



APPENDIX A

Healthy Streets, Healthy Travel, Healthy Lives: Camden Transport Strategy 2019-2041

**Incorporating Camden's Local Implementation Plan
(LIP3)**

April 2019

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Supporting documents include:

Walking & Accessibility Action Plan

Cycling Action Plan

Road Safety Action Plan

Electric Vehicle Charging Point Action Plan

Evidence Base Report

Consultation Report

Equalities Impact Assessment

Strategic Environmental Assessment

Health Impact Assessment (completed on draft CTS)

Foreword

Without good transport, life in Camden would stand still; and standing still is not something Camden is known for.

This new transport strategy sets out how the council will improve the way people are able to move around Camden in the decades to come. As both Camden and London grow, carrying on doing what we have been would mean that we are only just keeping up with demand. We need to go further to radically change the way we move about, and to ensure that travel becomes healthier, safer, and more affordable than ever.

We present this strategy at a time of great change and uncertainty. Cuts to the public sector look set to go on and on. Brexit may seem unrelated to transport and mobility matters, but all aspects of public policy will feel its impact. Meanwhile, changes in the form of new methods of travel, such as electric cars and bikes, the rise of on-demand services, and changes in the world of work, all present their own challenges and opportunities.

The policy context has changed too, largely for the better. The Mayor's Transport Strategy is an ambitious document which raises the bar for London's boroughs. For instance, the MTS goal for zero deaths on London's road by 2041 is difficult to achieve but it is undoubtedly the right one. If we do not try, we will never succeed.

The Mayor's specific ambition to reduce car dependency is also one that should win support. In Camden we have made strong progress towards this over the last decade, boosted by our previous transport strategy and achieving a fall in car ownership to just one-third of households in the borough by 2017. But the time is right to devise a new transport vision for the borough given the huge changes experienced since the last strategy was agreed in 2011.

Congestion remains a challenging problem and one which must be addressed if those who have an essential need to use cars – because they cannot switch to walking, cycling or public transport – are to be able to travel around the borough successfully. Issues related to poor air quality have shot up the agenda, and Camden Council's goal to achieve World Health Organisation standards for the air we breathe require that we make inroads into emissions from transport.

And not everything has gone as we hoped: total road traffic casualties across our road network have risen in recent years, while the huge contribution that active travel can make to our physical and mental health remains too untapped. Inequality in access to, and impact from, transport also remains too entrenched.

For these reasons, this strategy presents its vision to transform transport and mobility in Camden, enabling and encouraging people to travel, and goods to be transported, healthily and sustainably. Underneath this top-level ambition we present more detailed action plans which set out, for the perusal and involvement of the partners whose assistance we need, the detail of how we will make progress in improving: road safety; walking and accessibility; cycling levels; infrastructure for electric vehicles; and emerging plans for freight.

New technology, a growing population, a difficult environmental context and the raised ambitions we set for ourselves are combining to create a challenge for Camden, and London, to change. This challenge is a stretching one no doubt, but it is achievable; and it is a goal we can achieve by working together, rather than alone, and for the benefit of all. I look forward to working alongside our many partners in delivering this ambitious strategy.



A. Harrison

Councillor Adam Harrison,

Cabinet Member for Improving Camden's Environment

Executive Summary

Camden's transport strategy sets out our vision and objectives for transport in the borough. It responding to changing challenges, opportunities and policy contexts and identifies the measures by which the council intends to meet its transport goals. Camden – its residents, businesses, organisations and visitors – must come to enjoy the healthiest, most efficient and most sustainable forms of transport. Achieving this will include improving air quality, personal health, inequality and community cohesion, access to opportunities and services, and economic growth.

Our vision is: To work alongside residents and partners in transforming transport and mobility in Camden, enabling and encouraging people to travel sustainably; nurturing healthier lifestyles; creating radically less polluted places; and upgrading the transport network to meets Camden's needs and those of London as a growing capital city

Our objectives in supporting that vision are:

Objective 1: To transform our streets and places to enable an increase in walking and cycling

Objective 2: To reduce car ownership and use, and motor traffic levels in Camden

Objective 3: To deliver a sustainable transport system and streets that are accessible and inclusive for all

Objective 4: To substantially reduce all road traffic casualties in Camden and progress towards zero Killed and Seriously Injured casualties

Objective 5: To reduce and mitigate the impact of transport-based emissions and noise in Camden.

Objective 6: To deliver an efficient, well maintained highways network and kerbside spaces that prioritises the sustainable movement of goods and people

Objective 7: To ensure economic growth and regeneration is supported by, and supports, a sustainable transport network

To achieve these objectives, our policies and measures will include:

- Delivery of transformational, area-wide transport and public realm improvements that prioritise and enable active travel modes, and reduce the dominance of motor vehicles
- Implementation of a robust and ambitious set of parking policies – including reviews and amendments to our parking permit charges and structures, and feasibility into (and next steps if feasible) a Workplace Parking Levy in the Borough – to contribute to reducing motor traffic levels in Camden
- Delivery of a range of other measures to restrict traffic rat-running on our residential streets and around schools, including timed/permanent restrictions to (non-exempt) motor vehicles on individual streets and across broader areas

- For essential trips that still require motor vehicles, to provide an expanded network of Electric Vehicle Charging Points (EVCP) – supported by other policies such as parking charges – to encourage and enable a shift towards the least polluting vehicles
- Provision of high quality alternatives to private motor vehicle use – from supporting important public transport infrastructure improvements such as Crossrail 2 to car clubs and cycle hire systems – that further enable mode shift
- The development and implementation of a high quality, Borough wide cycle network that provides safe and attractive routes for all ages and abilities
- An evidence-led approach to road safety that targets implementation of measures where they will have the most effect at reducing collisions, and a rolling programme of actions to reduce speeds in line with our Borough-wide 20mph limit
- Supporting, and lobbying TfL to go further, in the development and implementation of their programmes which will improve air quality in the Borough, such as low emission bus fleets and the Ultra-Low Emission Zone
- Enabling, and mitigating impacts of, development sites across the Borough – from HS2 to growth areas – via the robust application of our planning policies, effective monitoring and provision of sustainable transport options
- Developing and implementing five, focussed Action Plans to help achieve our objectives: a Walking & Accessibility Action Plan, a Cycling Action Plan, a Road Safety Action Plan, an Electric Vehicle Charge Point (EVCP) Action Plan, and an (emerging) Freight Action Plan.

In delivering these schemes, programmes and policies we will seek to deliver the following high-level outcomes (with interim targets also set):

- An increase in sustainable transport mode share by Camden residents from 85% (2017) to 93% (2041), including a quadrupling in cycle mode share by Camden residents, from 3.6% (2017) to 15% (2041), and half of all residents' trips to be made on foot by 2041
- A reduction in motor traffic volumes by 20-25% by 2041 compared to 2016 data
- Reductions in Nitrogen Oxide (NOx) and Particulate Matter (PM10) from road transport, of 95% and 61% respectively by 2041 (compared to 2013 data), that assist the Borough in meeting World Health Organisation targets for both
- Achieving zero Killed and Seriously Injured road collision casualties per annum by 2041, against a baseline of 100 (2010-2014 average)

Chapter 1: Introduction

1A. Background

- 1.1 Transport is an essential means through which people achieve their goals in life. It is the bloodstream of any borough. Done well, it enables people to move around safely, healthily, and affordably. Camden Council recognises and embraces its duty to ensure that transport serves the needs of its residents, visitors, businesses and local institutions. The transport policy that the council agrees is central to helping people and goods/services reach their destinations, improving health, ensuring equality of access and inclusivity in travel, transforming our streets and public spaces, improving prosperity, and assuring quality of life for all.
- 1.2 Camden's geographic location in the heart of a major international city means that the transport projects and schemes we provide are crucial not just to our residents but to the huge numbers of people (and goods) who either pass through the Borough, or for whom Camden is their destination. We are building on solid foundations, with a history of progressive transport policies and innovative and transformational transport schemes. But we recognise there is more to do to ensure that our transport network and streets are inclusive and enable people to live in clean, vibrant and sustainable places. Camden needs to be a borough in which walking, cycling and public transport are the best way to get around.
- 1.3 Camden is at the centre of a global economy and growth is one of our priorities for 2025. We are also the destination of choice for some of the most dynamic businesses in the world. We need to make sure that Camden continues to be the best place in London to do business, with the infrastructure that business needs to grow. Camden's transport network and streets connect people to opportunities and essential goods and services both within and outside of the Borough – jobs, education, health care, shops, recreation and leisure – and transport accessibility is the major catalyst for unlocking growth areas identified in our Local Plan.
- 1.4 However, Camden, like the rest of London, faces transport challenges on several fronts: rising congestion and delays, poor air quality and continued carbon emissions, noise, overcrowding on public transport networks and streets, traffic dominance, the cutting-off of communities by heavily trafficked road networks, road danger and personal security. For example, when preparing our vision for Camden in 2025, residents identified air quality as a community challenge and asked that we work together to take "bold action" to improve air quality in Camden by 2025.

- 1.5 These are all issues which the detail of this Strategy addresses and which the council itself needs to address, in order to ensure Camden remains an attractive place in which to live and visit, and competitive as a place to do business.
- 1.6 If left unchecked these problems will be exacerbated by population and economic growth, both within and outside of the Borough, which generates additional demand for mobility. Within Camden, fueled by major growth sites in the Euston, Kentish Town, King's Cross, West Hampstead, and Holborn/Tottenham Court Road areas, it is estimated that the Borough's resident population will increase by 30,000 people by 2031 and there will be an extra 79,000 new jobs in the borough by 2036.
- 1.7 The growth of the Knowledge Quarter, centred on world-renowned institutions such as the British Museum and the British Library in the areas between St. Pancras and Euston stations, and growing tourism to multiple other attractions in the Borough, also brings millions of visitors to Camden each year. This will place unprecedented stresses on a transport network which is already at or approaching capacity in many parts of the borough. Camden will need to balance responding to increased demand for travel from all these pressures with the social and economic well-being and quality of life of our residents, managing all of this within the particular challenges of our location in central and inner London.
- 1.8 With growth comes the construction of developments to provide the homes, jobs and infrastructure to support the needs of our growing population, bringing its own set of challenges. A particular issue for Camden is High Speed 2 (HS2), the impacts of which will be felt across the whole borough over an extended period. The environmental impacts of multiple movements of numerous heavy vehicles across all development sites in the Borough, not just HS2, will be considerable, contributing to challenges around noise levels and pollution, and presenting additional road safety concerns, particularly among vulnerable people. Multiple road closures to enable construction, where required, also cause disruption and can contribute to congestion and delays.
- 1.9 In addition, economic austerity and funding cuts over many years have also contributed to an extremely challenging financial environment for delivering the improvements to the transport network and streets that Camden requires. As well as identifying all possible funding sources to address our transport challenges, it is also vital that the funding we do secure is prioritised for those interventions that will deliver the most effective solutions to meet our transport objectives.

1B. Why produce a new Camden Transport Strategy (CTS)?

- 1.10 To tackle these issues and deliver towards Camden's aspiration for inclusive growth, the Council has set out its ambitions and how it will work with Camden's communities in Our Camden Plan. In this plan, we commit to working with multiple partners to assist in, or deliver ourselves, projects that will transform the borough's transport infrastructure. This includes fulfilling existing schemes in the short term, such as the West End Project, through to longer term ambitions, such as Crossrail 2, and the development of a network of high-quality cycle routes across the borough. We also commit to create clean, vibrant and sustainable places and use all the resources at our disposal to improve air quality and make it easier for people to travel more by foot or by bike.
- 1.11 A new CTS will also reflect the changes that have taken place in the Borough since the last version was published in 2011, help us respond to current and forthcoming challenges and opportunities, and meet statutory requirements set by the Mayor of London. This is summarised in the sections below.
- 1.12 Camden has changed significantly in the years since the last Transport Strategy (2011), in some places unrecognisably so. This creates new challenges and opportunities which we need to respond to. These include:
- Multiple development sites coming forward in the Borough, as outlined in the Local Plan and referenced above, will generate significant demands on an already stretched transport network and streets. These sites also generate opportunities for transforming our streets and places. As one example, the King's Cross development site has uniquely transformed that part of the borough, with new homes, offices and employment, higher education, public spaces, events and retail, creating a new place and destination made possible by its location as one of the most accessible in the country. As a result, significantly increased volumes of people now exit and enter the stations both at King's Cross and St Pancras.
 - The opening of Crossrail services in 2019 (the Elizabeth Line) will bring more than 1.5 million extra people within 45 minutes of Central London, many of whom will come into Camden: it is estimated that the number of people entering and exiting Tottenham Court Road station on a daily basis will have increased by 81% by 2021 (compared to before the new station opens). In responding to that challenge, in March 2018, work began on site on Camden's £35m West End Project (WEP) around Tottenham Court Road, Gower Street, Prince's Circus and St Giles. The project will transform this part of the West End, boost business, and prepare for the increase in passenger numbers, helping to realise the economic and regeneration

benefits that Crossrail will bring. Similar transformational projects are needed to support substantial growth at other locations in the Borough – Holborn, Camden Town, Kentish Town and others.

Figure 1.1: Tottenham Court Road – a transformational Healthy Street change



- The role of cycling has assumed a renewed profile since 2011, with unprecedented levels of investment across London including the Cycle Superhighways and Central London Cycle 'GRID' programmes in Camden – an acknowledgement of cycling's important contribution to sustainable growth and helping to create a healthier, liveable city. We want to support this evolution by planning and catering for growth in cycling trips generated both from within and travelling into/through the Borough.
- This work should build on and develop successful and innovative projects implemented during the previous CTS, such as the opening in 2013 of London's first cycle scheme using 'light segregation' (cheaper but, in certain locations, effective forms of separating cycle tracks from traffic flows) on Royal College Street (see Figure 1.2, overleaf). This scheme subsequently saw an average 75% weekly increase in cycle volumes by 2015.
- Alongside multiple night bus services, the recent introduction of 24/7 weekend night services on several Underground and Overground lines provides much-needed support for people working in the night time economy – both in the leisure industry and for essential 24 hour services. Patterns of travel, and travel

times, are changing and we need to ensure that our public transport network is fit for current and future purposes.

Figure 1.2: Royal College Street cycle scheme



- Together with internet shopping, the significant growth of the technology-based on-demand economy for everything from food deliveries to laundry and cleaning, alongside ride and car sharing services, now offers greater convenience for many services. But they also bring additional pressures on the transport network. We will need to futureproof the city to better prepare for, rather than reactively respond to, the rapidly changing advances in technology for mobility services.
- Road safety remains an ongoing challenge that we need to respond to. Camden introduced a borough-wide 20mph speed limit in December 2013. Annual monitoring shows that average aggregate speeds have reduced year on year, but hotspot streets of higher speeds remain an issue. Whilst total Killed and Serious Injury (KSI) casualties have decreased in the Borough since 2011, total casualties have risen – fuelled by a rise in ‘slight’ casualties. An updated set of policies and actions is required to address these issues.
- Wider concerns – particularly environmental – have increased in prominence and importance in the Borough. Recognising the multiple health implications of poor air quality, in 2018 Camden became the first borough in London and the country to adopt stretching new pollution limits in line with those established by the World Health Organisation (WHO). With around half of Nitrogen Dioxide

and Particulate Matter deriving from road transport in Camden, this updated Strategy must respond to and reflect this vital public health challenge.

- 1.13 An updated Strategy is also a statutory requirement under section 145 of the GLA Act 1999, for all Boroughs to produce a Local Implementation Plan (LIP), to respond to the new Mayor's Transport Strategy (MTS) 2018. Our new CTS is also our LIP, forming the basis for Camden's funding requests to Transport for London (TfL) for borough transport schemes, and outlining the way in which Camden will contribute to the MTS objectives.
- 1.14 The new MTS sets out a new series of policy directions and core priorities which our Strategy and funding plan will respond to. In particular, the MTS sets out:
- Plans to transform London's streets and improve public transport and create opportunities for new homes and jobs. Similar to Camden, it notes that the way that people choose to move around has social, health and economic impacts which create challenges for London. The MTS sets out a range of proposals to tackle these, with car dependency and traffic reduction measures singled out for particular attention by Boroughs, and commensurate policies, measures and targets to increase active travel and sustainable modes. The MTS sets an aspiration for London to be the world's most walkable city and expects Boroughs to deliver schemes that enable that ambition to be realised.
 - A focus on the vital role that transport plays in reducing health inequalities: along with deteriorating air quality, noise and road casualties, sedentary lifestyles present significant health challenges. The Mayor has established a people-centred Healthy Streets framework (see Figure 1.3, overleaf) for assessing the quality of the street environment which focuses on public health outcomes and the human experience.
 - Plans to reduce road danger and risk, which are a fundamentally important element in creating streets where more people will choose to walk and cycle. The MTS adopts a Vision Zero approach to road safety, working towards the elimination of road traffic deaths and serious injuries by 2041, by reducing the dominance of motor vehicles on London's streets and the risks that this presents.
 - Ambitious plans to reduce emissions from road transport including TfL's bus fleet, measures to incentivise the uptake of zero tailpipe emissions vehicles for private and fleet use, and the introduction of a new and extended Ultra Low Emission Vehicle Zone. The MTS commits to an emission free zone in Central London by 2025, and encourages Boroughs to adopt measures and policies that will contribute to these aims.

Figure 1.3: The MTS Healthy Streets Indicators



- 1.15 Camden has long prioritised walking, cycling and public transport for the reasons discussed above and has led the way with innovative and bold action in the past. As a result, significant progress has been made in a number of areas since the last CTS in 2011. Mode share by car by Camden residents has decreased from 19% to 13% of all trips between 2011 and 2017 (to a point where our mode share by car is 6% lower than the inner London Borough average), and the percentage of households without access to a car has risen from 61% to 65% in that time. Walking trips remain particularly high in the Borough, and overall traffic levels have fallen.
- 1.16 However, as an inner London borough, Camden will be expected to go further than the MTS target of 80% mode share for sustainable healthy travel to contribute to the London wide goals: Indeed, Camden already has a sustainable mode share of 85% (three year average 2014/15 to 2016/17) – the highest in London - and the target is to achieve 88% by 2021, and 93% by 2041. More needs to be done to achieve the step changes that are required to consolidate our achievements and address the ongoing challenges set out in this Strategy.
- 1.17 This CTS is therefore a comprehensive strategy and policy document for Camden which also incorporates all the necessary elements of the LIP for the Mayor of London. In line with the current MTS, this updated Camden Transport Strategy is a long term plan to 2041. It establishes an evidence-based policy framework for our objectives and vision, and outlines the steps that are necessary to deliver them. It also demonstrates that Camden intends to continue to be at the forefront of efforts to transform the transport system through bold action and innovation to tackle our key transport challenges and create Healthy Streets.

- 1.18 The LIP also operates as the funding mechanism by which TfL funds borough transport schemes: Section 159 of the GLA Act 1999 sets out the general power of TfL to grant funding, in this case to the boroughs to support delivery of their LIPs. The LIP should therefore also include a three year Programme of Investment (2019-22) of annual spending which demonstrates how this funding will be spent and which Mayoral objectives the schemes aim to meet.
- 1.19 This Strategy also includes the essential requirements of the LIP (LIP3), including the three-year annual spending programme (Programme of Investment), in line with TfL's LIP guidance. It therefore also constitutes Camden's LIP submission as statutorily required by the Act. The essential requirements are marked throughout the document for ease of reference.
- 1.20 In line with legislation, it will be updated again with the publication of any new MTS. However, in fulfilling its requirements under the LIP process, it contains a focussed, shorter-term Delivery Plan document, in particular setting out our prioritised spending programme for the three-year period from 2019/20 to 2021/22. Delivery Plans for subsequent three-year programmes will be produced thereafter, in line with LIP guidance and based on funding allocations which will be notified to us at the appropriate time.

1C. Pre-Engagement and Consultation

- 1.21 Pre-engagement activities were set out in the Engagement and Communications Strategy document that accompanied the draft CTS consultation materials. Pre engagement activities included a public stakeholder engagement event on the 4th July 2018 and transport input and attendance at a Camden Clean Air Design Day event in the same month.

Public consultation

- 1.22 A communications plan was prepared to promote the public consultation and the draft CTS, encourage participation and for people to give their views. The key messages reflected the proposed CTS objectives and identifies target groups and the channels for communication. The consultation included:
- Creating a dedicated page/s on the Council's website as a central location for information of general interest and the WeAreCamden consultation hub
 - A feature in November's Camden magazine, delivered Borough-wide
 - Camden Facebook page post(s) and tweets with links to the consultation, and Facebook advertisements
 - Use of community researchers to encourage people on streets to complete the consultation

- Newsletters: items in a range of newsletters covering schools, housing, businesses, voluntary groups; and posters in Camden libraries
- Use of the Council's CINDEX list to email the consultation to various groups: Tenants and Residents Association, groups with a focus on transport, disability and older peoples groups, with a request to cascade to their members, and emails advising the consultation to workshop attendees.

1.23 Details of all these activities are provided in the separate Engagement and Communications Strategy and in the Consultation Report. Following the consultation period, the Council considered all responses and reviewed and amended the draft CTS as appropriate based on comments received. The Council has also prepared a Consultation Report documenting the results of the consultation, the Council's response and what changes have been made to the draft CTS.

1D. Statutory duties

- 1.24 A 'Scoping' Strategic Environmental Assessment (SEA) has been undertaken and was subject to both statutory and public consultation alongside the draft CTS. Following the period of public consultation, the draft CTS was revised into this final Strategy document and a full SEA report accompanies it.
- 1.25 An Equalities Impact Assessment (EQUIA) was also undertaken on the draft CTS and also subject to public consultation, and has been updated following consultation and provided as a supporting document to this Strategy. A Health Impact Assessment was also undertaken on the draft CTS and is included as a supporting document to this Strategy.

1E. Structure of the CTS

- 1.26 The CTS has been developed to align with the Mayor of London's objectives as set out in the MTS, the LIP Guidance and the compulsory borough targets (for Camden). The CTS also takes account of a range of borough strategies and plans, particularly Our Camden Plan and Camden 2025 priorities.
- 1.27 As discussed above, Boroughs are required to provide several key components in updated draft LIPs, and the CTS has been structured to reflect these elements:
- Chapter 2 provides the context of the Borough – information on the demographic make-up of Camden, existing transport provision and the way people travel. It also assesses both the transport challenges the Borough faces

the opportunities to address them. This Chapter expands on the challenges referred to earlier, and is supported by an accompanying Evidence Base Report which provides a more detailed and robust assessment of existing research and available data. This Chapter also demonstrates how the CTS links to regional and local policies, including Mayoral and Camden plans and strategies.

- Chapter 3 sets out the Council's strategic transport objectives and policies, and the measures we propose to implement to respond to the challenges we face and also help us meet our targets.
- Chapter 4 provides a Delivery Plan and a three year programme of investment (for the period 2019/20 to 2021/22) which sets out the specific funded schemes that aim to deliver our objectives. Funding for transport investment is limited; it is therefore very important that it is targeted at locations in the Borough that will deliver against our objectives, and for those measures that overcome the barriers to achieving our objectives and Vision. This Chapter therefore also explains how the Council has prioritised areas of the Borough for interventions.
- Chapter 5 includes a Performance Monitoring Plan to ensure we are on track with delivering the CTS. This Chapter comprises targets across seven MTS outcomes to assess progress with delivering MTS objectives, as well as local targets.
- Boroughs are also required to demonstrate how they have engaged with stakeholders in the development of the CTS/LIP and their plans for public consultation. This is discussed in the Section on Consultation above, and more detail is provided in the Engagement and Communications Strategy document that accompanied the draft CTS consultation materials.
- LIPs must also be subject to an Equalities Impact Assessment (as part of the consultation draft) and a Strategic Environmental Assessment (as part of the published final version). These were provided separately as part of the consultation materials on the draft Strategy.
- The Council has also developed a series of Action Plans which provide more detailed delivery plans on specific work streams, particularly borough-wide schemes. These are Action Plans each for Road Safety, Cycling, Walking and Accessibility, and Electric Vehicle Charge Points (EVCPs), and are included as separate documents as part of the Strategy consultation. A Freight Action Plan will be produced and consulted on separately, in 2019, to be informed by the emerging TfL Freight and Servicing Action Plan.

Chapter 2: Borough context, challenges and opportunities

2. This chapter sets out the background context for this Transport Strategy, providing information about Camden as a place, its transport network, and the people who live, work and study in the Borough. It also summarises the challenges and opportunities for transport in Camden and links to wider regional and local policies. An evidence base providing more extensive details on the background and data behind those challenges and opportunities is provided as a supporting document to this Strategy.

2A. Camden - the place and people

- 2.1. Camden is a borough of contrasts: covering almost 22 square kilometres in the heart of London with a vibrant mix of uses, activities and facilities of London-wide, national and international significance.
- 2.2. The south of the borough contains significant employment, retail, leisure and tourism uses in areas such as King's Cross, Covent Garden, Bloomsbury and Holborn, which form part of central London's renowned West End and Theatreland. This area of the Borough - including all of Camden that lies south of the Euston Road - also forms a key part of London's Central Activities Zone, which is a major business and employment centre and the main focus of Camden's economy.
- 2.3. The north of the borough is more residential, with the open spaces of Regent's Park and Hampstead Heath as well as the Regent's Canal. These quieter, suburban areas sit alongside the bustling centres and night time economies in Camden Town and Kentish Town where there are also many mid and small scale creative organisations. The relative affluence of Hampstead, Frognal and Fitzjohns contrast sharply with relative deprivation in Gospel Oak, Kilburn and Somers Town.
- 2.4. Camden has a resident population of approximately 246,200 (2016). Its sizeable university population of more than 25,700 students is the largest in London which means that Camden has a very young but also a very transient population, with 27% changing each year.
- 2.5. The population is also very diverse with nearly 35% from Black and Minority Ethnic (BME) backgrounds and a further 19% categorised as 'other' (not white). BME households are also among the most deprived in Camden. Deprived communities tend to rely more heavily on walking, cycling and public transport for their journeys, yet they tend to suffer disproportionately from the worst impacts of motor traffic – noise, pollution and road danger.

- 2.6. Camden's importance as a centre for employment, leisure/tourism, education and health care means that significant numbers of people visit the borough every day. The day-time population almost doubles to nearly half a million people, the second highest in London after Westminster. These additional daily visitors create both opportunities but also challenges on an often over-stretched transport network.
- 2.7. Camden has two major teaching hospitals, the Royal Free in Hampstead and University College London Hospital (UCLH) in Bloomsbury, both of which offer health care to a London-wide and nationwide population. Great Ormond Street Hospital, also in Bloomsbury, provides specialist treatment to children coming to Camden from far afield, including from overseas.
- 2.8. Tourism boosts Camden's day-time population by approximately 62,000 people (25%): the British Museum in Camden is London's top attraction, with 6.7 million annual visits. Camden Market has been ranked as London's fourth-largest attraction with approximately 100,000 people visiting the stalls and shops each weekend. The British Library and London Zoo in Camden also figure in London's top 30 attractions. The part of the West End that is within Camden attracts visitors throughout the day for retail, leisure, theatres, and the vibrant night time economy.

Figure 2.1 Montage of Camden: a borough of contrasts



- 2.9. There are 83 schools in Camden: 25 are independent, attracting pupils from relatively large catchment areas both within and (often) outside of the Borough, which generate a higher than average number of driven trips to and from school. This is a particular issue in some parts of the Borough, such as the Fitzjohn's Avenue area, where there is a large cluster of schools in close geographical proximity to each other.

2B. Jobs, employment and the economy

- 2.10. Camden has a very successful and diverse economy which makes a significant contribution both to the economies of Central London and the UK. The transport network enables access to a wide range of job opportunities in the borough, sustains businesses, and ensures Camden's continued success and competitiveness in the future.
- 2.11. Camden is home to the second highest number of businesses in London (after Westminster), and the fourth highest in the UK. Businesses rely on an efficient and reliable transport network to receive and distribute goods as well as servicing. The majority (nearly 86%) of Camden's businesses are small, independents employing fewer than 10 employees, with many categorised as 'sole traders'. The most recent Camden Business Survey (2017) identified good transport links and the quality of the local environment as two of the top three issues rated as important for businesses in the Borough.
- 2.12. Camden's 368,000 workers (2017) constitute 7% of all London employment – the third highest in London after Westminster and the City. The majority (91%) of people who work in Camden travel in from outside the borough, relying on Camden's streets and public transport networks to get to and from their place of work.
- 2.13. Tourism is a major factor in Camden's economy, generating more than £1.2 billion visitor spend a year. In total, 79,000 new jobs are forecast to be created in Camden by 2036, the third highest employment growth after Westminster and the City of London.
- 2.14. Population, employment and economic growth is vital to Camden, but in transport terms will not only place additional capacity demands on the public transport and highways network but generate significant safety challenges particularly from construction sites and associated traffic.

2C. Transport and travel in Camden

- 2.15. Assessing how people in Camden – both residents and visitors – currently travel, and the current transport infrastructure in the Borough, is important in order to help identify opportunities for change and improvements, and inform the policies required to address the challenges.
- 2.16. TfL data shows that 85% of residents' trips in Camden are made on foot, by bike or on public transport (three-year average 2014/15 to 2016/17), the highest level amongst all London Boroughs for trips made by active, sustainable healthy modes.
- 2.17. Camden is responsible for 286km, or 89 per cent of the total road network in the borough, with TfL managing the remaining 11 per cent known as the Transport for London Road Network (TLRN). Reflecting the diverse nature of the borough, Camden's streets have varying characteristics and provision to meet the needs of a wide range of different users and uses throughout the day and night.
- 2.18. In order to manage this very diverse and often conflicting demand for limited carriageway, footway and kerbside space, we currently use a road user hierarchy which prioritises the most efficient, sustainable, and healthy modes of travel - walking, cycling and public transport. This approach is also integrated into Camden's planning policies which seek to improve the conditions for pedestrians, cyclists and public transport users as part of all new developments, both on-street and on-site.

The main road network

- 2.19. Camden's road hierarchy, based on the function of the road, has been developed to integrate land uses to the transport function, as shown in Figure 2.3 overleaf. 'Screenline' counts, across four cordons as shown in Figure 2.2, also overleaf, are carried out each year to assess the volume and type of traffic across the network, as well as variations over time.

Figure 2.2: Screenline count points

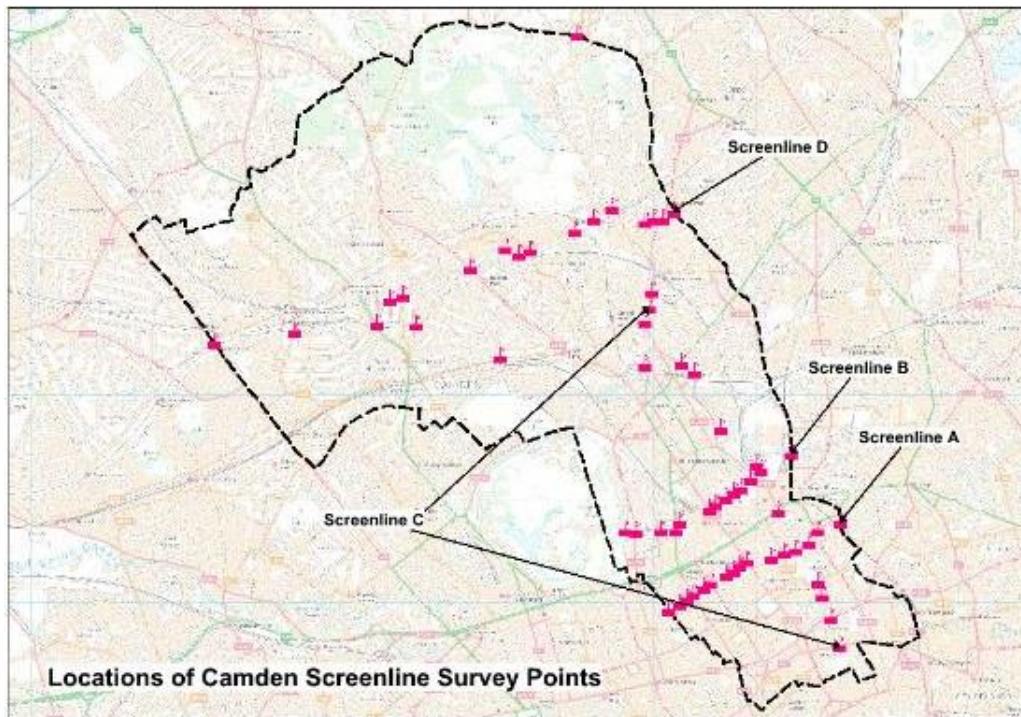


Figure 2.3: Camden's road hierarchy



- **Transport for London Road Network (TLRN) comprises** the key routes or major arterial roads in London which are managed directly by TfL and are expected to carry very high traffic volumes and particularly heavy, larger vehicles. In Camden the TLRN mainly comprises Euston Road and the King's Cross gyratory, Hampstead Road, Finchley Road, sections of Camden Street and Camden High Street.
- **The Strategic Road Network (SRN)** is managed by Camden, but similarly these streets carry higher volumes of traffic. However, many SRN routes in Camden also function as local High Streets or employment hubs, where there is very high footfall and pedestrian movement, high demand for kerbside space for freight and deliveries, and in many cases several bus routes as well. These include, for example, Kilburn High Road, Camden High Street, Kentish Town Road, Tottenham Court Road, Kingsway and Southampton Row. Other SRN routes are more residential in nature. Balancing these different uses of the street is a constant challenge for the borough.
- **London Distributor Roads** provide links to the TLRN and SRN for journeys between boroughs and access to town centres - many of which carry bus routes. These roads are managed by Camden.
- **Local Roads** are all other roads in the borough which perform local functions. These roads are managed by Camden and generally comprise local residential streets, or 'access' roads.
- **Emergency Services Strategic Routes** provide key routes for responding to emergency call-outs and are dictated by the locations of fire, police and ambulance stations, hospitals, and key/frequent call-out destinations.

Walking

- 2.20. Walking is the primary mode of transport for Camden residents, is often the only available transport option, and is also a vitally important mode for the huge numbers of people visiting the Borough each day, often as a means to access public transport as part of a longer journey. 42% of Camden resident's trips are by walking: the highest mode share for trips made on foot amongst all London Boroughs. Camden's residents also walk the furthest (average trip length 0.8km) - 74% of all trips under 2km made by Camden residents are walked. Nearly 88% of Camden adults walk once a week, and nearly 66% five times a week.
- 2.21. Camden has already achieved 83% of its walking potential – in other words, a significant proportion of the trips that could be walked are already being walked

- the second highest in London after Westminster. Nevertheless, Central London, including Camden, still offers the greatest potential for growth in the number of walking trips made in the capital – in Camden 270,000 more trips could be made on foot per day which are currently made by other modes.
- 2.22. Over one third (100,000) of these potential walking trips could be made by Camden residents: 63,000 of them would be walking trips in their entirety with a further 37,000 walking ‘stages’ as part of a longer journey, switching both from private car use as well as public transport.
- 2.23. The greatest potential to increase the level of walking in the borough, however, is among visitors, particularly commuters, travelling into/out of or through the borough. 170,000 more journeys per day could be walked, with 90,000 coming from journey ‘stages’ mainly from public transport (for further details see Public Transport section).
- 2.24. Data shows that a much higher percentage of journeys taken by older people are walked compared to younger people, although the distance they cover is much shorter (up to one mile). This suggests that the majority of older people’s total journey is generally very local, while younger people travel further. Evidence suggests that older people and those people with a disability generally also make fewer journeys than other groups, even though independent mobility is a very high priority.
- 2.25. The proportion of residents’ trips undertaken on foot has not varied much in recent years. This is likely to be because there are limits to walking trips due to the distance that people are prepared to walk. Nevertheless, understanding and overcoming the barriers to more people walking to improve accessibility, as well as help reduce car use and public transport overcrowding will be key to increasing the levels of walking in the borough.
- 2.26. As well as removing barriers to walking on a street by street basis, Camden has implemented attractive walking routes around the borough, including Brill Place / Phoenix Road, a parallel route to Euston Road which provides a quieter, safer and less polluted link between St Pancras and Euston Stations. The Regent’s Canal (and pedestrian/cycle links across it, such as Figure 2.4, overleaf) also provides a traffic free route, as do the Borough’s parks and open spaces, and potentially new walking routes such as the Camden High Line.
- 2.27. Legible London (LL) wayfinding is an important tool in helping people to find their way around the borough on foot, particularly for tourists. As well as maps, LL provides distances and walking times between areas. They are particularly useful around transport hubs, such as rail and underground stations, helping

people to make informed travel choices. There are currently 134 Legible London signs around the borough.

Figure 2.4: New walking and cycling infrastructure in Camden across the Regent's Canal (Camley Street)



Cycling

2.28. Camden has been a key partner in helping to deliver London's strategic cycle networks, including innovations such as segregated stepped cycle tracks on Pancras Road (see Figure 2.5 below), 'light segregation' on Royal College Street, and 'early release' cycle signals at junctions.

Figure 2.5: Segregated cycle tracks on Pancras Road



- 2.29. We are currently extending this network, working with TfL, via multiple programmes including the Central London Cycle Grid, Cycle Superhighways, Quietways and various Council-led schemes. Significant stepped-track cycle provision will also be delivered on Gower Street as part of the West End Project (WEP), while Tottenham Court Road (TCR) will be bus and cycle only during the day. Camden also has numerous local streets which are made two-way for cycling. The Council is also rolling out a cycle permeability programme to provide better connections and links for cyclists.
- 2.30. A variety of other schemes and initiatives have been developed to increase cycling levels, and improve cycle safety, in the Borough. Camden currently has 67 cycle hire docking stations, and over 50,000 members, and in June 2018 launched a trial of a dockless bike hire scheme. Secure cycle parking facilities have been rolled out and cycle training continues to take place in schools, with adults and as part of our innovative Community Cycling Programme.
- 2.31. While these initiatives help to encourage cycling, there is significantly more to be done. The mode share for cycling in Camden has stagnated at an extremely low level of just 4% of all residents' trips for the last three years, a rise of just 1% since 2009. Other inner London Boroughs have caught up with, and in some cases exceeded, Camden's cycle mode share in that period. In Camden, residents still make more than three times more trips by car than by bike. Only 8% of journeys between 2 and 5 kilometres made by Camden residents are cycled (the majority up to 2km are walked). This tails off to 5% of journeys of 5-10km.
- 2.32. TfL analysis shows that Camden, along with two other central London Boroughs (Lambeth and Westminster) have the greatest overall levels of cycling potential across the capital. It is estimated that approximately 600,000 trips per day could be cycled in Camden. Over 200,000 of these would be by residents, of which only 20,000 residents' trips are currently being made by bike. This would include those 70% of car journeys which are under 5km, particularly the 41% which are under 2km.
- 2.33. Cycle flows in the north of Camden are particularly low. Residents in the north of the borough are further away from the majority of the new high quality cycle infrastructure being delivered, such as the Central London Grid and CSHs, and this is reflected in lower cycling volumes. There is therefore a need to push cycle routes further north to ensure that they form part of a comprehensive network and are continuous and connected. In particular e-bikes could help boost this number to help people overcome the hills particularly in the north of the borough and where car ownership is highest.

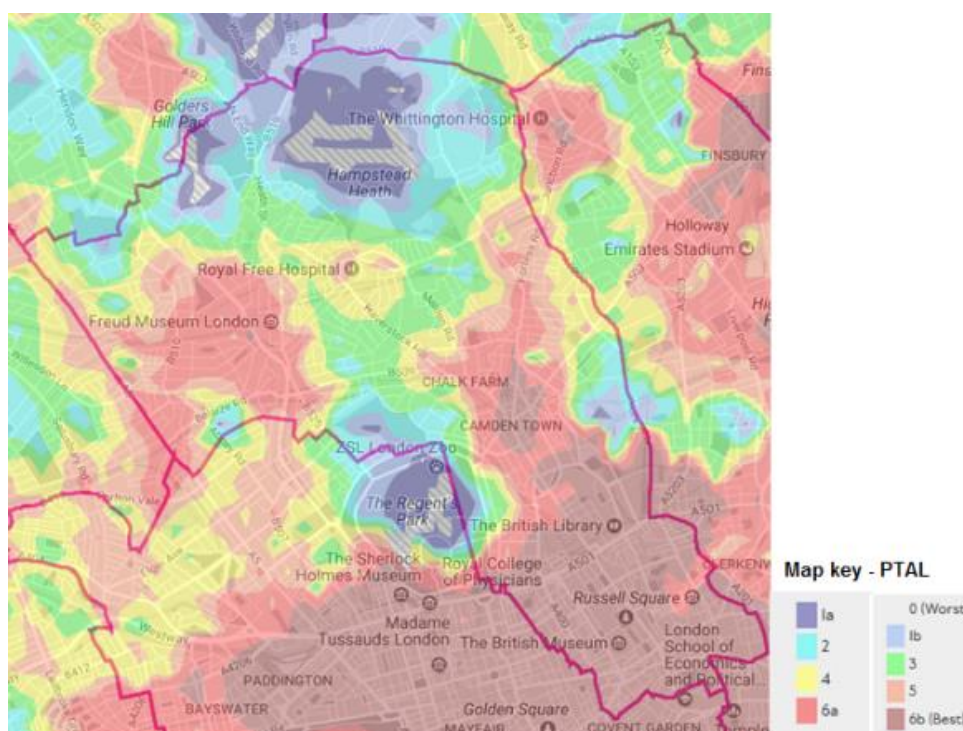
Public transport

2.34. Camden is extremely well served by public transport, particularly in the south of the borough which has some of the highest Public Transport Accessibility Levels (PTAL) ratings in the country. However, the north of the borough has lower public transport provision. Figure 2.6, overleaf, shows the PTAL map for the Borough. Camden benefits from:

- 3 main rail stations at Euston, King's Cross, and St Pancras; and 8 London Overground, 3 Thameslink and 18 Tube stations, with a further 4 Tube stations on shared borough boundaries;
- The Night Tube operating through Friday and Saturday nights on 4 Tube lines serving the Borough
- 63 bus routes: 20 of these are 24/7 which, together with an additional 23 night (N) routes, provide 43 night services in the borough. Many bus routes are categorised as 'high frequency' i.e. at least 5 buses an hour/every 12 minutes, with many having much higher frequencies at every 5-6 minutes;
- Crossrail (Elizabeth Line) at Tottenham Court Road (starting from 2019).

2.35. Many of these services are at or near capacity at peak commuting times (and those peak times have extended), despite recent upgrades to frequencies and stations, and only a small number of stations provide full step-free access in the Borough.

Figure 2.6: PTAL map of Camden

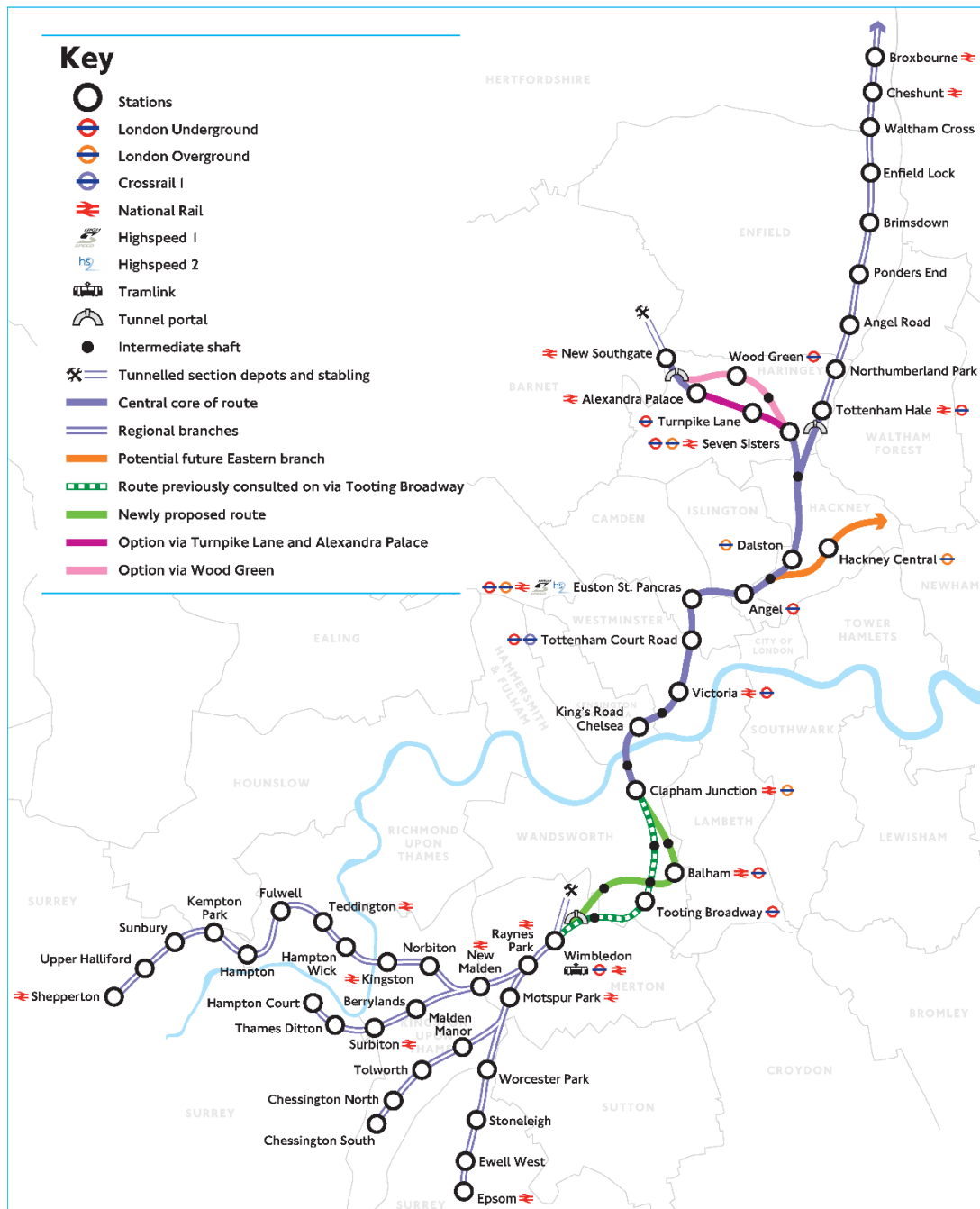


- 2.36. However, the provision of night services both on the underground and on buses has significantly improved public transport provision in Camden. Demand on the tube has risen over 60% in the last 20 years, with the highest levels being after 10pm, particularly on a Saturday night. Demand on bus services through the night has risen far quicker than on the Tube at any time. These services provide a life-line for people working in, and using, the night-time economy, including those working in hospitals and hotels as well as leisure.
- 2.37. Proposals are currently in progress to upgrade Holborn underground station to improve capacity and provide Step Free Access (SFA). Much needed proposals for similar upgrades at Camden Town have been postponed. Those improvements are vital: weekday demand has increased by 45 per cent over the last ten years at Camden Town, with massive congestion and safety impacts to the point where entry into or within the station at times has to be restricted. By 2021, passenger demand at the station is expected to grow by a further 40% on weekdays.
- 2.38. There are similar issues at Holborn underground station: Holborn is a growth area, so demand is set to increase. It is currently the 11th busiest station on the network, with around 63 million customers using the station every year. These numbers are expected to rise by nearly 30% by 2030.
- 2.39. Subject to further consultations, funding and permissions, work is expected to start at at Holborn in 2025. Camden will work with partners to ensure that the impact of the construction work is minimised, particularly in such critical central locations, and are coordinated with other projects in the area, including the WEP and Cycle Grid schemes.
- 2.40. Crossrail (Elizabeth Line), a new railway line linking east and west London, will start running in 2019. This will provide an extra 10% capacity to central London's rail network. There will be one station in Camden, at Tottenham Court Road (TCR), which will act as a catalyst for commercial and retail development: it is expected that 500 new homes and 5,000 jobs will be created in the TCR area, half of which will be in Camden. It is estimated that the number of people using TCR stations will double during the morning peak by 2026, and increase by 81% between 2018 and 2021, placing further demand on the transport network.
- 2.41. Crossrail 2 is a new proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London. The new rail line would serve key locations throughout the capital, including new stations in Camden at Tottenham Court Road and Euston St. Pancras, improving connections, and significantly reducing congestion on existing rail and Tube

services. The current proposed route map for Crossrail 2 is shown in Figure 2.7 overleaf.

2.42. As well as these key high profile upgrades TfL is also managing resignalling programmes on the underground on the Circle, District, Hammersmith & City and Metropolitan lines. This is being replaced and upgraded to automatic train operation (ATO) so that more frequent services can be run. Signal failures on the underground are currently one of the main causes of delays, and improvements will help to ensure that the capacity benefits can be realised.

Figure 2.7: Proposed Crossrail 2 route map



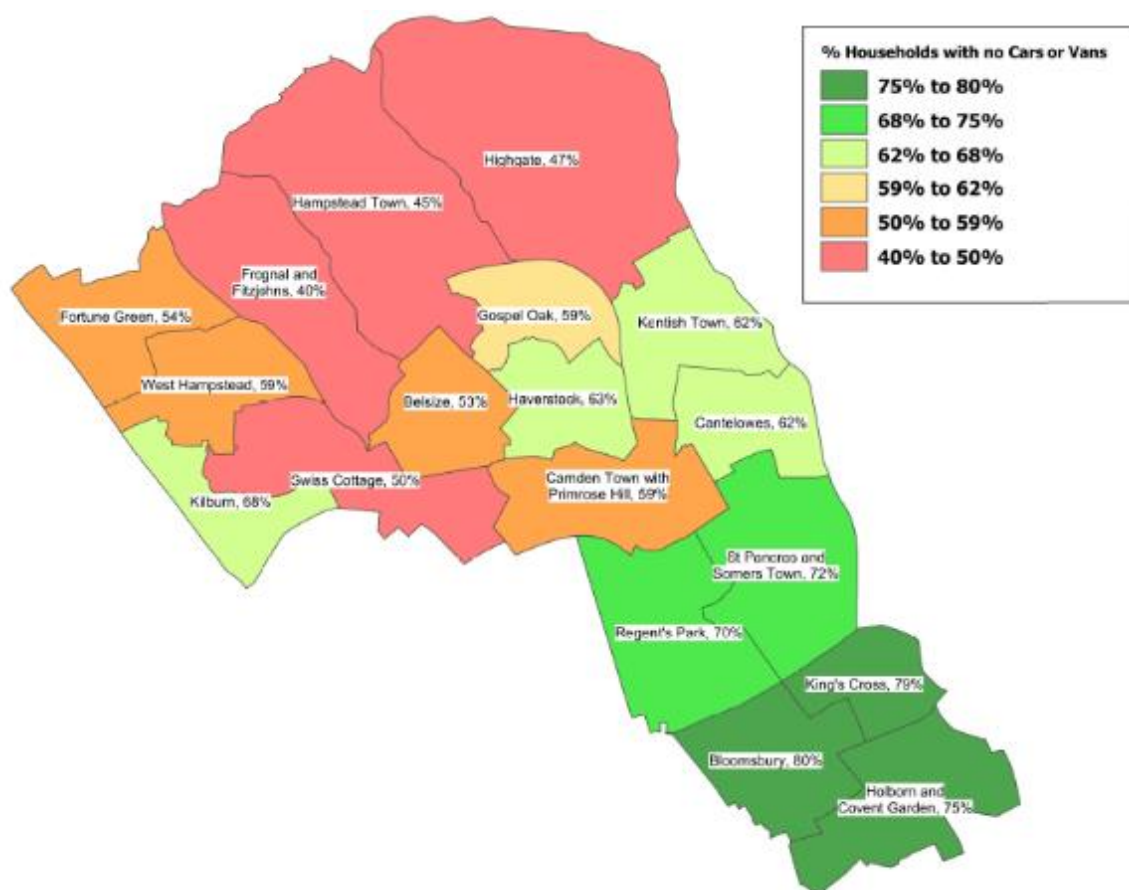
- 2.43. HS2 is a new planned high speed north-south railway linking London and Birmingham to Manchester, Leeds and the East Midlands. The first phase will link London (Euston) with Birmingham by 2026. When it is fully operational in 2033, HS2 is expected to run 48 trains an hour, carrying over 300,000 passengers a day – around 100 million a year, placing greater demand on the transport network both during construction and once fully operational.
- 2.44. Camden residents make 39% of their journeys using public transport, the majority of which are made by rail and underground. However, a significant proportion of public transport trips by Camden residents are under 5km: over 40% of bus trips, 24% of underground trips, and 5% of rail trips; distances which could comfortably be converted to active travel modes.

Car ownership, car trips and parking

- 2.45. In line with the London trend, the proportion of households with access to a car, as well as car use, has fallen in Camden, even as population has grown. The majority (65.2%) of Camden households do not have access to a car, and the number of households without access to a car has increased by 19% since 2008-9/2010-11 to 2014/15- 16/17. Similarly there has been a year on year 1% reduction in mode share for residents' trips undertaken by car every year since 2011, from 19% to 13% in 2016/17, demonstrating that growth does not have to be accompanied by an increase in car trips. A majority of Wards across the Borough now have a majority of households without access to a private car, as shown in Figure 2.8 (overleaf). Camden is also one of only three boroughs in London (alongside Westminster and Kensington and Chelsea) where the actual numbers of cars owned in the borough has fallen over the last three years, from 2014 to 2016.
- 2.46. Nevertheless, car ownership is still quite high in some parts of the borough, with 60% of households in some areas owning a private car (Figure 2.8, overleaf), and many households having multiple cars. The current mode share for driven trips by Camden residents (13%) represents over 95,000 driven trips a day. We also know that people with a disability are far less likely to drive, as are people on low incomes and from BME groups.
- 2.47. For Camden residents, the overwhelming majority of driven trips are short: 70% (over 66,000) are under 5km, with a significant proportion (41%- nearly 39,000) even under 2km. This is higher than the average for London at 67% and 36% respectively. It is likely that many of these trips could be undertaken by other more sustainable modes. This may also be a result of the size of some of the borough's Controlled Parking Zones (CPZs) where permit holders may drive to their destinations, such as a station or high street, but stay within the zone.

2.48. All of Camden is covered by a CPZ, with the hours of control varying across the borough. CPZs help to manage the demand for parking locally, ensuring that local residents can park. They also limit parking, and therefore opportunities to drive, particularly for those coming into Camden from outside the borough during peak hours and contributing to congestion. CPZs also discourage short trips within the borough, for example between CPZs during the hours of control. Over 20,000 people also drive into Camden to work every day, and whilst CPZs limit long-term parking availability during the day, some places of work provide off-street parking.

Figure 2.8: Proportion of households without access to a car (based on 2011 Census) by Ward



2.49. Camden also experiences heavy traffic flows across the borough, with demand from a wide range of different types of vehicles, including cyclists, coaches and buses, taxis, private hire vehicles (PHVs), light and heavy goods vehicles and motor cyclists. Camden undertakes annual screenline surveys along 4 cordons across the borough, both for east-west and north-south movement which provides a snapshot of traffic volumes and composition of vehicles. Our data shows that, although the total number of motor vehicles moving through the

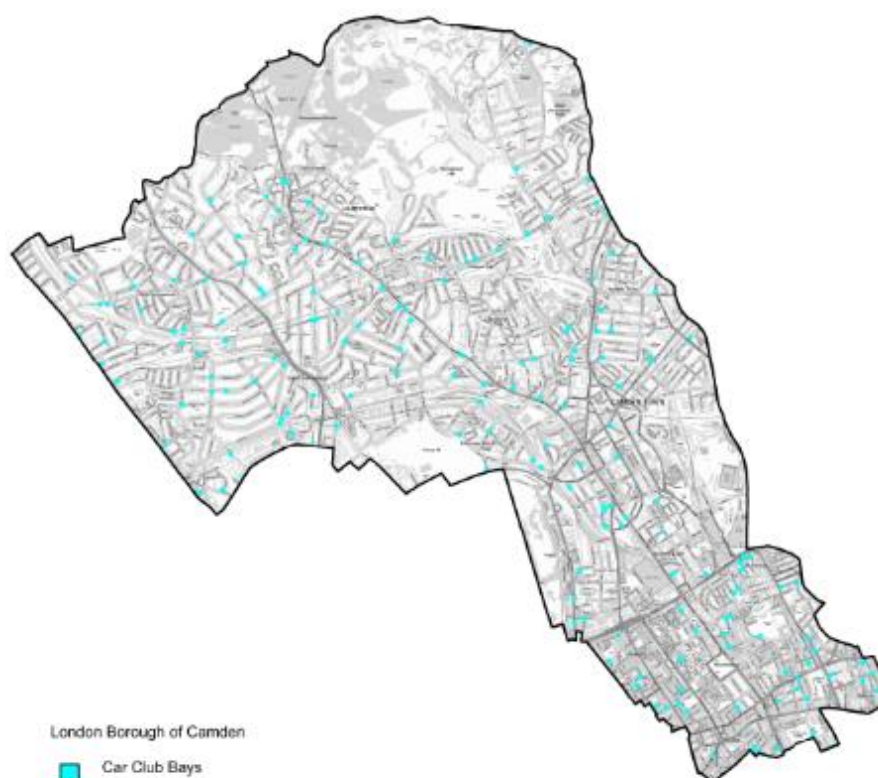
borough decreased by over 17% between 2006 and 2017, this decrease (particularly cars) has largely flat-lined since 2012. This indicates that further measures and policies are required to reduce total traffic levels in order to reduce the negative impacts of motorised vehicular traffic.

- 2.50. It is generally acknowledged that people who have a mobility impairment have particular difficulties when travelling. For some people with a disability, the 'usual modes of transport' – public transport, walking and cycling – may be inconvenient, unsuitable or simply not an option. Accordingly, the Council has made special provision for the parking needs of disabled car-users.
- 2.51. The Council operates both the Blue Badge and Green Badge schemes. The Blue Badge scheme is the national parking concession scheme for people with a disability, allowing significant parking concessions to badge holders, and establishes powers for specially designated bays to be allocated for their use, both on-street and in car parks. The Green Badge scheme operates in a large part of Camden south of the Euston Road, recognising particular parking pressures in that area. The Green Badge scheme allows people with that Badge who live or work/study in the Green Badge zone to park in all residents/paid for parking bays in that area, with Blue Badge holders only allowed to park in general disabled bays (and limited other concessions).

Car clubs

- 2.52. Car clubs help people give up private car ownership by offering a vehicle when there is an essential need. It is estimated that each car club vehicle takes approximately 10 vehicles off the road, helping to reduce congestion and pollution as well as parking pressure.
- 2.53. Camden has one of the largest 'back-to-base' car club networks in London, with over 200 car club locations, spread across the Borough (see Figure 2.9, overleaf, managed by two operators – Zipcar and Enterprise – and approximately 10,000 car club members (2017). Camden has not increased car club provision in recent years due to the size of the existing network which, although well used, generates most bookings for the evening or at weekends. There is therefore an opportunity to improve use during the working day, particularly among businesses. Opportunities to electrify the car club fleet in the Borough are also being explored.

Figure 2.9: Car club bay locations in Camden (2018)



Electric vehicles and charge points

- 2.54. Electric Vehicles (EVs) are an important element of Camden's efforts to combat poor air quality. While the majority of households in Camden do not own a car, it is essential that those who do own one, as well as taxis, PHVs, and business fleets, operate Ultra Low Emission Vehicles (ULEVs), not least to comply with the Mayor's Ultra-Low Emission Zone (ULEZ) being introduced in 2019, and the longer-term ambition for Central London to be emission-free by 2025.
- 2.55. At a total of 499 registered (2016), Camden has the third highest number of EVs in London. Moreover, along with Westminster, Islington and Kensington and Chelsea, Camden is one of the four London boroughs with the highest proportion of EVs, contributing more than 0.6% of the total stock (UK average of 0.24%).
- 2.56. To fuel EVs, Camden currently (2017) has 28 on-street charge points (provided by our contract with the operator 'Source London'), which are accessible to all Source London members. Camden's EV charge point provision will be extended as outlined in this Strategy.

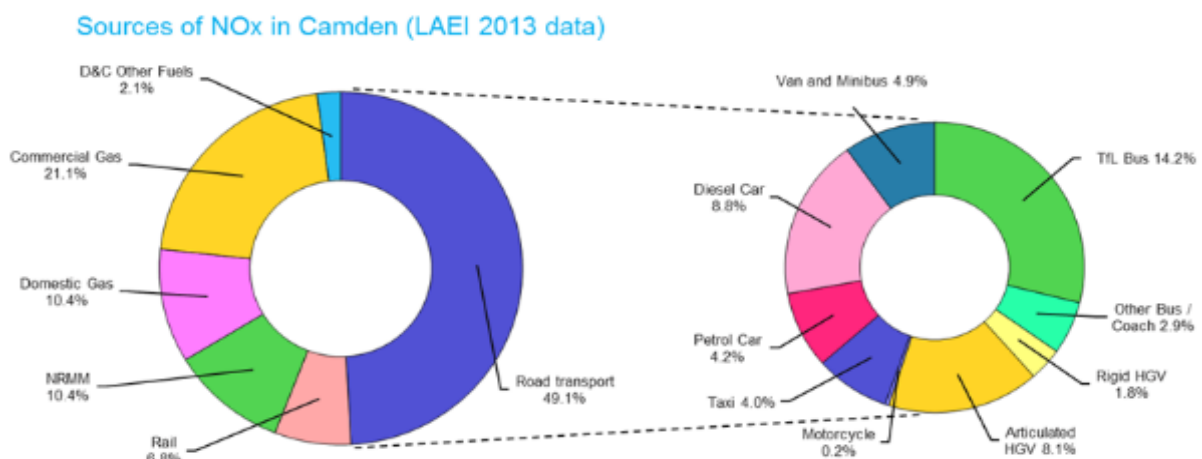
2D. Transport Challenges and Opportunities

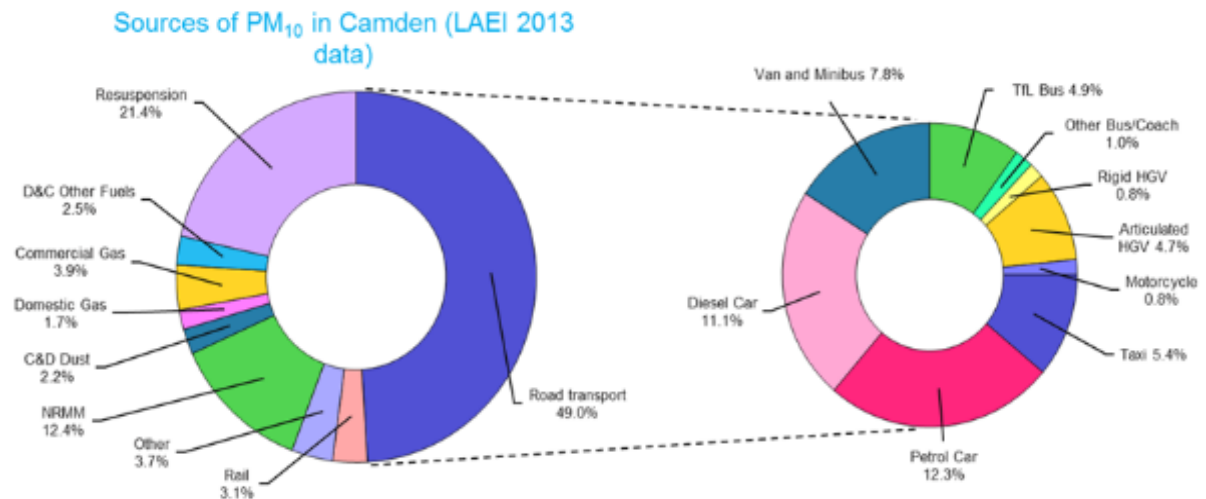
This section provides a summary of the key transport challenges and opportunities facing the borough, providing the evidence for, and directly informing, Camden’s priorities and the relevant policies that are needed to deliver them. Full details and further information is provided in the supporting Evidence Base Report, which also contains source citations for the data and statistics included in this Strategy.

- 2.57. **Air quality:** road transport accounts for nearly 50% of Particulate Matter and Nitrogen Dioxide in Camden (see Figure 2.10 below and overleaf), two of the most dangerous pollutants for health and contributing to the premature death of nearly 10,000 people a year in London. People are also twice as likely to be affected by pollution in areas of higher deprivation as these areas, often in locations in close proximity to heavily trafficked roads, also often have poorer air quality.

- 2.58. **Carbon emissions:** transport accounts for nearly a quarter of London’s greenhouse gas emissions, and is the second biggest contributor to Carbon Dioxide (CO2) which is associated with climate change and extreme weather incidents which affect health and well-being through heatwaves and drought as well as flooding. While London’s greenhouse emissions have been falling, it is not enough to avoid the worst impacts of climate change. Greenhouse gas emissions must reduce from their current level of around 8.3 Mt a year to 1.5Mt by 2050.

Figure 2.10: Pollution sources in Camden

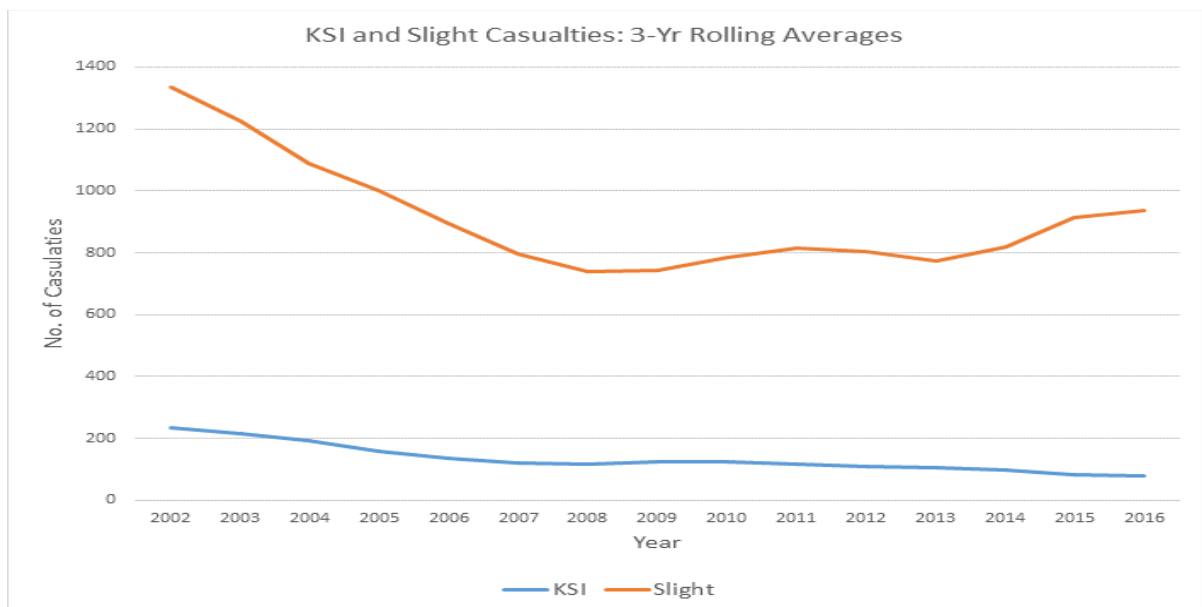




2.59. **Road danger:** London has one of the highest casualty records among 15 major European cities. In Camden, in the most recent years, there has been an upward trend in total casualties even whilst those categorised as Killed or Seriously Injured (KSI) have been decreasing. The total increase has been fuelled by growth in ‘slight’ casualties, as shown in Figure 2.11 overleaf.

2.60. Reducing road danger and risk is fundamental to creating streets where more people can switch to sustainable modes, helping realise the potential for walking and cycling and achieving the targets of this strategy. The MTS therefore adopts a Vision Zero approach to road safety, working towards the elimination of road traffic deaths and serious injuries by 2041, by reducing the dominance of motor vehicles on London’s streets and the risks that this presents.

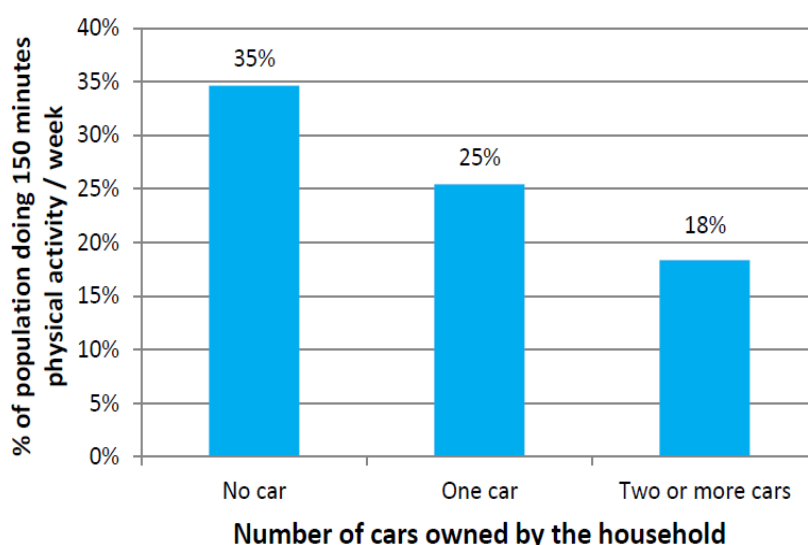
Figure 2.11: KSI and slight casualties on Camden’s roads (2002-2016)*



*actual recorded KSI casualties, not factoring in back-casting (see targets section for details)

- 2.61. **Congestion:** London is one of the most congested cities in Europe and, despite the Congestion Charge, it has deteriorated in recent years. Vehicle delay times are highest in Central London, including in Camden, and have increased more than other parts of the city, with significant consequences for the economy. Car use, including taxis and PHVs, is a particularly inefficient use of limited space with 85% of car driven trips in London driver only or just one passenger.
- 2.62. The rise of delivery vans for internet shopping has also been shown to be inefficient, with most vans rarely even half full and many failed deliveries. Other modes such as freight and coaches also have impacts on the street as well as residents' amenity.
- 2.63. **Noise:** noise from transport is associated with annoyance, stress, sleep disturbance, and impaired cognitive performance, leading to increased incidences of arterial hypertension, the development of cardiovascular disease, the risk of coronary artery disease and stroke.
- 2.64. **Physical inactivity:** an inactive lifestyle is a leading cause of disease and disability and an increased likelihood of obesity. The UK Government's Chief Medical Officer recommends that adults do a minimum of 150 minutes of physical activity a week; for children this is one hour. In Camden one in five adults takes less than 30 minutes of physical activity a week while just one in eight 15 year olds meets the required levels. Active travel – walking and cycling - is the main way that Londoners meet their physical activity needs and an important option for significantly increasing physical activity levels. But data shows that higher car ownership is associated with lower levels of physical activity (Figure 2.12, below).

Figure 2.12: Access to a car reduces opportunities for physical activity



- 2.65. **Mental health:** Creating public spaces that are both safe and social, that encourage face-to-face interaction and keep active have huge benefits for well-being: people are less likely to be depressed, anxious or tense and are more likely to feel better about themselves. People are also more likely to keep mobile and independent as they get older if the environment around them is conducive to active travel, and if public transport networks are accessible.
- 2.66. **Driving into Camden, parking pressure and through traffic:** demand for kerb space in the borough is under severe pressure and a wide range of competing demands have to be managed. Even new car-free developments generate trips from visitors who can drive in and park outside the hours of control, and the school run and 'rat running' traffic present a problem for residents.
- 2.67. Camden will seek opportunities to restrict and minimise inessential motor traffic. In 2017, the Council put in place a car-free policy for all new developments across the whole borough which will help to mitigate the impacts of growth. However, we will also identify ways to minimise existing levels of inessential car ownership and use among people living in Camden, as well as for those coming into or moving through the borough, to reduce traffic levels.
- 2.68. And there is significant potential to do so: many journeys taken by car are short and it is likely that many could easily be walked or cycled. In Camden, 70% of residents' car trips are under 5km, with 40% under 2km. Evidence from TfL's walking and cycling potential data shows significant opportunities for switching trips to active travel modes in Camden.
- 2.69. **Public transport overcrowding:** Despite benefitting from excellent public transport in the borough, many buses, underground and rail lines are seriously overcrowded with some lines in Camden the most overcrowded sections of anywhere on the Tube network, creating an unpleasant and at times unreliable passenger experience. Even with significant investment and planned improvements, overcrowding will continue, mainly due to population growth with demand outpacing supply (see Figure 2.13, overleaf). Journeys need to shift from public transport to more efficient modes where there are opportunities to do so, freeing space as demand for services increases. It is estimated that 400,000 public transport trips made in Camden (journey stages) could be cycled, 73,000 of which are made by Camden residents. A further 90,000 journeys could be walked (journey stages) with 38,000 of these being made by Camden residents.

Figure 2.13: Tube network overcrowding in Camden by 2031 (weekday peak AM hour, includes planned investments)



2.70. **Accessibility and inclusion:** Ensuring that everyone can access the transport network underpins Camden’s commitment to delivering the borough’s over-riding objectives to reduce inequality and improve the health and well-being of its population, where everyone has a chance to succeed, and everyone can lead happy, healthy and fulfilling lives. But often people are deterred from using the streets or public transport for fear of anti-social behaviour, road danger, pollution, and physical barriers, particularly on the underground and rail networks where many stations do not provide step-free access. In Camden, however, 13 Tube stations at present do not have step-free access, as well as four Overground stations and one Thameslink station. The Council also has to be mindful of the specific needs of an ageing population while also helping to ensure that they remain independent and healthy.

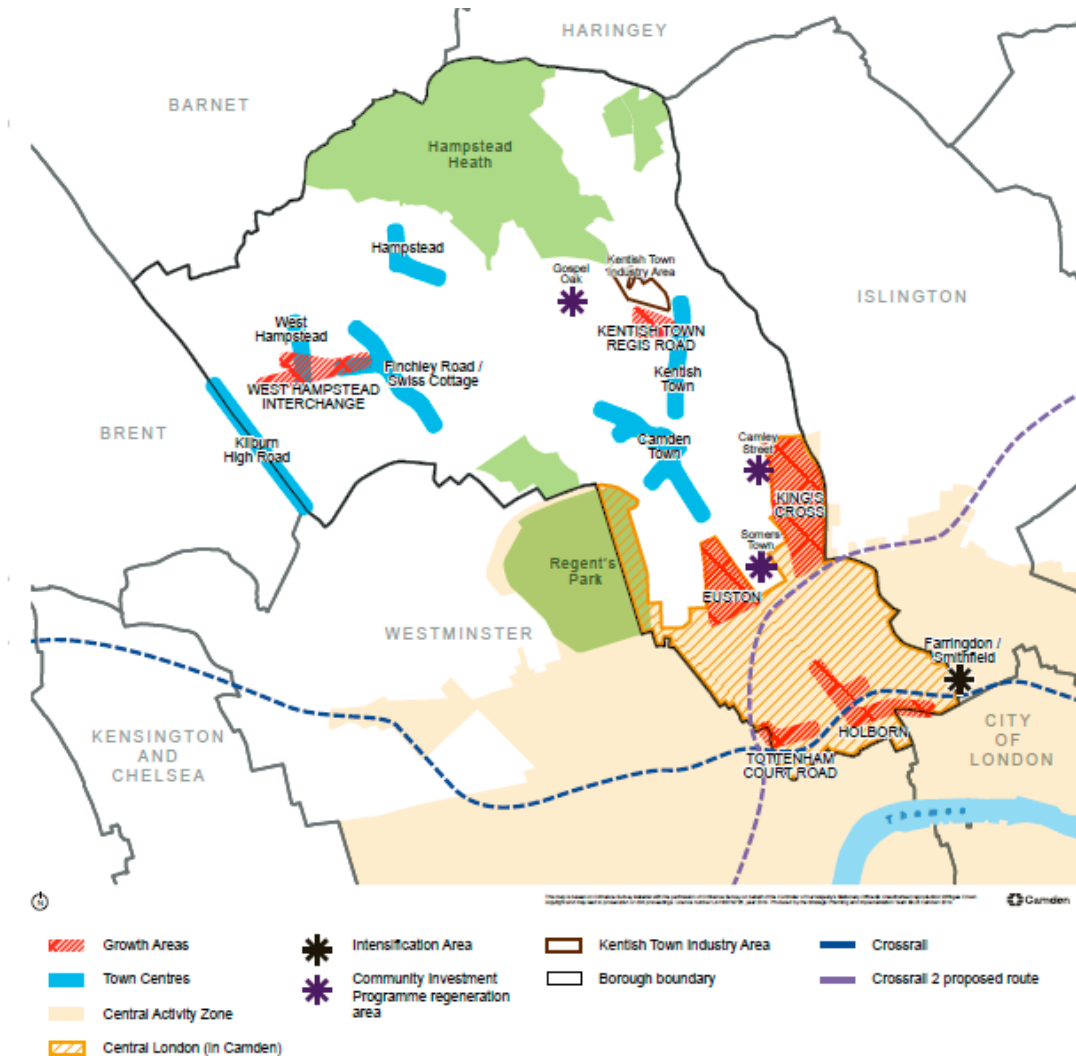
2.71. **Growth:** Camden is predicted to grow to 265,300 people between 2016 and 2031, nearly 2,000 additional people per year, while the number of households will grow by 19,200 or nearly 1,100 per year; the number of jobs in Camden is forecast to grow from 286,000 to 375,000 by 2031. The Local Plan identifies several key areas for growth, including Holborn, King’s Cross, Tottenham Court Road, Euston, West Hampstead and Kentish Town/Regis Road (see

Figure 2.14, overleaf). These locations will form the core of Camden's placemaking agenda.

- 2.72. King's Cross, which is the borough's largest development area, will have 2,000 new homes and 25,000 new jobs by 2031 whilst the Euston growth area will provide up to 3,800 new homes and 14,000 new jobs and has the potential to create a new area of central London. HS2's terminus at Euston also provides a unique set of challenges, including the impacts of construction over a long period of time, and the associated implications for our road network in both the immediate and wider area.
- 2.73. Growth, in general, will increase the demand for travel and mobility, placing additional pressure on the transport network. The Council will need to manage it in a way that does not further adversely affect the physical, social and economic well-being of the people who live and work here. Less congested, dangerous and polluted streets will also support our businesses, ensuring reliable essential deliveries and servicing, and creating safe and attractive environments which people want to visit and spend time in. Constructing the new buildings – both the homes and offices – and the transport links to accommodate a growing population also presents a challenge with significant implications for safety and pollution.
- 2.74. **Technological advances:** The rapid emergence in recent years of new technology for transport, particularly mobile-phone/app based on-demand services, is likely to continue. Ride and car-sharing apps, autonomous vehicles (driverless/self-driving vehicles), dockless cycle hire and on-demand bus services are just a few of the new models of mobility which are promoted as a solution to London's transport problems, reducing the need for private car ownership and freeing up scarce kerb space currently used for parking. They can also improve accessibility for those with restricted mobility or at times and locations where other alternatives are in short supply. However, evidence regarding their impacts – especially motor vehicle ride-sharing - is lacking and where it is available is mixed, showing that vehicle use may increase. It is essential that these are considered and tools developed to keep pace and manage them effectively so that they deliver the services that London needs.
- 2.75. As a consequence of technological advances there becomes a requirement to support the communications infrastructure necessary. In partnership with the Greater London Authority and the Mayor's Smart London agenda, we will be exploring the opportunities to begin rollout of smart infrastructure. For example, provision of on-street smart infrastructure could enable Camden to make use of sensor technology to improve our monitoring and understanding of traffic flow across the borough as well as explore the capabilities of data analysis and

modelling, combined with digital signage to reduce the impact of traffic on air quality through reducing congestion.

Figure 2.14: Growth areas in Camden identified in Local Plan



2E. Regional and local policy framework

2.76 The CTS recognises that transport has a key role to play in delivering multiple objectives, particularly those linked to environment, sustainable economic growth and regeneration, health and health inequalities, and inclusion. The Strategy therefore supports several Mayoral and Borough strategies and plans, as discussed below:

Mayoral strategies and plans

2.77 *The Mayor's Environment Strategy* is part of a holistic approach to making London a better place to live and work, making people healthier and the city more attractive. Addressing transport is absolutely fundamental for improving

the environment: traffic is the biggest contributor to poor air quality, which is considered to be the most pressing environmental threat to the future health of London. It is also a major factor in greenhouse gas emissions, particularly carbon and climate change which result in extreme weather incidences such as flooding, heatwaves and drought which threaten well-being. Objectives, policies and measures outlined in the CTS will therefore help meet the Mayor's environmental objectives.

- 2.78 *The London Plan (2014)* has been amended by the Mayor (2018) with some minor suggested changes. However, the essence of the London Plan remains and includes several themes which Camden's CTS will contribute to, including enabling equality of opportunity for all people, reducing health inequality and promoting health, achieving sustainable development and addressing climate change. Specifically, this CTS helps to deliver the transport elements (Chapter 10) of the London Plan and the requirement for developments to contribute to the Healthy Streets outcomes and 80% sustainable mode share, by embedding them in agreements with developers through Travel Plans, Construction Management Plans and Delivery and Servicing Plans. The Council's borough-wide car free policy will help to meet the Mayor's standards for parking.
- 2.79 The CTS also helps to deliver the *Mayors 'Inclusive London – A Strategy for Equality, Diversity and Inclusion' (2018)*, which similarly takes a Healthy Streets approach to addressing inequality. Traffic dominance, fear of road danger and inaccessible streets can prevent people from accessing opportunities, with impacts for health and well-being. Prioritising people over cars will help to create a healthy, inclusive and safe city.

London Borough of Camden strategies and plans

- 2.80 *Our Camden Plan (2018-22)* is the borough's overarching strategy which sets a vision for the Borough. Reducing inequality and improving health and well-being are central objectives, where everyone has a chance to succeed and nobody gets left behind and where everyone can lead happy, healthy and fulfilling lives. The quality of the transport network is relevant to four of the five focus areas and delivering the Plan's strategic objectives:
- homes and housing: delivering well-designed homes and infrastructure that encourage integration, cohesion and active lifestyles;
 - strong growth and access to jobs and making Camden the best place in London to do business and to work depends on a high quality transport network, as discussed above. The Plan supports projects that will transform the borough's transport infrastructure, such as Crossrail, the WEP and a network of high quality cycle routes across the borough.
 - clean, vibrant and sustainable places includes a Council pledge to do all it can to address the serious challenge of air quality, as well as carbon emissions, to which transport is a major contributor, while ensuring that its streets and public spaces are also clean, attractive and safe. The Council also commits to making

it easier for people to travel more by foot or by bike, by prioritising pedestrians and cyclists above other road users.

- healthy independent lives puts health and wellbeing at the forefront of Council action, making it part of everything we do. This includes creating environments which make it easier to make healthy choices and do physical activity such as walking and cycling.

2.81 *Camden's Local Plan* was adopted in July 2017. Similar to the CTS, Camden's planning strategy has been prepared in the context of the social, economic and environmental challenges the borough faces, particularly a growing population, and notes the importance of excellent transport connections and high levels of accessibility necessary for growth. The new Local Plan, therefore contains a range of policies to ensure we optimise our planning powers to achieve sustainable transport objectives.

2.82 Local Plan objectives also acknowledge the importance of, and commit to, improving health and well-being: Camden has one of the largest health inequality gaps in England and improving these inequalities goes beyond improving access to medical facilities. It seeks to promote healthier lifestyles and sustainable travel, and make Camden a better place to cycle and walk around, to reduce air pollution, reliance on private cars and congestion and to support and promote new and improved transport links.

2.83 It is a statutory requirement for borough Local Plans to have regard to the National Planning Policy Framework (NPPF) and it is a material consideration in decision making. The NPPF includes a 'presumption in favour of sustainable development', and boroughs should have clear policies that will guide how this presumption should be applied locally.

2.84 A transport network is fundamental to growth and sustainable development ('Good Growth'), linking people to jobs and supporting businesses. The transport network will need to support the safe movement of a growing population and goods without further impacting on air quality, carbon emissions and congestion.

2.85 Significantly, Camden's Local Plan establishes a new car-free policy for all new development across the whole borough. This policy builds on Camden's previous car-free policies established in 1998 which were based on Public Transport Accessibility Levels (PTAL). The new Plan introduces a second consideration regarding access and proximity to services and opportunities (ATOS) which are essential for day-to-day living and well-being such as jobs, schools and healthcare. In addition to public transport, it also takes into account of additional travel options such as car clubs and cycle hire stations.

2.86 *Camden's Clean Air Action Plan (CAAP, 2016-18)* notes that ground-based transport makes the single largest contribution to Nitrogen Dioxide and to Particulate Matter: in London it is 63% and 66% respectively, while in Camden it is almost half of each. Tackling air quality therefore requires a concerted effort to reduce car use, enable modal shift and encourage the take-up of low

emission vehicles. The Plan explores a wide range of actions, including for example, anti-idling measures and emission-based permit charges alongside infrastructure and promotion of walking and cycling.

- 2.87 The Council's emerging *Clean Air Action Plan 2018-2022*, is a statutory requirement and will replace the CAAP. It will respond to the Council's recent resolution to reduce particulate air pollution in the borough, in line with levels recommended as safe by the World Health Organisation by 2030, which go beyond current legal standards enshrined in UK law. The Transport Strategy will therefore make a significant contribution to delivering the CAAP (see Engagement and Consultation Plan).
- 2.88 *Green Action for Change* is Camden's 10 year sustainability plan to 2020, covering a broader environmental agenda which captures and sets targets for carbon emissions and climate change. Transport contributes to several actions in the plan, particularly to help make Camden the best borough for pedestrians and cyclists.
- 2.89 Camden's Joint Health and Well-being Strategy (2016-18): includes a priority for healthy weight and healthy lives and the need for people to be more active to combat diseases such as heart disease, diabetes and cancer. Mental Health studies also show that physical activity can be used to overcome, and even prevent, depression and anxiety and can be as effective as medication and counselling.

Chapter 3 - Our Vision, Objectives, Policies and Measures

3. This Chapter presents the Council's vision and objectives for travel and transport in Camden, and the policies and measures that will deliver them. They are also designed to contribute to wider local economic, social, health and environmental policy outcomes both for the borough and for London.

3.1. In responding to the challenges and opportunities outlined in the previous chapter, the Council's Transport Strategy vision is:

To work alongside residents and partners in transforming transport and mobility in Camden, enabling and encouraging people to travel sustainably; nurturing healthier lifestyles; creating radically less polluted places; and upgrading the transport network to meet Camden's needs and those of London as a growing capital city

3.2. Sustainable, active, and healthy travel is therefore at the heart of the Camden Transport Strategy (CTS). Policies and initiatives which change the way people travel and goods are transported, prioritising and enabling walking, cycling and public transport while reducing inessential vehicle use, are key to delivering the objectives of the Strategy. They will help to create a borough where everyone can benefit from safer, cleaner, more accessible and less congested streets and places.

3.3. This vision is in line with Camden 2025 and Our Camden Plan which place residents at the heart of the Council's ambitions. Our residents want to benefit from inclusive growth and live in clean, vibrant and sustainable places and this new strategy will strive to achieve these objectives.

3.4. The policies and measures in this Chapter will also help to deliver the Mayor of London's Transport Strategy (MTS), and specifically our work towards achieving the Mayor of London's nine key outcomes. These are:

(A) London streets will be: healthy and more Londoners will travel actively; safe and secure; used more efficiently and have less traffic on them and; clean and green.

(B) Public transport will: meet the needs of a growing population; Be safe, affordable and accessible to all and; Be pleasant, fast and reliable.

(C) In terms of growth and development: active, efficient and sustainable travel will be the best option in new developments and; transport investment will unlock the delivery of new homes and jobs.

3.5. These outcomes are grouped into three main interlinked themes:

- **Healthy streets and healthy people:** Creating streets that encourage walking, cycling and public transport use and reduce car dependency (including taxis and private hire vehicles) and the health problems it creates.
- **A good public transport experience:** Public transport is the most efficient way for people to travel over distances that are too long to walk or cycle, and a shift from private car to public transport could dramatically reduce the number of vehicles on London's streets.
- **Good growth: new homes and jobs:** Planning the city around walking, cycling and public transport use will unlock growth in new areas and ensure that London grows in a way that benefits everyone.

3.6. We have developed seven Transport Strategy objectives which are set out below. A summary of how these objectives align with the MTS objectives is included at the end of this chapter (Table 3.1). This version of the Transport Strategy has also been subject to a Strategic Environmental Assessment (SEA) and an Equalities Impact Assessment.

3.7. At the start of each objective we have set out some priority initiatives which will require the support and investment from partner organisations – particularly TfL – to help us achieve. We will work extensively with, and lobby, TfL and other relevant organisations to help deliver those schemes.

Objective 1: To transform our streets and places to enable an increase in walking and cycling.

3.8. Getting more people to shift from motor vehicles and public transport to walking and cycling is fundamental to achieving Camden's vision. Enabling more walking and cycling is an essential element of the Council's efforts to improve air quality and reduce transport's contribution to climate change. Walking and cycling are also the most affordable and healthiest modes of travel and make the most efficient use of limited carriageway space. They also help to reduce overcrowding on public transport on shorter journeys, particularly as London grows, and makes the public transport network more accessible for those who rely on it (see Objective 4), and they provide significant economic benefits.

3.9. The policies and measures outlined below will help us to meet key overarching targets for walking and cycling, including increasing Camden residents' mode share by walking from 42% (2016/17) to half of all trips being walked by 2041, and doubling the resident mode share for cycling, from 3.6% (2016/17) to 7.5% by 2025, and doubling again to 15% by 2041.

Figure 3.1: Transformational changes on Midland Road for pedestrians and cyclists to be completed in 2019



3.10. For these reasons, this objective seeks to make transformational changes to our streets and places that gives priority to, and thereby enables, active travel modes. Box 1, below, identifies priorities for this objective where we will require substantial additional funds, including inward investment & partnership in delivery from TfL/other relevant organisations, in the short to medium term, to help realise these overall goals.

Box 1: Objective 1 Investment Priority Areas

IP1a: Delivering a transformational, 'Liveable Neighbourhood' scheme for the Kilburn High Road and hinterland area that upgrades the public realm, and enables walking and cycling

IP1b: Unravelling the Holborn gyratories and reducing traffic dominance as part of an area wide 'Liveable Neighbourhood' project that enables active travel modes

IP1c: Unravelling the gyratory in Camden Town, whilst substantially enhancing the pedestrian environment, and providing high quality cycle links through the area (such as between the West End and Camden/Tottenham Hale route), including and as part of an area-wide 'Liveable Neighbourhood' and/or 'Low Emission Neighbourhood' scheme

IP1d: Delivering a high quality cycle network across the Borough

IP1e: Playing our role to assist in implementing the Camden High Line

In delivering this objective we will implement the following policies:

- Policy 1a The Council will use a road user hierarchy to inform all relevant decisions: walking, cycling and public transport will be prioritised above private vehicle use as follows:
- Pedestrians
 - Cyclists
 - Public transport/vehicles for people with a disability
 - Freight (including loading and unloading)
 - Taxis
 - Powered two-wheelers (motorcycles) and private cars
- Policy 1b The Council will remove barriers to walking and cycling, ensuring that every transport, placeshaping and other relevant schemes improve conditions for pedestrians and cyclists, to create high quality environments that enable modal shift and increase active, healthy travel.
- Policy 1c The Council will change how road space is allocated, including reducing kerbside space for parking/loading provision, and reallocating carriageway space to active, sustainable travel modes, if necessary, to enable and encourage people to walk and cycle, to improve road safety and deliver enhancements to the public realm.
- Policy 1d The Council will aim to deliver the Healthy Streets outcomes so that streets become inclusive environments that enable walking and cycling for all who live in and visit the Borough.
- Policy 1e The Council will embed opportunities for transformational walking and cycling schemes in all relevant cross-cutting Council policies and plans.
- Policy 1f The Council will use a robust and evidence-based process to prioritise existing funding for walking and cycling schemes, and locations for bids for additional investment.
- Policy 1g The Council will research where people are most likely to walk and cycle and where they might switch to these forms of travel in future, and use this research to prioritise locations for funding through 'area-wide Healthy Streets projects' and bespoke schemes in order to ensure maximum return on investment in terms of meeting the CTS goals.

Policy 1h The Council will seek to maximise opportunities through the planning process to transform our streets, improve the public realm and deliver our planned cycle network.

3.11. There are a variety of measures and actions required to deliver those policies, as set out below. We will:

Measure 1a: Implement the infrastructure/streetscape proposals set out in our Walking & Accessibility Action Plan, including new and safer crossings, wayfinding, and enhanced footways, and support improvements to leisure routes/creation of new spaces (such as the Camden High Line), to maintain and increase existing high walking levels.

Measure 1b: Implement the infrastructure/streetscape proposals set out in our Cycling Action Plan, including developing and implementing a network of 'primary' and 'secondary' cycle routes across the Borough, cycle permeability, cycle parking and wayfinding improvements that will enable more cycling, more safely and more often. This will include planning for a range of different users and bikes and complying as far as possible with the London Cycle Design Standards (LCDS).

Figure 3.2 Step-track cycle facilities and footway improvements to be delivered on Gower Street as part of the West End Project (in 2019/20)



Measure 1c: Implement the infrastructure/streetscape proposals as set out in our Road Safety Action Plan which benefit pedestrians and cyclists (see also Objective 4).

Measure 1d: Introduce traffic restrictions, including trials, for ‘timed’ and full road closures, as well as cycle/bus-only streets, to reduce traffic dominance and provide safer and more welcoming environments for walking and cycling (see also Objective 2).

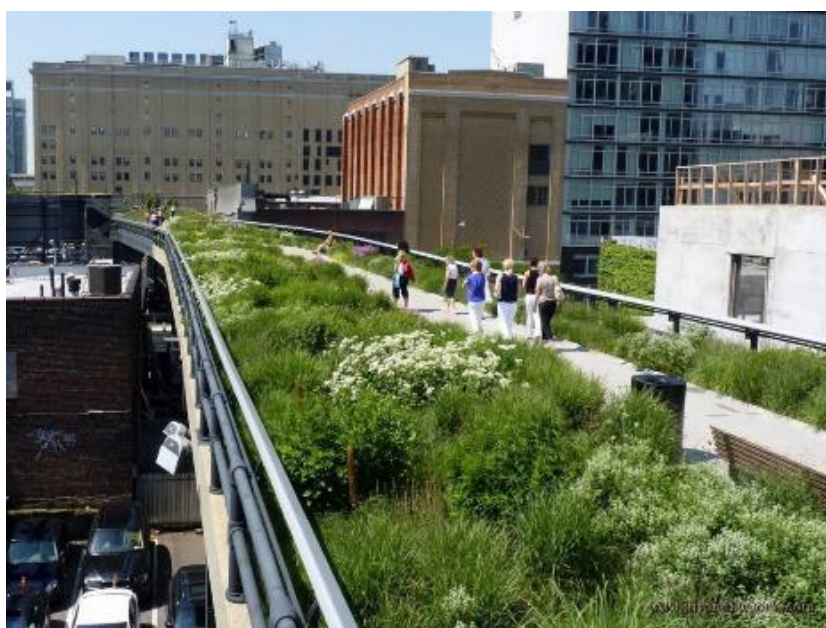
Measure 1e: Implement a number of ‘Area-wide Healthy Streets Projects’, primarily funded through the Local Implementation Plan, to deliver transformational streetscape/public realm changes for active travel modes.

Measure 1f: Bid for, and implement if successful, Liveable Neighbourhoods schemes at strategic locations across the Borough to provide transformational area-wide improvements that prioritise walking, cycling and access to public transport – including completion of the ‘West End Project’ for which funding is already secured.

Measure 1g: Work with a wide range of partners to deliver transformational streetscape schemes and public realm improvements, including with the business community through Business Improvement Districts (BIDs) and innovative approaches such as Section 106 credit schemes.

Measure 1h: Continue to implement a programme of Healthy School Streets, and Play Streets, (temporary road closures) to enable residents, schools, parents and children to reimagine their streets as a precursor to potential longer term interventions that enable active travel modes.

Figure 3.3 The Camden High Line – a new linear park for Camden (source: Camden Town Unlimited)



Objective 2: To reduce car ownership and use, and motor traffic levels in Camden

- 3.12. The council will take steps to actively discourage inessential car ownership and use, both for journeys made within the borough and for traffic entering the borough. A further benefit of such initiatives will be to further enable more sustainable forms of transport in the Borough, as well as reducing pollution, and congestion for those who need to use motor vehicles.
- 3.13. As discussed in Chapter 2 and the supporting Evidence Base, data shows that providing attractive alternatives to car use is not sufficient on its own to encourage a shift. A parallel approach which limits opportunities for inessential motor vehicle trips, and makes it the least attractive option, is also needed. This section therefore considers opportunities to reduce car use (and motor traffic generally) relative to other more sustainable, efficient and healthy alternatives.
- 3.14. In 2017 Camden introduced a new Borough-wide car free policy for new developments as part of its Local Plan. This means that no new parking spaces can be provided on-site as part of new developments except for essential users such as disabled parking and space for essential deliveries and servicing. Similarly, occupants cannot obtain a permit to park on the street unless they meet criteria for obtaining specific permits such as those for a business bay.
- 3.15. However, while the car-free policy will help to mitigate growth in car ownership in the borough for new developments, existing levels of vehicle ownership and use in the borough remain an issue, particularly as a large proportion of residents' driven journeys are short. New developments may also generate additional visitor vehicle driven trips, particularly outside the hours of control. There is also anecdotal evidence of people living in car-free developments still owning a car, and leaving and arriving outside hours of control, particularly in zones with 2 hour controls only, and/or using car parking spaces in off-street land, including housing estates. These issues are something the Council will need to address. Parking policy is a key lever to achieve this, with measures both at the journey origin and destination: the availability and type of parking spaces, the size of CPZs and hours of control, as well as charging levels can all help to address inessential vehicle use.
- 3.16. Our policies and measures to address this considerable challenge are outlined below. In addition, consideration has been given to the MTS proposal to work with Boroughs who wish to develop and implement traffic demand management measures such as local road user charging or Workplace Parking Levy (WPL) schemes. As outlined below, we will undertake a feasibility study, and develop further if feasible, a WPL in Camden as a tool to manage demand for motor vehicle trips to/from workplaces in the Borough, and to raise funds for

implementation of measures outlined in this Strategy that support and enable sustainable transport modes. In particular such funds from a WPL could help deliver (relevant) elements of the Investment Priority areas identified in each Objective.

- 3.17. At the current time, Camden’s position is not to unilaterally explore further local road user charging in a part of, or across, the Borough. All of Camden south of the Euston Road is already covered by road user charging in the form of the Congestion Charge. Furthermore, from April 2019 that area will have additional charges affecting a significant number of vehicles resulting from the Ultra Low Emission Zone (ULEZ). From October 2021 all of Camden will be within the ULEZ area when it extends to the north/south circular roads, which effectively delivers air-quality related road user charging across the entire Borough. Developing our own local road user charging in isolation from the congestion charge and ULEZ would be impractical from technical, resource and traffic displacement perspectives.
- 3.18. Instead, we will work with and lobby the Mayor to continue to review the Congestion Charge and enhance it where needed, as outlined in Policy 2e, and use the opportunity of the expanded ULEZ to promote and provide alternative, sustainable modes of travel. However, if an appropriate proposal or methodology for delivering local road user charging comes forward then we will investigate the feasibility of that in due course.
- 3.19. Lower levels of public transport availability in some parts of Camden may be a factor in higher car ownership and use in that area. Improving public transport services will also need to be considered as part of the efforts to reduce car ownership and use.
- 3.20. Box 2, below, identifies priorities for this objective (“IP2a” etc) where we will require substantial additional funding, and inward investment & partnership in delivery from TfL/other relevant organisations, in the short to medium term, to help realise these overall goals.

Box 2: Objective 2 Investment Priority Areas

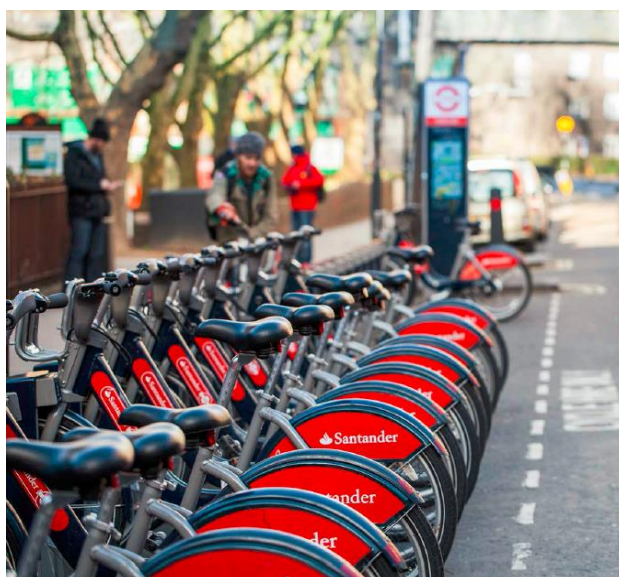
IP2a: Extending Santander Cycle Hire and other forms of cycle hire to as many areas of the Borough as feasible

IP2b: Securing enhancements to public transport networks in areas of low PTAL in Camden where car mode share/trips are high

- 3.21. In delivering this objective, the Council will deliver the following policies and measures:

- Policy 2a Update the current Parking Enforcement Plan into a Parking Action Plan, to be reviewed at least every two years, to include parking policies which disincentivise inessential motor vehicle trips.
- Policy 2b Develop a rolling programme of traffic restrictions and trials, both timed and permanent, to deter inessential car use and traffic 'rat running' in particular on our residential streets.
- Policy 2c Develop and implement a range of initiatives that promote and provide attractive, convenient and safe alternatives to private cars and other forms of motor traffic.

Figure 3.4 Santander Cycle Hire in Camden – providing sustainable, healthy alternatives to motor vehicles



- Policy 2d Lobby TfL for improvements to public transport particularly in areas of low PTAL.
- Policy 2e Continue to support TfL's proposals to include Private Hire Vehicles in the Central London Congestion Charge and continue to support the Mayor's proposal to review the Congestion Charge to better reflect the wider impacts and costs associated with motor vehicle use.
- Policy 2f Continue to support and promote the existing 'back to base' car club model in the Borough as an alternative to private vehicle ownership.
- Policy 2g Only support on-demand and other 'flexible' forms of motorised travel, such as on-demand bus services, PHV, taxis, and free-floating car clubs, where there is robust and relevant data to show they can help reduce car ownership and use in Camden, and help deliver other objectives in this Strategy.
- Policy 2h Ensure that there is no net increase in on-street residential parking bay provision as part of any transport scheme or related policy, and remove

motor vehicle parking provision where necessary in order to facilitate sustainable transport modes as set out in Policy 1c.

Policy 2i Work with partners such as neighbouring boroughs and TfL, to address key strategic issues around traffic flow through the borough as well as at specific locations.

Policy 2j Continue to implement Camden's borough-wide car-free policy for new developments.

3.22. In supporting these policies, we will undertake the following measures and initiatives:

Measure 2a: Undertake a feasibility study into a workplace parking levy (WPL) in Camden and progression of next steps subject to that feasibility.

Measure 2b: Review paid for parking charges at least every two years, including options to increase those charges or adjust the charging structure, in order to ensure that they continue to meet our transport strategy objectives and be able to embrace technological change that may become available to us. This could, for example, include dynamic pricing that varies charges at periods of increased demand.

Measure 2c Review residents, visitor and all other renewable parking permit (business, doctors etc) charges at least every two years, including options to increase those charges or adjust the charging structure, in order to ensure they continue to meet our transport strategy objectives.

Measure 2d: Undertake a study to provide a robust evidence base using all relevant data and local context to identify where amendments to Controlled Parking Zone (CPZ) hours of control or size will have an impact on car ownership and car use, and use that study to help guide future reviews and decisions.

Measure 2e: Review, at least every two years, and remove redundant (if no longer in use) parking bays, such as residents', doctors', business, blue badge and car clubs bays and reallocate them to other uses such as cycle parking (hangars or Sheffield stands), new blue badge bays, electric vehicle charge points, car clubs or parklets, depending on the local context.

Measure 2f: Continue to promote and expand where appropriate Camden's 'back to base' car club network as an alternative to car ownership, including managing a permit scrappage scheme to encourage residents to give up a parking permit in exchange for car club membership;

Measure 2g: Undertake surveys during temporary road closures (such as for street works or utilities works or for development/construction sites) to

understand traffic displacement and the potential for permanent road closures.

Measure 2h: Undertake a detailed assessment of current parking provision on the Council's housing estates and community centres, to include but not be limited to assessing who is eligible to apply for/access those spaces. Further to that assessment to implement any necessary changes to assist in contributing to our objective of reducing car ownership and use.

Measure 2i: Undertake an assessment of the impact of motor cycle use across the Borough, and implement if appropriate, a parking charge for motorbikes where dedicated on-street motorcycle parking is currently provided for free.

Measure 2j) Commission an independent assessment of the potential impact of introducing flexible car sharing in the borough, particularly how it may impact on parking pressures, and how it would relate to our transport challenges, our transport objectives and the Healthy Streets outcomes.

Figure 3.5: Camden's first Healthy School Street at St. Joseph's School, on Macklin Street in Covent Garden.



Measure 2k: Implement a range of traffic reduction measures on Camden's streets, including:

- (i) Using our 'area-wide Healthy Streets Projects' and Liveable Neighbourhood programmes (where bids are successful) to deliver traffic restrictions and other measures that create 'low-traffic neighbourhoods'
- (ii) Rolling out our 'Healthy School Streets' of timed road closures at the start and end of (and potentially during) each school day,

particularly around pollution hotspots and busy roads, to provide healthy routes to school.

- (iii) Permanent/timed restrictions on residential streets where there are known problems of 'rat running' and through motor traffic while maintaining access for local people and cyclists (filtered permeability).
- (iv) Specific measures to further address the school run such as introducing Clearways, and/or public space protection orders (PSPOs) where they will assist in reducing school-run traffic.
- (v) Car free or low-emission vehicle only zones.
- (vi) Investigate, and implement if feasible, ring-fencing a proportion of any Penalty Charge Notice (PCN) income arising from the above schemes for further measures to reduce traffic levels in the local area from which that income arises.

Measure 2l: Support, promote and expand cycle hire systems – including working with TfL and developers for extensions to Santander Cycle Hire in Camden and further developing dockless bike hire programmes – as a tool for creating viable alternatives to car ownership and use.

Measure 2m: Implement a range of behaviour change and complementary measures programmes that contribute to reducing inessential motor traffic and increasing the use of sustainable modes, including:

- (i) Continue to deliver a School Travel Plan behaviour change programme, engaging with Camden schools and their involvement in the STARS accreditation process, providing measures to reduce school-run traffic, and encourage healthy routes to school.
- (ii) Implement the behaviour change initiatives outlined in the accompanying Cycling Action Plan, Walking & Accessibility Action Plan and Road Safety Action Plan, including the Borough's cycle loan scheme, Community Cycling Programme and Pedestrian Skills programmes.

Measure 2n: Develop a Freight Action Plan, to be consulted on during the period of this CTS, to outline in detail the challenges and solutions presented by freight in the Borough and further measures to reduce freight/delivery trips by motorised vehicles (see Objective 6).

Measure 2o: Work with TfL, local stakeholders and all other relevant partners to deliver improvements in public transport services which address areas of low PTAL and help reduce car dependency.

Objective 3: To deliver a sustainable transport system and streets that are accessible and inclusive for all

- 3.23. Accessibility is about equity: not everyone has equal access to the transport network for numerous and complex reasons: fear of personal security or of traffic and safety, concerns about pollution, financial insecurity, or they may have physical or mental impairments which limit mobility. Barriers to accessing the transport network can exclude people and often isolate them. Overcoming these barriers is essential for ensuring that people are not deterred from using our streets and the transport network, and making them inclusive.
- 3.24. In a borough where only 35% of households have access to a car, walking, cycling and public transport are the modes that most people rely on. These are also the most accessible and affordable forms of transport. Everyone should also have equal access to the health benefits that they bring, particularly older and younger people: these groups are the least active and yet walking and cycling on every day journeys offer the best opportunity for increasing activity levels, so they have the most to gain.
- 3.25. Older people and those with physical and mental disabilities are more reliant on walking, and improvements to the walking environment will also be delivered as part of Objective 1. These groups also make greater use of public transport than other groups, particularly buses. Yet overcrowding and poor accessibility can prevent those most in need from using the network. Camden will also investigate opportunities to encourage a shift from public transport to walking and cycling where appropriate to help reduce overcrowding.
- 3.26. Box 3, below, identifies priorities for this objective (“IP3a” etc.) in terms of where we will require substantial additional funding, inward investment & partnership in delivery from TfL/other relevant organisations, in the short to medium term, to help realise these overall goal.

Box 3: Objective 3 Investment Priority Areas

IP3a: delivering enhanced provision of step-free access to stations in Camden, with a short term focus on Kentish Town and West Hampstead stations and future locations to be identified

IP3b: implementation of committed station upgrades at Camden Town and Holborn (Network Rail/TfL)

IP3c: provision of high quality step-free access to all new major transport infrastructure in the Borough, including existing commitments to HS2 and Crossrail 2 stations

IP3d: Ensuring greater space for pedestrian flow and level access along the pavement, by delivering in full, the original proposed scheme which removes the old and redundant West Hampstead Overground station building

3.27. A mixture of policies and measures will help us achieve this objective. Our policies will be to:

- Policy 3a Make our streets accessible and inclusive to people from all walks of life, age and abilities.
- Policy 3b Develop and regularly update relevant policies to remove clutter and obstructions from the public highway which impede movement and permeability, particularly for those with mobility impairments, and pedestrians and cyclists.
- Policy 3c Improve accessibility and travel options for vulnerable groups to facilitate independent living and reduce isolation.
- Policy 3d Lobby and support TfL in delivery of large-scale public transport schemes in the Borough, such as Crossrail 2, to provide the necessary increases in (step-free) capacity that enable residents and visitors to move in and around the Borough
- Policy 3e Deliver bus priority improvements across the Borough, and support the provision of on-demand bus services (particularly in the north of the borough), which are of benefit to those otherwise excluded from such networks
- Policy 3f Lobby TfL and Network Rail to improve step-free access (SFA) and install upgrades to stations, including new station entrances, on underground, Overground and mainline stations within the borough to improve accessibility for more disadvantaged communities, including at Kentish Town, West Hampstead and other locations.
- Policy 3g Lobby TfL to ensure that they maintain a bus service that provides a good level of frequency and accessibility to our residents, recognising the role of buses as the most accessible part of our public transport system.
- Policy 3h Use Public Transport Accessibility Levels (PTAL), level of deprivation and percentage of elderly people and people with a disability living in each area as key indicators to help prioritise locations for investment of 'area-wide Healthy Streets' LIP-funded projects.
- Policy 3i: Encourage a shift from public transport use to walking and cycling where appropriate to reduce public transport overcrowding.
- Policy 3j: Work with local groups, particularly children, the elderly and those with a disability, in the development of new area-wide Healthy Streets projects, to understand and respond to the needs of excluded and vulnerable groups.

Policy 3k: Ensure alleyways and shared spaces remain accessible and only consider physical barriers (that deter all legitimate users of those spaces) as a last resort.

3.28. The Council will also implement the following measures:

Measure 3a: Deliver a range of infrastructure measures outlined in the Walking & Accessibility Action Plan to improve the accessibility of our streets for people, including implementing the 'Healthy Streets' agenda to provide safer crossings, places to rest, shade, shelter and other initiatives.

Measure 3b: Deliver cycling infrastructure, as outlined in the Cycling Action Plan that is accessible and inclusive for all ages, abilities and types of bicycle.

Measure 3c: Seek to remove clutter and obstructions from public footways which impede movement and permeability, particularly for those with mobility impairments, and pedestrians and cyclists (such as redundant street furniture, A-boards, table and chairs unless a licence has been granted) and consolidating street signage onto fewer posts. We will also enforce against footway encroachment and parking.

Figure 3.6: a new public space proposed for Whitfield Street as part of the West End Project



Measure 3d: Continue to maintain all bus stops as accessible, and ensure any new bus stops delivered in the Borough are also fully accessible. Ensure that shelters and covered seating are provided at bus stops wherever possible.

Measure 3e: Continue to provide opportunities for active travel by engaging with hard-to reach communities, including our cycle training scheme for children and adults, cycle loan offer, and Community Cycling Programme schemes. We will also continue to deliver some of that cycle training, as currently, using all ability bikes and with children from Special Educational Needs schools in the Borough.

Measure 3f: Encourage the provision of better information about public transport services, especially with hard to reach groups, by working with providers, including investigating the potential for bus announcements at bus stops for people with visibility impairments.

Measure 3g: Carry out a study into which of the remaining stations in the Borough which do not have step-free access should be prioritised based on specific local details, and use that information for future funding bids/making the case to TfL/Network Rail.

Figure 3.7: Delivering cycle training to children with special educational needs (SEN)



Measure 3h: Work with the police and Community Safety team to help address crime and anti-social behaviour, identify measures that will improve public safety and design out crime as part of an inclusive environment in all transport schemes (also see Measure 4b, below). This includes enforcement of speeding motor vehicles, and anti-social cycling and scooting (such as riding on the footway)

Measure 3i: Implement a range of permeability and accessibility improvements to stations and town centres through our 'area-wide Healthy Streets Projects', Liveable Neighbourhoods and other bespoke programmes.

- Measure 3j: Continue to support services delivered by Camden's Accessible Transport Solutions (CATS), particularly for taxi card and Freedom Passes.
- Measure 3k: Continue to review, and provide as appropriate, reasonable parking for essential uses, particularly for blue badge and green badge holders, and prioritise these over other motor vehicle parking spaces where competition on kerbside space is high (see Objective 1, road user hierarchy).
- Measure 3l: Promote and encourage a shift from public transport to walking and cycling where appropriate to help reduce public transport overcrowding, such as improved wayfinding for walking between stations (see Objective 1).
- Measure 3m: Consider delivering shared space schemes, particularly where cyclists share space with pedestrians, on a case by case basis, and only in locations where it is considered appropriate, in line with the most up to date guidance for this area, and with the needs and concerns of older people and those with a disability in mind.
- Measure 3n: Work with Kilburn Older Voices Exchange and other local groups to identify opportunities to increase public seating.

Objective 4: To substantially reduce all road casualties in Camden and progress towards zero Killed and Seriously Injured (KSI) casualties

- 3.29. Camden supports the Mayor's commitment to deliver Vision Zero: this approach focuses on reducing the source of road danger and the potential for road traffic casualties. Camden's large 'area-wide Healthy Streets projects's' are in part prioritised with a consideration to casualty data alongside a dedicated road safety programme to capture those streets that fall outside the main schemes.
- 3.30. No environment can strictly be risk free, but the Council's approach is to minimise the potential for a collision to occur, and the severity of the outcome in the event of one occurring, as with our borough-wide 20mph speed limit.
- 3.31. Data shows that the highest proportion of the borough's pedestrian fatalities (83% average for the three years 2014-2016) occur on the TfL 'TLRN' network ("Red Routes") in the Borough. The Council will lobby TfL to implement 20mph speed limits across all of its streets in the Borough as well as undertaking wider road safety improvements to those roads.
- 3.32. There is also a particular need to address the challenges of traffic dominance, severance of communities, poor air quality and road traffic casualties on the

TLRN. This includes the Euston Road, which experiences NO2 levels that are more than double the EU limit, accommodates around 60,000 motor traffic vehicles each day, and contains both junctions and link sections along the corridor that feature amongst the most problematic locations in the Borough in terms of road traffic collisions. Significant investment is therefore required to resolve those issues.

- 3.33. Engineering and changing the road layout of our own highways network, such as traffic calming, traffic restriction measures, footway widening, separated cycle infrastructure, reducing crossing distances, and providing safe stopping points for informal crossing, are key tools to help reduce casualties across the street network. In addition there are a range of 'behaviour change' interventions that contribute towards reducing road danger, including pedestrian and cycle skills training, education and promotion.
- 3.34. Reducing the perception of danger is also fundamental to creating an environment where more people will choose to walk or cycle. Traffic dominance – both volume and speed, as well as the size of vehicles – are significant issues which deter people from travelling on foot or by bike, with construction vehicles related to the multiple construction sites in and around the Borough a further cause for concern.
- 3.35. These challenges require a robust set of policies and measures to help reduce all types of road traffic casualties in the Borough, as set out below. In addition, Box 4, below sets out where Camden will need additional funding, inward investment and delivery to be provided/undertaken by TfL, in the short to medium term, to help us achieve this objective.

Box 4: Objective 4 Investment Priority Areas

IP4a: funding and delivering schemes that will achieve 'Vision Zero' on the TfL 'TLRN' network in Camden, including a prioritised and targeted programme of interventions on those TfL roads

IP4b: reducing road danger (and associated severance, pollution and traffic dominance) on the Euston Road and enabling active travel modes along and across this corridor

IP4c: providing the necessary funding to deliver transformative road safety improvements on Camden's highway network to achieve 'Vision Zero'

- Policy 4a Use an assessment of casualties and risk among vulnerable road users – pedestrians, cyclists and motor cyclists - as important criterion in identifying hotspot locations to help prioritise our significant transport

projects, including a comprehensive Road Safety Audit to be carried out on a three-year cycle.

- Policy 4b Implement a policy of Work Related Road Risk (WRRR) – incorporating the Freight Operators Recognition Scheme (FORS) and Construction Logistics and Community Safety (CLOCS), working with stakeholders involved in delivering services in Camden to minimise road danger as part of their work related journeys.
- Policy 4c Reduce road danger and risk, and the perception of road danger, by improving the street to create more forgiving environments, and delivering road safety behaviour change interventions, in partnership with the police, Community Safety teams and local residents.
- Policy 4d Continue to oppose the use of motor bikes in bus lanes, which creates an intimidating environment for cyclists who, in the absence of other segregated facilities, rely on bus lanes and separation from traffic for their journeys.
- Policy 4e Lobby and encourage TfL to deliver 20mph limits on all of its streets (TLRN – “red routes”) in the borough, as well as significant road safety improvement schemes on those roads, prioritising hotspots of pedestrian and cycling casualties.
- Policy 4f Consider and develop a policy position in relation to the Mayor’s request to the UK Government to decriminalise speeding offences so that speed enforcement can be devolved to local authorities, ensuring this is fully assessed to understand the implications for Camden.
- Policy 4g: Continue to ensure all relevant highways improvements schemes undergo independent Road Safety Audits prior to, and where feasible following, implementation.

3.36. We will also implement a range of initiatives and measures as set out in the accompanying Road Safety Action Plan. This is summarised below, and will include:

Measure 4a: Deliver transformational road safety improvement measures on our highways network both through (i) area-wide schemes/Liveable Neighbourhood programmes, (ii) bespoke projects funded through the LIP, and (iii) projects emerging from the HS2 Road Safety Fund, in locations prioritised using robust evidence and information.

Measure 4b: Regularly review 20mph data to ensure compliance with the borough-wide 20mph speed limit, and implement a set of measures focussed specifically on reducing speeds (as part of Road Safety Action Plan), including enhanced signage, the use of Vehicle Activated Signs (VAS),

working with the Police on Community Speedwatch programmes and infrastructure measures.

Figure 3.8: a 20mph speed limit operates on all Camden's streets



Measure 4c: Work with the police on road safety behaviour change measures, such as the Close Pass initiative (to enforce minimum distances between cyclists and other vehicles), Exchanging Places schemes, motor cycle and cycle theft, enforcement of footway cycling and red light running by all vehicles.

Measure 4d: Work with Camden's own fleet, providers and contractors, as well as those secured through Camden's procurement and planning process to minimise road danger associated with vehicles being driven for work purposes (work related road risk – WRRR) – covering requirements for safer drivers and safer vehicles, including potential provision of Intelligent Speed Adapters (ISA) to ensure compliance with speed limits

Measure 4e: Continue to champion the Construction Logistics and Cycle Safety (CLOCS) accreditation scheme developed by the construction industry in response to the disproportionate involvement of construction vehicles in cycle fatalities.

Measure 4f: Ensuring that maximum road safety standards committed to for the construction of HS2, including all WRRR and CLOCs work, is delivered,, and use dedicated HS2 Road Safety Funds to implement relevant improvements to the road network in the Euston and wider area.

Measure 4g: Implement safer crossings and introduce pedestrian Countdown facilities at traffic signals.

Measure 4h: Continue to deliver a programme of road safety education programmes for children and schools. This includes pedestrian skills training, School Crossing Patrols (SCPs) in defined locations, and awareness raising activities such as theatre in education and workshops.

Measure 4i: Deliver Borough-wide campaigns and awareness raising activities to improve road safety, particularly benefitting vulnerable road users groups - pedestrians, cyclists and motor cyclists.

Objective 5: To reduce and mitigate the impact of transport-based emissions and noise in Camden

3.37. Motor traffic is the single biggest contributor to pollution, carbon emissions and noise in the borough, all of which significantly impact on health and quality of life. The Mayor has pledged to make Central London zero emission by 2025, and Camden is committed to reducing levels of pollution across the Borough to within World Health Organisation (WHO) standards.

3.38. The Mayor will introduce the Ultra-Low Emission Zone (ULEZ) in London in April 2019. ULEZ will operate 24 hours a day, 7 days a week, every day of the year within the same area as the current Congestion Charging Zone (CCZ). Most vehicles, will need to meet new, tighter exhaust emission standards (ULEZ standards) or pay a daily charge to travel within the area of the ULEZ in addition to the Congestion Charge and the Low Emission Zone (LEZ). From 25 October 2021 the area will be expanded to the inner London area bounded by the North and South Circular roads.

3.39. Camden fully supports the introduction of ULEZ, including the extension to the north and south circulars (which incorporates all of Camden), although our aspiration is for it to be London-wide to ensure the greatest benefit.

3.40. TfL's bus fleet is also undergoing a significant upgrade to ensure ULEZ compliance by 2019: single deck buses will be fully electric while double deck buses will be hybrid. Bus routes outside the ULEZ area will also be prioritised for improvements as part of TfL's Low Emission Bus Zones (LEBZ) corridors, which includes Kilburn High Road in Camden. Significant measures are also being undertaken to provide zero-tailpipe emissions taxis alongside the necessary infrastructure to charge those vehicles.

3.41. Where journeys cannot be switched to more sustainable, cleaner options such as walking, cycling and public transport, those with essential need for a car will be encouraged to change to low emissions vehicles. However, carbon emissions remain a concern. Transport contributes up to 25% of all carbon emissions in London, with a large proportion (19%) coming from road transport.

CO2 contributes to climate change and extreme weather incidences which also affect people's livelihoods, health and well-being. It also may not be the case that electric vehicles use renewable energy sources which may further increase carbon, as well as other emissions.

- 3.42. Urban greening – parks, roofs, linear parks, trees, woodland and waterways, and green infrastructure – also offer a significant opportunity to mitigate the impacts of pollution and CO2.
- 3.43. The lowest emission forms of transport are walking and cycling. As well as helping to mitigate toxic pollution, they also generate no carbon emissions (other than in the manufacture of bicycles/associated equipment). These modes also contribute to delivering other objectives in this Strategy and more widely, and therefore remain the Council's priority.
- 3.44. The environmental impact of HS2 will be considerable. We will work with HS2 to ensure the assurances we have been given to ensure impacts are minimised and mitigated where possible are upheld. Meanwhile, whilst Camden has relatively limited influence over emissions from rail (especially diesel trains), we will continue to lobby for further electrification of the rail network to help minimise those emissions, recognising that rail contributes 6.8% of Camden NOx and significant levels of PMs, especially around the stations.
- 3.45. Box 5, below, sets out the areas where Camden will require and lobby for significant investment and delivery by TfL/other organisations, and seek additional funding sources, to help us achieve this objective.

Box 5: Objective 5 Investment Priority Areas

IP5a: upgrading bus fleets operating in Camden to maximise emissions reductions
IP5b: implementation of a Borough-wide network of electric vehicle charging points, with support funding from public and private sector sources
IP5c: electrification of remaining rail lines/services that are currently used by diesel trains running through, and into mainline stations in, the Borough

- 3.46. In addressing the challenges and opportunities within this objective, we will be guided by the following policies:

Policy 5a Continue to plan for a develop a comprehensive network of electric vehicle charge points which responds to different needs, including freight, taxis, local residential charging, car clubs and the pan London Source London network.

- Policy 5b: Work towards the World Health Organisation (WHO) limits for Particulate Matter and Nitrogen Dioxide by 2030.
- Policy 5c: Use air quality indicators (PM10 and NOx emissions levels) as key factors in prioritising locations for LIP-funding through our Area-wide Healthy Streets Projects.
- Policy 5d: Incentivise the uptake of EVs through infrastructure and policy, but retain active travel as our priority in the first instance as the cleanest, genuinely emission-free forms of travel.
- Policy 5e: Seek to put all EV infrastructure in the carriageway, unless it is not feasible, to minimise the impact on pedestrians, particularly those with a disability.
- Policy 5f: Identify opportunities for increased planting and urban greening in all transport schemes to help mitigate the impacts of carbon emissions and climate change, and provide shade and shelter.
- Policy 5g: Establish the highest environmental standards for the Council's own vehicles and for all contractors' fleets through the planning and procurement processes.
- Policy 5h: Where feasible and appropriate, we will monitor the impact of our highways/streetscape schemes using air quality monitoring, including (for example) the use of diffusion tubes to monitor Nitrogen Dioxide levels pre- and post- implementation.
- Policy 5i: Regularly review, and set, our parking charges to incentivise the uptake of lower emission vehicles as well as other objectives set out in this Strategy

3.47. We will also implement the following measures to deliver those policies:

Measure 5a: Work with TfL on delivering the necessary infrastructure to support Low Emission Bus Zones and electric taxi fleets operating in Camden.

Measure 5b: We will investigate opportunities to work with partners who undertake on-site monitoring of construction machinery to improve compliance with standards regarding dust and emissions during construction and demolition. This will also help to deliver the GLA's emerging air quality action plan requirements in this area.

Measure 5c: Upgrade Camden's own, and contracted, fleets to increase the proportion of low emission vehicles in the fleets and provide rapid and other electric charging points at off-road sites in support.

Measure 5d: Use Construction Management Plans (CMPs) to ensure minimum environmental standards for contractors' vehicles at sites where CMPs are secured.

Measure 5e: Continue anti-idling enforcement at hot spots across the Borough following an initial 12 month pilot started in March 2018.

Figure 3.9: Camden enforces against engine idling across the borough



Measure 5f: Implement the measures within, and update annually, an Electric Vehicle (EV) Action Plan to encourage the take-up and use of EVs in the borough across a wide range of different types of vehicles and users, including for residents, visitors, car clubs, taxis and fleet vehicles.

Measure 5g: Identify opportunities, and bid where appropriate, for additional funding to deliver EV and emissions-reduction measures.

Measure 5h: Work with car club operators to increase the proportion of EVs in the car club fleet, including through lower cost permits, with new car club bays being delivered on-street to be EV where feasible, and working with operators on a mix of private and state finance to fund EVCPs for their fleets.

Measure 5i: Develop a number of area-based 'School Low Emission Neighbourhoods' across Camden, beginning with the Fitzjohn's Avenue area as part of the borough's Neighbourhoods of the Future bid, to deliver a package of

measures to improve air quality in and around schools. This will focus on reducing levels of driving to and from school, and encourage mode shift to active travel, alongside EVCP provision in the surrounding areas where there are clusters of schools. All other LEN schemes will also include measures to reduce traffic.

Measure 5j: Implement Sustainable Urban Drainage (SUDs) schemes as part of streetscape and place upgrades, together with the use of appropriate materials to mitigate the risk of flooding.

Measure 5k: Identify opportunities to increase green cover in the borough, including rain gardens, trees and urban greening such as green walls and roofs, working in partnership with BIDs and residents, to help cool the atmosphere, absorb carbon and pollution, and provide shade.

Measure 5l: Seek opportunities, where suitable, to convert carriageway space to green space through parklets, pocket parks and other measures, which also contribute to the wider Healthy Streets agenda

Measure 5m: Support London Councils in enforcing the London Lorry Control Scheme (road safety) with ANPR camera enforcement to mitigate the impacts of night time noise.

Measure 5n: Investigate opportunities to transfer redundant parking bays on housing estates (and other Council owned land) to EVCPs.

Measure 5o: Implement a range of additional measures as set out in the Camden Clean Air Action Plan.

Objective 6: To deliver an efficient, well-maintained highways network and kerb-side space that prioritises the sustainable movement of goods and people

3.48. Private motor traffic, including taxis and PHVs, make the most inefficient use of limited carriageway space. To ease congestion we must prioritise the most sustainable and efficient modes of travel while enabling essential use, particularly freight and those who rely on vehicles such as those with a disability, as discussed under other objectives. Generally, private car occupancy is at 1.5 to 1.6 persons per vehicle (DfT and TfL); while up to 10 bikes (and 10 people) occupy the same space on the carriageway. With up to 70 passengers on a double decker bus, buses are also efficient modes of travel. The situation is the same for parking: up to 10 bikes can be parked in the same space as one car.

- 3.49. Limited carriageway and kerbside space therefore needs to be reallocated to other modes where feasible, so that it can be used more efficiently. We also need to investigate opportunities for using our streets at different times of the day for different uses, such as developing a temporal approach (as being implemented on Tottenham Court Road) where appropriate. This could also include using new and emerging digital technologies to ensure kerbside space is used in a smarter and more responsive way to demands at different times of the day.
- 3.50. Demand for parking in Camden far outstrips the supply of kerbspace available and the Council seeks to maintain an active balance between the different demands – from residents, their visitors, businesses and their deliveries and customers, access for people with a disability, and so on. This also needs to be balanced with the duty the Council has to keep traffic moving, avoiding unsafe and obstructive parking, and making sure there is good access for pedestrians, cyclists, buses and other vehicles. The management of traffic and parking sits within a dynamic and changing context, and therefore the council will continue to seek to adequately enforce against non-compliant parking and vehicle movements to guarantee effective and responsive management.
- 3.51. A further significant pressure on carriageway and kerbside space in Camden are freight activities. Deliveries and servicing are essential for the economy: they provide the goods which people need, enable businesses to thrive, and support employment and our High Streets. Such operations can have fewer alternatives to currently used modes of travel, but their impacts can also be significant. A range of measures are needed to ensure that these pressures are managed in the most efficient and sustainable way, including opportunities for consolidation, re-timing and re-moding’
- 3.52. As well as enabling a shift to the most efficient use of carriageway, footways and kerbsides, we also need to ensure that our highways assets are well maintained for all the users of those spaces. This is an ongoing challenge within the current funding climate.
- 3.53. Several measures outlined under other objectives in this chapter will also help to improve congestion and network efficiency, such as those discussed in Objective 2, to reduce inessential car use.
- 3.54. Box 6, overleaf, sets out the key schemes within this objective where we will seek additional funding sources, and work with relevant partners to secure substantial levels of additional inward investment, that is required to deliver them.

Box 6: Objective 6 Investment Priority Areas

IP6a: the re-instatement and continued funding of the Principal Road Network maintenance grant from TfL for all Boroughs, as part of the Local Implementation Plan, to ensure we can properly maintain our core highways network in Camden

IP6b: identification of, and securing funding for, bus priority improvements across relevant sections of Camden's highways network

IP6c: working with BIDs and major landowners to establish necessary physical and technological infrastructure to minimise freight and servicing motor traffic movements

3.55. We will achieve this objective via the following policies:

- Policy 6a: Undertake the effective management of carriageway and kerbside space to cater for all modes, but prioritise space for the most efficient modes.
- Policy 6b: Improve provision and priority for buses to minimise delays to bus journey times and encourage a shift to public transport.
- Policy 6c: Alternative footways and cycle lanes should always be re-provided during temporary closures, including during construction of developments and highways works.
- Policy 6d: Work with TfL and other partners to ensure that taxis, coaches and Private Hire Vehicles, and other on-demand transport services contribute to the Healthy Streets outcomes, reducing their mileage and minimising their impacts on congestion, emissions, traffic dominance and road danger, as well as levels of physical activity.
- Policy 6e: Ensure the efficient movement of essential freight while minimising their wider impacts.
- Policy 6f: Develop policy positions around autonomous vehicles and other emerging technologies that may contribute to changing levels of motor traffic.

3.56. To help deliver this objective we will also implement the following measures:

- Measure 6a: Review, at least every 2 years, the provision of, and where relevant the criteria for, disabled/business/car club and market trader bays, and reallocate redundant space in line with policy 2e.
- Measure 6b: Support and encourage the London Borough Consolidation Centre (LBCC), project managed by Camden, by expanding activity beyond internal procurement of goods to the other parts of the public and private

sectors in Camden, and encourage other boroughs to work with the LBCC.

Measure 6c: Minimise disruption and the impacts of schemes, repairs and utility works by consolidating works on the public highway. When sites are being constructed we will minimise the loss of footway or cycle lanes, or alternatives will be provided.

Measure 6d: Work with TfL and the tourism and coach industries to help develop a new pan-London Tourist Coach Action Plan which contributes to the Healthy Streets agenda. This will include identifying opportunities to reduce coach mileage in Central London and its impacts on congestion, pollution, kerb use and residents' amenity while not undermining tourism in the borough.

Measure 6e: Deliver bus priority measures, in partnership with TfL, to improve reliability, including a review and relocation/removal of waiting and loading, extension of bus cages and hours of bus lane operation on key routes.

Measure 6f: Rationalise bus stops, for example as part of 'area-wide Healthy Streets projects' to improve bus journey times whilst retaining access to stops.

Measure 6g: Maintain the quality of the road and pavement network through the Council's maintenance programme, including undertaking assessments and condition surveys in order to prioritise locations.

Measure 6h: introduce new taxi ranks on a case by case basis only where there is robust evidence of demand and where other more sustainable options are not available.

Measure 6i: Undertake a feasibility study into the potential use of clearways, as permitted by TSRGD, where stronger powers are needed to manage congestion and improve road safety where appropriate. This will allow the Council a more robust deterrent and if required to enforce against non-compliance through the use of CCTV, and keep the kerbside clear.

Measure 6j: Develop and implement measures from a Freight Action Plan to be completed following the production of this Strategy to mitigate the impacts of freight movements in the Borough, particularly to contribute to the overarching MTS target of a 10% reduction in morning peak freight transport in central London by 2026 (congestion charge area). Measures will include, but not be limited to:

- (i) Work with others including the Camden Business Board, BIDs, hospitals and education establishments to identify opportunities to increase freight consolidation both for deliveries and removing waste, including the use of Regent's Canal.

- (ii) Continue the Council's consolidation project for deliveries to Council offices, and identify opportunities to reduce Council grey fleet (vehicles not belonging to Camden but used for Council travel by employees) and restrict staff journeys by car.
- (iii) Investigate opportunities, with partner organisations and groups including the Camden Business Board and BIDS, for last mile deliveries by cycle freight, including the use of e-bikes and implementing dedicated cargo-bike loading and unloading space where feasible.
- (iv) Investigate and deliver if feasible a scheme to loan cargo bikes to businesses as part of Camden's existing cycle loan scheme.
- (v) Work with BIDs and major employers to discourage the use of personal deliveries to the office and for staff to make use of collection points closer to home or work locations.
- (vi) Work with businesses to encourage retiming of deliveries outside of peak periods, through for example, waiting and loading reviews and vehicle restrictions.
- (vii) Continue to develop requirements for Construction Management Plans (CMPs) and Servicing Management Plans (SMP) through the planning process to give significant consideration to timing of deliveries, routing, size of vehicles, and identifying consolidation and last mile opportunities as key elements of the Plans.

Objective 7: To ensure economic growth and regeneration is supported by, and supports, a sustainable transport network

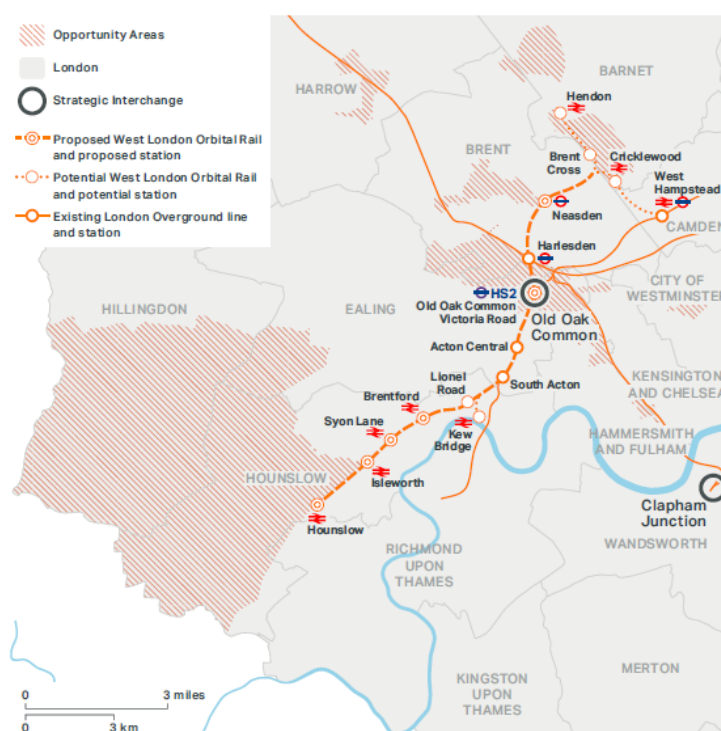
3.57. Growth will create additional pressures on an already very busy transport network. As discussed under other objectives, prioritising the most sustainable, clean and active use of the street as well as improved public transport provision and efforts to reduce overcrowding where possible, will be fundamental to ensuring that growth does not further exacerbate our existing transport problems. This will also be important to ensure that we can respond to people's need for mobility as well as quality of life.

3.58. In July 2017 Camden introduced a new borough-wide car free policy as part of its new Local Plan. All new developments do not provide any on-site or on-street parking opportunities except for essential users such as for servicing and deliveries and spaces for people with a disability. This will help to mitigate the

impacts of future growth. However, new sites will also generate trips from visitors which also require attention.

- 3.59. Attractive places and destinations with less traffic, pollution and congestion, along with improved public transport, can contribute to regeneration and economic uplift and unlock new areas. This will help to ensure that the borough can attract investment to create the new homes and jobs for a growing population, and remain successful.
- 3.60. Specifically, Camden's Local Plan (policy G1) states that the most significant growth (and associated developments) in Camden will be delivered in identified growth areas (King's Cross, Euston, Tottenham Court Road, Holborn, West Hampstead Interchange and Kentish Town Regis Road) all of which are at transport hubs - and other highly accessible locations, in particular Central London and Camden's town centres (excluding Hampstead).
- 3.61. An increase in public transport capacity is essential to support growth and unlock new areas by making them more accessible. We therefore support the Mayor's proposals for Crossrail 2 (as outlined below), as well as for increasing capacity on underground lines (particularly those most affecting Camden including proposed capacity upgrades for the Northern, Central, Piccadilly and Metropolitan/Circle/Hammersmith & City, lines), and early proposals for a West London orbital railway, which could link West Hampstead to Hounslow via Old Oak Common.

Figure 3.10: Proposed West London Orbital Rail (source: MTS)



- 3.62. Camden remains supportive of the benefits that Crossrail 2 will bring. Reducing congestion on existing transport routes would mean faster and less crowded train and bus journeys for Camden’s residents and visitors, and better access to employment opportunities. Still, the impacts of Crossrail 2 on residents and businesses should be as limited as possible, with minimal land-take, incorporation of station facilities into existing rail stations (such as Euston and St. Pancras), minimisation of construction impacts on neighbours and integration of delivery with HS2 and Network Rail Euston station development.
- 3.63. Similarly there is also a need for additional and improved facilities for pedestrians and cyclists which will also unlock areas for regeneration, making them more accessible, and ensure the most efficient use of the transport network for a growing population.
- 3.64. Camden’s borough-wide car-free policy for all new developments will help to mitigate the impacts of growth in the future. However, reducing motor traffic levels in general entering into Camden is important to ensure that the impacts of growth that may be occurring more widely across the capital are not felt in our Borough (discussed in Objective 2).
- 3.65. Box 7, below, identifies priorities for this objective (“OP7a” etc) where we will require substantial additional inward investment & partnership in delivery from TfL/other relevant organisations, in the short to medium term, to help realise these overall goals.

Box 7: Objective 7 Investment Priority Areas

IP7a: delivery of a Crossrail 2 and an integrated HS2 station in the Euston area that best meets the needs of our residents, businesses and visitors to the Borough

IP7b: upgrading public transport networks in the Borough including delivery of planned enhancements to capacity on the Piccadilly, Central, Northern and Hammersmith & City/Metropolitan/Circle lines that serve Camden

- 3.66. In addition to the policies and measures already outlined under other objectives in this Chapter to facilitate a shift to sustainable, healthy and active travel, we will:

Policy 7a: Seek the comprehensive redevelopment of Euston Station so that plans for HS2, Network Rail, Crossrail 2 and London Underground Stations, as well as surface transport (buses and taxis), are integrated.

Policy 7b: Lobby and support TfL in delivery of public transport schemes in the Borough, such as Crossrail, Crossrail 2, planned and future underground

upgrades ,and enhancements to Overground, Thameslink and other potential rail-based infrastructure in the Borough, to support growth and regeneration.

Policy 7c: Continue to secure developer contributions to ensure the maximum funding potential from new developments for transport schemes and highways improvements that support sustainable, healthy active travel.

Policy 7d: Work with businesses and Business Improvement Districts (BIDs) and others as appropriate (such as major landowners) to increase the use of consolidation for deliveries and removals.

Policy 7e: Manage a programme of behaviour change initiatives to encourage a switch to sustainable, active and healthy travel including reducing public transport overcrowding.

Policy 7f: Continue to implement Camden's car-free policy to mitigate the impacts of growth.

Policy 7g: Ensure that transport is a key consideration in Supplementary Planning Documents for Kentish Town, Holborn and other areas as they arise, ensuring growth areas and developments in the Borough reflect and deliver the Transport Strategy.

3.67. We will also implement the following measures to deliver these policies and help achieve this objective:

Measure 7a: Secure and robustly monitor Travel Plans from (relevant) new development sites, ensuring they reduce their demand on the transport network.

Measure 7b: Secure and review CMPs and SMPs at appropriate development sites to ensure they set the highest standards that meet our transport objectives, minimising their impact on the transport network particularly with regard to congestion, air quality and safety.

Measure 7c: Work with and encourage the Mayor of London to deliver the West London orbital link, along with partner Boroughs and Network Rail as part of supporting regeneration and growth in the Borough.

Measure 7g: With regard to HS2, and following on from the Euston Area Masterplan in 2015, Camden will produce a detailed Planning Brief for the Euston Station area which will be subject to public consultation during 2019.

Measure 7h: Deliver the West End Project to support Crossrail and the growth in homes and jobs in the West End, particularly to provide safe, attractive and accessible streets around the station at Tottenham Court Road.

Measure 7i: Seek developer contributions for cycle hire stations and other pedestrian/cycling measures delivered by the Council through the Travel

Plan process, and encourage developers to support staff to use cycle hire and dockless bikes for onward journeys between transport hubs and places of work (e.g., through subsidised membership).

Measure 7j: Secure developer funding to improve public transport provision, provide new and improved pedestrian and cycle routes, and other transport infrastructure (including to reduce severance for active travel modes caused by road/rail/canal networks), improve access to new sites and connectivity across the wider network.

3.68. We have set out elsewhere in this Strategy the challenges and issues related to HS2. Box 8, below, summarises Camden's current position on HS2.

Box 8: Camden's response to HS2

Camden's response to HS2

Camden has an important role in working with the government, HS2 Ltd and other stakeholders to maximise the potential for comprehensive redevelopment at Euston, to deliver an integrated station that meets the needs of the surrounding community, and to maintain the liveability of the surrounding area during 17 years of construction.

During the parliamentary process of the HS2 Act the council received over 150 commitments from the government to help mitigate some of the impacts of construction. These included:

- Materials by Rail - a commitment for HS2 Ltd to further explore how excavation and construction materials could be transported by rail instead of road (thus minimising air pollution and road safety concerns). Camden gave evidence at the House of Lords Select Committee seeking a target of at least 50% of all materials to be moved by rail and officers are working with HS2 Ltd and its contractors to ensure maximum percentages can be achieved.
- Air Quality - a commitment that all HGVs using Camden's roads during construction will be powered by the newest and lowest emitting Euro VI engines. Additionally, all construction site equipment will meet emissions standards tighter than the current best practice policies enforced by the GLA.
- Taxi provision – a commitment for HS2 Ltd to work with the Council on interim and permanent taxi facilities to ensure that convenience to station users is maximised and adverse impacts on the local community is minimised.

In 2017 the council was successful in securing £2.4m from the government's Road Safety Fund. The Government had previously announced that the Fund would only apply to rural areas, however the Council successfully urged the Secretary of State for Transport to include urban areas in the scheme, through a strong response to the Government consultation. The Council will work in partnership with our communities and key organisations to deliver schemes to improve road safety. The funding can be used for any measures to improve road safety, including supporting traffic calming, safer junctions or better pedestrian crossings.

Officers will also continue to work with HS2 Ltd, TfL and other stakeholders to ensure that sustainable transport options such as walking and cycling are promoted through the design of interim and permanent station routes and facilities.

Fit with the MTS Outcomes

The sections above set out how multiple policies and actions will ensure we meet the seven core objectives of this Strategy. In turn, delivery of those objectives will enable the 9 key outcomes set out in the Mayor’s Transport Strategy to be achieved locally in Camden. Table 3.1, below, demonstrates how each of our seven objectives contributes to the MTS core outcomes.

Table 3.1 Meeting the MTS Outcomes: matrix of LIP objectives and MTS outcomes

CTS objective/MTS Outcome	London’s streets will be				Public transport will			Active, efficient and sustainable travel will be the best option in new developments	Transport investment will unlock the delivery of new homes and jobs
	Healthy and more Londoners will travel actively	Safe and secure	Used more efficiently and have less traffic on them	Clean and green	The public transport network will meet the needs of a growing London	Public transport will be safe, affordable and accessible to all	Public transport will be pleasant, fast, and reliable		
To transform our streets and places to enable an increase in walking and cycling.	✓	✓	✓	✓	✓		✓	✓	✓
To reduce car ownership and use, and motor traffic levels in Camden	✓	✓	✓	✓	✓		✓	✓	✓
To deliver a sustainable transport system and streets that are accessible and inclusive for all	✓	✓	✓	✓	✓	✓	✓	✓	✓

CTS objective/MTS Outcome	London's streets will be				Public transport will			Active, efficient and sustainable travel will be the best option in new developments	Transport investment will unlock the delivery of new homes and jobs
	Healthy and more Londoners will travel actively	Safe and secure	Used more efficiently and have less traffic on them	Clean and green	The public transport network will meet the needs of a growing London	Public transport will be safe, affordable and accessible to all	Public transport will be pleasant, fast, and reliable		
To substantially reduce all road casualties in Camden and progress towards zero Killed and Seriously Injured (KSI) casualties	✓	✓	✓	✓		✓	✓	✓	✓
To reduce and mitigate the impact of transport-based emissions and noise in Camden.	✓		✓	✓			✓	✓	✓
To deliver an efficient, well-maintained highways network and kerb-side spaces that prioritises the sustainable movement of goods and people	✓	✓	✓	✓	✓	✓	✓	✓	✓

CTS objective/MTS Outcome	London's streets will be				Public transport will			Active, efficient and sustainable travel will be the best option in new developments	Transport investment will unlock the delivery of new homes and jobs
	Healthy and more Londoners will travel actively	Safe and secure	Used more efficiently and have less traffic on them	Clean and green	The public transport network will meet the needs of a growing London	Public transport will be safe, affordable and accessible to all	Public transport will be pleasant, fast, and reliable		
To ensure economic growth and regeneration is supported by, and supports, a sustainable transport network	✓	✓	✓	✓	✓	✓	✓	✓	✓

Chapter 4: Delivery Plan

4. This chapter sets out our Delivery Plan for achieving the Vision and objectives of the CTS. It includes:
 - The links between schemes within the Delivery Plan and CTS objectives/MTS priorities
 - A list of potential funding sources for the period 2019/20 to 2021/22
 - Long-term interventions
 - Three year indicative Programme of Investment for the period 2019/20 to 2021/22
 - A detailed programme for 2019/20

4A. Linkages to the MTS priorities and CTS objectives

- 4.1. The Delivery Plan was developed to align the Borough's projects and programmes with the policy framework of the MTS, and the overarching mode share aim and nine key outcomes contained within it. It has also been developed in alignment with the seven CTS objectives and supporting policies outlined in Chapter 3.
- 4.2. The detailed three year programme is shown in section 4E. Table 4.1, overleaf, shows how the high level programmes and projects contained within that Programme of Investment (PoI) that contribute to the key MTS outcomes. It also shows how our longer term aspirations links to the MTS outcomes.
- 4.3. The detailed PoI in Proforma A, accompanying this Strategy, outlines linkages between each scheme and the CTS objectives. Table 3.1, previously, has shown the links between the MTS outcomes and the CTS objectives.
- 4.4. Camden's approach over a number of years has been to deliver what the MTS now defines as the 'Healthy Streets' agenda. Camden is committed to providing streets and spaces which prioritise vulnerable road users (specifically, pedestrians and cyclists) and public transport modes before private and other forms of motorised vehicles. Our policies and schemes to date – as set out in Chapter 2 and the supporting Evidence Base - have resulted in falling car ownership, and some of the highest active travel mode share in London.
- 4.5. However, this Delivery Plan will enable us to implement schemes – along with the policies outlined in Chapter 3 – which will take us further in delivering the MTS priority of Healthy Streets, with funding dedicated to walking, cycling and public transport and initiatives to reduce the continued dominance of motor vehicles on many of our streets.

Table 4.1: Linkages between CTS projects and programmes and MTS outcomes

Programme/Project	MTS Mode Share	MTS Outcomes							
	Improving active, efficient and sustainable mode share	1. London streets will be healthy and more Londoners will travel actively	2. London Streets will be safe and secure	3. London streets will be used more efficiently with less traffic	4. London streets will be Clean & Green	5. Public transport will meet needs of a growing London	6. Public transport to be safe, affordable and accessible	7. Public transport trips will be safe, fast, reliable	8&9 Sustainable Growth/ Unlocking Growth
Area-wide Healthy Streets Projects (HSPs) and Liveable Neighbourhoods Programmes (2019/20 to 2021/22)									
Canteloves & Camley HSP	✓	✓	✓	✓	✓				
Gospel Oak HSP	✓	✓	✓	✓	✓				
Kilburn HSP	✓	✓	✓	✓	✓	✓	✓	✓	✓
Farringdon HSP	✓	✓	✓	✓	✓	✓	✓	✓	
Kentish Town HSP	✓	✓	✓	✓	✓	✓	✓	✓	✓
Camden Town HSP	✓	✓	✓	✓	✓	✓	✓	✓	✓
Holborn Liveable Neighbourhood	✓	✓	✓	✓	✓	✓	✓	✓	✓
Borough Wide Schemes (2019/20 to 2021/22)									
Cycling infrastructure schemes	✓	✓	✓	✓	✓		✓		✓
Walking infrastructure schemes	✓	✓	✓	✓	✓		✓		✓

Programme/Project	MTS Mode Share	MTS Outcomes							
	Improving active, efficient and sustainable mode share	1. London streets will be healthy and more Londoners will travel actively	2. London Streets will be safe and secure	3. London streets will be used more efficiently with less traffic	4. London streets will be Clean & Green	5. Public transport will meet needs of a growing London	6. Public transport to be safe, affordable and accessible	7. Public transport trips will be safe, fast, reliable	8&9 Sustainable Growth/ Unlocking Growth
Road Safety infrastructure schemes	✓	✓	✓	✓	✓		✓		✓
Electric Vehicle Charging Points programme				✓	✓				
School Travel Plan infrastructure schemes	✓	✓	✓	✓	✓		✓		✓
Complementary Measures Programmes (2019/20 to 2021/22)									
Smarter Travel & Behaviour Change Initiatives	✓	✓	✓	✓	✓		✓		✓
Planned and Future Strategic Projects									
High Speed 2	For Camden's position on HS2 see Box Text 8, under Objective 7 of Chapter 3								
Crossrail 2	✓			✓	✓	✓	✓	✓	✓
Capacity upgrades on Piccadilly, Northern, Central and	✓			✓	✓	✓	✓	✓	✓

Programme/Project	MTS Mode Share	MTS Outcomes							
	Improving active, efficient and sustainable mode share	1. London streets will be healthy and more Londoners will travel actively	2. London Streets will be safe and secure	3. London streets will be used more efficiently with less traffic	4. London streets will be Clean & Green	5. Public transport will meet needs of a growing London	6. Public transport to be safe, affordable and accessible	7. Public transport trips will be safe, fast, reliable	8&9 Sustainable Growth/ Unlocking Growth
Hammersmith & City/Metropolitan/ Circle lines									
Upgrading of capacity and step free access at Holborn and Camden Town Underground stations	✓			✓	✓	✓	✓	✓	✓
West London Orbital Overground Link to West Hampstead	✓			✓	✓	✓	✓	✓	✓
Step-free station access at West Hampstead (underground) and Kentish Town stations	✓			✓	✓	✓	✓	✓	✓

4B. Alignment and fit of the CTS with the TfL Business Plan

4.6. In developing and preparing the Borough's Programme of Investment, as outlined in the Delivery Plan, the Borough has considered the Mayor's aspiration to deliver the major projects in TfL's Business Plan (2018/19 to 2022/23) and the milestones associated with these projects.

4.7. The following TfL projects in that Business Plan have implications for the Borough:

(a) TfL Business Plan area: Buses

Project 1: Addressing air pollution

Summary of project: TfL plans to ensure the entire bus fleet meets Euro VI emission standards by September 2020, primarily through retrofitting technology onto existing vehicles. Low Emission Bus Zone (LEBZ).

Implications for Camden: We will continue to work with TfL on fleet improvements, and highways enhancements to deliver the Borough's first LEBZ on the A5/Kilburn High Road corridor, and seek to identify additional LEBZs in Camden. We will also support TfL's plans to introduce a cleaner bus fleet, with all double-deck buses in central London being hybrid by 2019, all single-deck buses in that area emitting zero exhaust emissions by 2020, and the whole fleet to have zero exhaust emissions by 2037. These measures will support in delivering Objective 5 of this strategy, and supporting initiatives/targets, to reduce emissions from transport in Camden.

Complementary works to be carried out by Camden: our Clean Air Action Plan (2016-2018) will be updated on a regular cycle and, along with the air quality measures outlined in this Transport Strategy, contain a variety of measures to reduce transport-based emissions (as well as all other sources within the Council's control).

Project 2: Bus Priority

Summary of project: The TfL Business Plan commits to implementing a range of bus priority investment measures to provide infrastructure needed for buses to be a high quality, reliable public transport network that sustains a growing city.

Implications for Camden: As with elsewhere in London, bus journey times in Camden have been affected by congestion levels and this has had a knock-on impact on bus ridership levels. Mode share by residents in Camden by bus has dropped slightly (from 15% to 13% of all trips between 2013/14 and 2016/17). These measures will support our ambitions to improve bus journey times, journey time reliability and access to public transport in the Borough as set out in this CTS.

Complementary works to be carried out by Camden: With TfL support, Camden has introduced a dedicated resource (in 2017/18 and into 2018/19) to identify and deliver bus priority improvements across the Borough. This will include highways improvement measures, amendments to bus stops to give buses priority, new bus lanes/bus gates where feasible, and consolidation of bus stops in appropriate locations to reduce unnecessary delays. We intend to continue this programme during the course of this CTS subject to ongoing funding.

(b) TfL Business Plan area: Streets

Project 1: Transforming streets through Liveable Neighbourhoods, Cycling programmes and the Vision Zero approach to road safety

Summary of project: TfL's Business Plan commits to ongoing programmes of Liveable Neighbourhood interventions, improvements for cyclists via Quietways, Central London Cycle Grid and Cycle Superhighways, and a Safer Junctions programme as part of an ambition to deliver the 'Healthy Streets' agenda and eliminate deaths and serious injuries on our roads.

Implications for Camden: These programmes represent a significant opportunity for the Borough to identify/bid for substantial additional funds that will help deliver the objectives and key actions within this CTS, building on transformational schemes already implemented to date.

Complementary works to be carried out by Camden: measures outlined in this Strategy, and as outlined in the supporting Action Plans for Road Safety, Cycling and Walking & Accessibility, will use LIP and other funding sources to deliver transformational upgrades to our streets to benefit sustainable modes. Camden has – and will continue to – deliver the Healthy Streets agenda within the financial resources available to us. Any enhanced levels of funding from TfL or other sources will enable us to deliver the MTS priorities within Camden at an increased pace of delivery.

(c) TfL Business Plan area: Rail & Underground

Project 1: Underground line capacity upgrades & Crossrail (Elizabeth Line)

Summary of project: TfL's current Business Plan includes upgrades of the Metropolitan, Circle, Hammersmith & City (and District) lines which will add 33% more capacity. A new fleet of trains will be introduced on the Piccadilly Line from 2023, and on the Central Line, and other modernisation measures will lead to increases in capacity of 60% and 25% respectively on these two Lines. The Business Plan also commits to bringing in faster and more frequent services on the Northern Line through better use of technology and modernising work processes. The Elizabeth Line, connecting Heathrow in the west with Shenfield and Abbey Wood in the East, includes

a station in Camden at Tottenham Court Road. Crossrail (the Elizabeth Line) will be fully operational by December 2019, adding an extra 10% to London's rail capacity.

Implications for Camden: our Borough's population is expanding and is, alongside increases in leisure, education and employment opportunities both in Camden and central London more generally, placing a significant additional demand on public transport networks in the Borough. These Underground plans and completion of Crossrail (the Elizabeth Line) will assist in easing some of those pressures and help us towards our objective of ensuring that economic growth both supports, and is supported by, sustainable transport. We will also need to ensure that our streets and public spaces are ready to safely accommodate a significant increase in passenger numbers.

Complementary works to be carried out by Camden: as part of our Cycling, and Walking & Accessibility, Action Plans, we will be identifying and delivering measures to enable and encourage switching of trips from overcrowded public transport networks to active travel modes, especially in the more central parts of the Borough. This will require enhancements to our streets and public realm to ensure that they are able to safely accommodate the growth in passenger numbers on public transport networks and encourage onward journeys to be made by sustainable modes of travel.

Project 2: Station upgrades and increasing accessibility

Summary of project: Construction work for an upgraded Holborn station is due to commence in 2025, with enabling works beginning ahead of that date. The proposed station upgrade is planned for completion in 2031. There will be a new station entrance (at southern end of Proctor Street), eight new escalators, step-free access from street to trains, with a more than doubling in the size of the station. At Camden Town, station upgrade proposals for a new entrance, step-free access and a station that remains open during busier periods are currently on hold whilst TfL seek funding to secure for the project. TfL also commit to completing around 50 detailed feasibility studies to help inform future accessibility programmes, as part of a target of making 40% of Tube stations step-free by 2022. West Hampstead (Jubilee Line station) is one of those studies.

Implications for Camden: Upgrades to Holborn and Camden Town stations are much-needed, being two of the busiest stations in the Borough with significant capacity constraints at the current time. It will also ensure step-free access at these stations, contributing towards our objective to ensure an accessible transport network for all. However, Camden remains concerned by ongoing delays to delivery of those two schemes – with no planned start date for Camden Town - and will continue to request firm commitments by TfL to both station upgrades in the shortest possible timeframe. In addition, the majority of our Tube and Rail network in the Borough will still not have step-free access by the end of the Business Plan, with no commitment to fund other stations in Camden beyond that point and only (currently) the feasibility study to be carried out at West Hampstead as noted above.

Complementary works to be carried out by Camden: In recognising the continued absence of step-free facilities at a large number of tube/rail stations in the Borough, as set out in Chapter 2 and the supporting Evidence Base of this Strategy, we will carry out our own study to identify priorities – based on local contexts, rather than operational/financial factors – to help inform future funding bids/potential developer contributions for step-free upgrades in the Borough. All of our bus stops, except a small number on Kilburn High Road, are fully accessible – and those remaining ones will be completed as part of the Kilburn Area Healthy Streets Project in 2019/20. Our Walking and Accessibility Action Plan identifies further actions we will be delivering to improve access for all to transport networks in the Borough.

(d) TfL Business Plan area: Other Operations

Projects: Ultra Low Emission Zone (ULEZ), Santander Cycles and Dial-a-Ride

Summary of projects: ULEZ will be introduced in central London (same area as Congestion Charging Zone) in April 2019, and extended to the north/south circular for all vehicles by 2021 (subject to consultation). The existing Low Emission Zone, covering the majority of London, will have more stringent standards for lorries, coaches and buses in 2020. On Santander Cycles, TfL have recently launched a new and updated bike for that system and will roll out around 500 per year of the Business Plan, whilst integrating the system better with other TfL services. For Dial-a-Ride, improved operations will include better online resources, a new booking and scheduling system in 2020, and trialling ‘assisted transport allowances’ with Borough partners to help allocate funding for door-to-door services.

Implications for Camden: Camden has previously lobbied for the introduction of a central London ULEZ, and proposed extension to the north/south circular, recognising the benefit this will bring to air quality in the Borough and assisting with our wider ambitions to meet World Health Organisation air quality standards. By 2021 the ULEZ is expected to decrease NOx emissions in the Borough by 18%, and PM10 emissions by 3%, contributing to objective 5 of this strategy to reduce transport-related emissions. Improvements to Santander Cycle Hire will assist in enabling more journeys to be undertaken by residents and visitors to the Borough, contributing to the Cycling Action Plan and cycle mode share targets. Finally the Dial-a-Ride enhancements will support our wider accessibility proposals.

Complementary works to be carried out by Camden: policies and schemes outlined in this strategy will support the ULEZ in reducing transport-based emissions in Camden, and the Borough has a wider strategy to reduce all pollutants from all sources as set out in our Camden Clean Air Action Plan. Our Cycling Action Plan outlines measures to support cycle hire options in the Borough to increase availability and access to bikes for residents and visitors. Complementary accessibility proposals are outlined throughout this Strategy.

4C. Sources of funding

- 4.8. The key source of funding to deliver our transport programme is the Borough's LIP allocation. TfL's Business Plan indicates that Camden will receive £2,029,100 per annum as the LIP 'Corridors and Neighbourhoods' funding for the first three year period of this Delivery Plan (2019/20 to 2021/22) plus £100,000 per annum as a 'Local Transport Fund' to be used at Camden's discretion. There is no confirmation of any Principal Road Network (PRN) maintenance funding from TfL at the current time. Any reductions in funding in future to the LIP, and continued removal of the PRN, will limit our ability to achieving the MTS outcomes.
- 4.9. Table 4.2 (below) identifies potential funding sources for implementation of projects in this Transport Strategy, including the LIP 'formula funding' allocations from TfL, contribution from our own funds, and funding from other sources. We will also bid for additional, relevant funding sources from TfL/GLA such as the Mayor's Air Quality fund and future Good Growth funding rounds. Camden has already secured over £1m from a previous round of the Good Growth fund, as outlined in Table 4.2, to work with local people and traders to co-design public realm and environmental improvements on Queen's Crescent in Gospel Oak.

Table 4.2: Potential Additional Funding for LIP Delivery

Funding Source	2019/20	2020/21	2021/22	Total
	£000k	£000k	£000k	£000k
TfL/GLA funding				
LIP formula funding – Corridors and Neighbourhoods	2,029	2,029	2,029	6,087
LIP funding – Local Transport Fund	100	100	100	300
Strategic TfL funding sources (see Table 4.3 below)	6,906	TBC**	TBC**	6,906**
Sub-total	9,035	2,129**	2,129**	13,293**
Borough Funding				
Capital funding – West End Project	4,000	TBC*	TBC*	4,000*

Funding Source	2019/20	2020/21	2021/22	Total
	£000k	£000k	£000k	£000k
Other Council contributions	170	TBC*	TBC*	170*
Sub-total	4,170	TBC*	TBC*	4,170*
Other Sources of Funding				
s106 – Pedestrian, Cycling and Environmental Improvements	1,262	TBC**	TBC**	1,262
Community Infrastructure Levy (CIL) – strategic & local	4,000***	TBC***	TBC***	4,000***
Go Ultra Low City Scheme (EVCP infrastructure)	127	TBC**	TBC**	127**
HS2 Road Safety Fund	1,000*	750*	120*	1,870*
Good Growth fund (Queen's Crescent)	115	415	570	1,100
Sub-total	6,504	1,165**	690**	8,359**
Totals	19,709	3,294**	2,819**	25,822**

* subject to internal processes that are currently under review

** exact amounts currently unknown at the time of writing, and therefore totals are minimums expected

*** strategic CIL currently allocated for highways maintenance for 2019/20, details and amounts to be confirmed for both local and strategic CIL for other financial years

4.10. In addition to the LIP, the Borough will receive almost £7m from TfL between 2019/20 and 2021/22 in response to the following successful bids/allocations that have been secured as set out in Table 4.3, overleaf. We will also bid for other TfL funding sources including, for example, other cycling funding pots (such as Quietways), bus priority and Liveable Neighbourhood programme. During the three year period 2019/20 to 2021/22 Camden will also receive investment from TfL, in addition to that set out below, for the Camden to Tottenham Hale 'Future Cycle Route'.

Table 4.3: Additional TfL Contributions secured for Camden's Transport Capital Programme

Project/Scheme	Funding Source	Amount (£'000)	Year	Note
West End Project	LIP Major Schemes	£3,600	2019/20	Completion of scheme started in 2018/19
Schools Low Emission Zone	Neighbourhoods of the Future	£306	2019/20	Completion of scheme started in 2018/19
Tavistock/Torrington, Pratt/Delancey and Midland/Judd Cycling Schemes	Central London Cycle GRID	£3,000	2019/20	Further 'GRID' schemes to be explored with TfL from 2020/21 onwards
Total		£6,906		

- 4.11. Camden also uses its own resources and resources from developers to pursue local objectives and ensure that the road network remains in a safe and serviceable condition. We will be investing £4m of strategic CIL funding to maintain our highways network in 2019/20 (future years decisions still to be determined), and the sums available from developers via section 106 agreements for 'PCE' (Pedestrian, Cycling and Environmental improvements) are also shown in Table 4.2 above (for 2019/20 only as future years are more difficult to predict).
- 4.12. Developer contributions are also secured for a number of other transport measures including, but not limited to: local highways improvements works, reviewing (and measures arising from) Travel Plans, Construction Management Plans. During the course of this Strategy there may also be potential for local Community Infrastructure Levy (CIL) contributions to deliver road safety/public realm/other transport improvements, if prioritised at a local level. Third party contributions will also be sought, as previously, and especially in areas where relevant organisations will benefit from public realm improvements to their locale. Schemes from all such sources would be delivered in a way that is consistent with the principles set out in this Strategy.
- 4.13. As noted above, we will continue to explore any other additional funding sources to deliver the objectives, policies and schemes outlined in this Transport Strategy. Details will be provided in updated three-yearly Programmes of Investment (PoI). As one example, in 2018/19 the Council has

secured £638,000 of funding through TfL's Bus Priority programme to deliver a package of measures to improve bus journey times/journey time reliability. We will continue to work with TfL to secure additional funds under that programme in each financial year of this programme.

- 4.14. In addition, as set out in this Strategy, we will be using the outcome of an initial feasibility study into a Workplace Parking Levy to determine if this is a suitable policy to develop further in the Borough. If a WPL is both feasible and suitable for the Borough then, subject to consultation and approvals processes, any WPL income would be forecast in future Programmes of Investment and contribute to relevant 'Investment Priority' areas identified within each Objective.

4D. Long-Term Interventions to 2041

- 4.15. In the medium to long term Camden believes that a number of significant, but currently unfunded, investments will be required to ensure the economic, social and environmental vitality of the Borough. These are shown in Table 4.4, below, with indicative funding and timescales.

Table 4.4: Long-term interventions up to 2041

Project	Approx completion date	Indicative costs	Potential funding sources	Comments
Crossrail 2	Early 2030s	£30bn	TBC	Camden supports Crossrail 2 as essential in relieving capacity constraints on the Northern and Victoria lines through the Borough, and especially at Euston station relating to HS2
West London Orbital Rail (London Overground extension)	2030s	TBC	TBC	Camden will support any improved connectivity between West Hampstead and the West London Orbital Rail, subject to ensuring existing services are retained
Camden High Line	2020s	Circa £35m	Multiple	As set out elsewhere in this Strategy Camden

Project	Approx completion date	Indicative costs	Potential funding sources	Comments
				supports the Camden High Line scheme
Step-free access at prioritised Camden stations	2020s	TBC	TfL Step Free Access programme; Network Rail; Developer Contributions	We will pursue all potential funding sources to deliver accessibility upgrades at prioritised stations from study of all locations, and support funding bids for Camden stations made by TfL to the Department for Transport
Borough-wide programme of Liveable Neighbourhoods in our town centres, and economic hub/growth areas	2020s	£40m	Workplace Parking Levy (subject to feasibility); TfL Liveable Neighbourhoods funding programme	A Borough-wide programme of transformational Liveable Neighbourhood schemes will assist in achieving Objective 1, and other core outcomes, of this Strategy

These projects will make a significant contribution towards realising the objectives outlined in this Strategy and delivering our transport Vision.

4E. Three year indicative Programme of Investment

4.16. The three year programme of investment using Local Implementation Plan funding (only) has been completed in Table 4.5, overleaf. This should be read in conjunction with the commentary that follows. The more detailed Annual Programme for 2019/20 (see Section 4H) also identifies additional funding sources for schemes being delivered in that year.

Table 4.5: 3 year LIP Programme of Investment

Programme/Scheme	Programme Budget			
	Allocated 2019/20 (£'000)	Indicative 2020/21 (£'000)	Indicative 2021/22 (£'000)	Total (£'000)
Corridors, Neighbourhoods and Complementary Measures				
A. Area-wide Healthy Streets Projects(Infrastructure)				
Canteloves and Camley HSP	90	0	0	90
Gospel Oak HSP	45	0	0	45
Kilburn HSP	465	0	0	465
Farringdon HSP (Phase 3)	210	0	0	210
Kentish Town HSP	0	450	450	900
Camden Town HSP	0	410	410	820
Sub-total of all 'A' Initiatives	810	860	860	2,530
B. Borough-wide Schemes (Infrastructure)				
<i>B1. Walking & Accessibility Action Plan Measures</i>				
Legible London	20	20	20	60
Pedestrian audits	20	10	10	40
Audit actions – bespoke funding to deliver measures required	0	50	50	100
'Countdown' at signalised junctions	40	50	50	140
Improving pedestrian connectivity between stations	20	50	50	120
Step-free access to stations study	20	0	0	20
Sub-total	120	180	180	480
<i>B2. Cycling Action Plan Measures</i>				
Primary & secondary cycle network	182	190	190	562
Cycle permeability & wayfinding	75	30	30	135
Cycle parking	80	60	60	200
Sub-total	337	280	280	897
<i>B3. Road Safety Action Plan Measures</i>				
Fitzjohn's Avenue scheme	200	0	0	200
Tufnell Park Junction scheme	167	0	0	167
Interventions at prioritised locations from Road Safety Audit	140	170	170	480
Implementation of speed reduction initiatives (20mph actions)	30	30	30	90
Junction protection programme	25	25	25	75
Monitoring and feedback	35	30	30	95
Sub-total	647	255	255	1,107
<i>B4. Electric Vehicle Charging Point (EVCP) Action Plan Measures</i>				

Programme/Scheme	Programme Budget			
	Allocated 2019/20 (£'000)	Indicative 2020/21 (£'000)	Indicative 2021/22 (£'000)	Total (£'000)
EVCP Support Funding	15	20	20	55
Sub-total	15	20	20	55
<i>B5. School Travel Plan Infrastructure Measures</i>				
Healthy School Streets & School Road Safety Schemes	150	105	105	360
Sub-total	150	105	105	360
Sub-total of all 'B' Initiatives	1219	840	840	2,899
C. Complementary Measures				
Cycle training & cycle loan scheme	100	90	90	280
Community cycling programme	50	44	44	138
School Travel Plan Behaviour Change initiatives	50	50	50	150
Road Safety Behaviour change campaigns	32	25	25	82
School Crossing Patrols	55	60	60	175
Pedestrian skills training	52	55	55	162
Air Quality Monitoring	5	0	0	5
Car Clubs & On-Demand Services	5	5	5	15
Sub-total of all 'C' initiatives	349	329	329	1,007
SUB-TOTAL (All A, B and C schemes)	2,378	2,029	2,029	6,436
Local Transport Fund	100	100	100	300
FINAL TOTAL	2,478*	2,129	2,129	6,736

*2019/20 allocation higher than future years projections due to TfL-agreed rollover from 2018/19 of £349k

4F. Supporting commentary for the three-year programme of investment (PoI)

(i) Identification and prioritisation of schemes

4.17. In developing the three year PoI, Camden has undertaken a detailed approach to prioritising funding under the LIP-funded Corridors, Neighbourhoods and Supporting Measures (the main source of funding). Within that source, we have identified funding under the following three areas: area-wide Healthy Streets Projects HSP, Borough-wide schemes (both infrastructure schemes) and Complementary Measures (behaviour change/smarter travel interventions). Levels of funding allocated to the complementary measures package has been allocated to ensure sufficient delivery of previously

developed, effective schemes that support infrastructure improvements and contribute to a balanced transport programme.

- 4.18. The two infrastructure sets of programmes will help ensure both (i) high levels of investment to deliver transformational changes in specific locations/neighbourhoods (the area-wide Healthy Streets projects) and (ii) interventions that require funding to be spread across the whole Borough, to ensure a network of schemes (for example, Electric Vehicle Charging Points, cycle routes and parking etc) can be implemented throughout Camden.
- 4.19. The split between area-wide HSP and Borough-wide schemes will be around 50/50, ensuring sufficient funds in both pots to deliver necessary changes that meet the CTS objectives. In order to ensure that resources and funding are not spread too thinly, and to provide a large enough pot of funds to deliver transformational changes in each area-wide HSP, only 2 HSPs will be funded in each year from 2020/21 onwards (the 2019/20 programme includes the completion of a number of schemes previously on the programme and requiring funding to deliver). Specific schemes within each of the three Corridors, Neighbourhoods and Supporting Measures programmes have been prioritised as set out in the sections that follow.
- 4.20. In addition, Camden will receive £100,000 per year through the Local Transport Fund – an allocation to be used at the Borough’s discretion. We will commit to ring-fencing half of this fund annually to respond to requests for, and deliver, interventions at a local level which contribute to the Healthy Streets agenda. This will include initiatives such as Play Streets, timed or permanent road closures, and other measures which reduce traffic dominance on our residential roads. The remaining half will be used to (i) help support and deliver interventions arising from the forthcoming Freight Action Plan and (ii) any other important in-year issues which arise and which require funding.

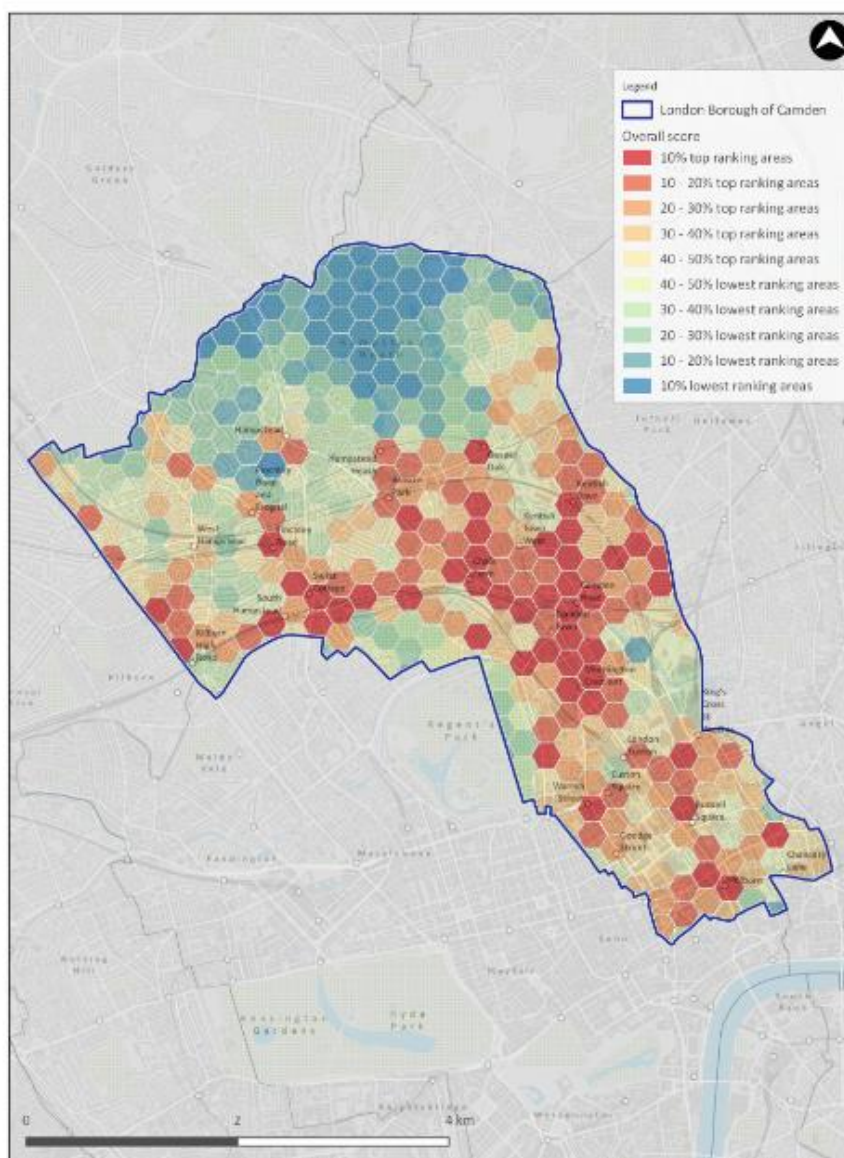
(A) Area-wide Healthy Streets Projects HSP

- 4.21. As established above, the 2019/20 programme includes a number of area-wide HSPs requiring funding to complete that have been developed in prior years. Those schemes – in the Cantelowes & Camley, Gospel Oak, Kilburn and Farringdon areas - were identified from a prioritisation process set out in a previous LIP Delivery Plan. From 2020/21 onwards a new prioritisation methodology has been established. The following process has been used to prioritise locations for area wide Healthy Streets Projects in this Transport Strategy:
- (i) In order to maximise return on investment and optimise the likelihood of meeting our transport objectives, seven criteria (and a total of 11 indicators

across those criteria) have been used as the basis for mapping the whole Borough, to help identify where area-wide HSP investment should be focussed. Those indicators (which link closely to the Transport Strategy objectives), and the rationale for use, are shown in Table 4.6, on pages 97.

- (ii) Mapping of the Borough has been developed using 250m hexcells, with an equal weight applied to each indicator, to identify ‘hotspots’ where the combination of those indicators is highest. The output mapping from this exercise is shown in Figure 4.1, below. A second map, Figure 4.2, on page 96 also shows how other areas which scored highly are being addressed through various other programmes either within the LIP or via other funding sources.

Figure 4.1: ‘Hotspot’ mapping of indicators to help prioritise area-wide Healthy Streets Projects



- (iii) A secondary stage, to provide a check and balance to the hotspot mapping, has been an assessment of potential areas for investment based on:
- Match-funding: where there may be a requirement to use LIP Corridors and Neighbourhoods funding to 'match-fund' a bid to the Liveable Neighbourhood programme/other funding programmes
 - Level and timescale of previous transport (LIP/other sources) investments: for example, areas which score 'highly' through the criteria identified in Table 4.6 (page 97) but where significant (recent/current) transport investment has already been/is being delivered
 - Deliverability: an assessment of the feasibility of being able to deliver a genuinely area-based, transformational scheme given knowledge of the particular geography/circumstances in each area (for example, interfaces with neighbouring Boroughs/TfL roads, and our own placeshaping/growth areas etc), and identifying where there are other major development sites going on and it either would/would not make sense to deliver measures at the same time as those works
 - Co-funding: areas have been prioritised following the initial 'hotspot' mapping depending on known co-funding opportunities. Where there is known, available funding (s106, CiL, other TfL funding streams such as bus priority/Cycle GRID etc) that could support the ambition to deliver a transformational area-wide Healthy Streets project, then those areas have been given a greater level of priority in the overall assessment of locations for LIP funding. Similarly, even if co-funding not currently available, areas have been considered on the ability or otherwise to lever in extra funding from other sources, such as private developments who may want to contribute towards wider public realm aspirations.

Using this methodology, the locations identified for area-wide Healthy Streets Projects funding in 2020/21 and 2021/22 are:

- (i) Kentish Town area: incorporating Kentish Town Road (between Castle Road in the south and Fortess Road/Highgate Road in the north) and the hinterland of residential streets that feed into the high street area
- (ii) Camden Town area: including the roads managed by Camden north of the Britannia junction, incorporating the northern section of Camden High Road, Hawley Road and surrounding residential streets

- 4.22. These two areas benefit from existing or expected developer contributions and therefore the total funding available for delivery is likely to be higher than the allocations from the LIP identified in Table 4.2. The same, or similar, methodology, will be used to prioritise areas for this funding in each future 3 year Programme of Investment beyond 2021/22 as part of this Strategy.

Figure 4.2: Transport capital programme (large schemes) - (2019/20 to 2021/22)

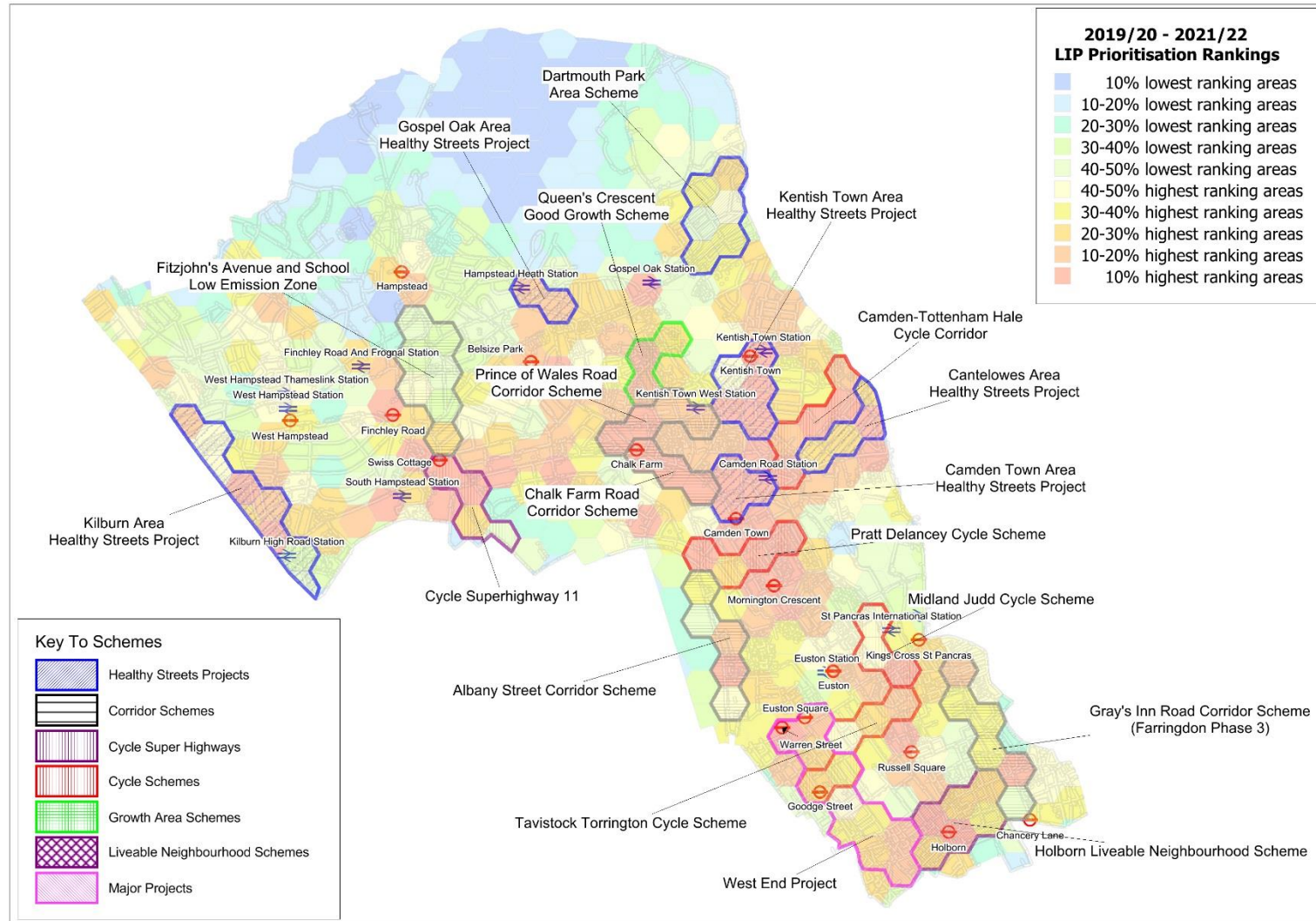


Table 4.6: Criteria for area-wide Healthy Streets projects prioritisation, indicators and datasets

Criteria	Indicator description and rationale for use	Aggregation Approach	Dataset/Source
Public Transport Accessibility Level (PTAL)	Score of accessibility to public transport: areas with lower PTAL score higher as these are areas where large-scale interventions could improve access to the public transport network	Median PTAL score within each hexcell	PTAL (2021); TfL Open Data
Walking Potential	Potentially walkable trips: greater numbers of these score more highly as they indicate areas where transformational schemes have a higher scope for switching trips to walking	Total potential weighted walkable trips within each hexcell	TfL Walking Potential; TfL
Cycling Potential	Potentially cycleable trips: greater numbers of these score more highly as they indicate areas where transformational schemes have a higher scope for switching trips to cycling	Total potential weighted cycleable trips within each hexcell	TfL Cycling Potential; TfL
Car ownership	Household car ownership levels: areas where a higher number of households own a car score higher as measures in these areas have potential to reduce car use	Total number of cars owned by households in hexcell	Census (2011) car ownership
Road traffic collisions	Number of road traffic collisions: higher numbers within each area score more highly as investment in those locations will help reduce casualties of all severity types	Total number of collisions within hexcell	STATS19 Collision data 2014-2016
Air Quality	NO2 concentration & PM10 concentrations (2 separate indicators): higher levels score more highly as improvements to those areas could help reduce NO2/PM10 levels and associated air quality problems	Maximum concentration within hexcell of NO2 and PM10 (separate indicators)	LAEI (2013); GLA Open Data

Criteria	Indicator description and rationale for use	Aggregation Approach	Dataset/Source
	LAEI focus areas: these indicate areas of high levels of NO2 and high human exposure; hexcells which intersect with these areas score more highly	Hexcell to score 1 if they intersect with an LAEI focus area, 0 if they don't	As per NO2
Demographics and deprivation	Overall index of multiple deprivation: more deprived areas score more highly	Median rank within hexcell	IMD (2015);
	Demographics – age: areas where a high number of residents aged 65+ score higher as potential need for accessibility improvements	No. of residents aged over 65 in hexcell	GLA population projections (2011)
	Demographics – disability: areas where a high number of residents with a disability score higher as potential need for accessibility improvements	No. of residents with a disability in a hexcell	Census (2011)

(B) Borough-wide schemes

- 4.23. The 'Borough-wide' element of the Corridors and Neighbourhoods Programme is split into five distinct sections, and help deliver, outputs from the Road Safety Action Plan, Walking & Accessibility Action Plan, Cycling Action Plan, EVCP Action Plan and School Travel Plan Measures, as outlined in more detail (including prioritisation methodologies for each) below. This in turn feeds into the Objectives and supporting measures of the Transport Strategy.
- 4.24. Whilst the area-wide Healthy Streets Projects (HSPs) will help deliver those Action Plans in certain areas, Borough-wide funding is required to pick up and fill in the gaps between the (limited) numbers of HSPs that can be delivered in each three-year programme.
- 4.25. Further details of the prioritisation methodology for each Borough-wide scheme programme is provided below:

B1 Walking & Accessibility Action Plan Measures

- 4.26. Within the walking package funding is provided to deliver a number of schemes to increase walking mode share in the Borough and improve pedestrian safety, based on measures within the Walking & Accessibility Action Plan. This includes:
- Walking audits in prioritised locations across the Borough and implementation of actions arising – including pedestrian infrastructure improvements and specific accessibility issues including provision of tactile paving where required, improvement of sub-standard pedestrian islands, footway widening and so on
 - Improved pedestrian wayfinding, including implementation of new Legible London signage at various locations in the Borough
 - Delivery of pedestrian 'countdown' facilities at junctions across the Borough
 - Carrying out a study (in 2019/20) into Camden's priorities for step-free Tube/rail access in the Borough, based on local factors and criteria rather than solely operational/budget implications
- 4.27. For further details see the Walking & Accessibility Action Plan. The Plan shows a relatively low amount of 'dedicated' funding for these measures (other than the aforementioned step-free access study and pedestrian audits) in 2019/20, due to the requirement to fund the completion of existing schemes in development in 2018/19. However, many of the those existing projects –

including the area-wide Healthy Streets projects, Road Safety schemes and others – will include measures such as Legible London, improved crossing facilities and so on that also have dedicated funding identified in the last two years of the programme.

B2 Cycling Action Plan Measures

- 4.28. LIP resources will be invested into specific cycling infrastructure schemes, in line with the measures outlined in the Cycling Action Plan, and in addition to cycling improvements made as part of the area-wide Healthy Streets projects (and Road Safety programmes). In doing so the centrepiece of the Cycling Action Plan will be delivered, which is the creation of a Borough-wide cycle network on primary and secondary routes to enable more cycling, more safely and more often. This will be supported by more localised permeability/wayfinding improvements to improve connectivity at the neighbourhood level, and enhanced cycle parking facilities across Camden.
- 4.29. Schemes identified for delivery using LIP funding as part of the primary and secondary cycle networks between 2019/20 and 2021/22 (Phase 1 of the Cycling Action Plan) include the Grays Inn Road corridor (funded through the Farringdon Phase 3 Healthy Streets Project), Prince Albert Road corridor, York Way corridor (Phase 1) and Fitzjohn's Avenue. Numerous other sections will be delivered via complementary funding sources.
- 4.30. Prioritisation of routes for LIP funding have been identified using: (i) TfL's propensity to cycle information and (more recent) Strategic Cycling Analysis to identify links of the network that have either current and/or future (expected) high levels of cycling demand, (ii) connections to existing/currently programmed parts of the cycle network rather than elements of the network appearing in isolation, (iii) potential for match-funding, (iv) an assessment of the likelihood of being able to deliver a particular section of route within certain timescales, including an assessment of other known activities which may have an impact (such as HS2 construction corridors) and (v) other local considerations. Schemes are likely to run across two financial years in order to provide sufficient funding levels.
- 4.31. A part of this funding is also allocated to deliver 'quick-win' cycling measures that may not necessarily form part of wider routes (such as new links, making one-way streets two-way for cycling where appropriate, and so on). Finally the cycle parking element of the Borough-wide programme is proposed to continue as currently, with funding for: on-street secure cycle hangars/cycle stands and off-street locations (including cycle hangars for Estates).

- 4.32. It is recognised that significant funding, in addition to the LIP allocation, is needed to boost cycling mode share in Camden. The Cycling Action Plan sets out those funding sources which include Cycle GRID/Superhighways/Quietways, HS2 Road Safety Fund and developer contributions which will be used, in particular, to deliver sections of the core Borough-wide cycling network.
- 4.33. For further details see the accompanying Cycling Action Plan.

B3 Road Safety Action Plan Measures

- 4.34. Dedicated funding for Road Safety schemes has been instrumental in helping deliver a reduction in the number of people killed or seriously injured in the Borough. Whilst our schemes in previous years have been data-led, we have now developed this further and developed a Borough Road Safety Audit which synthesises and analyses prior year's casualty and other casualty-related statistics (such as traffic speed data) to inform the future year's programmes.
- 4.35. Based on a detailed analytical process, 'Links' (sections of main road carriageway between junctions), 'Nodes' (junctions on the main road networks) and 'Cells' (the areas surrounding the Links and Nodes, usually containing less-busy roads) of particular priority to address based on total casualty statistics/other data, have been defined and analysed. In particular, the top fifteen Links, Nodes and Cells from that analysis were considered for potential interventions using bespoke LIP road safety funding.
- 4.36. The majority of those 'top fifteen' locations are already addressed by current/planned schemes and/or are on the TfL TLRN network – and we will work with and lobby TfL for improvements at these locations. Having analysed remaining locations within those lists, and undertaken an assessment of potential interventions/deliverability given available funding, the proposed schemes for 2019/20 to 2021/22 are:
- (i) Howland Street area: in terms of the road safety casualty rankings, Howland Street itself is in the top 10 ranked 'Link' locations, and the surrounding quieter roads are ranked as the 2nd highest 'Cell' area, and are not addressed via any other scheme, so will be funded through this programme
 - (ii) York Way: the section of York Way between Agar Grove and Goods Way is the highest ranked 'Link' in Camden not covered by a pre-existing programme on Borough roads or part of the TLRN network. The 2014-2016 data showed 3 KSIs and, in total, 19 Vulnerable Road User (VRU) casualties in that timeframe. This section of York Way will

therefore be prioritised for interventions from the bespoke road safety fund programme, alongside other funding sources necessary to deliver a suitable scheme.

4.37. The Road Safety Audit will be updated on a three-yearly cycle, to provide prioritised locations for each following 3 year programme of investment.

4.38. In addition we will spend an element of the Road Safety Action Plans on more minor interventions including:

- Monitoring of the 20mph speed limits across Camden's road network, and annual screenline counts to monitor and analyse traffic levels in the Borough.
- Dedicated interventions to reduce speeds in line with our 20mph speed limit including: additional 20mph signage, Community Roadwatch schemes, additional Vehicle Activated Signs (VAS) and physical infrastructure measures (such as raised tables) based on priority locations identified from annual monitoring data.
- A rolling programme of 'junction protection' schemes. This programme will audit all junction locations in the Borough where entry treatments from a side road onto a larger road are not currently protected by double yellow lines and restrictions on waiting/loading, and upgrading them accordingly. This will improve pedestrian sightlines and reduce road danger at these locations.

4.39. Road safety will also be an integral part of all engineering schemes, not just dedicated 'local safety' and '20mph' programmes. Other initiatives, such as walking and cycling engineering projects, Liveable Neighbourhoods and area-wide Healthy Streets Projects, School Travel Plan Infrastructure schemes and so on, also contribute directly to road safety improvements.

B4 Electric Vehicle Charge Point (EVCP) Action Plan Measures

4.40. Camden's current network of on-street charging points are principally provided through Source London. Under the terms of the Borough's current contract, the operator of Source London pays for the installation and maintenance costs of these points.

4.41. However, funding is required each year from the LIP/other Borough sources for: (i) Traffic Management Order costs of new Source London (and other on-street) points, (ii) match funding for allocations received from GULCs/other sources for lamp column charging points and (iii) contributions to support EVCPs as part of the car club operation in the Borough.

- 4.42. A small allocation in the LIP has therefore been made from 2019/20 onwards to cover these costs and support the EVCP Action Plan roll out.

B5 School Travel Plan Infrastructure Measures

- 4.43. As with the Road Safety Action Plan measures, Camden has historically allocated dedicated funding to improve conditions and road safety around schools. In this Delivery Plan we will continue to do so, providing and prioritising funding to STARS-accredited schools for both 'traditional' road safety measures in the vicinity of schools (new crossing points, kerb built outs, extending and maintaining School Keep Clear markings and so on) and for continuing the roll-out of the Borough's 'Healthy School Streets' programme of timed road closures outside/in the vicinity of school sites.

(C) Complementary Measures

- 4.44. We will continue to deliver a comprehensive set of complementary, 'Smarter Travel' measures to support the infrastructure programme. These schemes encourage and assist residents and visitors to the Borough to use sustainable modes of travel.
- 4.45. In this Delivery Plan our intention is to continue to fund:
- Our existing, successful cycle training programme for adults and children, working with schools, groups and individual sessions to equip residents and visitors to the Borough with the necessary skills for independent cycling. All training takes place to national Bikeability standards and is delivered 'in-house' and with externally contracted cycle trainers. A small allocation will also be used to continue operation of Camden's Cycle Loan scheme, allowing a small fleet of bikes to be bought, maintained and loaned to residents/visitors in the Borough.
 - The Borough's Community Cycling Programme, which provides cycle training, led rides and other cycling activities for individuals and groups in the community who tend to be less represented in using cycling as a mode of transport in Camden.
 - The provision of School Travel Planning and complementary initiatives (such as School Crossing Patrol Officers in defined locations, and sustainable transport grants to schools for delivery of measures), to increase the use/safety of walking, cycling and public transport to, from and during school across the Borough.

- A range of Road Safety behaviour change initiatives targeted at various school age groups, including activities such as ‘Now You See Me, Now You Don’t (theatre-style show promoting independent and safe travel for 10-11 year olds), ‘Crossing Over’ interactive presentation for 12-13 year olds and ‘Dying to Ride’ workshops for children aged 16-19, giving in-depth support and guidance in riding and driving. Camden also supports TfL’s Junior Citizenship Scheme, an annual two-week event at Coram’s Fields which, among other safety awareness training, offers sessions on walking and cycle safety to all Camden school children 10 to 11 years old.
 - Our extensive Pedestrian Skills training courses for children at schools throughout Camden, equipping them with information and skills to travel safely to and from school and at all other times.
 - A small allocation to support the Cleaner Air Better Business programme, part of the Cross River Partnership work, which works with businesses in the Fitzrovia and Bee MidTown BID areas on freight consolidation activities to reduce overall emissions will be provided in 2019/20 (only).
 - A small contribution towards supporting marketing and uptake of the existing car club bays/operations in the Borough, plus any additional measures that may be required to expand such operations or other suitable on-demand services in Camden that align with our transport objectives and policies.
- (ii) The role of revenue-based investment, policy decisions and third-party actions (including commitments in TfL’s Business Plan) in delivering LIP objectives
- 4.46. The policies set out earlier in this Camden Transport Strategy, and third-party actions, will also play a key role in delivering our LIP objectives, alongside the Programme of Investment.
- 4.47. Policy levers have, historically, been instrumental in delivering sustainable transport goals across a number of areas in Camden. In particular, parking policies can have a demonstrable impact in delivering changes. For example, our car-free development policy has played an important part in substantial reductions in overall household car ownership (and use) levels in the Borough, and the introduction of a diesel surcharge on residents parking permits contributed to a drop of 7% in diesel vehicle permits issued in Camden in a single year.
- 4.48. The ambitious policies outlined in this new CTS are expected to have a similar effect. We have outlined, for example, how we will conduct regular reviews of

a number of parking related issues (size of Controlled Parking Zones, permit prices and so on) to ensure that the policy framework continues to support our transport objectives on an ongoing basis. And on the planning side, our policies have been at the forefront of ensuring genuinely sustainable developments. We will continue to monitor and update those policies, including supplementary planning guidance documents, to reflect the CTS aims and objectives.

- 4.49. Section 4B of this Delivery Plan outlines how the TfL Business Plan will also support our LIP objectives. In addition we will continue to work with other third-party organisations – particularly business organisations (including BIDs), and developers – to deliver public realm and streetscape schemes and other initiatives which assist in transforming our streets to enable walking and cycling and delivering the objectives of this Strategy.
- 4.50. In addition to capital contributions, we will seek revenue-based investments to support delivery of the programme, especially the ‘complementary measures’ initiatives. Details will be provided within each three-year Programme of Investment moving forwards.

(iii) Delivering the Mayor’s priorities at the Borough level

- 4.51. Table 4.1, set out earlier in this Delivery Plan, shows how the MTS core outcomes will be delivered through these CTS Objectives. At the heart of the MTS is the ambition for 80% of all trips in London to be made on foot, by cycle or using public transport by 2041. And to deliver that ambition, the MTS priority is for the Healthy Street approach to be adopted across London, at the local level.
- 4.52. 85% of trips in Camden are already made by sustainable modes (2014/15 to 2016/17 data). But our ambition, as set out in this Strategy, is to go further, supported by a refined set of objectives, policies and actions which explicitly seek to enable walking, cycling and public transport and restrict non-essential motor vehicle journeys.

4G. Risks to delivery of the three-year programme

- 4.53. Table 4.7 overleaf shows the principal risks associated with delivery of the LIP Programme of Investment together with possible mitigation actions for the three-year programme. The risk register summarises the strategic risks identified that could impact on the three-year programme of schemes/initiatives.

Table 4.7: LIP Risk Assessment for three-year programme 2019/20 to 2021/22

Risk	Likelihood			Mitigation measures	Impact if not mitigated
	H	M	L		
Financial					
LIP-formula funding levels are decreased		✓		Continue to set out to TfL, GLA and London Councils the benefits and deliverables of maintaining LIP funding at current levels	Inability to deliver schemes across the programme within timescales set out in the Programme of Investment, and therefore both the CTS objectives and MTS outcomes
Increasing cost of labour and materials for transport/public realm schemes		✓		High quality tendering for contractors for building of schemes and other resources as required using cost as a key element of awards of works	Escalating costs of schemes leading to inability to deliver the whole programme to budget, or every proposed scheme not being delivered
Limited availability of non-LIP funding sources	✓			Identification of all possible funding sources at a strategic level	The 3-year POI is heavily dependent on match-funding sources for delivery. Failing to secure those funds will lead to reductions in schemes delivered
Statutory/legal					
Legal challenges to implementation of schemes		✓		All schemes to follow due legal process throughout	Time-consuming and costly challenges and potential inability to deliver schemes within the POI
Third Party					
Delays or inability to deliver schemes due to third party decisions outside Camden's control		✓		Effective stakeholder engagement and communications to understand issues on relevant schemes, and implementation of joint mitigations with partners	Inability to deliver (relevant) affected schemes that are heavily dependent on third parties

Public/political				
<p>High levels of public/localised political opposition may impact on deliverability of schemes within the three-year programme</p>		✓	<p>Involving the community, local politicians and stakeholders at an early stage to improve the scheme development and ensure a comprehensive understanding of issues. Widespread consultation on this strategy will help to increase early awareness of schemes and allow the community to provide comments on proposed interventions at a very early stage.</p>	<p>Increased difficulty in delivering schemes within the programme and increased risk of some of LIP funding being returned to TfL</p>
<p>Change in political direction leading to amended aims and objectives – at national, regional or local levels</p>		✓	<p>Three year programme aligns with current MTS Transport Strategy which will continue for duration of current Mayoralty (at least until 2020) and local political priorities set out ahead of 2018 elections</p> <p>This strategy has a strong evidence basis for setting objectives and prioritising schemes, and that robust data will be used to continue to justify the programme</p>	<p>Inability to deliver programme</p>

4H. Annual programme of schemes and initiatives (2019/20)

4.54. The annual programme of schemes has been completed and submitted to TfL via the Borough portal. The programme of schemes will be updated annually.

4.55. The prioritisation method to identify Area-wide Healthy Streets projects and Borough-wide measures was outlined as part of the commentary on the three year Programme of Investment. The 2019/20 programme largely contains funding to complete the implementation of projects prioritised and developed during the previous 'LIP2' period, and therefore the new prioritisation methodology will apply to schemes from 2020/21 onwards.

4.56. For 2019/20, the following schemes are identified for funding:

(A) Area-wide Healthy Streets Projects (HSP)

(i) Canteloves and Camley :

Table 4.8: Scheme cost/funding source contributions for Canteloves HSPHSP

	LIP (19/20)	S106	Parking Surplus	Other	Total
Allocation	£90,000	£0	£0	£0	£90,000

Feasibility work for this scheme is currently taking place in 2018/19, seeking to address concerns expressed by residents about 'rat-running' traffic and prevalence of unsuitably large vehicles using local streets, in an area bordered by York Way to the north, Camden Road to the west, and Agar Grove to the east/south.

Proposed measures will include improving permeability for cyclists through the area, upgrading crossing points, and restricting through-traffic movements where feasible. Consultation is expected in March 2019 allowing time for consideration of responses and implementation of recommended schemes, if approved, in summer 2019.

(ii) Gospel Oak HSP:

Table 4.9: Scheme cost/funding source contributions for Gospel Oak HSP

	LIP (19/20)	S106	Parking Surplus	Other	Total
Allocation	£45,000	£73,000	£0	£0	£118,000

Following implementation of schemes in prior years, the Gospel Oak HSP will conclude in 2019/20 with implementation of junction improvements at South End Green/Pond Street junction, including pedestrian and public realm improvements and

amendments to bus facilities. Consultation is expected in spring 2019 allowing time for consideration of responses and implementation of recommended schemes, if approved, in summer 2019.

(iii) Kilburn area HSP:

Table 4.10: Scheme cost/funding source contributions for Kilburn area HSP

	LIP (19/20)	S106	Parking Surplus	Other	Total
Allocation	£465,000	£230,000	£75,000	£920,000*	£1,820,000

*Low Emission Bus Zone bus priority measures and contributions from LB Brent, both TBC

The Kilburn Area Healthy Streets Project has now been split into two phases where the first phase consists of a revised high road scheme and the second is to be developed as part of a Liveable Neighbourhoods Bid.

Phase 1 encompasses the essential aspects from the previous Kilburn High Road scheme, such as footway widening and improved cycling facilities where possible. Proposals also include the introduction of one-way traffic working at the western end of Maygrove Road and a filtered permeability road closure at the junction of West End Lane and Abbey Road. Traffic modelling is currently being finalised with TfL and public consultation on the scheme is due to be undertaken later in 2019.

A Liveable Neighbourhood's bid was submitted in November 2018 to complement Phase 1 where supporting measures are proposed in the surrounding areas to Kilburn High Road. The proposed interventions include contraflow cycling on all one-way streets, a Healthy School Street along Kingsgate Road and a Healthy Route connecting Kilburn High Road with West End Lane. The Healthy Route will also provide a valuable link between the northern section of Kilburn High Road which will have good quality cycling facilities and connect this section up with future proposed routes such as Quietway 3 and further afield to CS11.

(iv) Farringdon area HSP:

Table 4.11: Scheme cost/funding source contributions for Farringdon area HSP

	LIP (19/20)	S106	Parking Surplus	Other	Total
Allocation	£210,000	£180,000	£75,000	£0	£465,000

Previous financial years provided funding through the LIP and s106 contributions for phases 1 and 2 of the Farringdon HSP. The final phase, phase 3, will consult on options for significantly improving cycling facilities on Grays Inn Road between Harrison Street in the north, and High Holborn in the south, as well as further improvements for pedestrians and buses. Improved conditions for cycling will also

contribute to the Cycling Action Plan 'Primary Cycle Network' identified on this corridor. Consultation on the scheme is scheduled for 2019 leading towards implementation later on in 2019/20 financial year, subject to the necessary approvals.

(B) Borough-wide schemes

The Borough-wide schemes in 2019/20 contain funding for both schemes requiring implementation having been developed in prior years, and continuation of on-going projects and programmes, all of which contribute to measures contained in the supporting Action Plans to this Strategy. Details are contained in the table below (4.12). From 2020/21 onwards, as shown in Table 4.5, these schemes will be refined to further reflect those Action Plans:

Table 4.12: Details of Borough-wide schemes and programmes in 2019/20

Scheme/ Programme	Detail
Borough-wide cycle network	Funding has been allocated for the completion of the Prince of Wales Road cycling and walking improvement scheme, including improved junctions and a protected westbound cycle track
Cycle Parking programme	Continuation of Camden's on and off-street residential cycle hangar programme, expected to deliver a minimum of 15-20 cycle hangar units each year, plus numerous 'Sheffield Stands'.
Cycling 'Quick-win' measures	Implementation of quick-win cycling measures including delivery on permeability schemes, conversion of one-way streets to two-way for cycling and other simple improvements. Measures to be implemented throughout the year.
Step-free access study	The lack of step-free access to multiple Tube and rail stations in Camden is an important issue for both residents and visitors to the Borough. In 2019/20 we will commission a study identifying the priority stations for step-free access in the Borough using local factors rather than operational/financial considerations, and use this to help inform future years programmes.
Road Safety Engineering measures	Delivery of measures to assist with Mayor's Vision Zero aspirations including infrastructure improvements at prioritised locations emerging from Road Safety Audit carried out in 2018/19 – including Howland Street and surrounding area, and measures for vulnerable road users in the Fitzjohn's Avenue area. A small allocation has also been included to complete the Tufnell Park junction road safety improvement schemes. Also to include smaller levels of funding to deliver actions to proactively reduce speeds at targeted areas in line with our Borough-wide 20mph limit, and other measures identified in

	the Road Safety Action Plan, including the 'Junction Protection' programme.
School Travel Plan Engineering measures	Dedicated funding stream to deliver engineering measures outside/in the vicinity of schools to both improve road safety and encourage mode shift to walking and cycling in particular. Schemes are identified following requests from schools, and prioritised based on the level of engagement of that school with the STARs school travel planning accreditation system.
Monitoring & feedback	Ring-fenced funding for monitoring of outcomes of schemes and ongoing monitoring of traffic volumes and speeds through screenline/ATC surveys carried out Borough-wide

(C) Complementary Measures

The 2019/20 complementary measures programme includes continuation of Smarter Travel and Behaviour Change programmes previously outlined as part of the 3 year Programme of Investment (see section 4E).

4I. Additional commentary

- 4.57. Delivering our Strategy objectives, and the LIP programme, will be supported by a number of other funding contributions. In particular, in 2019/20 Camden has secured £3.6m of former 'Major Scheme' funding to help complete the transformational West End Project.
- 4.58. The LIP programme will also be supported by s106 and other contributions as set out above, and – as in previous years – contributions from Camden's parking surplus to support implementation of EVCPs and Car Club bays, Disabled bays, Controlled Parking Zone reviews and minor parking/motorcycle parking provisions. Finally we will deliver projects through the Cycle GRID and Bus Priority programmes in 2019/20, including completion of the Midland-Judd corridor, and the Tavistock-Torrington corridor and Pratt-Delancey corridor cycling schemes, subject to consultation/approvals processes.
- 4.59. The previous section for the overall three-year programme set out how the Mayor's priorities will be delivered at the local level, and Proforma A shows how each scheme will meet the high-level MTS outcomes.

4J. Risk assessment for the annual programme

- 4.60. Table 4.13 overleaf shows the principal risks associated with delivery of the LIP together with possible mitigation actions for the annual programme. The risk register summarises the strategic risks identified that could impact on the annual programme of schemes/initiatives.

Table 4.13: LIP Risk Assessment for annual programme – 2019/20

Risk	Likelihood			Mitigation measures	Impact if not mitigated
	H	M	L		
Financial					
Cost increases reducing potential to deliver full schemes		✓		<p>Project costs are reviewed internally on a bi-monthly basis. Where the spend on projects is likely to be under or over the allocated budget then the project is either revised or funding is rebalanced between projects to ensure highest priority projects are delivered.</p> <p>New project management systems have been introduced to help ensure projects are delivered on time and to budget</p>	Inability to deliver schemes across the programme, or all elements of particular schemes, if costs escalate
Limited availability of non-LIP funding sources	✓			Identification of all possible funding sources at a project level, such as discretionary TfL funds (Cycle GRID, Bus Priority etc) as part of feasibility/ optioneering stage of each scheme	Inability to deliver entire scheme(s) to standards set out in this Strategy, or reduced scope of schemes to match available budget
Statutory/legal					
Legal challenges to implementation of schemes		✓		All schemes to follow due legal process throughout. New project management systems being used on all schemes within the programme will ensure those processes and requirements are being met	Time-consuming and costly challenges and potential inability to deliver schemes within the annual programme
Public/political					

<p>High levels of public/localised political opposition may impact on deliverability of schemes within the annual programme</p>	<p>✓</p>		<p>Involving the community, local politicians and stakeholders at an early stage of each project to improve the scheme development and ensure a comprehensive understanding of issues. Schemes in the 2019/20 programme will undergo a thorough feasibility stage including gathering of robust data to help inform the optioneering, consultation and decision-making processes</p>	<p>Increased difficulty in delivering schemes within the programme and increased risk of some of LIP funding being returned to TfL – particularly on schemes with more transformational changes in the programme such as Fitzjohn’s Avenue, Kilburn HSP and Farringdon HSP</p>
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Chapter 5: Monitoring and Targets

5A. Monitoring the delivery of the outcomes of the MTS

5. Table 5.1, (pages 116-118), provides information on the over-arching MTS mode share aim and outcome indicators and Camden's targets for each. Some supporting commentary is also provided in those tables. Those targets have been set for the Borough by TfL in the main, with some additional targets added by Camden that align with our Transport Strategy objectives.
 - 5.1. Where Camden has considered it appropriate, the CTS establishes more ambitious targets and trajectories than those provided by TfL, and these are shown alongside the statutory ones. Specifically, Camden has revised the target and trajectory to deliver measurable outcome 3, a reduction in Annual Vehicle Kilometres. Camden's target is based on an assessment of the anticipated impact of the policies and proposals outlined in Chapter 3 of the CTS, particularly those which aim to deliver Objectives 1, 2, 3 and 6, and the associated Action Plans.
 - 5.2. Camden has also revised the target and trajectory for total vehicle ownership. This is based on an assessment of recent trends in household access to a car in the borough, the planned progress between 2021 and 2041 relative to 2016 to 2021, alongside the impact of policies and measures outlined in this Strategy.
 - 5.3. In responding to the MTS's overarching mode share targets for sustainable transport, Camden has also set stretching targets for active travel. This is represented in Figure 5.1, below, showing change in Camden resident's mode share between 2017 and 2041 – including substantial increases in walking and cycling levels, and a further significant reduction in mode share by car. Together these combine to ensure that by 2041 93% of trips in Camden will be made by healthy, active, sustainable modes – up from 85% currently.
 - 5.4. Air quality is, as set out in this Strategy, a key concern in Camden and particularly the contributions to local pollutants (and carbon dioxide) that arise from road and other forms of transport in the Borough. Figure 5.2, also overleaf, diagrammatically represents the stretching reductions required for NO_x and PM₁₀ emissions in Camden from road transport between the 2013 baseline and 2041, which will also assist in the Borough meeting the World Health Organisation limits for pollutants.

Figure 5.1: Change in Camden residents' mode share, 2017-2041

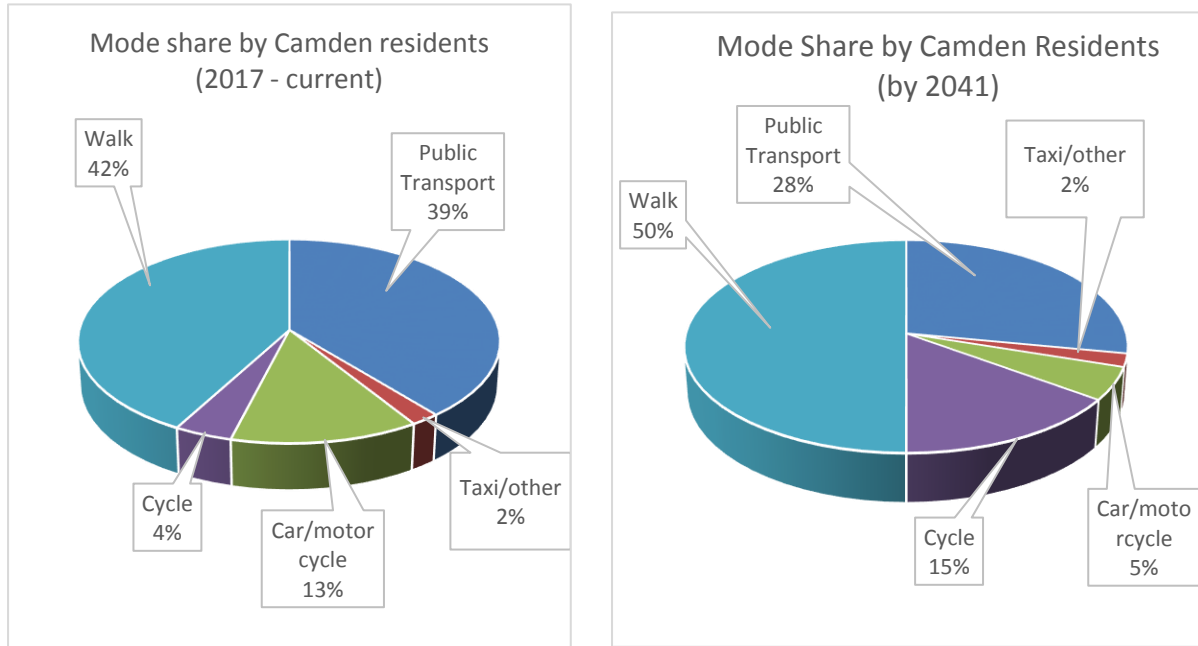
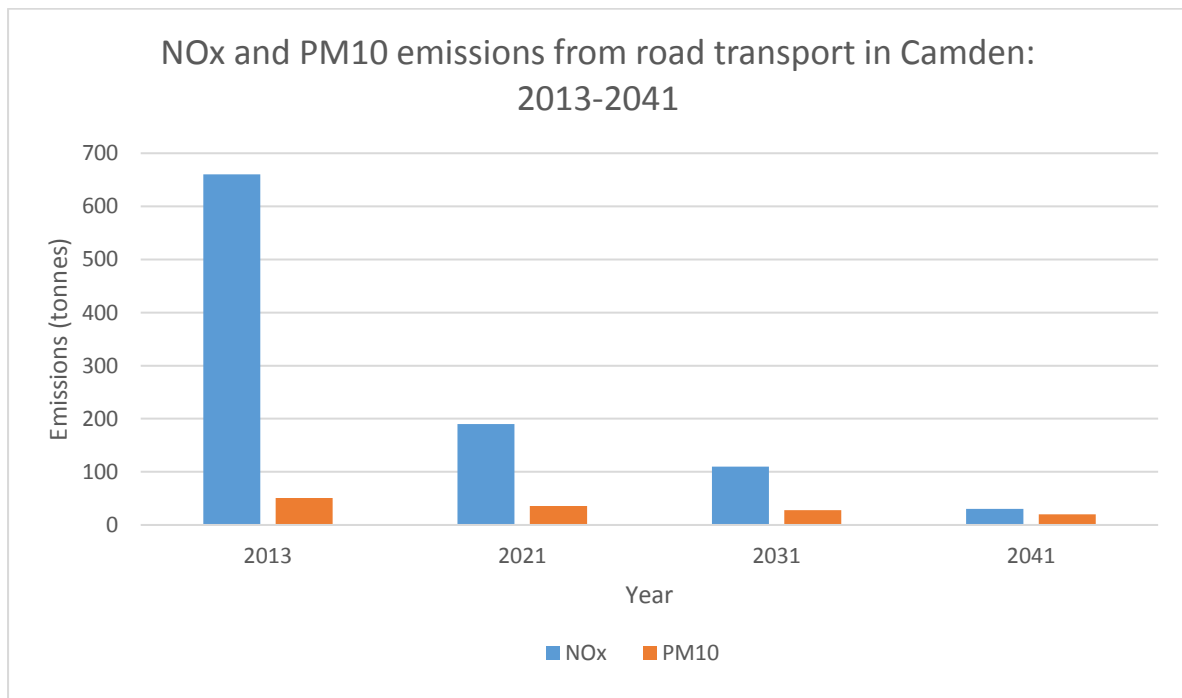


Figure 5.2: Change in NOx/PM10 emissions from road transport in Camden (2013-2041)



- 5.5. Targets for Vision Zero have been revised following TfL's consultation response on the draft CTS. The Metropolitan Police Service (MPS) introduced a new collision reporting system in November 2016 – the Case Overview and Preparation Application (COPA). The City of London Police also moved to the Collision Reporting (CRASH) system in October 2015. This has had a number of impacts on the data that is available to TfL and the London boroughs in the ACCSTATS database for collision investigation.
- 5.6. Under the new systems officers use an 'injury-based assessment', in line with the DfT STATS 20 guidance, and on-line self reporting is available. Both of these changes are expected to provide a better assessment of injury occurrence and severity but have made data collected from November 2016 onwards difficult to compare with earlier data.
- 5.7. TfL commissioned the Transport Research Laboratory (TRL) to undertake a back-casting exercise to enable pre-November 2016 data to be compared with post November 2016 data. These initial back cast estimates include the number of people Killed or Seriously Injured (KSI) for each borough between 2005 and 2017 and this data has been used to update borough targets to align with those in the MTS, namely a 65% reduction in KSIs by 2022 against the 2005-2009 baseline, a 70% reduction in KSIs by 2030 against the 2010-2014 baseline, and zero KSIs by 2041. The targets contained in this final version of our LIP have been set against Outcome 2 for Vision Zero to reflect the reporting changes. The level of ambition remains unchanged despite these revised figures.
- 5.8. The required trajectories for KSI, for 2022 and 2030, are also different to other target trajectories which are 2021 and 2031.

Table 5.1: MTS/Camden Outcome Indicators and Targets

MTS Outcome	Metric	Baseline level/ year	Camden Target/Year			Additional Commentary
			2021	2031	2041	
Overarching mode share aim – changing the transport mix						
Londoners’ trips to be on foot, by cycle or by public transport	Active, efficient and sustainable (walking, cycling and public transport) mode share (by Borough resident) based on average daily trips	85% (2014/15 to 2016/17)	88%	90%	93%	85% of trips in the Borough are already made by sustainable modes. To support the Mayor’s London-wide goal of 80% of all trips being made by these modes by 2041, Camden’s share is required to be higher given existing baseline position and potential for switching of trips in the Borough to sustainable modes
London’s streets will be healthy and more	Percentage of residents doing at least 20 minutes active travel per day	48% (2014/15 to 2016/17)	53%	60%	70%	Targets set for Camden by TfL for Increases in daily active travel align with our transport strategy objectives and measures
Londoners will travel actively	Percentage of population within 400m of a strategic cycle network	0% (2016)	48%	70%	93%	Trajectories based on delivery of planned TfL strategic cycle networks in Camden
Vision Zero – deaths and serious injuries from road collisions to be	Killed and seriously injured casualties	182 (2010-2014)	80 (by 2022)	55 (by 2030)	0	Revised data has been provided to take account of a new system for recording KSIs introduced by the police in 2016. Please see paragraph 5.5 above. The required trajectories are also different to other targets

MTS Outcome	Metric	Baseline level/ year	Camden Target/Year			Additional Commentary
			2021	2031	2041	
Overarching mode share aim – changing the transport mix						
eliminated from our streets						
London's streets will be used more efficiently and have less traffic on them	Annual vehicle kilometres (millions) driven in Camden (all trips) – TfL target	451m (2016)	450m	n/a	360m – 382m	We are expecting based on our policy interventions to achieve a 5-10% decrease in traffic levels by 2021 and a 20-25% decrease by 2041 based on the 2016 baseline. This is higher than the mandated TfL target for Camden, reflecting the ambitious policies and measures set out in this Strategy
	Annual vehicle kilometres (millions) driven in Camden (all trips) – Camden target	451m (2016)	405m – 428m	371m – 394m	339-360m	
	Number of cars owned (TfL mandatory target)	49,762 (2016)	47,600	46,650	45,700	
	Number of cars owned (Camden target)	49,762 (2016)	47,600	43,550	39,500	
London's streets will be clean and green	CO2 emissions (in tonnes) from road transport	159,800 (2013)	129,200	80,600	32,000	Minimum target levels which reflect policies within this CTS, additional measures being implemented by TfL (such as ULEZ and low emission bus fleets) and additional actions arising from the Camden Clean Air Action
	NOx emissions (in tonnes) from road transport	660 (2013)	190	110	30	

MTS Outcome	Metric	Baseline level/ year	Camden Target/Year			Additional Commentary
			2021	2031	2041	
Overarching mode share aim – changing the transport mix						
	PM10 emissions (in tonnes) from road transport	51 (2013)	36	28	20	Plan. The Clean Air Action Plan sets additional targets reflecting the Council’s ambitions to meeting World Health Organisation pollution limits
	PM2.5 emissions (in tonnes) from road transport	30 (2013)	17	13.5	10	
The public transport network will meet the needs of a growing London	Public transport trips per day (000s)	202,000 (2014/15 to 2016/17)	235,000	255,000	276,000	Growth in public transport trips be facilitated through major infrastructure provision, such as Crossrail 2, and trip growth in part reflects our growing population. However overall public transport mode share by residents is projected to fall by 2041 due to projected growth in walking and cycling
Public transport will be safe, affordable and accessible to all	Time difference (minutes) between average journey time using full network and using step-free network	12 minutes difference (2015)	n/a	n/a	5 minutes difference	A reduction in the difference in average journey time between using the full network and step-free network will be achieved through infrastructure upgrades including the Step Free Access to stations programmes
Journeys by public transport will be pleasant, fast and reliable	Bus speeds (mph)	7.1mph (2015)	7.1 to 7.3	n/a	7.4 to 8.1	Targets for 2021 and 2041 represent low-high ranges for this metric set for Camden by TfL

5B. Local targets

5.9. In addition, Camden has developed our own strategic, local targets which are set out in Table 5.2, overleaf. These targets have been developed in recognition of their importance in monitoring and assessing indicators which are not contained in the MTS outcomes but which are important to the seven objectives outlined in this Strategy.

5.10. A particular focus is on vulnerable road user casualties (pedestrians and cyclists comprise the largest proportion of KSIs at 44% and 33% respectively). Figures 5.2 and 5.3 below summarise the reductions in KSIs in Camden (strategic target set by TfL) and overall road traffic casualties (KSIs and slights – our local target) that responds to both the challenge of Vision Zero and the importance, as set out in this Strategy, of reducing all types of casualties from road traffic incidents in the Borough.

Figure 5.2: Camden KSI road traffic casualty reduction targets (MTS strategic target).

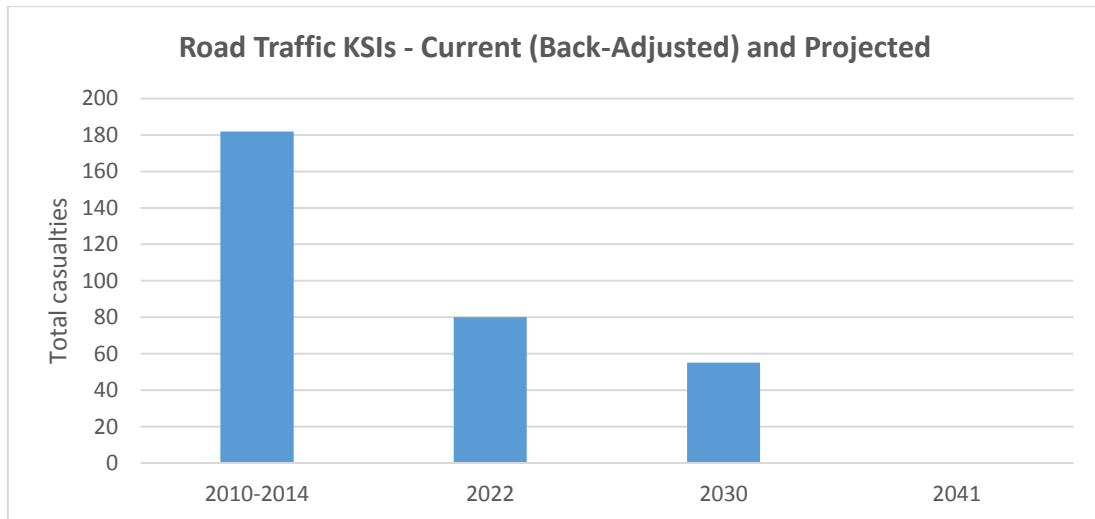
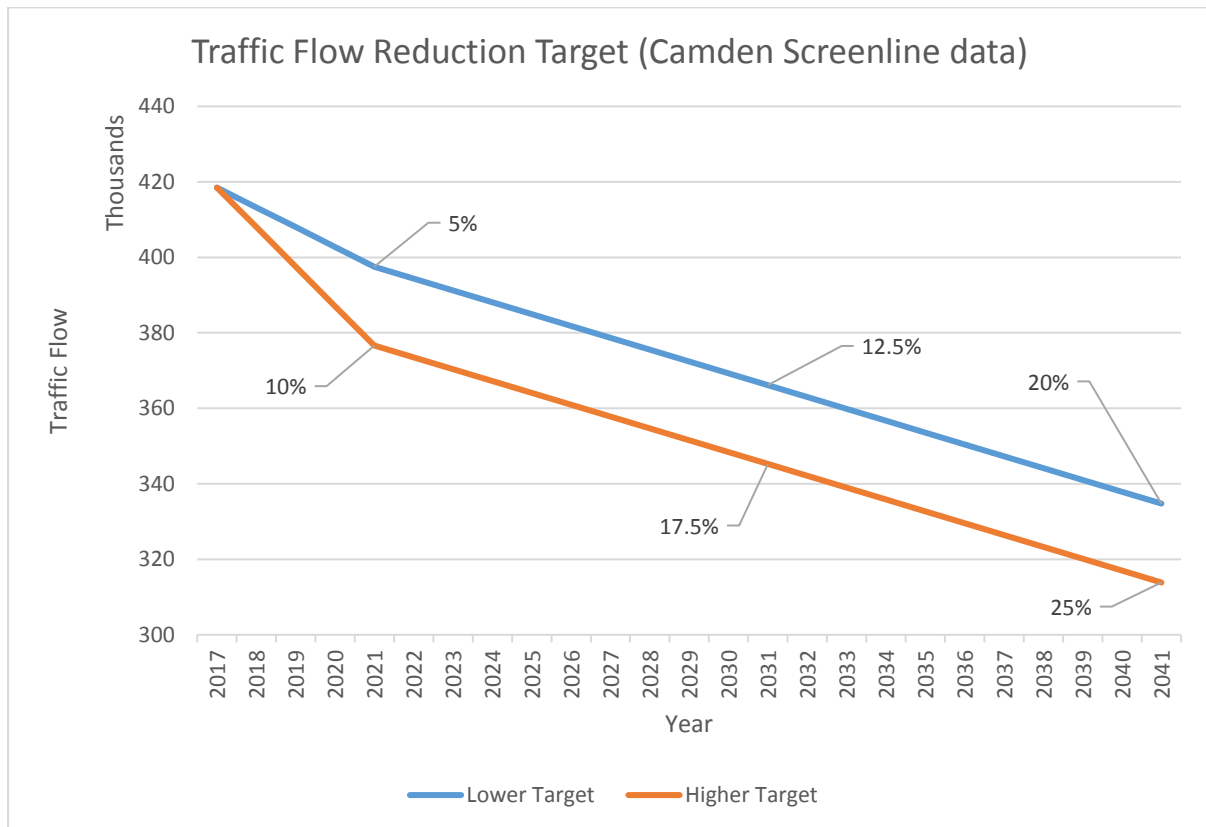


Figure 5.3: Camden total road traffic casualties reductions targets (local target)



5.11. Camden has, historically, collected data across the Borough at multiple count points, on an annual basis, at our Screenline count points (see Figure 2.2 on page 24). We will continue to undertake these surveys annually providing a rich amount of information on traffic flow levels (and types of traffic) passing over the count points, and enabling us to set a target for traffic flow reductions at those sites (as per Table 5.2 overleaf, and Figure 5.4 below). The target figures differ from the strategic target noted in Table 5.1 in that it focuses on just vehicle flows, not km travelled, and furthermore is based on robust data surveyed each year rather than estimates used in some years in the TfL data/target. Assessing both sets of data will enable a comprehensive assessment of traffic levels in the Borough to be undertaken. Under both sets of data the target is to reduce traffic flows/km by a range of 5-10% in the short term (2021) to 20-25% in the long term (2041).

Figure 5.4: Camden (local) target for total traffic flow reductions



5.12. In addition, where appropriate the supporting Action Plans contain targets specifically related to those areas of work (for details refer to each relevant Action Plan), with some of the key targets from those plans also summarised here. The Freight Action Plan, to be produced following this Strategy, will also contain more specific targets as well as contributing to the overall MTS goal of a 10% reduction in morning peak freight transport in central London (congestion charging area) by 2026.

Table 5.2: Camden Local Strategic Targets

Indicator (Source)	Base-line level	Base-line year	Short term target (see details)	Medium term target (2031)	Long term target (2041)
Percentage of residents' trips made by bike (LTDS)	3.6%	2014/15 to 2016/17	7.5% (by 2024/25)*	10%	15%
Percentage of residents' trips made on foot (LTDS)	42%	2014/15 to 2016/17	44% (by 2021)	47%	50%
Percentage of residents' trips made by car (LTDS)	13%	2014/15 to 2016/17	12% (2021)	8%	5%
Percentage of journeys to school made by bike (STARs surveys)	2%	2014-2017	6% (by 2024/25)*	8%	12%
Percentage of journeys to school made by walking/scooting (STARs surveys)	40%	2014-2017	43% (by 2021)	47%	50%
Percentage of schools with STARs accredited Travel Plans (STARs data)	43%	2017	50% (2021)	67%	75%
Total road casualties (KSIs and slights) (STATS19)	1015	2014-2016	743 (by 2021)	403	199
Cyclists Killed and Seriously Injured (STATS19)	22	2014-2016	14 (by 2024/25)*	9	0

Indicator (Source)	Base-line level	Base-line year	Short term target (see details)	Medium term target (2031)	Long term target (2041)
Pedestrian Killed and Seriously Injured (STATS19)	31	2014-2016	25 (2021)	12	0
Motor traffic flows (Camden screenline data)	418,457	2017	Reductions to (and % reduction to baseline): 2021: 397,534 to 376,611 (5%-10%) 2031: 366,150 to 345,227 (12.5%-17.5%) 2041: 334,766 to 313,843 (20%-25%)		
Percentage of households in Camden who do not own a car (LTDS)	65%	2016/17	68% (2021)	76%	83%

**cycle targets have short term target of 2024/25, rather than 2021, in line with end of the first two phases of the Cycling Action Plan, each of which is 3 years in duration ie 2019/20 to 2024/25*

5C. Reporting and Information

- 5.13. An annual report which outlines performance against all the overarching MTS & local CTS targets, and sub-targets set as part of individual action Plans, will be produced. That report will also include progress against the key actions contained within those supporting Plans.
- 5.14. In addition we will monitor and record the outcome indicators as part of reporting on that data to TfL once a year in June using 'Proforma C'.
- 5.15. TfL will provide annual, borough-specific data for monitoring MTS statutory targets such as the London Travel Demand Survey (LTDS). The same data sources will also be used to monitor Camden's local targets for pedestrian and cycle mode share and KSI. Camden manages a School Travel Plan (STP) programme, and STP data will be used to monitor mode share for school journeys.
- 5.16. Camden collects bi-annual screenline data from several cordons around the borough to track changes in vehicle flows and composition, as demonstrated in Chapter 2 and the accompanying Evidence Base. Screenline data will be used to monitor traffic volumes, including cycle volumes, alongside the statutory target for a reduction in vehicle kilometres driven in the borough.

5.17. Camden is currently investigating opportunities to monitor cycle flows on new routes using new, video based technology, which can also be moved around the borough to different locations. It is proposed to use it to monitor cycle flows on Cycle Superhighway 6 (CS6) that runs on borough streets. The technology can also be used to track pedestrian movement, and therefore help inform new transport schemes and how they can support pedestrian desire lines, for example.

Chapter 6: Conclusion

6. In line with the current Mayor's Transport Strategy, this updated Camden Transport Strategy presents both a long term vision for transport to 2041, as well as a shorter term Delivery Plan setting out specific initiatives and measures. Enabling sustainable, active, and healthy travel is at its heart. Policies and initiatives which prioritise and enable walking, cycling and public transport while reducing inessential vehicle use, are key to delivering the Vision of this Strategy.
- 6.1. This Strategy also demonstrates Camden's commitment to continue to play a leading part in efforts to transform the transport system of the capital with bold and innovative action. Our policies and measures will help tackle our transport challenges, and deliver our ambition to create a borough where everyone can benefit from safer, cleaner, more accessible and less congested streets and places, and lead healthier and more active lives.
- 6.2. We will need to work closely with local communities and partners to deliver our Vision for transport in Camden. The ambitious and stretching targets we have set ourselves cannot be achieved by Camden working alone; efforts will include working in partnership with all sectors of the local community, government and external stakeholders, including TfL, the health sector, businesses and employers, bus operators, schools and neighbouring authorities.