



RICHMOND ACTIVE TRAVEL STRATEGY

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INTRODUCTION

Introduction/foreword

Space on our streets is finite, but how we use this space can be changed. Most streets in our borough were not built for cars – they were built for walking, horses and carts. As technology has changed, many streets have become highly segregated spaces where priority is given to motor vehicles with pedestrians relegated to narrow pavements and cyclists forced to weave between cars.

As the borough continues to grow we need to think again about how we use our streets. Most trips in the borough do not involve a car – 60% of trips taken by residents are by foot, cycle or public transport. Our streets should reflect how we want to travel, and how we want our children to travel – not just serve as a reflection of how things used to be. Using our streets more efficiently means focusing on walking, cycling and public transport.

There will always be trips that are best suited to cars, and there will be many people within the borough that rely on cars to undertake trips that some others may be able to take by other means.

The creation of this strategy is not focused on forcing people out of their cars, it is intended to help create a borough where people do not feel forced into their cars because they don't feel safe or confident enough to travel by foot, cycle or public transport. It reflects how people currently travel, and aims to support residents in leading active, healthy lifestyles.

Making the best use of our streets means prioritising the needs of different users above others. Our focus is on supporting space efficient, non-polluting modes that support a healthy populace. Our hierarchy of street users is as follows:

1. Pedestrians and people with disabilities and/or limited mobility
2. People cycling
3. Buses
4. Zero and low emission delivery and servicing vehicles
5. Polluting delivery and servicing vehicles
6. Zero and low emission cars, motorcycles, mopeds and taxi and private hire
7. Polluting cars, motorcycles, mopeds and taxi and private hire

THE BENEFITS OF WALKING AND CYCLING

Creating places for walking and cycling has wide-reaching benefits. Walking and cycling are non-polluting and keep us healthy. Transport for London have produced an evidence pack supporting increased investment in walking and cycling, citing the following benefits:

- High street walking, cycling and public realm improvements can increase retail sales by up to 30%
- Over a month, people who walk to the high street spend up to 40% more than people who drive to the high street
- Employees who are physically active take 27% fewer sick days than their colleagues
- 73% of London business improvement districts say walking and cycling are important for attracting and retaining staff
- The average Benefit Cost Ratio (BCR) for walking and cycling projects is 13:1



**WHY AN ACTIVE
TRAVEL STRATEGY?**

Why an active travel strategy?

Now is a key time to change the way people travel within Richmond. In July 2019, Richmond Council declared a climate emergency. As part of this declaration, the Council resolves to be recognised as the greenest London borough and to become carbon neutral by 2030. Changing how people travel will be a pivotal part of achieving this goal – we need more people using clean, sustainable modes, and this strategy details the course the Council will take to realise this vision.

LBRuT is rolling out a borough-wide 20mph speed limit. The new lower speed limit is designed to reduce both the number and severity of collisions and create an environment more conducive to walking and cycling.

The Council has produced an ambitious new Local Implementation Plan (LIP) featuring the headline target for 75% of trips to be by sustainable modes by 2041, from a baseline of 61%. The LIP also targets for expanding the cycle network, improving air quality detailing, reducing road danger and increasing the use of public transport.

The LIP mirrors the ambitions of the Mayor's Transport Strategy, but on a local level. The publication of the new Mayor's Transport Strategy in 2017 marked a change in direction of transport in London. The new strategy is focused on more walking and cycling (through the wide-scale application of the Healthy Streets Approach), improving the public transport experience and managing growth. TfL have also introduced several 'daughter' documents for the MTS, including a Walking Action Plan and Cycling Action Plan.



Figure 1. Healthy Streets Indicators (Source: Healthy Streets for Londoners, TfL)

The Mayor's Healthy Streets Approach is a system designed to support walking, cycling and public transport use through the provision of high-quality environments that meet the needs of users. On a local level, this means assessing streets against ten 'Healthy Streets Indicators'. These assessments identify the strengths and weaknesses of a local area and provide guidance on how streets can be improved to make them more conducive to walking, cycling and spending time.

TfL's Walking Action Plan is focused on encouraging walking through the following four themes:

1. Building and managing streets for people walking
2. Planning and designing for walking
3. Integrating walking with public transport
4. Leading a culture change

The plan outlines the key barriers to walking. Time constraints are the most frequently cited reason for not walking more, followed by traffic levels being too high and cars travelling too fast. Personal security concerns, streets not being pedestrian friendly, a lack of fitness and having another preferred mode of travel are also common reasons given for not walking.

To get more people walking, the plan proposes creating attractive places, facilitating interchanges with public transport and promoting walking.

TfL's Cycling Action Plan has targets to increase the number of trips made by cycling and to expand the cycle network to reach more Londoners. The plan's actions have been grouped into four categories:

1. Streets that enable cycling
2. Making it easy to get around by cycle
3. Promoting cycling for all Londoners
4. Wider action through the Mayor's Transport Strategy

The plan cites the key barriers to cycling as fear of collisions, a perceived lack of fitness and a lack of confidence. These barriers highlight the importance of providing a safe, secure and continuous cycle network, paired with the support and training to encourage and enable people to use this infrastructure. The plan sets out a new approach to how TfL brands the London-wide cycle network, with plans to change the existing Quietways and Cycle Superhighways and all new routes to 'Cycleways'. TfL has developed six criteria for routes that sit under this branding, including volume and speed of motor traffic, interaction with HGVs and kerbside activity and collision risk at junctions.

The introduction of these new strategy documents dictates that the existing Richmond Cycling Strategy be reviewed. The renewed focus on walking and the introduction of the Healthy Streets approach to planning for both walking and cycling, has made expanding the strategy to cover both walking and cycling a natural conclusion. The introduction of the Cycleway standards has created a new set of guidelines for the creation of a high-quality strategic cycle network and creating links to neighbouring boroughs. The ambitious mode shift targets set by the Mayor's Transport Strategy dictate that our levels of ambition must be high.





UNDERSTANDING WALKING AND CYCLING IN RICHMOND

Understanding walking and cycling in Richmond

Fundamental to encouraging greater uptake of active travel is understanding where things currently stand. How do people currently travel in the borough? What are the most popular walking and cycling routes? Where is there the greatest potential for more? What is the existing infrastructure?

Richmond has the highest combined levels of walking and cycling (38.4%) in outer London and the potential to achieve even more. The borough also has the highest proportion of residents achieving a healthy level of activity through travel of any outer London borough, with 40% of borough residents currently doing at least 20 minutes of active travel each day.

WALKING

Walking plays an important part in urban life and is part of almost all journeys, whether as the complete journey or as a link between other modes of transport making up longer trips. The baseline mode share for walking is 32.2%, which is the second highest of any outer London borough, just behind Waltham Forest at 32.5%.

Across London, most walking trips are for shopping, personal business and leisure, with less than 10% of trips for commuting. This highlights the importance of walking for accessing local amenities and for leisure purposes.

Per TfL's Analysis of Walking Potential 2016, there are 183,100 existing walking trips and 56,500 potentially walkable trips per day in the borough. Teddington and Richmond town centres are both identified as having high numbers of potentially walkable trips, and to a lesser extent, Twickenham, Sheen and Whitton. Overall, journeys to or from town centres are recognised as providing the greatest opportunity to encourage more walking.

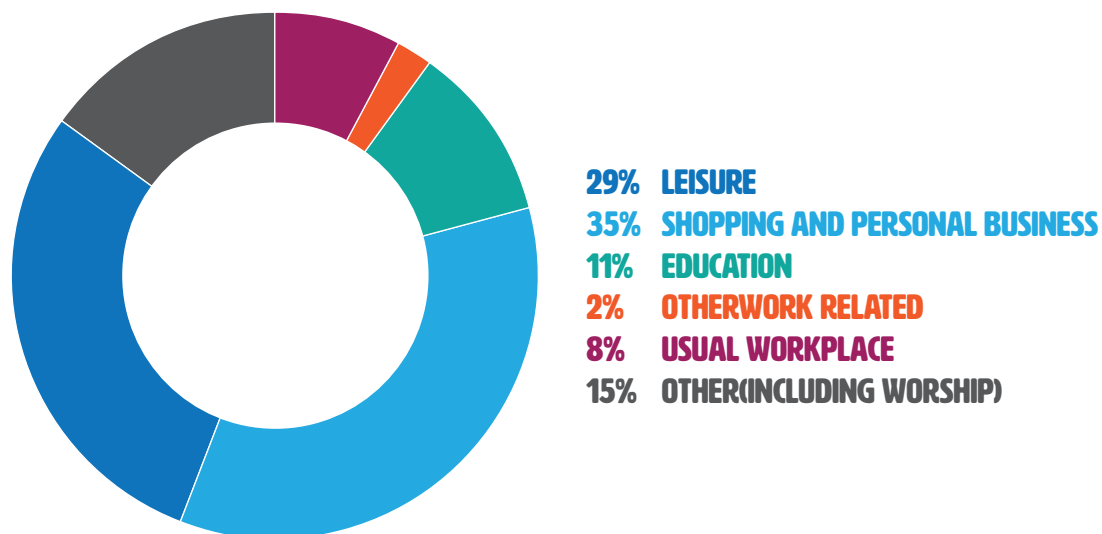


Figure 2. Purpose of walking trips in London.
(Source: Walking Action Plan, TfL)



WALKING INFRASTRUCTURE

Most roads within the borough have pavements, but the width and condition of these pavements is widely variable. While most are fully accessible, some are too narrow for wheelchairs and buggies. Trees and their roots also form barriers on many pavements. There are formal and informal crossings throughout the borough, with these focused on busier roads. Away from roads there are many paths through parks and along rivers, as well as public rights of way.

The borough hosts portions of the Thames Path, Capital Ring and London LOOP (London Outer Orbital Path). These are all strategic walking routes supporting by TfL, with the Thames Path designated as a National Trail. These routes are predominantly along towpaths and through the Royal Parks, but also include stretches in local parks and along streets. These routes provide great leisure opportunities for residents and visitors alike, and some areas also serve a utility function. Local friends' groups have also worked to develop walking routes within the borough. These include the Three River Walk, the Duke's River Walk and the Dragonfly Trail developed by the Friends of the River Crane Environment (FORCE), all of which are in the north of the borough on the Middlesex side of the river.

CYCLING

The baseline cycling mode share for the borough stands at 6.2%, and the Active People Survey indicates that in 2014/15, 33% of adults in the borough cycled at least once a month.

The borough has the highest level of cycling in outer London, and features some of the roads with the highest levels of cycling in Greater London. In many locations these cycling levels are achieved without specific supporting infrastructure

– Teddington Lock is in the top 10% for current cycling levels despite being a pedestrian only crossing.

Cycling flows are highest (based on TfL's cycling model, Cynemon) on the route from Teddington through to Twickenham and Richmond town centres via Strawberry Vale and Richmond Bridge, with high levels of demand also seen in the east of the borough, from Mortlake to Barnes and the boundary with LB Wandsworth. Cycling numbers are lower in the west of the borough, but many routes are still in the top 20% for current cycling levels, including Hampton Hill to Twickenham via Twickenham Green.

Per TfL's Analysis of Cycling Potential, 15% of Richmond's potential cycle trips are currently achieved (compared to 6% across Outer London). The highest concentrations of potentially cyclable trips are between Teddington and Richmond town centre, including Twickenham town centre. This link is within the top 5% of potential routes in Greater London. There are also concentrations through Barnes and parts of East Sheen, Whitton, Hampton Hill and Hampton Wick.

TfL have combined existing and potential flows to create a prioritised list of potential routes across Greater London. Our interpretation of these routes are shown here, and have informed our proposals for Richmond's strategic cycle network.

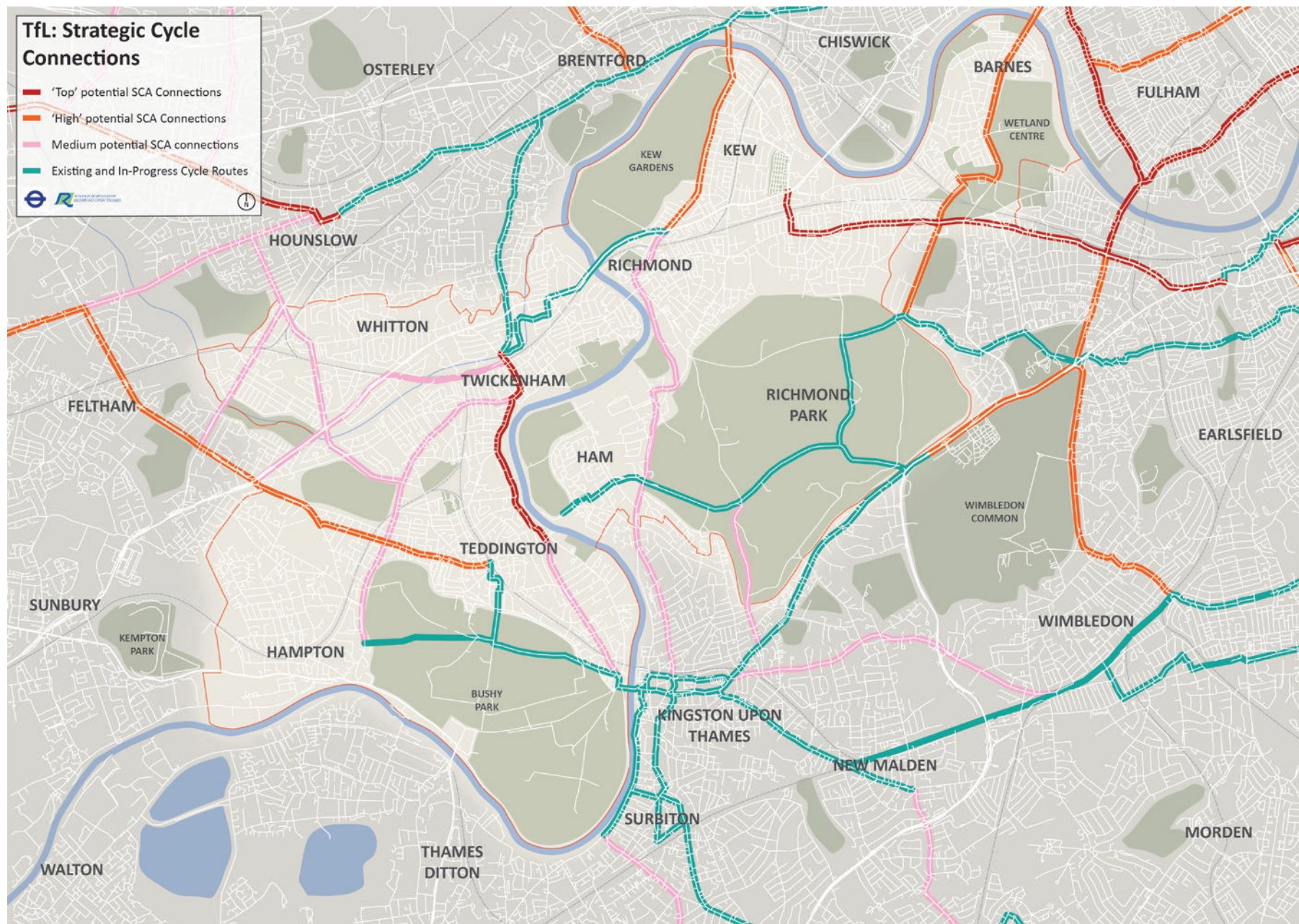


Figure 3. The routes in LBRuT with the greatest combination of existing and potential cycle trips. (Source: Cycling Action Plan, TfL)

SAFETY

Local Implementation Plan, which includes the local adoption of the Mayor's Vision Zero Action Plan. Vision Zero aims to see no deaths or serious injuries on London's roads by 2041.

Collision records are collected and maintained by the Metropolitan Police, with analysis regularly undertaken by TfL and details passed to the boroughs. The reporting system used by the police was changed in late 2016, resulting in some changes to the overall collision figures that have since been backdated to ensure consistency in the figures reported over time.

The borough wide safety review provides an overview of the last full five years of collision data, looking at collision severity and involvement of vulnerable road users (pedestrians, cyclists and powered two-wheelers).

The collision rate per million kilometres has remained consistent in the borough compared to previous years. The number of cyclists and pedestrians injured in collisions has also stayed roughly the same. The number of collisions by injury severity for cyclists and pedestrians are shown in Table 1 and Table 2.

In comparison with other London boroughs, LBRuT has the 5th lowest number of collisions per million kilometres and is 38.7% lower than the London average.

The Council is committed to supporting the Mayor's targets for Vision Zero as set through the borough's LIP. These targets will be met by introducing a combination of borough-wide schemes and site-specific interventions designed to address specific collision patterns.

Borough-wide schemes include the introduction of a lower 20mph speed limit on borough roads as well as the use of speed indicator devices (which are regularly rotated to various sites across the borough), cycle training, school-based programmes, road safety awareness campaigns and community safety initiatives.

Table 1. LBRuT cyclist injury collision 2014-2018

	2014	2015	2016	2017	2018	Total
Slight	126	88	96	90	82	482
Serious	11	17	12	22	28	90
Fatal	1	0	0	0	0	1
Total	138	105	108	112	110	573

Table 2. LBRuT pedestrian injury collisions 2014-2018

	2014	2015	2016	2017	2018	Total
Slight	61	56	56	57	55	285
Serious	8	7	10	11	13	49
Fatal	1	0	1	1	2	5
Total	70	63	67	69	70	339



OUR VISION FOR 2024

Our vision for 2024

The aim of this strategy is for more trips to be undertaken to, from and within LBRuT by walking and cycling, as both standalone trips and as part of longer trips involving public transport.

This aim is supported by the following objectives:

- Support local walking and cycling trips through the introduction of low-traffic neighbourhoods, improved crossings, contra-flow cycling, cycle parking and public realm improvements, using the Healthy Streets Approach
- Create a high-quality core cycle network connecting popular destinations
- Make improvements to clean-air walking and cycling routes away from roads, including paths through parks, towpaths and other public rights of way
- Improve awareness of local walking, cycling and running routes through maps and branding

The borough's LIP has several targets related to walking and cycling, in addition to the headline target for 75% mode share to be by sustainable modes. This strategy incorporates these targets as well as more specific targets. The headline target supports the key aim of this strategy to increase walking and cycling as a proportion of all trips taken within the borough.

The headline target and supporting, relevant LIP targets are shown in the table below, alongside the intermediate targets set for 2024. Setting targets for this strategy's timescales, to 2024, requires interpolating the target trajectories. Within these targets, a 1% change in mode share represents approximately 5,000 trips per day.

Progress towards these targets will be assessed via the metrics detailed in the table. These metrics are all tracked by TfL and reported to the boroughs. This strategy will require no separate monitoring but will also include annual reporting on the following:

- Number of 'Healthy Streets' projects completed, including a summary of the work undertaken
- Number of cycle parking spaces installed
- Kilometres of Cycleway route completed

Objective	Metric	Baseline	2021 target	2024 target	2041 target
Trips by Richmond residents to be on foot or by cycle	Mode share (by borough resident) based on average daily trips	38% (2014/15 – 2016/17)	39%	41%	49%
Trips by Richmond residents to be on foot, by cycle or by public transport	Mode share (by borough resident) based on average daily trips	61% (2014/15 – 2016/17)	62%	64%	75%
Richmond residents to do at least the 20 minutes of active travel they need to stay healthy each day	Proportion of London residents doing at least 2x10 minutes of active travel a day (or a single block of 20 minutes or more)	40% (2014/15 – 2016/17)	46%	49%	70%
Richmond residents have access to a safe and pleasant cycle network	Proportion of Londoners living within 400m of the London-wide strategic cycle network	0%	15%	20%	72%



PROPOSALS

Proposals

SUPPORTING LOCAL WALKING AND CYCLING TRIPS

Walking and cycling should be the natural choice for undertaking local trips, including accessing local shops and town centres, travel to school and connecting to public transport. The highway network should support these trips, wherever possible, without the need for sign-posted routes.

Making small-scale improvements can increase connectivity and improve the attractiveness of local routes. Such interventions include crossing points, lighting improvements, footway widening, junction improvements and the introduction of contra-flow cycling on more one-way roads. Creating low-traffic neighbourhoods makes an area more conducive to walking and cycling by reducing through-traffic.

PROMOTING CONNECTIVITY

Severance can be a major obstacle in many parts of the borough. In addition to the obvious sources – rivers, railway lines – severance can also be caused by busy roads and open spaces, which may be difficult to travel through or across. Providing safe connections between local areas will create a porous, accommodating network suitable for all kinds of trips.



Crossings

Crossing busier roads can often be a challenge for both pedestrians and cyclists. If there are no crossings present, or if crossings are in the wrong place, people are forced to take risks to cross the road, make a diversion to reach a safe crossing point or choose not to make a certain trip.

Ensuring that crossings are of the right type can reduce delays to both those wishing to cross as well as those using the highway.

There are several different types of crossings, as well as infrastructure that can be introduced to make it easier to cross the road informally or to give higher priority to pedestrians crossing side roads:

- Kerb build-outs and pedestrian waiting areas make it easier for pedestrians to cross a road informally by reducing the overall crossing distance or allowing pedestrians to cross in two stages, however by reducing the width of the roadway these can cause unsafe pinch-points for cyclists and motorcyclists using the road
- Zebra and parallel crossings provide priority to pedestrians and cyclists, with other road users required to give way
- Pelican, puffin, Pegasus and toucans are all types of signalised crossings where those wishing to cross must wait for road traffic to stop before being able to cross. The amount of time that pedestrians and cyclists will need to wait at these crossings is dependent on several factors, including proximity to other traffic signals and traffic volumes. All traffic signals in Greater London, including those at crossings, are controlled by TfL

The types of crossings that can be used, and the methodology used in signal-controlled crossings, continues to evolve. Parallel crossings have only recently been introduced in the UK, numerous 'colourful crossings' have been spotted in Southwark and Lambeth and signalised crossings are being introduced where the default is on providing a green light to pedestrians instead of cars.

ACTION:

We will make it easier for people walking and cycling to cross busy streets by:

- Reviewing the locations of formal and informal crossings along major roads to ensure they are in the best location and are of the right type.
- Work with TfL to review signalised crossings within the borough, including at junctions, with an aim of reducing the amount of time people must wait for a green man.
- Create new formal crossings where there is demand, including converting informal crossings and the introduction of facilities for cyclists through parallel crossings and toucan crossings.
- Make it easier to cross side roads by introducing modified Copenhagen-style crossings and tightening junction geometry.

Contraflow cycling

Enabling contraflow cycling on one-way streets can improve permeability and reduce journey times. There are approximately 100 one-way streets within the borough. By 2024, the Council will introduce contraflow facilities on as many of these roads as possible.

In 2016 the Council commissioned a study of these one-way streets to understand how many of them could be converted to allow for two-way cycling. The project used a four-stage approach to arrive at a combined score for deliverability and potential for adding value to the network, with each street assigned as high, medium or low priority. In total, 32 streets were identified as being high priority and 22 medium priority, with 17 of the high priority streets being progressed for further investigation and possible installation as part of Phase 1. Further phases will look at the remaining high priority and medium priority routes.

ACTION:

We will introduce contraflow cycling on all roads in the borough where there is a benefit to cycle journeys and road geometry allows.

Level crossings

While rail routes are largely segregated, there are still several level crossings located in the borough:

- Vine Road, Barnes (two crossings, no footbridge at either)
- White Hart Lane, Barnes (footbridge constructed 2019)
- Sheen Lane, Barnes (covered footbridge at Mortlake Station)
- Manor Road, North Sheen (footbridge)
- Wellesley Road, Strawberry Hill (covered footbridge at Strawberry Hill Station)
- Percy Road, Hampton (no footbridge)

The severance caused by these crossings varies by railway line and the availability of nearby alternative routes. The crossings through Barnes and North Sheen are closed for most of the peak hour, whereas there are only four trains per hour (two in each direction) through Hampton station.

ACTION:

We will minimise the impact of level crossings on pedestrians and cyclists in the short term by introducing wheel rails for cyclists at footbridges and promoting alternate routes where possible. In the long-term we will seek to introduce bridges at the remaining level crossings.



Figure 6. Cycle network porosity (source: Transport Initiatives on behalf of Richmond Council)

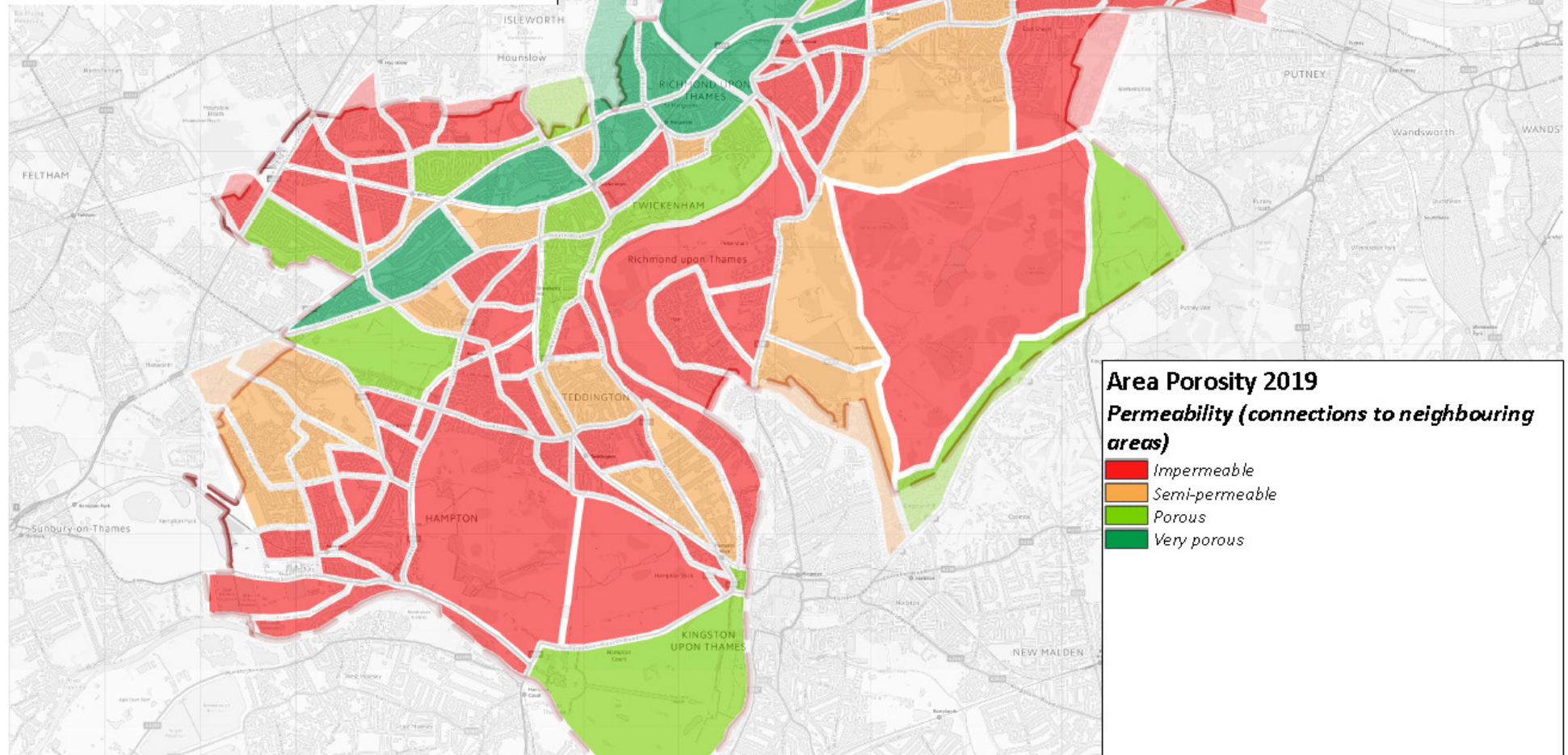
Network Review 2019



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A porous network for cycling

In 2018, Richmond Council commissioned a study to better understand the impact of busy roads and other barriers on the cycling network.

The study sub-divided the borough into zones surrounded by these barriers and coded them based on their level of connectivity to neighbouring zones. The results of this exercise are shown in the figure below. In this figure, zones shown as red lack cycling connections to neighbouring zones, whereas dark green zones have more than two cycling connections to neighbouring zones. Connections could be parallel or toucan crossings, segregated cycling facilities or grade-separated railway crossings. The study only scores connectivity between zones, not how easy it is to cycle within each zone. As a result, the core of Richmond Park is shown as red to indicate that it is difficult to safely access this area, not that it is difficult to cycle once within this part of the park.

The study found that porosity is greatest around Kew and Richmond and parts of Twickenham, with less permeability around Barnes, Teddington and Hampton. The ease of improving connectivity between zones will vary, but the study will also look to identify how permeability can be improved, making it easier for less confident cyclists to travel across the borough.

ACTION:

We will increase the porosity of the local cycle network by creating links between the zones as identified in the Cycle Network Review, including converting existing crossings to accommodate cycling, introducing new crossings and other types of infrastructure as identified as part of the study.

Low-traffic neighbourhoods & modal filters

A low-traffic neighbourhood is a defined area where through-traffic is discouraged while local access is maintained. Low-traffic neighbourhoods are created through the introduction of modal filters, ranging from a single point to numerous points across a wider area. Modal filters are most often permanent barriers that allow pedestrians and cyclists to pass but stop motor vehicles, but more sophisticated camera-based systems can also be used to allow access for buses and registered vehicles. There are numerous examples of existing modal filters within the borough, including at side streets along Castelnau and Amyand Park Road in Twickenham. Low-traffic neighbourhoods are generally bordered by main roads designed to carry greater numbers of vehicles.

Low-traffic neighbourhoods and modal filters are an important tool in responding to local concerns about unnecessary high levels of through traffic, safety and/or severance, as well as an important tool for encouraging local walking and cycling trips.

Consideration for the introduction of a low-traffic neighbourhood scheme can arise from the following:

- Resident petitions
- Councillor concerns
- Collision studies
- Neighbourhood studies
- Online request form
- School travel plans

Such schemes will be supported for introduction on a case-by-case basis and will vary in size and scope. Most schemes will be introduced initially on an experimental basis following an informal consultation for 12 to 18 months before undertaking a formal consultation.

ACTION:

We will introduce low-traffic neighbourhoods and/or modal filters in locations where concerns are raised over local traffic levels, where local streets are being used as inappropriate alternatives to main roads and to improve safety for pedestrians and cyclists.



Cycle parking

Cycle parking plays a key role in enabling cycling. To be attractive, cycle parking at homes and workplaces needs to be safe and secure, whereas at shops and other destinations it needs to be easy and convenient.

Understanding existing cycle parking provision has been simplified through the creation of the Cycle Infrastructure Database by TfL, which includes information on cycling infrastructure across London. The map-based tool provides detail on the number, location and type of cycle parking standards provided on the public highway. TfL have used the database to undertake a detailed analysis of where more cycle parking is needed, focusing on stations, town centres and schools.

Provision of additional cycle parking is managed by request or as part of wider area improvements. The number of on-street cycle parking stands provided is dependent on the space available as well as existing and potential demand. Cycle stands are generally located on pavements, but for the installation of new stands, priority will be given to placing them on the road. This will ensure no space is taken from pedestrians. Placing cycle parking in the roadway will be dependent on road geometry and kerbside activities, such as the need for space for loading and unloading.

The Council is introducing secure cycle hangars for residents, which are generally located on the street. Residents can request that a cycle hangar be considered for their street via the Council website, with priority for installation given to locations with high levels of public support. Each hangar is accessed by a key allocated to registered members and can accommodate up to six standard cycles.

All new developments are required to install cycle parking that will cater for existing and potential future levels of use. The Council has adopted the London Plan standards, which sets requirements and standards for short- and long-stay cycle parking.

ACTION:

We will provide more high-quality cycle parking throughout the borough by:

- Responding to requests for on-street parking made through the website
- Incorporate additional cycle parking into streetscape improvement projects where possible
- Installing on-street bike hangars where they are requested and supported by residents
- Using the Cycle Infrastructure Database to address cycle parking shortages where there are identified gaps in the existing provision
- Require new developments to install cycle parking in line with the London Plan requirements
- Ensuring as many new cycle parking stands can be used by non-standard bikes as possible, including cargo bikes and tricycles
- Creating a new Cycle Superhub at Richmond Station and looking to develop further cycle hubs in the borough

Supporting the strategic cycling network

TfL is working to develop a London-wide cycle network under a unified 'Cycleways' brand, replacing the existing Cycle Superhighways and Quietways branding. The introduction of quality criteria for inclusion in this network provides both opportunities and challenges.

The quality criteria set design standards for what these routes should look like, and routes built to this standard will provide a high level of service to those that use them. The criteria are:

1. Total volume of motor traffic
2. Speed of motor traffic
3. Appropriate width for cycling
4. Kerbside activity has a minimal impact on people cycling
5. Interaction between HGVs and people cycling minimised
6. Collision risk between people cycling and turning vehicles minimised

Each criterium has two levels – minimum and target. The criteria are interdependent and routes that meet some but not all the criteria may still be acceptable for inclusion in the Cycleway network. The criteria have been developed to reduce potential conflicts with motor vehicles, and so only apply to on-road routes.

The analysis that underpins TfL's Cycling Action Plan highlights that there are many routes in the borough that have both high existing levels of cycling and high levels of cycling potential. This provides a strong baseline for route planning, ensuring that those that currently cycle in the borough can continue to do so safely, while also encouraging more people to take up cycling.

Designing routes to this new standard on some roads in the borough is relatively straightforward, but there are many locations where space restrictions represent insurmountable challenges. For example, Richmond Bridge is the preferred route for trips between Twickenham and Richmond town centres. The current volume of traffic dictates that segregated cycle facilities should be provided, but the bridge is too narrow. Twickenham Bridge provides an alternate route with segregated facilities but requires a significant detour.

The key challenge is therefore to find a balance between providing continuous routes to the Cycleway standard and providing infrastructure to keep cyclists safe on their preferred routes.

TfL is in the midst of a ten-year programme of creating Cycleways along routes with combinations of high levels of existing and potential usage. Within this programme, four routes are currently planned with portions within the borough:

ACTION:

We will work with neighbouring boroughs and TfL to create a core cycle network connecting key destinations, using desired routes. Routes will be created to Cycleway standard unless there are insurmountable obstacles along the desired route.

By 2024, a core network will connect Hampton Court Bridge to Twickenham town centre via Hampton Wick, linking to RB Kingston's Mini-Holland routes, the Wandsworth to Teddington Lock Cycleway and the Brentford to Twickenham Cycleway.



- Wandsworth to Teddington Lock via Richmond Park – under construction / opens 19/20
- Twickenham to Richmond (A316) – construction 2020/2021- 2023/2024 / open 2020/21-2023/2024
- Kingston to Teddington via Bushy Park - start construction 2020/2021- 2023/2024 / open 2020/21-2023/2024
- Brentford to Twickenham - start construction 2020/2021- 2023/2024 / opens beyond April 2024

Two additional routes have been identified within the programme as top potential routes – Kingston to Twickenham and Mortlake to Putney. The Mortlake to Putney route is expected to come at the end of the programme in the mid-2020s. The Kingston to Twickenham route will be expedited to coincide with the Council's planned safety improvements to the A310 between Teddington and Twickenham town centre. TfL's Strategic Cycling Analysis has also enabled additional potential strategic routes in the borough to be identified.

The following routes will be progressed with target completion by 2024:

- Kingston Bridge to Twickenham via Broom Road and the A310 Strawberry Vale corridor
- Hampton Court Bridge to Kingston Bridge via the A308 Hampton Court Road
- Richmond Circus to the A205 via the A307 Kew Road

Improved routes will also be provided through Richmond and Twickenham town centres within this timescale. Routes through Richmond town centre will focus on improving connectivity to the planned new Cycle Superhub at Richmond Station. Routes through Twickenham town centre will focus on connecting the planned Brentford to Twickenham Cycleway to the Kingston Bridge to Twickenham Cycleway via Twickenham Station.

The following routes have been identified for inclusion in the strategic network but may not be completed until after 2024:

- Hammersmith Bridge to Barnes via A306 Castelnau
- Twickenham to Richmond via Richmond Road
- Richmond to Putney via A305 Sheen Road and the A205 South Circular
- Kingston to Richmond via Ham
- Hampton to Twickenham via Hampton Hill

These routes, along with their proposed alignments, have been mapped for illustrative purposes. The alignment of routes is subject to change and all will be subject to public consultation and availability of funding. The type of infrastructure used to support safe cycling will vary by route but will adhere to TfL's Cycleway standards. Accommodation will range from segregated routes to traffic calming measures focused on reducing vehicle numbers and speeds.



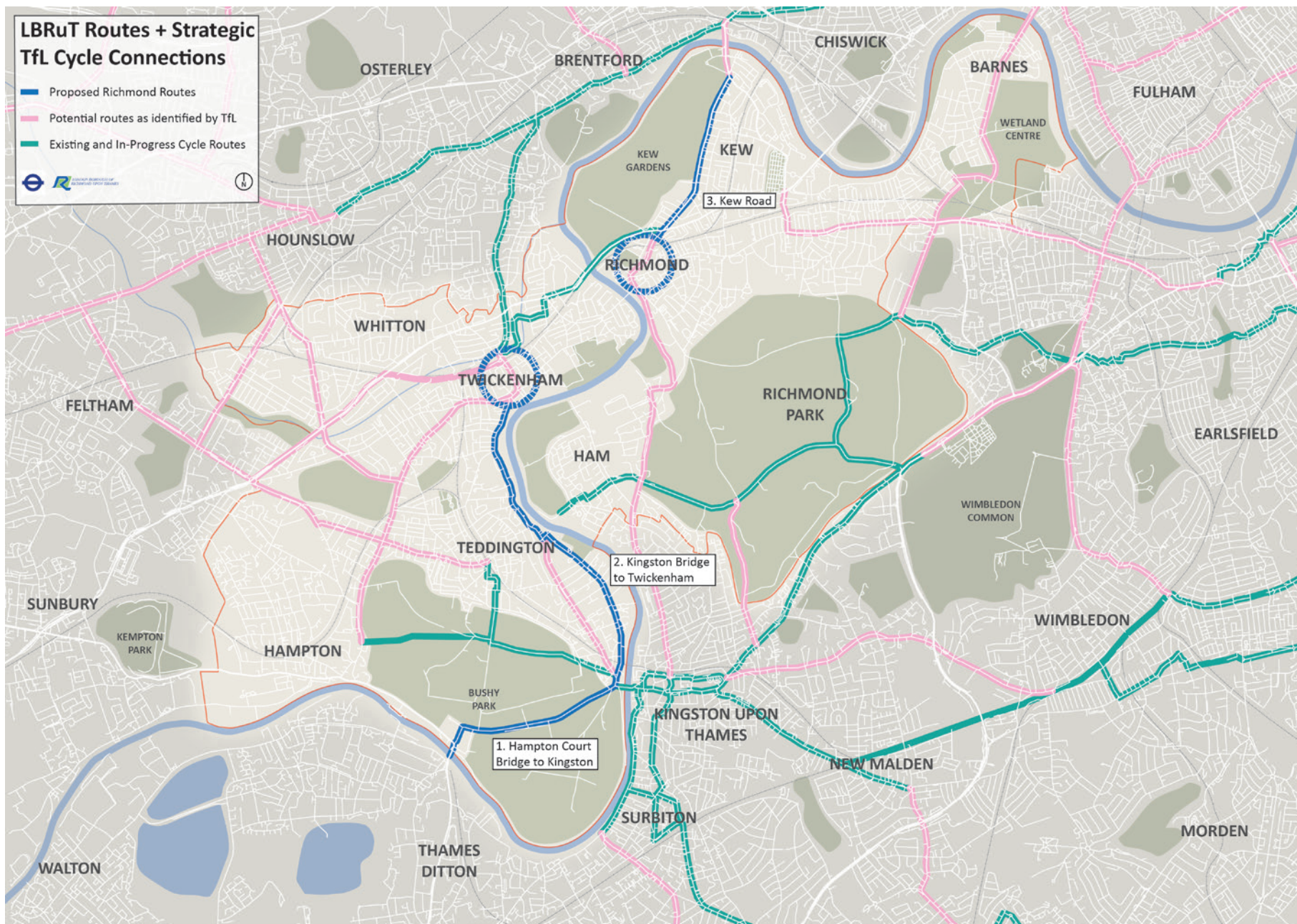


Figure 4. Map of cycling potential. (Source: CityMapper, TfL)

Off-road walking and cycling

It is easy to overlook routes away from roads. People travelling by foot or by cycle will often assume that the best route options are those that are used by cars, or they may not be aware that other routes are available.

There are numerous benefits to walking and cycling routes away from the road network. Without cars the air is cleaner, there is generally less noise and routes can often be shorter than if travelling by car. But there are also disbenefits: paths may be dark, if there aren't others around people can feel fearful and vulnerable, and rough surfaces may make it difficult for those with restricted mobility or those with pushchairs.

Half of the borough is green spaces, providing great opportunities for walking and cycling through parks and along waterways. The borough also hosts countless other public rights of way that often take the form of alleys in built-up areas. Some public rights of way have been designated for shared use, some can be only used by pedestrians and on others there is a grey area where cycling is not strictly allowed but also not forbidden.

Encouraging greater use of off-road routes requires making improvements to the facilities to make them easier and safer to use as well as raising awareness that these routes are available through mapping and way-finding.

ACTION:

We will look after the borough's public rights of way, including alleys and paths through parks by:

- Reviewing lighting and monitoring plant growth to ensure paths feel safe to use
- Monitoring surfacing to ensure as many paths as possible can be accessed by those with limited mobility
- Ensuring gates and bollards do not preclude anyone from being able to utilise these paths
- Providing a platform on the Council website for mapped off-road walking and cycling routes
- Work with community groups to identify opportunities for creating new off-road routes by making localised improvements
- Allowing cycling on as many off-road paths as possible, where space and usage figures allow

Linking to public transport

Access to public transport varies across the borough. Richmond and Twickenham are both very well served by both rail and buses, while other parts have no nearby rail stations and intermittent buses. All trips by public transport include elements of walking and cycling at the start and end and providing strong links to public transport is pivotal in encouraging its use for longer trips.

Not all public transport interchanges in Richmond are in obvious locations. Many rail stations and popular bus interchange points - such as North Sheen and Fullwell rail stations and Richmond Bus Station - are located on minor roads. In some instances, a short walking trip is necessary when changing from bus to rail. Improving visibility of stations through route improvements and way-finding is vital in ensuring people feel safe and secure in using these facilities. Local lighting levels can play a role in ensuring people feel safe travelling at night.

ACTION:

We will support the start and end leg of public transport journeys by:

- Reviewing way-finding around rail and bus stations, including sign-posting from stations to bus stops, and from bus stops to stations
- Prioritising improvements to local walking and cycling routes in the areas around bus stops and rail stations
- Providing cycle parking at stations and bus stops in areas without stations
- Reviewing lighting on key routes to stations and bus stops

Supporting other types of active travel

The term ‘active travel’ generally refers to walking and cycling, but there are many other ways that people travel that also fits under the wider umbrella of active travel. These include, but are not limited to:

- Wheelchairs, electric wheelchairs and mobility scooters
- Running
- Scooters (and electric scooters), skateboards and roller blades
- Horseback riding

Creating an accessible environment for everyone who lives, works and visits the borough is a priority. This means ensuring that there are dropped kerbs in the right locations, that roads can be easily crossed, that bollards and other barriers are spaced to allow for the safe passing of wheelchairs and that bus stops are accessible.

While all new infrastructure is designed in line with the latest standards, which take accessibility into account, there are many older facilities across the borough that may not be built to this standard. The struggle can be to understand where existing infrastructure is not fit for purpose. Responding to requests for accessibility improvements are taken very seriously and actioned and rectified as soon as possible.

There are also many examples when existing standards may not fully consider the needs of all pedestrians or may unwittingly prioritise cars at the expense of pedestrians. Dropped kerbs are located throughout the borough to enable residents to park in their front garden. These kerbs generally result in a portion of sloped pavement between the road the entrance to the property. Slopped pavements can be difficult to traverse for those in wheelchairs, those with limited mobility and those with pushchairs. Reconsidering the design of dropped kerbs to focus on minimising the amount of slope on the pavements will ensure that pedestrian facilities are not compromised.

Whilst most commonly seen as a leisure pursuit, running is an emerging mode of travel in and of itself, often as a means of travel to and from work, known as run-commuting. Running doesn’t require specific infrastructure but collective thinking can identify the best running routes. Desirable running routes will generally be continuous with minimal needs to stop and wait to cross the road. During hours of daylight, towpaths and paths through parks can be highly desirable routes, but it can be more difficult during winter months or during high tides when towpaths may be subject to flooding. Run-commuting is likely to require facilities to enable the practise. Showers and changing facilities are likely requirements for run-commuters travelling to work.

ACTION:

We will support all types of active travel by:

- Prioritising changes to infrastructure that are restricting mobility, including installing dropped kerbs at junctions, reviewing pedestrian crossings, pavement widths and widths between bollards and ensuring pavements are flat with no loose tiles
- Changing our approach to dropped kerbs at private residences, with focus on maintaining a flat surface to aide those in wheelchairs, those with limited mobility and those with pushchairs
- Identify and map running routes between key destinations in the borough, with a focus on routes of standard race lengths, such as 5km, 10km or half marathon, with maps published on the Council website
- Provide specialised ‘Pegasus’ crossings for horses and their riders as required, and ensure visibility is maximised along roads regularly used by horses

Supporting other types of active travel Continued

Scooters are most commonly associated with primary and pre-school aged children, but they are also often used by adults, either alongside children or on their own. Maximising safety for scooter users means ensuring pavements are in good condition and free of uneven tiles. The Council supports scooter training as part of its school travel programme.

Electric scooters are sometimes seen but are not currently legal for use on roads or on pavements. The Department for Transport is currently reviewing this status and thus may be reconsidered in future years.

Horse riding remains a popular pastime in the borough, with horses most likely to be found in and around Bushy Park and Richmond Park. Outside of the parks, horses travel on road, and require an adequate buffer to separate them from traffic. They may require special facilities to help them cross busy roads.

Awareness, training and events

Raising awareness of infrastructure can be imperative in increasing walking and cycling levels. Providing training to those who feel they lack the skills or the confidence to use this infrastructure can provide people with additional freedom to choose how they travel. Events, either where the focus is on active travel or it is complementary to the main theme, provide additional opportunities for public engagement.

The primary means the Council uses for raising awareness of both infrastructure and initiatives offered to residents are:

- Council website
- Council social media, focusing on Twitter
- Community engagement, including Community Conversations
- Leafleting

The Council offers cycle training to both school children and adults, and pedestrian safety and scooter training to school children. The Council leads the way in London for on road Level 2 Bikeability training, with 93% of year 6 children completing the training compared to a London average below 50%.

Increasing levels of active travel will be dependent on awareness of the work the Council is undertaking, as well as understanding the facilities that are already in place.

ACTION:

We will raise awareness of new and existing infrastructure and cycle training through the following:

- Ensuring the Council website is kept up to date, with a clear path to information on walking and cycling, up to date maps, links to stakeholder groups and information on training and upcoming events
- Utilising the Council's social media to raise awareness of training, new infrastructure and events
- Creating and publishing leaflets on walking and cycling for distribution at events
- Continuing to offer adult cycle training
- Communicating directly with the public through leafleting, community engagement evenings and other events

Deliveries, servicing and other commercial traffic

Commercial traffic has a big impact on local roads. While much of it is vital – bringing supplies to shops, pubs and restaurants – there is more that can be done to both shift some of this traffic from cars and vans to electric and cargo bikes, and to reduce the conflicts between kerbside activity and pedestrians and cyclists.



ACTION:

We will reduce the potential for conflict between pedestrians, cyclists and commercial vehicles by:

- Adopting the newest London Cycle Design Standards to reduce conflict between cyclists and vans and HGVs
- To prohibit loading activity in cycle lanes wherever possible, using double yellow lines and loading restrictions
- To prohibit loading activity where it may affect pedestrian sight lines at designated crossing points, including across side streets
- Ensuring new developments can accommodate loading and servicing activity away from the public highway, with access and egress in forward gear, wherever possible

ACTION:

We will encourage and enable more delivery and servicing trips to be undertaken by bicycle by:

- Providing opportunities for individuals and businesses to try different types of electric and cargo bikes at community events
- Investigating the purchase of cargo bikes by the Council for local businesses to trial on a short-term basis
- Encouraging local Council deliveries to be undertaken by bike



LINKS TO OTHER STRATEGIES

Links to other strategies

The Council has several strategies focused on different areas of traffic, transport and air quality. These strategies are complementary, and this strategy has been developed to support these strategies, and vice versa.

LOCAL IMPLEMENTATION PLAN

The third Local Implementation Plan is a high-level plan covering all modes, with a focus on how the borough will meet the nine outcomes of the Mayor's Transport Strategy. This strategy serves as a daughter document to the plan, focusing on a subset of these outcomes and what the borough will aim to achieve over a shorter timescale. The Local Implementation Plan was approved in 2019 with timescales to 2041.

SCHOOL TRAVEL

The Council has a school travel programme with a dedicated coordinator. The school travel programme covers active travel as well as road safety and air quality. While many aspects of this strategy will support walking and cycling to schools, the focus on schools remains separate, with individual schools encouraged to develop their own action plans to support more active travel.

ROAD SAFETY

The Mayor of London has adopted the Vision Zero strategy for London, with an aim of no people being killed or seriously injured on London's roads by 2041. While pedestrians and cyclists make up a large proportion of those killed or injured in road collisions, addressing road geometry and driver behaviour are the core elements of achieving Vision Zero. The borough has developed a separate road safety plan to

better understand collision patterns within the borough and to formulate an action plan to reduce the number of people injured or killed on local roads.

AIR QUALITY

Transport is a major contributor to poor air quality in the borough, with the worse air quality seen along the Transport for London Road Network (A316 and A205), in Richmond and Twickenham town centres and along Castelnau. Both the Local Implementation Plan and the Air Quality Action Plan include measures focused on improving air quality with the borough. Encouraging and enabling walking and cycling can help improve air quality through mode shift away from private vehicles.

PUBLIC HEALTH

There is a strong link between increasing walking and cycling levels and public health. The Health and Wellbeing Board Strategy (2017-21) includes two priorities – joining up services and maximising support – that support this strategy, particularly in encouraging residents to walk and cycle.

The Health and Care Strategy (2019-21) will be published in the autumn 2019. The plan has three main themes: Start Well, Live Well, Age Well. These are also two cross-cutting themes: prevention and carers. Within each of the main themes, there are specific actions that have been associated with living well,

e.g. 'reducing obesity in children/young people', that link closely with this strategy.

Through the local health and care plan and NHS Primary Care Networks our borough will be seeing the roll out of social prescribing link workers.

DEVELOPMENT PLANNING

Planning for new developments is one of the three areas of focus in the new Mayor's Transport Strategy, and the new London Plan includes new car parking standards linked to public transport accessibility levels and higher cycle parking standards for some types of developments. The Council has adopted the London Plan standards for car and cycle parking for new developments.



FUNDING AND DELIVERY

Funding & delivery

The availability of funding will be pivotal in the delivery of this strategy. The primary funding mechanisms will be:

- TfL's LIP funding
- TfL's Cycleways programme
- S106 and CIL developer funding
- Funding bids

The LIP funding is allocated to the borough on an annual basis, with the amount varying by year. It is the primary means for funding highway improvement schemes in the borough, including projects focused on active travel, road safety, schools and air quality. The LIP funding will be the primary means of funding the implementation of this strategy, except for the strategic cycle network.

TfL's Cycleways programme funds the development and construction of the strategic cycle network across Greater London, including schemes within LBRuT. The funding levels are dictated by TfL and must be used for specific routes. The Cycleways programme is funding the strategic routes currently in development within the borough, and funding is also expected for the construction of the Kingston Bridge to Twickenham route. Beyond the life of this strategy, it is expected to fund the Mortlake to Putney route.

Developer funding is highly variable. Most contributions from new developments go towards the general CIL pot (Community Infrastructure Levy), which is used by the Council to offset the impact of population and employment growth. CIL funding can be used for transport improvements, but is also used to fund school places, social services and healthcare. Section 106 agreements, by contrast, allocate specific funding amounts for transport improvements. These can vary greatly in size and scope but will often be concentrated in the immediate vicinity of the development.

Funding bids, such as TfL's Liveable Neighbourhoods and the GLA's Mayor's Air Quality Fund, provide the Council with the opportunity to access additional funding for projects that meet certain criteria. The Council will continue to submit applications for relevant, available funding opportunities.

Responsibility for delivery of this strategy will be shared between the Council's Transport, Highways and Air Quality teams, with Transport serving as lead.





ACTION PLAN

Action Plan

ACTION	FUNDING SOURCE	TIMESCALES
<p>Make it easier for people walking and cycling to cross busy streets by:</p> <ul style="list-style-type: none"> • Reviewing the locations of formal and informal crossings along major roads to ensure they are in the best location and are of the right type. • Work with TfL to review signalised crossings within the borough, including at junctions, with an aim of reducing the amount of time people must wait for a green man. • Create new formal crossings where there is demand, including converting informal crossings and the introduction of facilities for cyclists through parallel crossings and toucan crossings. • Make it easier to cross side roads by introducing modified Copenhagen-style crossings and tightening junction geometry 	LIP	Ongoing from 19/20 as part of area studies, from 20/21 as separate work programme
Introduce contraflow cycling on all roads in the borough where there is a benefit to cycle journeys and road geometry allows	LIP	Ongoing, programme started 19/20
Minimise the impact of level crossings on pedestrians and cyclists in the short term by introducing wheel rails for cyclists at borough-owned footbridges and promoting alternate routes where possible. In the long-term we will seek to introduce bridges at the remaining level crossings	LIP & S106/ CIL funding	Short term improvements from 20/21, new bridges funding dependent
We will increase the porosity of the local cycle network by creating links between the zones as identified in the Cycle Network Review, including converting existing crossing to accommodate cycling, introducing new crossings and other types of infrastructure as identified as part of the study.	LIP	Review to be completed 19/20, work programme to start 20/21
We will introduce low-traffic neighbourhoods and/or modal filters in locations where concerns are raised over local traffic levels, where local streets are being used as inappropriate alternatives to main roads and to improve safety for pedestrians and cyclists.	LIP	Ongoing as part of Healthy Streets programme, started in 19/20

<p>We will provide more high-quality cycle parking throughout the borough by:</p> <ul style="list-style-type: none"> • Responding to requests for on-street parking made through the website • Incorporate additional cycle parking into streetscape improvement projects where possible • Installing on-street bike hangars where they are requested and supported by residents • Using the Cycle Infrastructure Database to address cycle parking shortages where there are identified gaps in the existing provision • Require new developments to install cycle parking in line with the London Plan requirements • Ensuring as many new cycle parking stands can be used by non-standard bikes as possible, including cargo bikes and tricycles • Creating a new Cycle Superhub at Richmond Station and looking to develop further cycle hubs in the borough 	LIP & funding bids	Ongoing programme for on-street cycle parking, installation of cycle hangars starting in 19/20. Bids to TfL and SWR for additional funding to be made in 19/20.
<p>We will work with TfL to create a core cycle network connecting key destinations, using desired routes. Routes will be created to Cycleway standard unless there are insurmountable obstacles along the desired route.</p> <p>By 2024, a core network will connect Hampton Court Bridge to Twickenham town centre via Hampton Wick, linking to RB Kingston's Mini-Holland routes, the Wandsworth to Teddington Lock Cycleway and the Brentford to Twickenham Cycleway</p>	LIP & TfL Cycleways	Development of TfL-led routes underway, design for Hampton Court to Twickenham underway, design for A307 Kew Road underway. Construction to late 19/20, early 20/21
<p>We will look after the borough's public rights of way, including alleys and paths through parks by:</p> <ul style="list-style-type: none"> • Reviewing lighting and monitoring plant growth to ensure paths feel safe to use • Monitoring surfacing to ensure as many paths as possible can be accessed by those with limited mobility • Ensuring gates and bollards do not preclude anyone from being able to utilise these paths • Providing a platform on the Council website for mapped off-road walking and cycling routes • Work with community groups to identify opportunities for creating new off-road routes by making localised improvements • Allowing cycling on as many off-road paths as possible, where space and usage figures allow 	LIP	Ongoing on small-scale, from 20/21 as separate programme

<p>We will raise awareness of new and existing infrastructure and cycle training through the following:</p> <ul style="list-style-type: none"> • Ensuring the Council website is kept up to date, with a clear path to information on walking and cycling, up to date maps, links to stakeholder groups and information on training and upcoming events • Utilising the Council's social media to raise awareness of training, new infrastructure and events • Creating and publishing leaflets on walking and cycling for distribution at events • Continuing to offer adult cycle training • Communicating directly with the public through leafleting, community engagement evenings and other events 	LIP (minimal)	Ongoing from 19/20
<p>We will encourage and enable more delivery and servicing trips to be undertaken by bicycle by:</p> <ul style="list-style-type: none"> • Providing opportunities for individuals and businesses to try different types of electric and cargo bikes at community events • Investigating the purchase of cargo bikes by the Council for local businesses to trial on a short-term basis • Encouraging local Council deliveries to be undertaken by bike 	LIP & funding bids	Programme to start in 20/21
<p>We will reduce the potential for conflict between pedestrians, cyclists and commercial vehicles by:</p> <ul style="list-style-type: none"> • Adopting the newest London Cycle Design Standards to reduce conflict between cyclists and vans and HGVs • To prohibit loading activity in cycle lanes wherever possible, using double yellow lines and loading restrictions • To prohibit loading activity where it may affect pedestrian sight lines at designated crossing points, including across side streets • Ensuring new developments can accommodate loading and servicing activity away from the public highway, with access and egress in forward gear, wherever possible 	LIP	Programme to start in 20/21