Speed cushions should be avoided
- Additional measures could include parking restrictions, resurfacing and gulley cover replacement
- May also be suitable for contraflow cycling

Image source: WSP

Footway improvements

- This could denote ensuring footways have 1.5m clear width to allow wheelchairs and buggies to pass, widening and/or relocation of permanent/temporary footway obstructions as necessary (including footway parking). It could also denote resurfacing to fix surface issues (patching, trenching, uneven surfaces, trip hazards), lighting improvements, and/or the removal of excess bollards, guard railing and vegetation.

Image source: Trafficchoices.co.uk

Segregated cycleway

- LTN 1/20 compliant segregated cycle facilities such as kerb-segregated tracks, stepped cycle tracks, footway level tracks or lightly segregated cycle lanes
- Traffic calming and speed limit changes need to make the route LTN 1/20 compliant.
- Bus stop redesign (i.e. bus stop bypass or bus border), resurfacing, wayfinding and gulley cover replacement as necessary.

Image source: WSP

Signalised shuttle system

- Installation of a signal-controlled system to alternate flows on a narrowed section of road
- This is proposed where there are width constraints (e.g. under a rail bridge) and the street currently provides traffic lanes in both directions at the expense of having very narrow footways for pedestrians.
- By installing a shuttle system, footways can be widened providing a safer route for pedestrians and cyclists

Image source: Google maps

Pedestrian zone

- This denotes urban realm improvements
- This includes high-quality paving, seating, lighting and planting

Image source: Road.cc

New Pedestrian and Cycle Bridge

- These are shown on the plans where a long-term plan for a new pedestrian and cycle bridge might bring benefit to the walking and cycle networks
- These are accompanied by text boxes giving additional information.

Image source: LTN 1/20

8 SECOND PUBLIC ENGAGEMENT

8.1 INTRODUCTION

8.1.1. To help shape the outcome of the LCWIP, a second public consultation was undertaken to gather feedback on the draft network plans for walking and cycling, and allow the local community to provide their thoughts on the proposed draft cycling and walking network plans and the improvements that might be needed to make these key routes safer and more convenient to use. In addition to the cycling and walking network plans, a series of 19 area-based initiatives for neighbourhoods within the borough were consulted on, which showed proposals focusing more on localised interventions.

8.1.2. This took place over a 3-month period, from 11th July 2022 to 2nd October 2022. The engagement was hosted over two different platforms:

- Commonplace (11th July – 4th September), which allows comments to be pinned to an interactive map
- Engage Survey (5th September – 2nd October), a separate conventional question-based survey. The consultation was moved to this platform due to an issue with the interactive map on Commonplace

8.1.3. The full consultation report is contained in **Appendix F**, which contains a detailed breakdown of the consultation process and findings. Presented within this chapter is a summary of the main headlines from the consultation analysis.

8.2 CONSULTATION PROCESS

8.2.1. The primary means of responding to the engagement was through the formal engagement questionnaire. The questionnaire contained a combination of closed questions, where respondents select their answers from a defined list, and open (free text) questions so that respondents had the opportunity to explain the reasons for their choices in more detail.

8.2.2. Regarding free text responses, a total of 23 open-ended questions were included in the engagement where respondents were able to make comments in their own words.

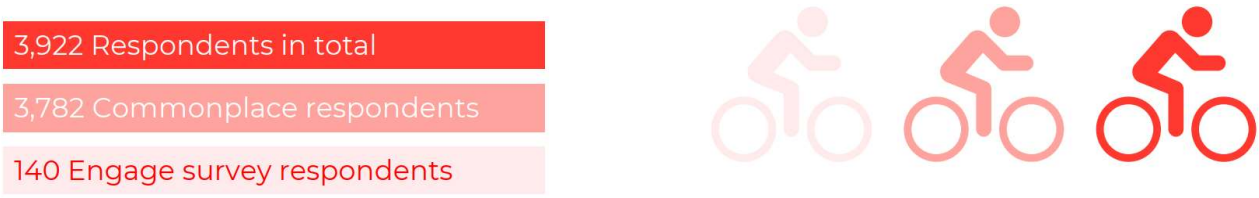
8.2.3. Free-text responses provided in response to the open questions are complex to analyse and interpret but provide valuable insight into respondents' opinions. Free-text responses required further analysis through a process called 'coding' to identify common themes and enable the categorisation of comments into a series of 'codes', which are consolidated in a codeframe.

8.2.4. The codeframe is a list of the codes which represent the broad range of comments raised by respondents. This is created by reviewing a large sample of the responses and identifying common themes and areas of comment, each of which is given a unique number.

8.2.5. The codes were then analysed to identify the most frequently recurring areas of comment. Using a coding approach involves turning qualitative data in comments into quantitative data that can be presented in terms of frequency, allowing issues raised to be accurately defined in importance by how often they appear in responses.

8.3 CONSULTATION RESPONDENTS

8.3.1. The consultation received a strong response rate, with 3,922 respondents giving feedback on the LCWIP proposals for Wokingham Borough. Of these, the vast majority were received via the Commonplace platform, with a further 140 responses being received through the Engage Survey.



8.3.2. Of the nearly 4,000 people who responded to the consultation, 2,528 provided a response to the question regarding their age group. The majority of respondents to this question classified themselves as 60 or older (43.2% or 1,092 respondents), which is a significantly higher proportion than the next most commonly selected age group of 50-59 years old (21.6% or 546 respondents). Following this, a further 9.7% (245) were aged 30-39, 2.7% (68) were 21-29 and 0.5% (13) were aged 18-20. A total of 4.8% (121) of respondents selected that they preferred not to say which age category applied.

8.3.3. A comparison of the age of respondents with 2021 Census data for Wokingham Borough indicates that a disproportionate amount of older respondents took part in the consultation for the LCWIP, as shown in **Figure 8-1**. For example, Census data shows that 22.7% of the population of Wokingham Borough is 60 years or older, whereas 43.2% of the respondents to the consultation classified themselves as the same age category.

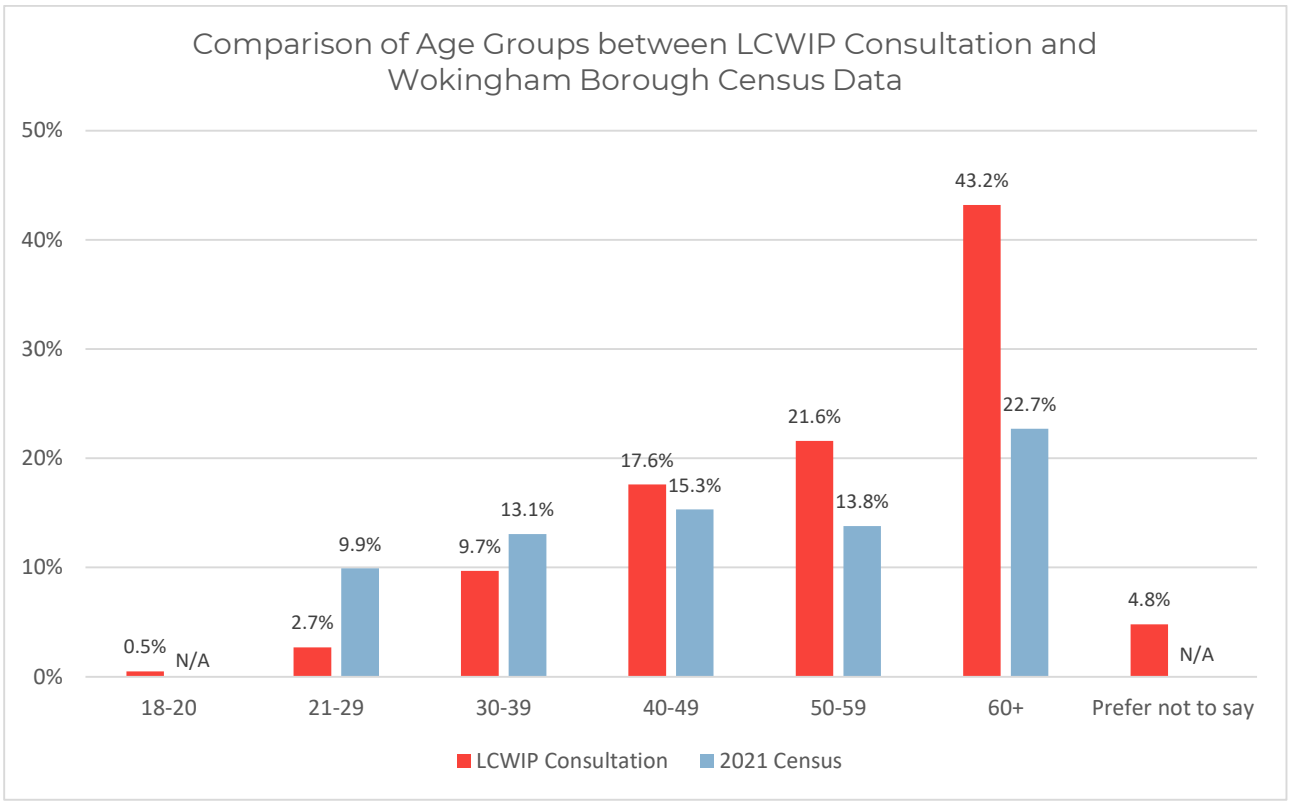


Figure 8-1 – Comparison of Age Groups between LCWIP Consultation and Wokingham Borough Census

8.3.4. In addition to the above, consultation respondents were asked which gender category they identified as. A total of 2,765 responses were received to this question. Of the people who answered this question, 56.1% (1,551) identified as male, 36.6% (1,012) identified as female, 0.1% (3) identified as transgender, and 0.04% (1) selected 'other'. 7.2% (199) of respondents to this question selected that they would prefer not to say their gender. The responses to this question indicate that a greater proportion of male respondents took part in the consultation than any other gender category.

8.3.5. Regarding travel behaviours, respondents were asked how they usually travel around Wokingham Borough. The results of this question are shown below in **Figure 8-2**, with 2,641 people responding to this question. The chart illustrates that the largest proportion of respondents travel in or around Wokingham Borough via car as a driver, selected by 2,193 respondents (25.3%). A total of 1,588 respondents identified that they travel in or around the Borough by walking (18.3%), 1,374 cycle (15.8%) and 913 travel via car as a passenger (10.5%). Public transport was selected by fewer respondents, totalling 8.1% (214) and 6.8% (180) for bus and train respectively.

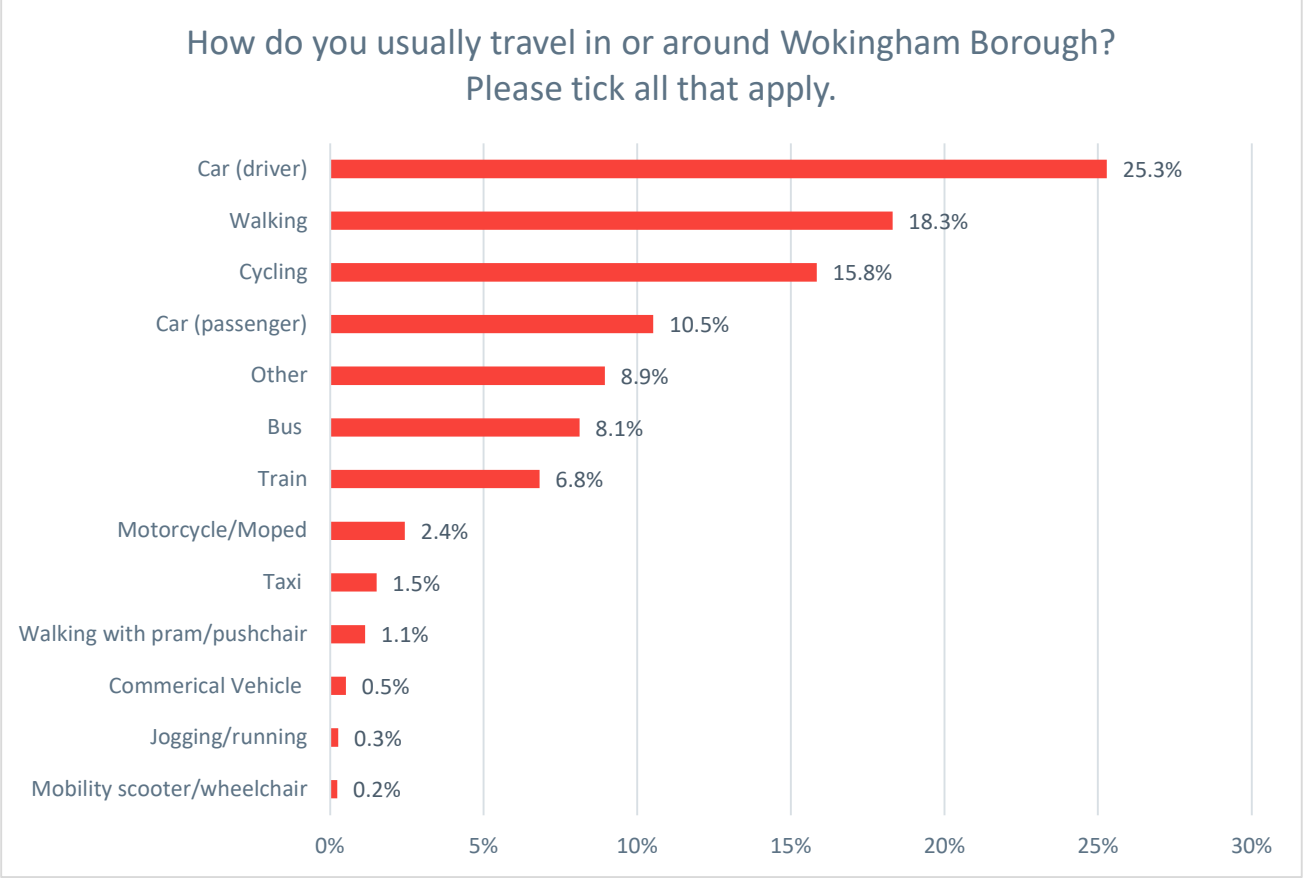


Figure 8-2 – Respondents Usual Modes of Travel

8.3.6. The data shown in **Figure 8-2** highlights that while the primary mode of transport used by respondents is private car travel, a significant proportion of respondents have indicated that they already use walking and cycling as a regular means of travel. This is beneficial to the development of this LCWIP, as capturing feedback from members of the local community who have experience of walking, cycling and wheeling in Wokingham Borough and therefore can provide detailed feedback is an important part of the consultation process and the LCWIP development procedure.

8.4 CONSULTATION FINDINGS

8.4.1. The following section presents some of the key findings that resulted from the LCWIP consultation. These will be used to refine and develop the LCWIP proposals going forward.

BOROUGH WIDE CYCLE NETWORK PLAN

8.4.2. As part of the consultation, a draft Borough-wide cycle network plan was presented, which shows the proposed cycle network for Wokingham Borough and how it connects with cycling routes in neighbouring local authorities. It is based on the analysis presented in the previous chapters and has been divided it into three networks: primary, secondary and tertiary. The draft plan presented in the consultation is shown below in **Figure 8-3**.

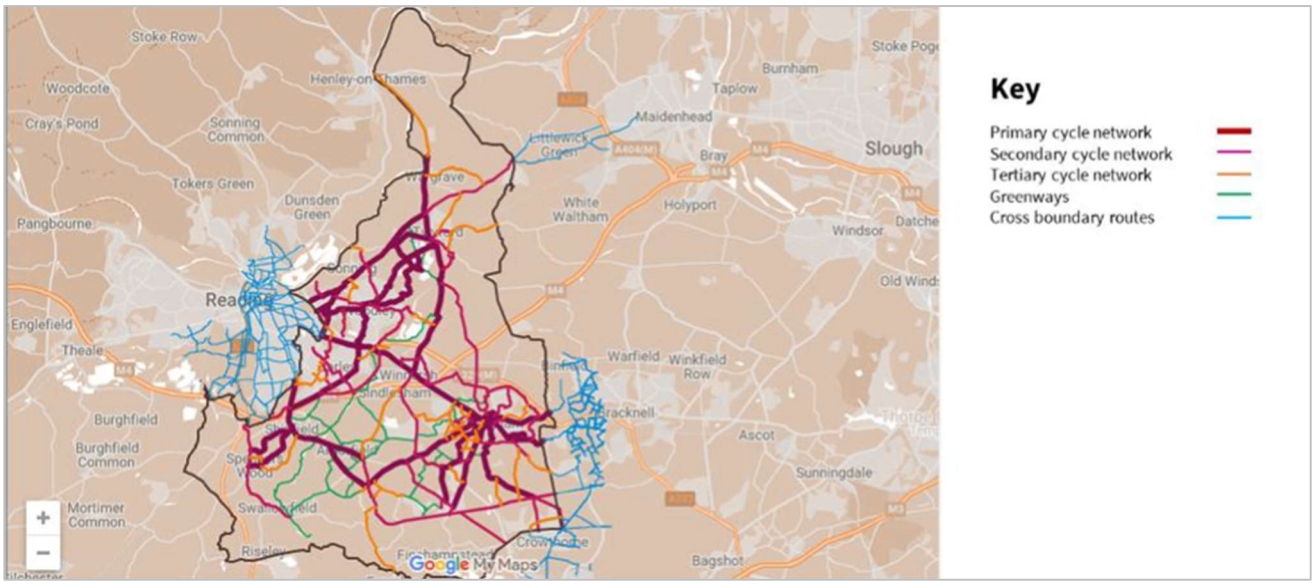


Figure 8-3 – Borough Wide Cycle Network Plan

8.4.3. For each of the coded open-ended responses which pertained to the cycle network plan, a summary of the key findings from the consultation is provided below:

- The main opposing comment was related to the loss of road space and the potential for congestion (8% / 43 respondents) followed by the plan being considered to be poor value for money (also 8% / 43 respondents).
- The main concern was related to poor driving and speeding traffic (10% / 54 respondents) followed by concerns around the suitability of route characteristics (7% / 39 respondents).
- The main suggestions were that the routes were unsuitable and need improvement (8% / 42 respondents), followed by a need for more traffic calming such as speed limit reductions and speed cameras (7% / 35 respondents) and introduction of segregated cycle lanes (also 7% / 38 respondents)
- Suggested additional routes were made in 12% of comments (64 respondents), while 5% of comments (27 respondents) suggested alterations to the proposed routing.
- The main network suggestions were for improved connections to Schools and other education facilities (3% / 15 respondents) followed by improved provision along Wilderness Road (1% / 3 respondents)

BOROUGH WIDE WALKING NETWORK PLAN

8.4.4. Similar to the draft cycle network plan, a Borough-wide walking network plan was presented in the consultation, which consisted of primary and secondary network routes. These routes are shown below in **Figure 8-4**.

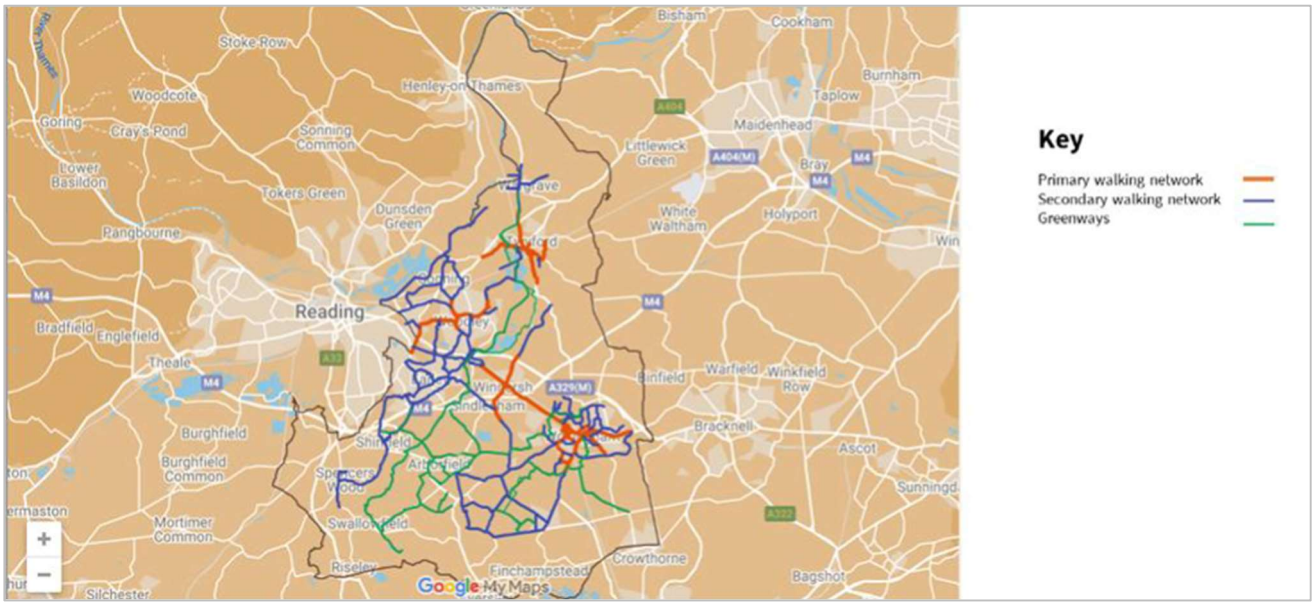


Figure 8-4 – Borough Wide Walking Network Plan

8.4.5. For each of the coded open-ended responses which pertained to the walking network plan, a summary of the key findings from the consultation is provided below:

- The main opposing comments related to opposition to a specific section of planned walking route (2% / 4 respondents) and the proposal being poor value for money (also 2% / 3 respondents)
- The main concern related to the suitability of route characteristics (15% / 26 respondents) followed by poor driving and speeding traffic (9% / 16 respondents)
- The main suggestions were that the walking routes were unsuitable and need improvement (28% / 49 respondents), followed by a need to ensure that changes to provision do not disadvantage the elderly or disabled users (9% / 16 respondents)
- Suggested additional walking routes were made in 29% of comments (51 respondents), while 11% of comments (19 respondents) suggested alterations to the proposed routing
- The main network suggestions were for improved connections to Schools and other education facilities (7% / 12 respondents) followed by improved links to Leisure facilities (6% / 11 respondents)

AREA-BASED SCHEMES

8.4.6. **Figure 8-5** below shows the attitudes towards the various area-based schemes proposed across Wokingham Borough as part of the LCWIP. The scheme with the most positive response is Wargrave with 59 respondents indicating that they are happy with the proposals. This was followed by Twyford, with 39 of respondents indicating they are happy with the area-based scheme for that locality.

8.4.7. The scheme with the most negative response was Nightingale Road, which recorded 162 of respondents are dissatisfied or unhappy with the scheme. This was followed by the scheme at Earley 164 respondents unhappy or dissatisfied) and Barkham Road 152.

8.4.8. Please note the number of responses is based on respondents who either left a comment, answered how they felt about a scheme, or both.

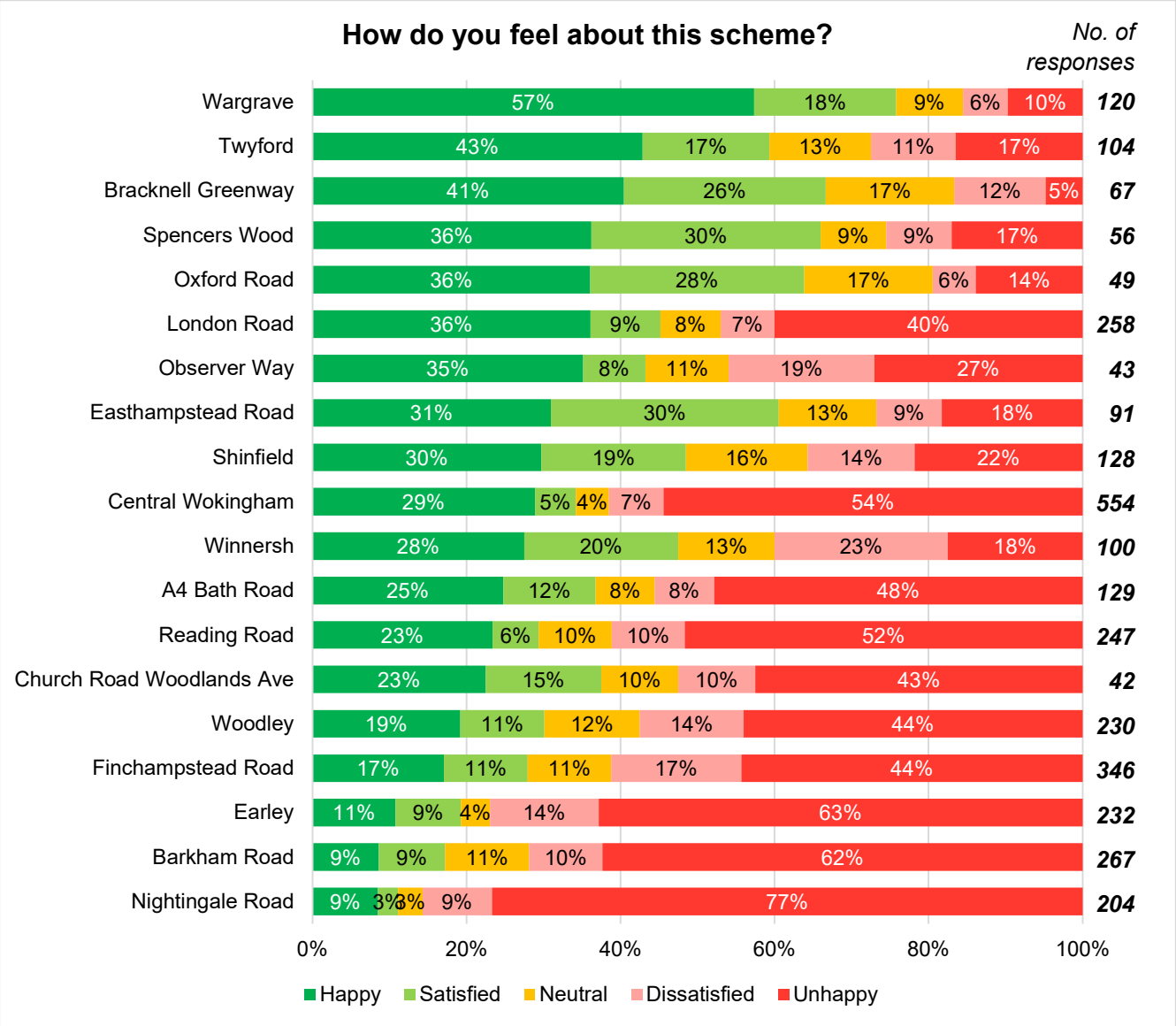


Figure 8-5 – Attitudes Towards Area-based Schemes

8.4.9. A breakdown of the individual area-based schemes and infrastructure plans is provided in the **Appendix G**, along with a summary of the responses received during the consultation.

With regard to the network plans which were presented during the second public consultation, comments that were received have also been reviewed and logged, including comments relating to suggestions for upgrading or downgrading routes. For the cycling network plan, no significant level of response was received alter the hierarchy of routes on the network plan. For the walking network plan, feedback from consultations respondents, including comments received from local walking groups, resulted in additional routes being

included within the walking network plan. The updated post-consultation network plans can be found in **Appendix G**.

8.4.10. Overall, there was a useful cross section of feedback across the community, providing a wide spectrum of user opinion to inform this LCWIP. All comments that have been received for the infrastructure plans and area-based schemes have been logged and reviewed, and will be analysed further for inclusion in the next stage of the design process, which is outlined below.

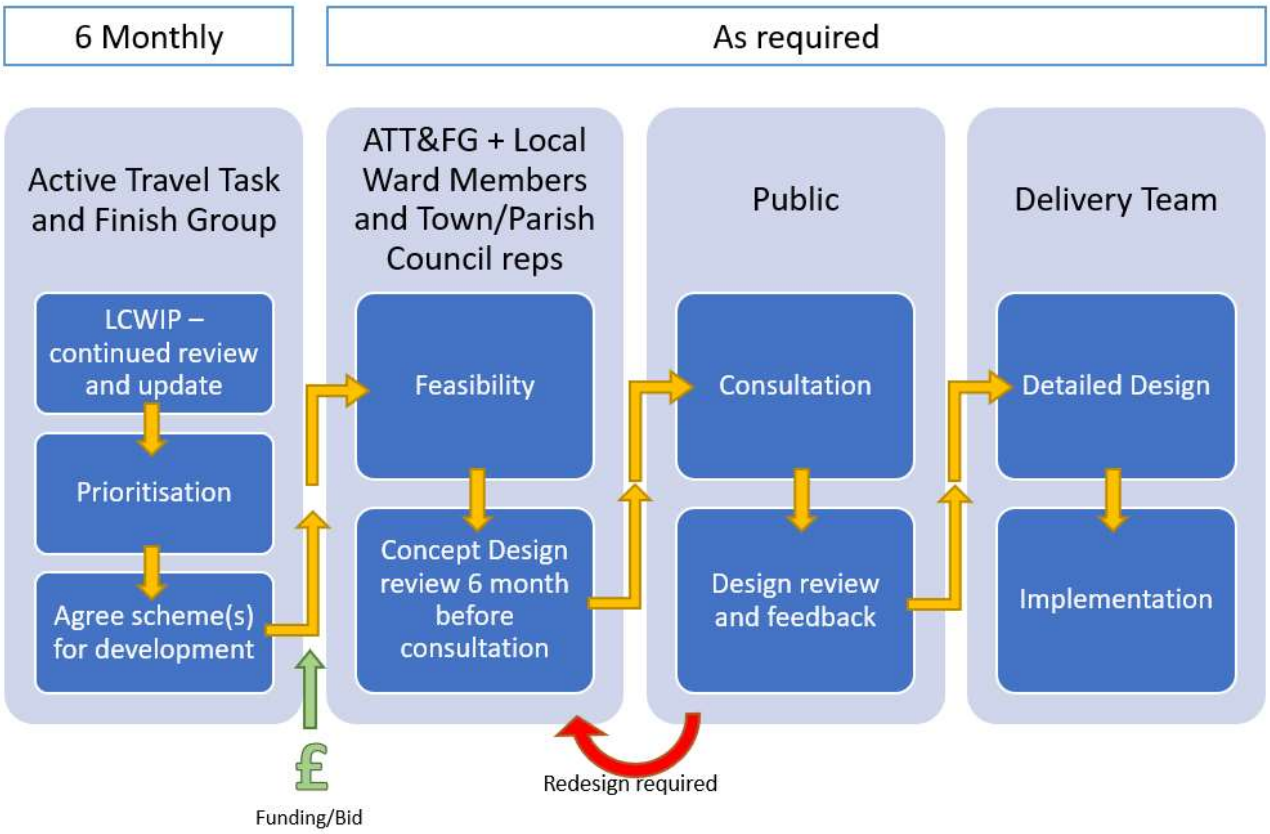


Figure 8-6 – Wokingham Design Process

9 ROUTE PRIORITISATION

9.1 APPROACH TO ROUTE PRIORITISATION

9.1.1. Stage 5 of the LCWIP, as detailed in the Department for Transport's (DfT) LCWIP Technical Guidance, relates to the prioritisation of walking, cycling and wheeling infrastructure improvements. The Guidance states that priority should be given to improvements that are likely to have the greatest impact in increasing the number of people who choose to cycle or walk, therefore providing the largest benefit from the investment.

9.1.2. To determine LCWIP priorities at a local level, authorities are encouraged to appraise their identified improvements against specific objective criteria.

9.1.3. For Wokingham Borough a high-level approach to route prioritisation has therefore been applied to determine how the identified walking, cycling and wheeling routes, and their associated improvements, might be prioritised and advanced over the short, medium and longer term.

9.1.4. This will remain a dynamic process which considers which routes and schemes identified are most likely to secure funding, have the greatest impact on increasing the number of walking, cycling and wheeling trips locally, and will represent the best value for money as future investment.

9.2 MULTI-CRITERIA APPRAISAL TOOL

9.2.1. Our approach to prioritisation applies a set of assessment criteria to individual route or area-based improvements.

9.2.2. The assessment of LCWIP improvements is at route level (e.g. a cycle route from A to B) or area-based (e.g. walking routes in a town centre location) rather than being disaggregated down to prioritising individual sections of route, or very specific localised interventions. This is due to the fact LCWIP improvements are likely to be bought forward as part of a single, complete and coherent route-based scheme.

9.2.3. The approach uses a **Multi-Criteria Appraisal Tool (MCAT)** which, once populated, creates a ranked list of LCWIP improvements across the borough. The ranked list indicates which may be best aligned to given funding opportunities.

9.2.4. Criteria within the MCAT can be changed at any future point, and the assessment re-run as required, should the council determine LCWIP improvements should be prioritised based on different criteria, such as any future policy objectives or funding requirements.

9.2.5. There are 17 different criteria included within the tool, which are summarised in **Table 9-1** below.

Table 9-1 - Prioritisation Criteria and description

Ref	Criteria	*Description*
1	Forecast increase in walking/ cycling	*Forecast number of journeys to work using the route in the Government Target Near Market scenario (LSOA)*
2	Average daily pedestrian demand	*Method of travel to work (Datashine)* *LQ is the Location Quotient and describes how far from the national average (LQ =1) the measure is.*
3	Catchment Population	*Population within the route (500m radius)*
4	Existing Infrastructure condition	*Degree of deficiency of the existing infrastructure*
5	Alignment with existing network	*Does the route connect with existing routes?*
6	Road Safety	*Number of accidents involving pedestrians or cyclists in the previous 5 years within the corridor (50m radius)*
7	Access to Schools	*Number of schools within the route (a 500m radius)*
8	Access to Employment	*Connectivity to existing or proposed major employment sites*
9	Access to Rail Connections	*Does the route connect with any parallel schemes or other planned rail improvement?*
10	Reducing rural severance	*Does the route provide a new active travel connection between neighbouring settlements? (Consider bus or rail frequency, local street network interconnectedness)*
11	Carbon / Air quality	*Does the route travel through an Air Quality Management Area?*
12	Proximity to Planned Development	*Scale & proximity of sites with planning permission and/or allocated development sites*
13	Cost of construction	*Total scheme cost estimates for package of interventions*
14	Maintenance costs	*Maintenance requirements along the route*
15	Cost effectiveness	*VfM proxy: index of cost per population per km*
16	Stakeholder support	*Likelihood of stakeholder support or opposition for the scheme*
17	Route in progress	*Route proposal is a continuation of an existing route*

9.2.6. The council will maintain a prioritised list of LCWIP routes to inform on-going future investment opportunities and keep this under process under periodic review.

10 INTEGRATION AND APPLICATION

10.1 INTEGRATION WITH TRANSPORT POLICY AND PROGRAMMES

10.1.1. This LCWIP has identified specific active travel infrastructure schemes that can be incorporated into local transport policy and capital investment programmes. Presently the council is preparing an updated Local Transport Plan (LTP), with publication anticipated in 2023. This LCWIP will represent an accompanying plan to the updated LTP, providing a focus on where and why targeted investment in high-quality, inclusive active travel infrastructure will be taken forward within Wokingham Borough.

10.1.2. The council's declaration of a Climate Emergency will result in appropriate action and investment to support the decarbonisation agenda. Promoting and facilitating more local journeys on foot and bicycle is an obvious means to support this objective, and therefore the council anticipates LCWIP scheme delivery forming an important component of our Climate Emergency Action Plan going forward.

10.1.3. As outlined, some schemes identified will also complement existing planned investment in active travel infrastructure; most notably the council's Greenways Programme. This will improve the overall network benefit and area porosity for cycling in the borough, by creating more points of entry and connection using dedicated infrastructure for active travel.

10.1.4. In addition, our My Journey Programme, which represents on-going annual investment in promoting healthy and sustainable mobility will focus promotion and awareness raising around individual active travel schemes when implemented. This targeted approach will help maximise the return on capital investment on LCWIP schemes by highlighting the benefits across local communities.

10.2 INTEGRATION WITH THE WOKINGHAM BOROUGH LOCAL PLAN

10.2.1. LCWIP schemes have been identified which, when delivered, will in some instances enhance access to future planned development within the Borough. This provides an opportunity to work in partnership with developers to secure investment in quality active travel infrastructure, on key routes, promoting sustainable development. Schemes identified in this LCWIP will therefore inform discussions with developers and consideration will be given to integrating LCWIP schemes within the council's Community Infrastructure Levy (CIL) 123 Regulations List to secure the appropriate delivery of this infrastructure.

10.3 FUTURE BIDS FOR EXTERNAL FUNDING

10.3.1. The council will also explore any opportunities to work closely with Active Travel England, and to apply for funding from external sources, such as any future Government capital grants or funding competitions for active travel infrastructure. In these instances, additional business case development work will be undertaken on schemes outlined in this LCWIP as the basis for strong applications to secure funding for design and delivery.

10.4 PROCESS OF REVIEW AND UPDATE

1.1.1. This LCWIP represents the culmination of a first round of active travel routes and opportunities for targeted investment. The Walking and Cycling Task and Finish Group, formed of Overview and Scrutiny Members will review the LCWIP on a 6-monthly basis, ensuring a borough-wide approach is maintained over time, and opportunities to plan and consider routes that cross local authority areas will be explored and developed in partnership with neighbouring authorities.

Appendix A

POLICY REVIEW

FINAL

Appendix B

PCT OUTPUTS

FINAL

Appendix C

WSP GIS MODEL OUTPUTS

FINAL

Appendix D

DRAFT NETWORK PLANS

FINAL

Appendix E

INFRASTRUCTURE IMPROVEMENT PLANS

FINAL

Appendix F

SECOND CONSULTATION REPORT

FINAL

Appendix G

POST-CONSULTATION NETWORK PLANS

FINAL

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FINAL