

Local Transport Plan 4 (2020-36)

**Reading Transport Strategy 2036** 

Consultation Draft - May 2020



# Foreword, by Councillor Tony Page

This is the most important Transport Strategy that Reading will ever produce. The Climate Emergency is happening now and it is not something any of us should ignore. The new strategy is our most radical yet and reflects the fact that the status quo is not an option.

Over the following pages you can read about how our plans will help to combat the poor air quality polluting some parts of our town and how our policies will help create a net zero-carbon Reading by 2030. It includes schemes some people may find controversial. I make no apology for that. The only way we can hope to tackle the congestion and pollution which blights some areas of Reading is by doing things differently.

Reading has one of the UK's fastest growing economies. It is a major centre for employment, leisure and education in the Thames Valley region and home to many national and international companies. Demand for new homes has never been higher. But with that success come serious challenges in terms of pressure on our transport infrastructure, commuter congestion and poor air quality.

The challenge will only intensify in the coming years with many thousands of new homes being built, particularly just outside of Reading. Many of those people will commute into Reading for work and must be offered attractive and reliable alternatives to the private car. Already up to one in three vehicles on the Inner Distribution Road (IDR) does not even stop in central Reading at peak times, and could take a more direct and appropriate route, avoiding the town centre, if better orbital links were available. It is not acceptable for the many thousands of vehicles and lorries who have no origin, destination or purpose in Reading to continue to use the town as a short cut, causing additional congestion, polluting our air and damaging our health. This document will help tackle that injustice. It is a situation no responsible local authority can ignore.

Our challenge is to successfully absorb the growth in housing, jobs and commuting, whilst protecting the health of residents. Our Transport Strategy to 2036 is a plan to do that. It has been designed following recent phases of public consultation which produced a record number of responses and showed very strong support for a more sustainable future. Thank you to the over three thousand people who helped shape it.

This strategy provides high quality and realistic alternatives to the private car through new and upgraded railway stations, new park and rides and quick, reliable public and affordable transport routes. It includes major new schemes to promote and strengthen public transport links, like a Third Thames Crossing and a new orbital route in the north of the borough. It includes new pedestrian and cycle routes, and the infrastructure to support it. It also includes demand management schemes, to remove the most polluting vehicles from our streets, particularly those with absolutely



no business in Reading. This strategy also outlines how we will work with partners to fund and to help deliver the vision.

We are building on strong foundations. In recent years we have overseen the complete transformation of Reading Station, built Christchurch Bridge, the new pedestrian and cycle bridge over the Thames, and created new park & ride sites at Mereoak and Winnersh. Our investment has resulted in significant increases in sustainable travel in Reading. Bus use is the third highest in the whole country and sustainable travel, including walking and cycling, now accounts for over 75% of trips to and from the town centre.

As you will see, we want to transform travel options in this period by delivering high-quality and realistic alternatives to the private car. This will bring significant benefits for the environment and climate crisis, the health and wellbeing of residents, enable sustainable economic growth, unlock local job opportunities and deliver new homes to the highest environmental standards.

Future travel in and around Reading must be affordable and accessible to reduce the considerable inequalities in our communities. It must improve residents' health and wellbeing, whilst supporting a growing and inclusive economy. We recognise that difficult choices will need to be made to address the climate crisis and improve air quality in our town. Embracing rapidly changing technology and being responsive to innovation will be fundamental to achieve our vision for the town.

This strategy is currently in draft form and is based on feedback from the extensive consultation we undertook last summer. This is a further opportunity for you to help shape the final strategy, to inform the decisions we take and improvements we deliver. This will ensure that together we can achieve a sustainable and prosperous future for everybody in Reading.

We have achieved a great deal, but we have much more to do. This is how we will do it.



#### **Councillor Tony Page**

Deputy Leader and Lead Councillor for Strategic Environment Planning and Transport Reading Borough Council Reading Transport Strategy 2036



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# Executive Summary

## Introduction

The Reading Transport Strategy 2036 is a statutory document that sets the plan for developing our town's transport network to 2036 and beyond. It includes the guiding policies and principles, alongside schemes and initiatives to be delivered, to enable us to achieve our overall vision for a step-change in sustainable travel choices in Reading.

The strategy is focused primarily on improvements within Reading Borough for local residents. However, due to the compact geography of the Local Authority area, it also includes cross-boundary schemes and initiatives within neighbouring local authorities which form part of the wider Reading urban area.

This strategy has been developed in partnership with local residents, businesses and stakeholders through an extensive consultation which was undertaken during summer 2019. It has been informed by an integrated impact assessment, which has considered the impacts of the plan on the environment, health, and equalities issues. In addition to satisfying statutory requirements, this has helped to shape the content of the Reading Transport Strategy in order to maximise beneficial effects for local communities and the environment.

This is a draft strategy for consultation to ensure that you have the opportunity to help shape the final strategy before it is adopted in late 2020.

## **Our Vision and Objectives**

By 2050, we want Reading to be a great place to live, work, study and play. We have formed a vision for our town, by coming together with local businesses, community groups and Reading University to plan for Reading's future. The result is the Reading 2050 Vision, an ambitious description of what Reading can be; a green tech city, a city of culture and diversity, and a city of rivers and parks.

The Reading 2050 Vision identifies key elements for its delivery, including a number in which transport plays a major part. Transport will be critical to enhancing the connectivity needed to facilitate economic growth and enable everyone enjoy the multitude of assets the town has to offer. The way in which we deliver this will be key to low carbon living, and creating the green and healthy spaces to allow our communities to thrive. Technology will support our transport network, facilitating smart and efficient solutions, and maximising the impact that transport can make.

The Reading Local Plan vision, which sets out in more detail a vision for Reading in 2036, but considers the context of the longer-term direction of travel to 2050, is informed by the Reading 2050 Vision.

The Reading 2050 Vision and our Local Plan have informed our approach to delivering the transport elements of the overall vision for Reading,



considering key factors including changing travel patterns and future technology, the climate change emergency, opportunities to enable healthy lifestyles, promote sustainable economic growth and reduce inequalities by ensuring everyone can benefit from the success of our town.

To help us deliver our overall vision for Reading, we have developed a supporting transport vision for this strategy.

"Our vision is to deliver a sustainable transport system in Reading that creates an attractive, green and vibrant town with neighbourhoods that promote healthy choices and wellbeing. Future mobility options will enable everyone in Reading to thrive, enjoy an exceptional quality of life and adapt to meet future challenges and opportunities."

Five objectives underpin our vision, taking into account the future challenges we will face and the opportunities we will embrace:

#### Creating a Clean and Green Reading

Provide transport options to enhance quality of life, reduce emissions and improve air quality to create a carbon neutral town

#### **Supporting Healthy Lifestyles**

Create healthy streets to encourage active travel and lifestyles, improve accessibility to key destinations and increase personal safety

#### **Enabling Sustainable and Inclusive Growth**

Enable sustainable growth and connect communities so that everyone can benefit from Reading's success

#### **Connecting People and Places**

Promote the use of sustainable modes of transport by providing attractive alternatives to the private car, helping to provide a transport network that is fast, affordable, connected and resilient

## **Embracing Smart Solutions**

Use technology to manage the network efficiently and allow informed travel choices, whilst enabling Reading to become a smart, connected town of the future

We are building on success through our significant investment in the transport network in recent years. We have provided new and upgraded transport infrastructure to encourage people living, visiting and working in Reading to use sustainable transport including the major redevelopment of Reading Station and associated Cow Lane Bridges scheme, new Park and Ride facilities at Mereoak and Winnersh Triangle, initial phases of the South Reading Fast Track Public Transport corridor, Christchurch Bridge and the new National Cycle Network route 422.

## **About Reading**

Reading is an important and strategic location in the South East. The Borough was home to around 163,000 people in 2018, with a further 60,000 in the wider urban area. The population of the area is expected to grow over this plan period. Reading is also a major centre of employment, with around 120,000 people working in the Borough. There are more jobs in Reading than workers, so people travel in from other areas to work. The centre of Reading is also a major retail and leisure destination, with The Oracle ranked in the top 50 shopping centres in the UK.

The town's location on both the Great Western Main Line and the M4 motorway makes it a major hub for transport movement. Reading Railway Station is one of the busiest railway stations outside London and marks the western terminus of the Elizabeth Line. Reading also has excellent connections to the international transport hubs at Heathrow and Gatwick Airports. In addition, Reading's location on the Kennet & Avon Canal and River Thames and at the meeting point of several national cycle routes, gives it significance for a variety of other modes of travel. Such connectivity is represented by Reading's status as a regional transport hub, international gateway and a major transport interchange.

Due to our success in investing in sustainable travel options, trips to/from central Reading by public transport have increased by 53%, walking and cycling by 56% and car and taxi trips have decreased by 13% over the last ten years .

## **Challenges and Opportunities**

We have identified seven key transport challenges facing us:

#### Adapting to the Future

We know that we are in the midst of a climate crisis. This, alongside fast changing technological innovation, means the future is uncertain and Reading will need to adapt, through both decarbonisation and accepting the need to travel more sustainably. This will affect the way we travel and transport goods, whilst at the same time provide new and innovative opportunities for society.

#### Improving Air Quality

As a result of the high levels of car congestion and accompanying air pollution in parts of Reading, an Air Quality Management Area (AQMA) has been declared covering the town centre and key corridors into and out of the town. The negative effects of poor air quality are serious: up to 36,000 people in the UK die as a result of air pollution every year. Technologies are developing that are reducing the level of pollution vehicles emit from exhausts, and the UK is shifting towards electric vehicles. However, around 85% of fine particulate pollution from vehicles does not come from traditional fuel types and exhausts, and so a reduction in vehicle usage is the only measure that will improve air quality further.

#### **Reducing Congestion**

Whilst Reading has high levels of bus usage and the main railway station is one of the busiest outside London, a significant proportion of people travelling into or out of the Borough for work travel by car. This makes Reading one of the most congested places in the UK - central Government statistics indicate that Reading has the third highest levels of delays on A roads of any local authority outside London. Due to a lack of alternative strategic north-south connections there are high levels of through-traffic in Reading, which have no origin or destination within the Borough. This adds to congestion in the town centre, on the bridges over the River Thames and along key corridors.

#### Providing Affordable and Accessible Travel for All

Despite economic growth, Reading has seen an increase in the number of areas which fall into the UK's most deprived 10%, from zero in 2010, to five in 2019. The availability, accessibility and affordability of public transport and the provision of walking and cycling facilities are critical to ensuring equality of opportunity and connectivity across the Reading area.

#### **Removing Barriers to Healthy Lifestyles**

Many of our public spaces and streets require improvements to make them more attractive and welcoming, with better provision to encourage more people to choose to walk and cycle, as well as providing greater independence for those who are mobility impaired. Our local pedestrian and cycle networks are extensive, but there are still gaps that cause disconnect, and parts where the route quality needs improvement and priority given to sustainable travel over private car use to support healthy lifestyles.

## Achieving Good Accessibility to Local Facilities and Employment

Within Reading, access to local facilities and employment varies significantly, depending both on the type and the location. It is important that existing local facilities including the Royal Berkshire Hospital and schools are served by highquality, frequent bus services, in order to reduce car travel, and to enhance access to amenities for people who do not own a car. Similarly, the availability of sustainable travel options to employment is important to increase access to employment for all users, including vulnerable groups, and to reduce congestion across the network. New developments have the opportunity to deliver facilities that serve both new residents or employees, and existing communities in the local area, contributing towards a shift to sustainable travel and also increasing social cohesion.

#### Accommodating Development

Economic success and growth in Reading is forecast to continue and substantial house building is planned in both Reading and neighbouring authority areas. Between 2013 and 2036 an additional 2,600 homes are planned to be built each year in the local area and population growth will mean more trips on our network each day. The RTS will help us to deliver our Local Plan as well as those of neighbouring authorities.



#### Planned Annual Housing Increase



## **Our Policies**

Our policies set the guiding principles for our strategy to ensure we will achieve our overall vision and objectives. These policies cover a range of topics including:

- **Multi-modal policies** including development control, equality and inclusivity, the environment and climate change.
- **Public transport policies** including rail, buses, taxis and private hire vehicles, waterways, mobility as a service, shared autonomous vehicles and travel information.
- Active travel policies including healthy streets, public space, walking and cycling, school travel, public rights of way.
- **Demand management policies** to manage travel demand and improve quality of life for residents.
- Network management policies including road safety, parking and enforcement, motorcycles, freight, smart solutions and highway asset management.
- Communication and engagement policies including training and education, incentivisation and public engagement.

## **Our Schemes and Initiatives**

We will implement our policies through the delivery of schemes and initiatives to improve transport in the area and meet our aims and objectives. In accordance with legislation, this Local Transport Plan has been developed so that our transport strategy considers the wider environment and is inclusive of all types of transport users.

Our strategy includes a wide range of schemes and initiatives from localised small-scale enhancements to strategic cross-boundary major schemes, including:

- Demand management schemes, will be an essential element of this overall strategy. We are currently investigating options including, Workplace Parking Levy, Road User Charging, Clean Air Zone and Emissions-Based Charging
- **Major multi modal schemes**, including a Third Thames Crossing, a North Reading Orbital Route and key transport corridor enhancements
- Public transport schemes, including new and upgraded railway stations, Fast Track Public Transport routes, Park and Rides, quality bus corridors, community transport, concessionary travel, Mobility as a Service and demand responsive transport
- Active travel schemes, including strategic and local pedestrian and cycle routes, cycle parking hubs and facilities at interchanges and residential areas and a cycle hire scheme

- Network management schemes, including demand management, road safety schemes, efficiency improvements, intelligent transport systems, electric vehicle charging and smart city initiatives
- Communication and engagement schemes, including marketing, travel information, training, play streets and travel accreditation programme

Christchurch Bridge



## Funding and Implementation

Our implementation plan sets out our indicative delivery programme for future transport schemes and initiatives to 2036. The schemes and initiatives set out in this strategy are not fully funded, therefore we will continue to seek external funding to enable us to deliver the overall strategy.

Funding sources will include grants and private sector contributions and will be supplemented by both capital and revenue Council funding and services delivered on a commercial basis. The implementation of demand management measures will provide an additional revenue stream to invest in and enhance sustainable transport options.

Delivery of the strategy will be split between major schemes, packages of smaller measures delivered through our neighbourhood area action plans, and on-going revenue initiatives.

Our implementation plan will be updated annually to provide a three year rolling delivery programme, which will allow us to adapt to changing technologies, budgets and development proposals.

## **Partnerships and Stakeholders**

Our Strategy is ambitious, therefore it will be critical to work in partnership with key stakeholders to achieve its successful delivery. This will include, but not be limited to, neighbouring authorities, local communities, education providers, public services and businesses to take account of their diverse needs and aspirations when delivering this strategy.

We participate in a number of key formal and informal partnerships to support a joined up, overarching approach to delivery of our key services and future plans. This enables us to lobby for wider transport improvements and funding (for instance the major redevelopment of Reading Station), therefore we will continue to develop



these partnerships throughout the strategy period to achieve the best possible results for Reading and its local communities. Our key delivery partners are:

#### National / Regional

- Central Government including Department for Transport
- Thames Valley Berkshire LEP
- Transport for the South East
- Network Rail
- Highways England

## **Neighbouring Local Authorities**

- Wokingham Borough Council
- West Berkshire Council
- Bracknell Forest Borough Council
- Hampshire County Council
- Oxfordshire County Council
- South Oxfordshire District Council
- Local Parish and Town Councils

## **Transport Operators**

• Train operators including Great Western Railway and South Western Railway

- Bus operators including Reading Buses
- Community transport operators including Readibus
- Reading taxi associations

## Local Community

- Community groups and local residents
- Private sector including local businesses
- Education providers including the University of Reading, colleges and schools
- Public services including the Royal Berkshire Hospital
- Media

## Monitoring and Review

Performance monitoring is key to manage and improve the delivery of our strategy programme. We have identified a number of key performance indicators and targets which set our ambitions to transform travel options in Reading and enable us to measure progress against achieving our overall vision and objectives.

These targets relate to significantly increasing usage of sustainable transport, improving air quality and reducing carbon emissions, improving road safety and improving public satisfaction with travel in Reading. Given the longer-term time-scales of this Strategy, it will be regularly reviewed to ensure it remains current and that it is best placed to respond to future needs and opportunities as they arise.

School Streets Trial (2014) - Geoffrey Field Infant and Junior School & Christ the King Catholic Primary School



## Responding to the Covid-19 Pandemic

This draft strategy was prepared before the Covid-19 outbreak occurred, resulting in the current national and international crisis. We don't yet know how long the current situation will last or what the long-term impact will be on society, the economy, the environment and on people's travel and work behaviour. However, we will need to ensure that the strategy is best placed to support Reading once the crisis is over. We are therefore seeking feedback through the consultation on how we can ensure the strategy is relevant to a post-Covid-19 world and how it can help Reading recover from the current pandemic.

# 1. Introduction

## Purpose

- 1.1 The Reading Transport Strategy 2036 is a statutory document (known as a Local Transport Plan) that outlines the high-level policy and strategy for transport to meet existing and future transport demand in the town to 2036.
- 1.2 This strategy sets out how transport can play its part in delivering Reading's 2050 vision and Reading's Local Plan to 2036, to make Reading a great place to live, work, study and play. It outlines our approach for all types of transport in Reading and seeks to embrace opportunities to adapt to changing travel demands and new technologies. The climate change emergency, enabling healthy lifestyles, social inclusion, sustainable economic growth, increasing productivity and forecast population and housing growth are key factors considered in developing the plan. This document replaces the current Local Transport Plan (LTP) and looks ahead to 2036.
- 1.3 In preparing this plan, we have identified what challenges we need to tackle, and have established a high-level vision and focused objectives, under our five themes: creating a clean and green Reading; supporting healthy lifestyles; enabling sustainable and inclusive growth; connecting people and places; and embracing smart solutions. This has been informed through the

consultation carried out from July to October 2019 which sought the views of residents, schools and businesses. This analysis and consultation has enabled the identification of new schemes, initiatives and policies to transform transport options in the area.

- 1.4 Reading's transport strategies have always been a valuable local platform for jointly developing and communicating our plans and programmes for improving transport with the local community. They have enabled engagement and partnership working with other organisations and key stakeholders including our neighbouring authorities and local and national transport operators. Our strategy is also an important tool to ensure we deliver improvements efficiently and that these achieve best value for money.
- 1.5 Excellent progress has been made in delivering significant transport improvements in Reading since our first LTP was published in 2001. This is evidenced through our annual delivery reports and summarised in the About Reading chapter. This plan builds on our approach and past success, taking our longer-term strategy forward to 2036, in line with our Local Plan which sets the spatial planning strategy for the area.



## **Our Approach**

- 1.6 This plan is prepared in two parts, a Strategy Plan (this policy document) and an Implementation Plan which sets out a threeyear delivery programme and is updated annually. The Strategy Plan is supported by an Integrated Impact Assessment, which includes our Strategic Environmental Assessment, Health Impact Assessment and Equalities Impact Assessment to ensure the impacts of the plan provide positive benefits and meet relevant legislation in these key areas.
- 1.7 Our strategy is focused primarily on Reading Borough. However, due to the compact nature of the Local Authority area, it also includes schemes within the wider Reading urban area.
- 1.8 Given the longer-term time-scales for this strategy, it will be regularly reviewed and evolved to keep it current and to ensure it is best placed to respond to future needs and opportunities as they arise. The evolving strategy will be adaptable to future challenges and new technologies. A key focus of this strategy is to ensure the needs of Reading's growing population and economy are developed in a sustainable way, therefore the strategy aims to provide a vital influence in decisions about where future housing should be located both within and outside the Borough. Growth should be

Figure 1: Reading's Location



directed to places where sustainable travel options can be made more attractive and therefore provide a viable alternative to the private car.

- 1.9 Reading's Transport Strategy 2036 -Implementation Plan (published separately) sets out an annual budget and delivery programme for a three-year period. It will also provide an update on progress with delivering the overall strategy in terms of monitoring against objectives.
- 1.10 Our strategy details our long-term vision for transport in Reading and the transport objectives which support this. Chapter 5 sets out the challenges and opportunities the plan will address. It reviews the current and expected future people movement patterns in and around Reading, and the capacity and quality of the infrastructure and services which support these demands. Schemes to help resolve or embrace these challenges and opportunities are further identified in this chapter at strategic and neighbourhood area levels.
- 1.11 Our transport vision and objectives have influenced the preparation of a set of policies relating to transport modes and themes. Supporting sub strategies provide more detail on the objectives and actions proposed for certain thematic topics, such as walking and cycling, school travel and public rights of way.

1.12 We have set out the likely mechanisms which will enable us to fund our proposals, alongside our approach for ensuring value for money in transport investment, and monitoring arrangements to track our progress.

## **Consultation and Engagement**

- 1.13 Our plan has been developed to ensure that the strategies, decisions and implementation of transport schemes reflect the needs of local residents. A wide range of consultation and engagement has been undertaken with residents and key local stakeholders to allow them to influence and shape the development of the plan.
- 1.14 We consulted with local residents, businesses and key stakeholders through a comprehensive consultation to understand local views to help set the main themes and objectives that underpin the strategy. This included an online survey and information website, public drop-in sessions and workshops with key stakeholders and interest groups. This took place between 29th July 2019 and 13th October 2019. Nearly 80,000 households and 3,800 businesses received a letter drop, direct engagement was held with around 750 people at various events held within the Borough and 2,881 responses were gathered through an online survey.

- 1.15 There was an overwhelming level of public support for the five themes that underpin our Transport Strategy, with 90% of responses expressing agreement.
- 1.16 Sustainable travel is fundamental to each of the five core principles. Increasing public transport patronage is essential to this, and 94% of responses indicated support for extending the public transport network with more frequent services to schools, workplaces and isolated areas, as a means to increase public transport use.
- 1.17 To further promote sustainable travel, significant support was shown towards the implementation of car-free spaces (90%), reallocating road space for sustainable transport (75%), as well as improving the connectivity of the walking and cycling network in Reading (92%).
- 1.18 There was also a significant level of support for delivering demand management measures with 60% of respondents thought a charging scheme would be effective in reducing the number of private vehicles on the road.



## **Evidence Base**

- 1.19 A significant base of evidence has been used to underpin the development of this strategy, using national, regional and local sources of information. We have analysed this data to develop our policies, schemes and initiatives.
- 1.20 There are seven local areas in and around Reading, representing the town centre and the six main transport corridors radiating from central Reading. Information for each area has been considered, including the demographics, movement characteristics, planned and committed development and infrastructure proposals.
- 1.21 We will develop action plans for each area that enable us to identify and prioritise local transport measures for each neighbourhood area that will deliver the best value for money and positive outcomes in respect of our overall strategy vision and objectives. Our approach will also ensure that existing assets are used as effectively as possible and the benefits of upgraded or new infrastructure will therefore be maximised.
- 1.22 Our plans will be progressed in partnership with appropriate neighbouring authorities where these extend beyond our administrative boundaries. These will be shaped by consultation with our partners, stakeholders and local communities.

## Integrated Impact Assessment

- 1.23 The RTS is supported by an Integrated Impact Assessment (IIA) which has been undertaken in tandem with developing the plan. An IIA Report has been published for consultation in tandem with the Draft RTS.
- 1.24 The purpose of the IIA is to identify, assess and address likely significant effects on the environment and likely effects on health and equalities from the emerging RTS. In doing so, the IIA has helped to shape the content of the RTS in order to maximise its sustainability and socio-economic performance.
- 1.25 The IIA incorporates a suite of statutory and non-statutory impact assessments:
  - Strategic Environmental Assessment (SEA)
  - Equalities Impact Assessment (EqIA)
  - Health Impact Assessment (HIA)
- 1.26 These impact assessments have been undertaken in a co-ordinated manner to support development of the RTS. The SEA element of the IIA identifies the likely significant effects on the environment, whilst the EqIA and HIA elements identify likely different impacts on demographics groups and persons with protected characteristics (in accordance with the Equality Act 2010) and on health outcomes respectively. The

HIA element of the IIA was undertaken on a non-statutory basis to support demonstrating compliance with SEA and EqIA requirements relating to the assessment of likely health effects in an integrated manner.

- 1.27 In accordance with statutory SEA requirements, we consulted on our IIA Scoping Report both within the Council and with the Environment Agency, Natural England and Historic England in Autumn 2018. The Scoping Report:
  - Defined an evidence-based suite of key issues which should be addressed in the LTP4; and,
  - Defined an integrated assessment framework to underpin the testing, assessment and refinement of all components within the emerging RTS (objectives, schemes, policies, etc).
- 1.28 Taking account of consultee feedback, the IIA is being undertaken on an iterative basis in tandem with developing the RTS itself. As detailed within the accompanying IIA Report this allowed any uncertainties, issues or mitigation requirements identified during the IIA to be addressed in the Draft RTS. In addition to meeting statutory requirements this iterative process has maximised the sustainability and socio-economic performance of the LTP4.

# 2. Vision & Objectives

## **Our Vision for Reading 2050**

- 2.1 We have formed a vision for our town, by coming together with local businesses, community groups and the University of Reading to plan for Reading's future.
- 2.2 The result is the Reading 2050 Vision, an ambitious description of what Reading can be, with three themes central to Reading's long term success as a smart and sustainable city. These three themes are
  - A green tech city
  - A city of culture and diversity
  - A city of rivers and parks







Source: Reading UK - https://livingreading.co.uk/reading-2050

Our vision for Reading 2050 is "an internationally recognised and economically successful city region, where low carbon living is the norm and the built environment, technology and innovation have combined to create a dynamic, smart and sustainable city with a high quality of life and equal opportunities for all"



- 2.3 Six vision statements were identified to bring the themes together and describe what success looks like. These identified the aim for Reading to be a place that:
  - Shares success to support and enable thriving communities
  - Delivers a real sense of place and identity
  - Thrives on cultural and cross-generational diversity
  - Recognises our heritage and natural assets
  - Embeds technology to deliver innovation and low carbon living for all
  - Welcomes ethical and sustainable businesses who support Reading
- 2.4 The Reading 2050 Vision identifies key elements for its delivery, including a number in which transport plays a major part. Transport will be critical to enhancing the connectivity needed to facilitate economic growth and enable everyone enjoy the multitude of assets the town has to offer. The way in which we deliver this will be key to low carbon living, and creating the green and healthy spaces to allow our communities to thrive. Technology will support this, facilitating smart and efficient solutions, and maximising the impact that transport can make.
- 2.5 The Reading Local Plan vision, which sets out in more detail a vision for Reading in 2036, but considers the context of the longer-term direction of travel to 2050, is informed by the Reading 2050 Vision.







Source: Reading UK - https://livingreading.co.uk/reading-2050

## **Our Vision for Transport in Reading**

- 2.6 This Reading Transport Strategy will help to deliver both the Reading 2050 and Reading Local Plan visions, through an ambitious programme of measures to enable and encourage sustainable travel choices in the town by 2036, with the intent that future transport strategies will continue to support the Reading 2050 vision in the longer term.
- 2.7 In order to achieve our ambitions, we will need to embrace emerging opportunities and our strategy will need to be adaptive to innovation. Travel demand in the future will be affected by changes in technology and wider society. The extent and pace of change is not certain, however it is clear that innovations such as driverless and connected vehicles and new approaches to the provision of transport will bring the potential for historic transport trends to change significantly, and our ambition is for residents of Reading to be at the forefront of benefitting from these opportunities.
- 2.8 Our overarching vision for transport in Reading has been aligned to our wider vision for the town in 2050, our Local Plan, and relevant national, regional and local policies.

"Our vision is to deliver a sustainable transport system in Reading that creates an attractive, green and vibrant town with neighbourhoods that promote healthy choices and wellbeing. Future mobility options will enable everyone in Reading to thrive, enjoy an exceptional quality of life and adapt to meet future challenges and opportunities."



## **Our Objectives**

2.9 Our strategic objectives have been developed as the guiding principles running through this strategy to ensure and set out how we will measure our success in delivering our vision for transport in Reading.



Creating a Clean and Green Reading Provide transport options to enhance quality of life, reduce emissions and improve air quality to create a carbon neutral town



Supporting Healthy Lifestyles

Create healthy streets to encourage active travel and lifestyles, improve accessibility to key destinations and increase personal safety



Enabling Sustainable and Inclusive Growth

Enable sustainable growth and connect communities so that everyone can benefit from Reading's success



Connecting People and Places Promote the use of sustainable modes of transport by providing attractive alternatives to the private car, helping to provide a transport network that is fast, affordable, connected and resilient



**Embracing Smart Solutions** 

Use technology to manage the network efficiently and allow informed travel choices, whilst enabling Reading to become a smart, connected town of the future Our transport vision is supported and informed by wider polices and guidance that: set out how Reading can foster economic growth; become an activity hub in the Thames Valley; improve sustainability in the town; and work in partnership with other authorities to achieve this.

## **National Policy and Guidance**

#### **Industrial Strategy**

2.10 The Industrial Strategy was published by the Government with a vision for making the UK the world's most innovative economy, creating good jobs and greater earning power for all. It identifies that major upgrades to the UK's infrastructure will be needed to make it the best place to start and grow a business, and to ensure communities across the UK are prosperous. To support this, significant investment is being made in terms of transport, and innovation in transport is being encouraged.

#### **National Planning Policy Framework**

2.11 The vision for this strategy has also been informed by the National Planning Policy Framework (NPPF) and supporting National Planning Practice Guidance (NPPG).



- 2.12 The NPPF aims to achieve sustainable development, defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs. It has three interdependent objectives, summarised below:
- Economic: help build a strong, responsive and competitive economy
- Social: support strong, vibrant and healthy communities
- Environmental: contribute to protecting and enhancing our natural, built and historic environment



#### Transport Investment Strategy and National Infrastructure and Construction Pipeline

- 2.13 National transport priorities are identified in the Transport Investment Strategy, which focuses on creating a transport network that meets the needs of all users, growing the economy and supporting additional housing, through value-for-money investment.
- 2.14 The National Infrastructure and Construction Pipeline sets out the Government's investment strategy in relation to infrastructure projects. The Pipeline builds upon the National Infrastructure Delivery Plan 2016-2021 and identifies transport as the sector with the highest number of projects in the pipeline. Investment in transport infrastructure will total 30% of the total pipeline, and just over £10bn has been allocated for Local Authority Transport<sup>1</sup>. It also highlights that just under £70bn of investment is to be made in transport related projects and infrastructure from 2020/21 to 2027/28.

#### Better Planning, Better Transport, Better Places

2.15 The Chartered Institution of Highways & Transportation (CIHT) Better Planning, Better Transport, Better Places guidance (August 2019) sets out a new approach to transport planning and development, recognising that nationwide, car parking and traffic still dominate development despite decades of Government encouraging a more sustainable approach to transport within spatial planning.

- 2.16 The guidance disposes of 'predict and provide' where development and transport infrastructure is planned based on outdated historic patterns and trends. Instead, it introduces an approach where a vision is set, and then development and transport determined to deliver that vision.
- 2.17 The advice aims to support the creation of places that meet the requirements of the 21st century and address the environmental, economic and social challenges that we are facing.

## **Regional Policy and Guidance**

#### Berkshire Local Industrial Strategy

2.18 The Thames Valley Berkshire Local Enterprise Partnership's mission is to enable growth in the sub-region, through implementation of the Berkshire Local Industrial Strategy (BLIS), sustaining the area's status as the most productive sub-region in the UK and supporting the national Industrial Strategy. The BLIS sets out five key priorities to achieve its vision of being 'the best of both global and local', and for Berkshire to 'grow with intent':

- Enhancing productivity within Berkshire's enterprises
- Ecosystems which are maturing and evolving and extend beyond Berkshire
- International trade, connections, collaborations and investment
- Vibrant places and a supportive infrastructure
- Making Berkshire an inclusive area where aspirations can be realised

#### West of Berkshire Planning Framework

2.19 The West of Berkshire Spatial Planning Framework provides a collective and ambitious vision for growth in the region, recognising the need to address the infrastructure deficit to enable the area to fulfil its potential as part of the wider economy of SE England.

#### **Transport for the South East**

2.20 Transport for the South East (TfSE) brings together 16 transport authorities and five Local Enterprise Partnerships (LEPs) to plan strategic transport across the south east of England. It intends to become a statutory body by 2020 and is already working closely with Government. TfSE has developed the Transport Strategy for the South East (Consultation Draft, October 2019) which sets to achieve this key vision:

- 2.21 'By 2050, the South East of England will be a leading global region for net -zero carbon, sustainable economic growth where integrated transport, digital and energy network have delivered a step change in connectivity and environmental quality.'
- 2.22 Through this strategy, TfSE will work with partners and authorities to create a better connected, more sustainable, integrated transport system for the South East which will benefit everyone who lives in, works in and visits the area.

## Local Policy and Guidance

## **Our Local Plan**

2.23 Our Local Plan guides development in Reading up to 2036 and will therefore play a decisive role in how our town evolves. The Local Plan seeks to deliver new homes and employment space in Reading, alongside critical infrastructure to accommodate forecast housing demands and job creation, and to ensure the town remains an attractive place to work, live and study. It also looks to reduce inequality in Reading, improve the environment (both urban and natural), make better use of its heritage assets and expand its role as a centre for arts and culture. 2.24 The RTS will help to deliver our Local Plan and will also, where appropriate, support the delivery of other Local Plans currently in development across the city region.

## Our Climate Change Strategy and Action Plan

- 2.25 The implications of climate change for future generations are predicted to be very significant. Reading has a long-standing commitment to action on climate change and is at the forefront of providing solutions to this global challenge and to take the opportunities that arise in doing so.
- 2.26 We have pledged to aim for a carbonneutral Reading by 2030. We have declared a climate change emergency and we call on the Government to accept moral and ethical responsibilities and to give Reading the additional powers and funding needed to help us achieve our goal.
- 2.27 Transport-related risks of the impacts of climate change include:
  - Damage to transport infrastructure from extreme weather events (for example winds or temperatures)
  - Discomfort to travellers (for example urban heat islands, where temperatures are extremely hot in warm weather)
  - Flooding of parts of the transport network (from either surface water or rivers)

- Prolonged dry periods leading to increased air pollution and lower levels of dispersion
- 2.28 Our Climate Change Adaptation Plan sets out how we will both reduce our environmental impacts that contribute towards climate change, and how we will adapt to address the impacts climate change will have on our town and lives. The plan covers six themes which are:
  - Transport and mobility
  - Water supply and flooding
  - Health
  - Natural environment and green spaces
  - Energy and low carbon development
  - Purchasing, supply and consumption
- 2.29 These themes are each considered from four different perspectives:
  - Education
  - Adaptation (resilience)
  - Business
  - Community



#### **Our Air Quality Action Plan**

- 2.30 The Environment Act 1995 introduced a statutory duty for Local Authorities to review and assess the air quality in their districts, and where problems exist, to formulate an action plan to improve the situation. Air quality is assessed against UK Air Quality Objectives (AQO), which are target levels of each pollutant based on their effect on human health. Our air quality monitoring and modelling identified a number of areas close to busy roads that did not meet national air pollution targets, and because of the Borough as an Air Quality Management Area (AQMA).
- 2.31 We have also prepared an Air Quality Action Plan (AQAP) identifying measures which will improve air quality across the Borough, with a particular focus within the AQMA.
- 2.32 The AQAP recognises that transport is the main contributor to air quality exceedance in Reading and includes details of objectives, policies and actions to achieve these objectives. We are committed to taking action to improve air quality, through identifying areas where levels of local air pollutants exceed air quality objectives and working with partners and the community to reduce pollutants and their impacts on health.

#### **Our Health and Wellbeing Strategy**

2.33 Our Health and Wellbeing Strategy sets out the areas we will focus on to improve and protect the health and wellbeing of people who live in Reading and those who visit. The strategy and associated action plan cover a wide range of topics, including the need to increase physical activity levels through active travel and increase social interaction through improving access to transport.

#### Our Corporate Plan

- 2.34 Our Corporate Plan sets out how we will enable Reading to realise its full potential and ensure that everyone who lives and works here can share the benefits of its success.
- 2.35 The plan is updated every year and outlines our strategy to deliver our vision, whilst recognising the importance of the social and environmental challenges. Recently, this has been against the backdrop of a difficult financial environment, including reductions in Central Government funding and growing demands on key Council services. It covers six key priorities:

- Securing the economic success of Reading
- Improving access to decent housing to meet local needs
- Protecting and enhancing the lives of vulnerable adults and children
- Keeping Reading's environment clean, green and safe
- Promoting health, education, culture & wellbeing
- Ensuring the Council is fit for the future



# 3. About Reading

## **Reading Borough**

- 3.1 Reading Borough cannot be viewed in isolation from its wider context. The Borough itself forms the core, but not the whole, of the urban area that is generally considered to constitute Reading. Figure 1 (page 13) shows how the urban area centred on Reading extends beyond the Borough boundaries and into West Berkshire and Wokingham. For instance areas, such as Calcot, Purley-on-Thames and parts of Tilehurst are located in West Berkshire, and Woodley and Earley are in Wokingham.
- 3.2 In a wider sense, the Reading urban area in many ways functions as a single 'city region' with the nearby towns of Wokingham and Bracknell. The relationship to South Oxfordshire is different, in that the Borough boundary currently forms the edge of the urban area, however there is still a significant level of demand for travelling between the two areas. Whilst Reading is bordered by Wokingham in the south, there are also significant movements between Reading and Hampshire, particularly Basingstoke and Winchester.
- 3.3 Reading Borough itself was estimated to be home to 163,203 people in 2018<sup>2</sup> and around 233,000 in the greater Reading area. The population is set to rise by a further 8.7% by 2036<sup>3</sup>. Whilst, in common with most areas, there is an ageing population, Reading

nonetheless has a younger population profile than many of its neighbours. Given the urban nature of Reading, it is unsurprising that it **ranks fourth in the South East for population density**, with 4,040 people per square kilometre<sup>4</sup>.

3.4 Reading is a major centre of employment, with approximately 120,000 people working in the Borough<sup>5</sup>. There are **more jobs in Reading than workers**<sup>6</sup>, which means there is a significant demand for traveling into Reading from other local authority areas,

Figure 3: Movement of Workers to, from and within Reading





as shown in Figure 3, placing strain on the transport network and impacting the wellbeing of residents within the Borough. This reflects the economic success of the town, which functions as the centre of the Thames Valley, one of the most economically dynamic regions in the country.

- 3.5 Reading is a hub for a variety of businesses, including ICT, professional services and pharmaceuticals. The attraction of Readina is enhanced by a workforce that ranks within the UK top 10 for qualification levels and productivity<sup>7</sup>. At the same time, the town also hosts a number of industrial activities. and has an increasing role within the logistics sector. One in nine jobs in Berkshire are digital technology specialist jobs<sup>8</sup>. Many of these businesses rely on the high level of skills in the area, and there are strong relationships with the University of Reading and other higher education providers in the area. However, despite the overall economic buoyancy, there are pockets of deprivation within the urban area where there are high levels of unemployment which is a key challenge this strategy seeks to address.
- 3.6 The centre of **Reading is a major retail and leisure destination, with The Oracle ranked in the top 50 shopping centres in the UK**<sup>o</sup>. Reading is also home to the University of Reading and Reading College. A large percentage of the local working population are highly skilled, ranking as 8th highest

The Oracle



amongst 63 sample UK cities for working age population with high level qualifications<sup>10</sup>. The University of Reading is renowned for world-class research, particularly in the areas of health, environment and food security. It also has one of Europe's leading business schools and a recently established science park.

3.7 Reading ranks highly from an economic perspective; it has the 11th highest employment rate, the 3rd highest average weekly earnings and a labour force where 24% of all jobs are within knowledge intensive business services, the highest percentage in the UK<sup>11</sup>. Reading significantly benefits from a relationship between the availability of highly skilled workers and a network of highly skilled businesses. The

Thames Valley region also has the highest levels of productivity in the UK outside of London<sup>12</sup>.

- 3.8 Reading is a place with huge potential, second only to London for wages; it has above average economic productivity and rates of employment. Despite this economic success, Reading has some of the most deprived neighbourhoods in the whole of the Thames Valley, which are often masked by statistics at Borough and even ward levels. High costs of living and housing have contributed to Reading being identified as the 4th least equal city in the UK13, indicating that many residents are not benefitting from the town's success. We are committed to reversing this trend and ensuring all residents have the ability to benefit from the town's success.
- 3.9 Reading has seen an increase in the number of LSOAs (Lower-layer Super Output Areas) that are within the UK's most deprived 10%, from none in 2010<sup>14</sup>, to 2 in 2015<sup>15</sup> and to 5 in 2019<sup>16</sup>. Deprivation statistics consider income, employment, education, barriers to housing and services, health, living environment and crime, many of which are factors that transport either contributes towards or is affected by. The availability, accessibility and affordability of public transport and the provision of walking and cycling facilities are critical to ensuring equality of opportunity and connectivity across the Reading area.

## The Wider Urban Area and Strategic Transport Connections

- 3.10 Reading is situated within a wider area that includes Wokingham and Bracknell which functions as a city region: a densely populated urban area with a regional centre, sub regional hubs, major business/ science parks and large suburban areas. This region currently encompasses the existing urban areas and planned development areas, and is expected to expand as additional development is identified at the edge of the existing region.
- 3.11 The area forms a natural economic cluster which is **forecast to be the UK's fastest growing economy during 2018-2021**, with Berkshire contributing £37.8bn GVA per annum<sup>17</sup>. The region straddles four administrative boundaries over 200 sq. km, sitting at the centre of the Reading travel to work area; and the housing, labour and commercial market areas, shown in Figure 4.
- 3.12 Reading is the main town within the region and is a major population and employment centre within the South East, with a workday population of 165,005. When considering the wider city region, the workday population is 401,824, comprising Reading Borough itself, and a further 126,524 people in part of Wokingham Borough, 83,753 in part of Bracknell Forest and 26,542 in part of West Berkshire<sup>18</sup>.

Figure 4: City Region, Travel to Work Area, Housing, Labour and Commercial Market Areas



3.13 Reading's location on the Great Western Main Line and the M4 motorway makes it a major hub for regional and national transport movement. Reading Railway Station is one of the busiest railway stations in the UK outside of London and marks the western extent of the Elizabeth Line. In addition, Reading's location on the Kennet & Avon Canal and River Thames and at the meeting point of several national cycle routes, connecting to London, Wales and the Isle of Wight via Southampton, gives it significance for a variety of modes of travel.

3.14 Reading benefits from close proximity to London and Heathrow Airport, alongside excellent links to national rail and road networks. There is ongoing significant investment in the national transport network in the area, with schemes coming forward



including the Elizabeth Line, the Western Rail Link to Heathrow and railway line electrification, as well as the M4 Smart Motorway scheme and planned expansion of Heathrow Airport.

- 3.15 The local road network within the area includes the A33, A4 and A329(M) which form part of the national Major Road Network. These roads are important in Reading, as they provide links to the wider strategic network. In particular, the A33 provides a link between the M3 motorway to routes north of Reading that connect to the M40 and is therefore used heavily by vehicles travelling through Reading.
- 3.16 Such connectivity is represented by Reading's status as a regional transport hub, international gateway and a major transport interchange as shown in Figure 5.
- 3.17 Whilst this excellent access to wider strategic networks provides many advantages to Reading and local residents, it also creates significant demand for travel in to and through the Borough. Despite having the third highest bus use in the country Reading remains one of the most congested towns in the UK, with car congestion in the area causing the third highest levels of delays in any local authority outside London<sup>19</sup>.

M4 Junction 11



3.18 Reading is the seventh highest ranked city in the UK for inward investment<sup>20</sup>, and the sixth most productive<sup>21</sup>. Reading was also ranked second out of the UK's top cities for good growth, considering a number of factors including economic performance and transport connectivity<sup>22</sup>. Figure 5: Existing Strategic Transport Connections





- 3.19 Economic success and growth in Reading are expected to continue and substantial house building is planned in both Reading and neighbouring authority areas. Major new development is proposed in central Reading, south Reading and at the edges of the Reading urban area within neighbouring Wokingham, West Berkshire and South Oxfordshire authorities, as well as in Bracknell Forest further east.
- 3.20 Between 2013 and 2036, Reading's Local Plan commits to the delivery of 15,847 homes – an average of 689 per year. Accounting for emerging Local Plans for neighbouring Local Authorities, this increases to a total requirement of approximately **2,600 homes per year** across the city region. Figure 6 shows the planned annual increase in housing numbers in Reading and surrounding Local Authorities<sup>23</sup>.
- 3.21 The need to manage the increased demand this growth will have on the local transport network and mitigate the potential negative impacts for local residents is a significant challenge that this strategy seeks to address. We will do this by providing a high-quality, efficient and connected transport network that prioritises walking, cycling and public transport trips to manage the additional forecast trips. It will be important to encourage sustainable travel to manage growth by providing high-quality alternatives to the private car.

Figure 6: Planned Annual Housing Increase



## **Environmental Considerations**

3.22 Across Reading, there are environmental constraints that will influence where we deliver our schemes, and how they are designed. Figures 7 to 10 show the flood risk,

heritage, ecology and landscape constraints within and surrounding the Borough. These constraints will be taken into account in the development and delivery of all physical infrastructure schemes, which will also be supported by relevant technical information and assessments. Figure 7: Environmental Constraints - Flood Risk





#### Figure 8: Environmental Constraints - Heritage



Figure 9: Environmental Constraints - Ecology





Figure 10: Environmental Constraints - Landscape



# Current Travel in Reading and the Wider Urban Area

#### Walking and Cycling

- 3.23 Walking is not only a travel choice but also forms part of most journeys taken by other means of travel, as people must, for example, get to and from a car park, bus stop or railway station.
- 3.24 Walking and cycling also offer health benefits, both in terms of the physical benefits of active travel and through increasing opportunities for social engagement. There is clear evidence that the environment in which people live has a significant impact on health and wellbeing. It has both direct health benefits, and an impact on people's attitudes, behaviours and perceptions of their environment. For instance, reducing air pollution can improve perceptions of safety and promote outdoor physical activity and social interaction<sup>24</sup>.
- 3.25 It has also been demonstrated that good neighbourhood design (in terms of walkability and mixed land use) has positive impacts on health and wellbeing, through increasing opportunities for social interaction and active travel, and helping to promote healthy behaviours<sup>25</sup>. Neighbourhood and street layouts should be designed to allow for pedestrian and cycle connections within

and between neighbourhoods, encouraging healthy lifestyles<sup>26</sup>. Physical activity, such as walking and cycling, has been shown to improve mental health, particularly in terms of self-esteem, mood and depression, as well as dementia<sup>27</sup>.

- 3.26 Mental health issues are common in the UK, with approximately 33% of people experiencing a mental health problem each year<sup>28</sup>.
- 3.27 Creating an attractive environment where people feel safe to walk and cycle has the potential to lead to many positive health outcomes. Benefits include increased mobility, physical activity levels, greater social interaction, reduced BMI and reduced risk of injury. We can achieve this through delivering improved infrastructure prioritising pedestrians and cyclists, such as segregated facilities, traffic calming measures, and public space improvements.
- 3.28 Furthermore, the provision of open and green space, high quality public transport and improved air quality have been demonstrated to lead to increased physical activity, improved cardiovascular outcomes, and increased social interaction, among other health benefits<sup>29</sup>.

Thames Path, Caversham



Cycle Signage





3.29 A large proportion of people in Reading walk to and from work, as shown in Figure 11, however, there is scope to increase the number of walking and cycling trips. Our Local Cycling and Walking Infrastructure plan sets out how we will increase the number of walking and cycling trips into the town centre within a 2km and 10km radius respectively. There is also scope to increase trips within local or adjoining areas such as those made to local facilities and services including local centres, schools, healthcare, leisure centres and libraries.

Figure 11: Walking Mode Share



Figure 12: Cycling Mode Share



- 3.30 Cycling levels in Reading are slightly above the national average. However, other urban areas, such as those who have been provided significant Central Government funding through the Cycling Ambition Cities programme, have demonstrated the significant potential of increasing cycling mode share when supported by significant investment. In addition, there is significant opportunity to increase commuter cycling trips from the wider urban area due to the compact and relatively flat nature of much of the town.
- 3.31 Whilst there is a good network of radial cycle routes within Reading, there are limited orbital connections and some areas are not accessible via any dedicated cycle routes. In the wider city region, the new National Cycle Network route (NCN 422) will link Newbury to Ascot via Reading, Wokingham and Bracknell; however further cycle improvements are needed to better connect the wider city-region and suburban areas, including proposed development sites. Cars dominate key corridors into and out of Reading making both walking and cycling less attractive due to poor air quality and limiting the space available to provide for sustainable travel. Investment has been made in walking and cycling schemes to improve local connectivity within the town, as well as strategic connections across the city region.


#### Public Transport - Rail

- 3.32 Existing rail lines runs east-west and northsouth through Reading, with frequent services from Reading Station providing fast links to London, the West, Wales, South West, South Coast, Gatwick Airport, the Midlands and North of England. Interchange at Hayes Station currently provides rail access to Heathrow Airport from Reading.
- 3.33 Reading Station is **one of the UK's busiest railway stations and currently caters for around 17 million passengers** (and a further 4 million interchanging passengers) every year, with passenger numbers increasing annually<sup>30</sup>. The upgrade of Reading Station, completed in 2015, has relieved previous capacity constraints and allowed us to secure ongoing sustainable economic growth in Reading, providing further redevelopment opportunities.
- 3.34 Reading is planned to benefit from significant investment in the following strategic rail schemes:
  - The Elizabeth Line, stopping services are now operating between London Paddington and Reading and the scheme will be completed in 2021 to provide direct services into Central London and across to the east side of London

- The Western Rail Link to Heathrow will provide direct access to Heathrow Airport from Reading and is planned to be completed in 2027
- The high speed rail line (HS2) will reduce journey times from London to the Midlands and the North via an interchange on the Reading to Paddington line at Old Oak Common, enhancing connections from Reading to the rest of the UK. The first section is planned to open in 2026

## Public Transport - Bus

3.35 We have supported investment in buses for a number of years, including through delivery of bus priority and dedicated infrastructure, for example at the M4 junction 11, along the A33 and at Park and Ride facilities, at Mereoak and Winnersh Triangle. This investment has been further reinforced with significant investment from Reading Borough Council, owned Reading Buses in prioritised customer service, new technologies and environmentally friendly vehicles.

- 3.36 Reading Buses offer free Wi-Fi, on-board charging for mobile devices, smart ticketing, real-time rail information on buses that link with Reading Station, audio and visual displays and GPS tracking for real-time information. Reading Buses has reported a 48% increase in bus use since 2009, since it began sharing open data<sup>31</sup>.
- 3.37 **Reading Buses' fleet is one of the most environmentally friendly in the country**, with 72% of the fleet are hybrid, gas powered, or meet Euro VI emissions standards<sup>32,33</sup>.

Figure 13: Proportion of Reading Buses' Fleet Meeting Euro Emissions Standards



- 3.38 Bus use per head of population in Reading has increased since 2010 by 24% and Reading now has **the third highest level of bus use in the country**<sup>34</sup>. This has been against a backdrop of national decline (-11.4% across England), and a decline of 0.5% in the South East overall, as shown in Figure 15. Few places have similarly bucked the long-term trend of decline in bus use.
- 3.39 Whilst Reading benefits from frequent, high quality bus services delivered by one of the most successful bus companies in the UK, and supported by Reading Borough Council, neighbouring areas of the southeast are not so fortunate. Services in out-oftown areas are prone to delays on the road network from car congestion due to high car usage and resulting in lower levels of bus passenger journeys per head of population for commuter trips travelling to Reading from outside of the Borough.
- 3.40 Some neighbouring areas have amongst the lowest bus use figures nationally and therefore a large proportion of people travel from these areas into Reading by car.

Figure 14: Bus Mode Share





Figure 15: Bus Use in Reading



# Road

- 3.41 The M4 motorway runs east to west just south of Reading, with three junctions offering access to the city region. The M4 Junctions 3 to 12 Smart Motorway scheme will increase capacity on this road.
- 3.42 There has been a huge shift in the town's economy, from its origins in 'beer, biscuits and bulbs', to a compact service economy which specialises in business and insurance

services, home to the largest concentration of information and communication technology corporations in the UK. The Thames Valley generates some £37.8 billion per annum in output<sup>35</sup> and is the highest outside of London in regard to GVA per hour worked<sup>36</sup>.

3.43 A high proportion of people in the wider city region continue to drive to and from work and schools, with the **average annual delay to drivers in Reading more than twice England's average**<sup>37</sup>.

- 3.44 **The average car commuter in Reading spends 26 hours a year in congestion during peak hours**, with a total estimated cost of £75 million<sup>38</sup>.
- 3.45 **Reading car commute times have increased by 46% between 2007 and 2016**<sup>39</sup> and a survey recently undertaken by RBC showed that 93% of local businesses that responded believe congestion affects productivity<sup>40</sup>.
- 3.46 The additional network capacity provided as part of the Smart Motorway scheme is needed as Reading's road network can become crippled when incidents or closures occur on the M4, or other major roads into/ out of the town centre. It is vital that we continue to build resilience into the network to enable the transport system to continue to operate efficiently during such periods of disruption as the town continues to thrive and grow.
- 3.47 The ability to continue to attract inward investment while reducing environmental impacts in Reading depends on managing the transport network and providing sustainable transport facilities as demand for travel grows. This will require sustained investment across the transport network so that Reading and the Thames Valley area can continue to thrive.

# **Building on Our Success**

- 3.48 We have made significant investment in the transport network in recent years. During this time, significant levels of investment have been secured to provide new and upgraded transport infrastructure and encourage people living, visiting and working in Reading to use sustainable transport options.
- 3.49 We have an excellent track record of successfully securing external funding to deliver improvements to the transport network in Reading. This includes over £25 million from the Department for Transport's Local Sustainable Transport Fund, which enabled us to deliver a programme of sustainable schemes including Christchurch Bridge and Mereoak and Winnersh Triangle Park and Rides sites: over £40 million from the Thames Valley Berkshire Local Enterprise Partnership to help deliver a new railway station at Green Park, and initial phases of the South Reading Fast Track Public Transport corridor scheme, Thames Valley Park & Ride (in partnership with Wokingham Borough Council), upgrades to Reading West Station and Theale Station (in partnership with West Berkshire Council), and a new cross-Berkshire National Cycle Network route.
- 3.50 Reading has been at the forefront of delivering innovative technology schemes including the recent Smart City Clusters and ADEPT Live Lab projects.



Mode	2008/9/10 Average Total Trips	2017/18/19 Average Total Trips	% Change
Walk	66,759	67,686	+1.4%
Cycle	5,773	8,913	+54.4%
Bus	45,942	60,865	+32.5%
Train	37,523	45,147	+20.3%
Car & Taxi	67,051	58,506	-12.7%

#### Figure 16: Town Centre Cordon Count Results



- 3.51 Reading has also been involved in EUfunded projects researching the application of sustainable transport initiatives and sharing best practice.
- 3.52 Progress in delivering our transport strategy objectives has been monitored annually since 2008 conducting a 12-hour survey on the number of trips made into and out of the town centre by each mode of travel. Whilst the results are to an extent subject to weather conditions on the survey day, the historical data, as shown in Figure 16, is a useful indicator that there has been an overall increase in the number of trips being made into and from the town centre. Significantly there is a continuing upward trend in sustainable transport trips against a decline in car trips.
- 3.53 This shift towards sustainable travel has contributed towards generally decreasing levels of  $NO_2$  air pollution in Reading although air quality still remains a significant concern in the town with areas that breach legal limits.

# **Engagement and Initiatives**

3.54 In addition to numerous major projects that we have delivered in recent years (such as those shown in case studies on the following pages), we have also delivered a wide range of initiatives and engagement activities.

Transport Strategy Visioning Consultation, Public Exhibition

3.55 These include air quality measures, such as the installation of 'No Idling' signage at schools, expansion of the Co-Wheels car club in Reading, a significant programme of residential and business personalised travel planning, road safety education and bikeability cycle training in schools and the national school sustainable travel accreditation scheme Modeshift STARS.



# **Active Travel**

#### Recently delivered schemes include:

- Christchurch Bridge
- Reading Station Cycle Hub
- National Cycle Network 422
- London Road Active Travel Improvement
   Scheme
- Forbury Retail Park to Napier Road Active Travel Link
- Church Street Public Space
   Enhancements

- 3.56 We have delivered many significant active travel schemes including Christchurch Bridge and National Cycle Network route 422, alongside a comprehensive programme of local improvements such as numerous new pedestrian and cycle crossing facilities, additional cycle parking at Reading Station, town centre and local centres throughout the urban area, cycle training, road safety education and school and personalised travel planning initiatives.
- 3.57 Much-needed repairs to walking and cycling links in the town have also been carried out, such as the St Laurence's Church wall at the Forbury, where the structural buttresses supporting the wall had blocked the footway since the 1970s. We also refurbished and reopened an underpass under the Great Western Main Line connecting Newtown to the River Thames, reducing severance for residents in the area.





# **Case Studies**



Project Name: Christchurch Bridge Cost: £5.9 Million Status: Completed 2015

Christchurch Bridge was opened in 2015, providing a step-change in pedestrian and cycle provision between Caversham and Reading railway station and town centre, reducing the severance caused by the River Thames and helping to encourage active travel. The bridge also enhances access to green space at Christchurch Meadows for residents in the town centre. It was the first new crossing of the Thames in Reading for almost 90 years. Determining key geometric requirements of the bridge required careful development with attention to architectural concept, buildability and environmental elements. The design incorporates extensive new landscaping, including an area of wetland habitat to achieve flood mitigation and enhance biodiversity, while managing constraints including proximity to adjacent properties. Christchurch Bridge provides a legacy for future generations. The bridge is the first across the River Thames built outside London for 20 years.



Project Name: NCN 422 Cost: £4.2 Million (across Berkshire) Status: Completed 2020 The new National Cycle Network Route 422 will connect Newbury and Ascot, via Reading, Wokingham and Bracknell. The scheme provides better connections for long distance cycle journeys, as well as enhanced facilities for more local journeys within Reading. The section within Reading links to those in neighbouring authorities serving major business parks, local centres, Royal Berkshire Hospital, the University of Reading and schools.

Enhancements include both on and offcarriageway cycle facilities, new crossing points including raised tables and tiger crossings to improve connectivity along the Bath Road, through the town centre and along Wokingham Road.



# **Public Transport**

## Recently delivered schemes include:

- Reading Station Upgrade
- Reading Station Interchanges
- Reading Station Town Centre Enabling
- Cemetery Junction Bus Priority
- Winnersh Park and Ride
- Mereoak Park and Ride
- South Reading FTPT Initial Phases
- 3.58 Public transport has been a key focus for Reading over recent years, and we have delivered several major schemes, including major upgrades to Reading Station and delivery of parts of our South Fast Track Public Transport corridor. In addition, we have carried out a replacement programme for old bus shelters and implemented a Park and Ride services from Mereoak Park and Ride the Royal Berkshire Hospital, Green Park and Reading football matches.
- 3.59 The delivery of bus priority measures in Central Reading and along routes leading out of the centre have helped keep bus

services out of congestion, contributing to the significant rises in bus use mentioned earlier.

- 3.60 We have successfully campaigned for the Elizabeth Line to be extended from Maidenhead to Reading, to provide a direct route from Reading across London. TfL Rail Elizabeth Line services between Reading and Paddinaton began from December 2019 with four trains an hour (six per hour at peak times) running between Reading and Paddington. Following the completion of the entire route, which is scheduled for 2021, passengers will be able to travel through Central London all the way to Canary Wharf and Abbey Wood without changing. The Elizabeth line services also radically improve the local train services within the Thames Valley by providing more regular trains linking Slough, Maidenhead and Twyford to Reading.
- 3.61 In 2015, we opened Mereoak Park and Ride near the M4 Junction 11, which was shortly followed by the opening of Winnersh Triangle Park and Ride two months later. Combined with Madejski Park and Ride, the facilities have provided a cost-effective alternative to private car travel into the centre of Reading. All three sites are served by regular bus services, with Mereoak and Madejski also benefitting from the South FTPT corridor.

#### Bus Interchange at St Mary's Butts



The Great Western Main Line



# **Case Studies**



Project Name: Reading Station Area Cost: £879 Million Status: Completed 2015 Partners: Network Rail

Reading Railway Station underwent a major upgrade, which was completed in 2015.

The works included provision of a new North interchange and remodelling of the southern interchanges to improve public space and enhancing the connectivity and legibility of the area. New platforms were built, along with track layout reconfiguration to remove bottlenecks on the Great Western Main Line and a new rail signalling centre for the Thames Valley. Major work was also carried out on the Great Western Main Line to prepare for electrification.

The works have led to a 125% improvement to through line platform capacity, and a 38% improvement in service performance<sup>41</sup>. The new station has been designed to accommodate the Elizabeth Line and Western rail access to Heathrow Airport

The revitalisation of Reading Station has been a catalyst for major redevelopment in Reading as a whole, including Station Hill and Thames Tower.



Reading's South Fast Track Public Transport (FTPT) corridor scheme has delivered a series of bus priorities measures on the A33 between Reading Town Centre and the Mereoak Park and Ride facility to the south of the M4 junction 11. The scheme is designed to reduce forecast congestion and improve public transport journey times and reliability on this key corridor into Reading, helping to accommodate the increasing travel demands associated with growth by attracting more travel to be made by public transport instead of private car. We have a phased approach to implementation of South FTPT, delivering sections of the scheme as external funding is secured.

Journey times for South FTPT services have reduced by up to 24% from 2015 when Mereoak was opened and these services are now the most reliable in the Reading area. As a result of this improvement, average passenger numbers on these services have increased by 62% from 2015 to 2019.





# Highway, Network Management & Parking

# Recently delivered schemes include:

- Cow Lane Bridges
- Red Route
- A33 Pinch Point Scheme
- Electric Vehicle Charging Infrastructure
- Eastern Area 20mph
- Traffic Signal Upgrades
- Reading Bridge Strengthening

- 3.62 The use of technology in transport in Reading has grown significantly over the last few years, with advances made both in the provision of information (through Variable Message Signs and mobile applications, for example) and through data collection such as the Bluetooth journey-time monitoring system.
- 3.63 Detection infrastructure has been installed at disabled parking bays in Reading, facilitating development of a mobile application that can be used to remotely determine whether disabled parking is available.
- 3.64 Traffic signal upgrades have also been carried out across the majority of traffic signal junctions across the Borough, replacing life expired equipment, installing new low energy equipment and improving the network's ability to respond dynamically to changing traffic flow and pedestrian and cycle movements at crossings.

- 3.65 Reading's transport systems produce a significant amount of data, therefore making best use of this data to optimise the network for all users has been a key priority. This included the securing of DfT funding to apply machine learning to the datasets to not only understand the current operation of the network, but to also predict the near-term future to enhance how Reading deals with congestion, incidents and events.
- 3.66 Several highway and parking schemes have been delivered within the Borough, including safety schemes, schemes to improve public space, and increases to highway capacity. 20mph speed limits have been implemented around primary schools, as well as waiting restrictions and yellow zigzags, and verge and footway parking bans have been implemented in Tilehurst and Southcote. Mobile payment facilities for on-street pay and display parking have also been installed, alongside residents' parking schemes in many areas.





# **Case Studies**



Project Name: Cow Lane Bridges Cost: Included in Reading Station Area works Status: Completed 2019 Partners: Network Rail

Improvement works to the Cow Lane Bridges were completed in 2019, improving travel around Oxford Road and Portman Road. This major upgrade to the bridges has been delivered to enable two-way traffic through both bridges, thus removing a major traffic bottleneck within Reading. The scheme can also accommodate larger vehicles such as buses and lorries. This provides the opportunity to route lorry traffic in the West of Reading away from the Oxford Road, creating a potentially safer and more welcoming environment for residents and businesses in the local area.

An enhanced walk and cycle route has been provided as part the scheme along Cow Lane.

Project Name: Red Route Cost: £250,000 Status: Completed 2019 A Red Route has been implemented in Reading on the 17 bus route along the Oxford Road, through the town centre and along Wokingham Road. This is a no stopping restriction which will keep key public transport services moving, prevent delays for bus passengers and improve safety for pedestrians and cyclists.

There are over 4.5 million trips on the 17 bus route each year<sup>42</sup>, and so the Red Route has provided wide-scale benefit to local residents by improving traffic flow and making public transport more reliable.

This initial trial is intended to be rolled out to other locations across the town where enhanced enforcement will provide similar benefits.





# 4. Challenges & Opportunities

# Introduction

- 4.1 To achieve our overall vision for transport in Reading we have identified the issues currently faced in terms of transport, and future challenges and opportunities that this strategy will need to address, to inform our objectives, schemes and policies.
- 4.2 We have considered:
  - Current travel patterns
  - Existing transport infrastructure
  - Socio-economics and demographics
  - Health, wellbeing and environmental issues
  - Future development and growth
- 4.3 This chapter provides details of the key challenges and opportunities for transport in Reading and considers the whole of Reading Borough, as well as the wider urban area, including parts of Tilehurst and Purley, Calcot, Woodley, Earley and Winnersh, to allow consideration of cross-boundary issues. Our analysis has considered Reading Borough at a strategic level, as well as local issues.

# **Key Challenges**

- 4.4 Seven key challenges for our strategy to address have been identified through detailed analysis of the evidence base. These are:
  - Adapting to the future
  - Improving air quality
  - Reducing car congestion and the negative effects it causes
  - Providing affordable and accessible travel for all
  - Removing barriers to healthy lifestyles
  - Achieving good accessibility to local facilities and employment
  - Accommodating development and delivering the Local Plan



# Adapting to the Future

We are in the midst of the Covid-19 pandemic crisis which is unprecedented in any of our lifetimes and which may have a lasting effect on the way we live including when and where we travel. The climate emergency remains a significant risk to our society and well-being; combined with the fast-changing technological innovations meaning that future travel demands are unpredictable and uncertain.

Our transport strategy will need to enable Reading to adapt to the challenges of the future, facilitating changing travel patterns and behaviour, shifting more travel of both people and goods to sustainable modes and also ensuring Reading maximises the opportunities that emerging or currently unknown technologies and innovation allow.

#### **Climate Change Emergency**

- 4.5 We are in a state of crisis with our actions to date having increased atmospheric CO<sub>a</sub> levels to a level where average global temperatures will rise to around 1.5 to 2.0 dearees above pre-industrial base by around 2050. Transport is now the biggest sector in terms of CO<sub>2</sub> emissions in the UK representing over a augrter of emissions. The verv modest technological improvements in petrol and diesel engine technology over the last 20 years to reduce CO<sub>2</sub> have been more than offset by consumer behaviour changes such as SUV sales increasing from 4% in 1998 to over 25% in 2018. Globally, the arowth in SUV sales was the second highest cause of continuing increases in atmospheric CO<sub>a</sub> last year after electricity generation.
- 4.6 The Government's targets for net zero by 2050 and a need to more than half CO<sub>2</sub> emissions globally by 2030 as set out by the Commission for Climate Change require radical action. This cannot be achieved through only technological intervention;

people will need to make changes to the way they live their lives and how they travel.

- 4.7 By 2035, the sale of new petrol and diesel car and vans will be banned in the UK. Car manufacturers are expected to reduce outputs of combustion engine cars in advance of this, and by 2030, 70% of new cars are likely to be electric<sup>43</sup>. As older cars are gradually replaced and removed from the network, fewer and fewer combustion engine vehicles are expected to remain on our roads.
- 4.8 Even with electric vehicles, we will need to reduce how much we travel by private car; the manufacturing processes for electric vehicles and (at least currently) the sources used for electricity generation to power them both result in air pollution that contributes towards climate change. Additionally, electric vehicles produce particulate pollution as they are used, and both electric and combustion engine vehicles add to congestion and reduced levels of physical activity.



# UK Industrial Strategy 2019

- 4.9 The Fourth Industrial Revolution is characterised by a range of new technologies that are fusing the physical, digital and biological worlds, impacting all disciplines, economies and industries, and even challenging ideas about what it means to be human [Klaus Schwab, The Fourth Industrial Revolution].
- 4.10 Being able to capture the benefits of rapidly changing technology is key to meeting future challenges including climate change and there is huge opportunity from new technologies. However, with such rapid change comes real risks of communities being left behind and risks of a technology led future that is not inclusive, which does not benefit society as a whole.
- 4.11 The UK Industrial Strategy 2019 has set out a number of the key technologies that the UK should be investing in, linking them to four Grand Challenges for UK investment: mobility, ageing population, artificial intelligence and data, and clean growth, where there are a lot of interactions between these areas. This highlights that we cannot meet our transport challenges of the future through just working within our transport silo but need an integrated smart city approach to delivering services.
- 4.12 The Berkshire Local Industrial Strategy details plans for enabling growth in the region, supporting the UK Industrial Strategy.

#### **Main Technological Changes**

4.13 Some of the main technological changes that are foreseen in the transport sector include:

#### New Fuels

- 4.14 Public transport, both rail and road has already invested heavily in moving away from use of diesel as a main fuel with electric trains and bio gas buses already providing much of Reading's public transport. Significant investment is now also being made by the car industry in Electric Vehicles technology (EVs). Hydrogen fuel cell technology is also being developed and we may see this coming forward in this period, probably for freight and potentially public transport in the first instance. These technologies will help further de-carbonisation of the transport sector. although their impact may not be significant before 2036.
- 4.15 There is a challenge of providing the right balance of public electric car charging infrastructure to support EV take up, whilst not necessitating expensive electricity grid reinforcement and battery storage that may not be required in the long run.





#### Autonomous Vehicles

- 4.16 There is significant investment and publicity around autonomous vehicles and we see two distinct applications.
- 4.17 The first is a private autonomous car that can give hands free travel to anywhere in the UK. There is not forecast to be a significant take up in the plan period, however in the longer term, autonomous vehicles have the potential to smooth traffic flow, almost eliminate accidents and could free up car parks for development and the continuing development of driver assist systems will contribute to these outcomes in the interim.
- 4.18 The second is shared autonomous vehicles such as 12 to 15 person autonomous electric pods, although these could be any size of vehicle. These vehicles are already operating at certain locations across the world where they operate in private controlled environments such as business. parks, and a number of cities globally have trialled these vehicles. It is anticipated that Government leaislation will enable autonomous vehicles to operate without a driver on the public highway in the next few years and hence they could form part of a transport strategy for Reading within the plan period. Shared Autonomous Vehicles have the potential to support public transport services, providing affordable door-todoor public transport when connected to

interchanges with other public transport services. The ability to connect door-todoor could also provide an inclusive service reducing the need for households to own a car.

Autonomous Public Transport



## Drone Delivery

4.19 By 2030, between 150,000 and 400,000 commercial drones are expected to be in operation in the UK<sup>44</sup>. There could be drones supporting our emergency services, delivering parcels, as well as supporting other industries. Whilst drones are predicted to uplift the UK GDP by £42 billion by 2030<sup>45</sup>, there are concerns regarding privacy, noise pollution and visual impacts which have yet to be addressed. However, the evidence suggests that drones are likely to be part of our future transport system.

#### Mobility Services on Demand

4.20 Mobility services are widely forecast to provide a step-change in the way we will travel in the future. Instead of individuals spending a lot of money investing in a car which is only in actual use around 4% or 5% of the time they would pay a monthly subscription for a service that can be tailored to their needs which we can access via an app and a single payment platform. Mobility services can bring together public transport, with cycle hire, shared taxi hire as well as private car hire and, by reducing car ownership, can significantly reduce private car dependence which is critical to enabling economic growth in a net zero carbon future. Currently, mobility services are generally not much more than an app which brings together journey planning and payment services on a single platform. However, there is potential that these services will harness the power of big data and artificial intelligence to accurately predict demand for travel and hence provide very efficient shared transport services which will remove the need and desire to own a car.

# Micro-Mobility

4.21 Micro-mobility encompasses a range of transport choices from scooters and electric scooters to electric bikes and small electric one and two seat cars for urban transport. Some of these, such as e-scooters will require legislation to be legal on the public roads, and others, such as e-bikes need careful consideration in designing routes as they can move at a steady 15mph with very little effort, opening up larger areas to be within easy cycle distance where safe routes are provided.

# Next Generation of Network Management Systems

4.22 The current traffic management systems, whilst there have been some key developments, are essentially still based on technology from the 1970s and optimise the highway network for vehicles based on monitoring traffic flow. It is anticipated that new generation of network management systems will be delivered, which use multiple sensors (Internet of Things – IoT) including connected vehicles and the travellers themselves to create predictive network models using machine learning and artificial intelligence. This expected to link to mobility services creating a multi-modal and integrated system.

# Wider Changes in Society - Sharing and Circular Economy

4.23 The sharing economy is another potential step-change in transport and there we are already seeing individuals hiring out their private cars in certain cities or renting out their driveways during the day for commuter parking. New companies are making sharing very easy and safe via apps, and this is expected to grow. Another aspect of the sharing economy is car sharing and there is significant potential for this to grow.

- 4.24 The circular economy will help to reduce our impact on the environment, through keeping products in use for as long as possible, and then recovering and reusing materials at the end of the product life. The circular economy can apply to everything from plastic bags through to our transport infrastructure. For example, trials of 'plastic roads' have been undertaken, where recycled plastic has been mixed with asphalt to resurface roads, rather than using bitumen.
- 4.25 Research and trials regarding reuse of materials is on-going, and we anticipate that the way we design and build our transport infrastructure could change significantly over the plan period.
- 4.26 We also expect growth in services and businesses supporting the circular economy and reducing waste, such as libraries of 'everyday items', community fridges, household goods/food refill shops and repair cafés.
- 4.27 With all of the above predicted technological changes there will be considerable opportunities, alongside

challenges to avoid isolation of individuals as technology 'passes them by'. A key aim of this strategy is to ensure inclusivity and access to travel as needed for everyone in Reading.

Figure 17: The Circular Economy





# **Improving Air Quality**

We know that vehicles cause air pollution through emissions of nitrogen oxides (NO<sub>x</sub>) and particulate matter (PM) and emissions from private cars, taxis and goods vehicles are a significant concern, particularly the effects on human health. As a result of highlevels of congestion in parts of Reading, an Air Quality Management Area (AQMA) has been declared covering the town centre and many of the key corridors into and out of the town including adjacent to the Royal Berkshire Hospital. Additionally, Wokingham Borough Council has declared an AQMA along the M4 south of Reading.

The Covid-19 crisis has resulted in many towns and cities including Reading seeing a temporary improvement in air quality with a reduction in both  $NO_x$  and fine particulates, primarily a consequence of lower traffic volumes. This not only gives us an indication of how a future might look with less air pollution and better air quality but also what measures we need to achieve to get there.

4.28 In Reading, our monitoring shows that nitrogen dioxide (NO<sub>2</sub>) is the only pollutant that currently exceeds a UK national objective. Levels of NO<sub>2</sub> have started to fall, but we must do more to reduce NO<sub>x</sub> pollution further. Although the levels of particulate matter are below current UK objectives, it is widely accepted that there is no known safe limit for exposure to particulate matter. It is important that we reduce particulate emissions to limit the impact on our communities.

4.29 The negative effects of poor air quality are serious: up to 36,000 people in the UK die as a result of air pollution every year<sup>47</sup>, and research indicates that reducing PM by 10µg/m<sup>3</sup> would extend average lifespans in the UK by five times more than eliminating casualties on the roads, or three times more than eliminating passive smoking<sup>48</sup>. In Reading, **6% of deaths are attributable to PM**<sub>25</sub><sup>49</sup>.

Figure 18: Vehicle Emissions

- 4.30 The mortality rate from respiratory disease has been increasing for under-75s in Reading for in recent years, as shown in Figure 20<sup>50</sup>. Current rates are more than 40% above the average for the South East.
- 4.31 Whilst technologies are developing that are reducing the level of NO<sub>x</sub> and particulate matter vehicles emit from exhausts, and the UK is shifting towards electric vehicles, around 85% of fine particulate pollution from vehicles does not come from exhausts<sup>51</sup>.
- 4.32 All road vehicles, including electric vehicles, cause air pollution from wear and tear on tyres, brakes and road surfaces, and particles are lifted back into the air through



Figure 19: Monitored Air Quality Hotspots



vehicle movement. It is expected that, in the relatively near future, non-exhaust emissions will be dominant in road transport, and reducing single/low occupancy road travel will be required to achieve improvements in air quality.

4.33 Reading has one of the cleanest bus fleets in the UK, and we have secured over £1.5 million of funding from Central Government to upgrade the remaining buses to the latest green emissions standards. Reading Buses has also trialled an electric bus in Reading to understand how they could have potential to help improve Reading's air quality.

4.34 The electrification of the Great Western Mainline and introduction of electric trains along the route will also reduce public transport emissions by reducing pollution Figure 20: Under-75 Mortality Rate for Respiratory Disease



from trains starting and stopping in Reading.

4.35 There is opportunity in Reading to improve air quality and correspondingly improve health outcomes for the area. Increasing sustainable travel mode share and reducing private vehicle (particularly singleoccupancy) use is key to reducing transport emissions. Improvements to walking, cycling and public transport infrastructure, as well



as increased promotion of sustainable travel options will support this mode shift, and can also contribute towards reducing exposure to pollution by increasing the separation distance between people and vehicles, and increase green infrastructure.

# **Reducing Congestion**

Despite significant investment in public transport and active travel improvements, traffic and congestion around Reading continues to grow. Demands on travel may change following the pandemic but should unless change is significant it is likely that substantial investment and infrastructure will be needed to encourage people to make sustainable travel choices, and to provide alternative, more suitable, routing options for through-traffic.

Car congestion has significant negative impacts on our public transport network and services. Public transport is critical to travel and movement around Reading: 21.6 million journeys were made by bus in 2018, and this number is increasing annually. Due to a relative lack of orbital routes, a large proportion of drivers travel via the Inner Distribution Road (IDR), further adding to town centre congestion. In peak hours, up to a third of trips using the IDR could take a more direct or appropriate route, if orbital route improvements or other transport alternatives were in place. Figure 21: AM Peak Hour Vehicle Speed Reduction Compared to Speed Limit (2015)



- 4.36 Due to Reading's location and a lack of alternative strategic north-south road connections in the surrounding area, there are high levels of through-traffic, with no origin or destination within the Borough. This adds to the high levels of congestion in the town centre, on the bridges over the River Thames and along key corridors.
- 4.37 Additionally, 56% of car driving commuters living and working within the Reading

area do not have an origin or destination within the Central Neighbourhood Area, and instead travel around the edge of Reading. Due to a relative lack of orbital routes, a large proportion of these drivers travel via the Inner Distribution Road (IDR), further adding to town centre congestion. In peak hours, **up to a third of trips using the IDR in peak periods could take a more direct or appropriate route**, if orbital route improvements or other transport alternatives were in place as set out in within this strategy<sup>53</sup>.

- 4.38 For employment trips within the Neighbourhood Areas, the proportion of people travelling by car is relatively low, at 51%. However, for trips starting or ending outside the Reading area, this rises to around 86%. This leads to increased levels of traffic and commuter car congestion within the Neighbourhood Areas as traffic travels into and out of the town<sup>54</sup>.
- 4.39 Delays are generally worse at signalised junctions, particularly those that are not operating the latest technology, and in local centres where traffic mixes with people, as shown in Figure 21.
- 4.40 Despite significant investment in public transport and active travel improvements, traffic and congestion around Reading continues to grow, and more substantial investment and infrastructure is needed to encourage people to make sustainable travel choices, and to provide alternative, more suitable, routing options for throughtraffic.
- 4.41 Car congestion has significant negative impacts on our public transport network and services. Public transport is critical to travel and movement around Reading: 21.6 million journeys were made by bus in 2018, and this number is increasing annually<sup>55</sup>.

Figure 22: PM Peak Bus Frequency and Highway Congestion



- 4.42 We have invested heavily in public transport priority across the town and many of the primary routes into and out of the town centre have bus priority, but there are some roads with a high bus service frequency that do not. These routes would benefit from the introduction of bus lanes and other measures to improve bus journey times and reliability.
- 4.43 Furthermore, there are a number of locations away from the key corridors where car

congestion builds up, particularly in the peak hours and at school times, and causes delays to bus services, as illustrated in Figure 22. Whilst there is existing bus priority at some congestion hotspots, there are locations where bus priority is not present and, if introduced, would improve service frequency and reliability, making bus services more attractive in Reading.

4.44 Delays are also caused where there are



obstructions in the carriageway, such as on-street parking and delivery and servicing. The introduction of a Red Route no-stopping restriction along Oxford Road and Wokingham Road aims to keep public transport moving and reduce delays for passengers, whilst also improving safety for pedestrians and cyclists. The scheme includes parking and loading bays, to provide appropriate places for vehicles to park, whilst not obstructing vehicle movements.

4.45 There is an opportunity to introduce similar measures along other corridors in Reading, especially in local centres, where movements conflict and buses experience delays.

# Providing Affordable and Accessible Travel For All

We want Reading to be a town where everyone, regardless of background, disability, income, age or gender, can easily and safely travel around. Our transport system needs to be accessible to all, providing access to employment, education, healthcare and leisure opportunities, to allow our growing town to thrive. The Covid-19 crisis will result in a period of deep economic uncertainty and anxiety for many residents and businesses and our transport strategy and policies will need ensure it supports the economic recovery of all sections of society.

- 4.46 The RTS is supported by an Integrated Impact Assessment, prepared in accordance with statutory requirements including the Equality Act 2010. Likely different impacts of different demographic groups and people with protected characteristics have therefore been considered throughout the preparation of the RTS.
- 4.47 Specific demographics groups have been identified as most likely to be vulnerable to transport impacts. These are:
  - People on low incomes
  - People with health issues or disabilities
  - Older people
  - We have also considered Reading's diversity, and how many other groups may be affected by transport.

# **Income Deprivation**

- 4.48 Incomes in the Reading urban area are generally high, but there are areas of deprivation, particularly in the Whitley, Tilehurst and Lower Caversham, as shown in Figure 23.
- 4.49 These areas generally correspond to areas of lower car ownership (Figure 24), and so these communities are more reliant on public transport, as well as active travel. It is therefore important that bus services in these areas are frequent, affordable

Figure 23: Income Deprivation



Figure 24: Car Ownership Levels



and of high quality, and that walking and cycling networks are comprehensive, facilitating liveable neighbourhoods. This will enable convenient and direct access to employment opportunities and other facilities.

4.50 Outer parts of the Reading urban area, particularly outside the Borough boundary, generally have high incomes and correspondingly high car ownership. These areas also typically have less frequent and slower bus services, as there is very limited bus priority outside Reading Borough. Consequently, a high proportion of trips from these areas to/from Reading are made by car, increasing car congestion on local Reading roads. Priority for public transport services is needed, including Park and Ride services, to increase their attractiveness.

# Health and Disability

4.51 Parts of the Reading urban area, particularly in the town centre, Whitley Coley and West Reading, have relatively high levels of health and disability deprivation. There are high levels of car congestion on roads around the town centre and along key road corridors in Reading. This leads to low environmental quality and high levels of air pollution, negatively affecting people's mental and physical health. This is reflected in Figure 25.

- 4.52 Overall, 12.9% of people in Reading report having a limiting long-term illness or disability<sup>56</sup>.
- 4.53 Sustainable transport provides a significant opportunity to improve quality of life for those with health issues or disabilities through providing access to local services and reducing social isolation. A high-quality, accessible transport network is important to provide disabled people with equal opportunities. In Reading, much has been done to improve the transport experience and accessibility for disabled travellers. Readibus provides door-to-door assisted bus services which are free to use for disabled people with support from Reading Borough Council.
- 4.54 All buses operated by Reading Buses are wheelchair accessible and most now have audio and visual on board stop announcements. However, there are still many barriers facing disabled people to use public transport.
- 4.55 Common barriers include:
  - Narrow, uneven or poorly maintained pavements
  - Dropped kerbs that are not flush with the road surface
  - Very high or very low kerb heights

Figure 25: Health and Disability Deprivation







- Poor colour contrast
- Pavement obstruction by parked vehicles, street furniture and overgrown vegetation
- Use of disabled parking spaces by nondisabled drivers
- Difficulties navigating shared spaces
- Limited availability of travel information in accessible formats
- Cost of travel for those on lower incomes
- Lack of alternative provision where there are steps
- Availability of assistance and support

# **Older People**

- 4.56 There are high proportions of older people clustered in parts of the Reading urban area, particularly in the outer parts of the Borough and neighbouring authorities, as shown in Figure 26.
- 4.57 33% of people aged 65 and over living in Reading live alone<sup>57,58</sup> and are therefore more likely to be socially isolated and experience loneliness. Older people are also less likely to own and drive a car<sup>59,60</sup> and may be less mobile. They are often reliant on public transport to meet their transport needs and to facilitate social interaction within their local communities, improving their mental and physical health.

- 4.58 Some of the areas of Reading with high populations of older people may be less financially viable environments in which to operate traditional commercial bus services. This is due to a high proportion of residents and bus users that may have concessionary travel passes which are used for a free off peak bus travel.
- 4.59 Some older people will still be travelling in the morning peak period when free travel is not available, whether for work or other reasons. Average retirement ages in the UK have been increasing since the year 1990, as shown in Figure 27, with an increase of 1.7 years for men, and 3.2 years for women between 1990 and 2019<sup>61</sup>. This is likely to lead to an increased demand for travel for older people in Reading, as a larger proportion of the population continues to travel for work for longer. By 2035, the number of people living in Reading aged 65 and over is expected to increase by 38%<sup>62</sup>.
- 4.60 However, a high proportion of older people will likely be travelling outside peak travel times for leisure, shopping and health or personal appointments rather than for work or education. Nevertheless, bus services provide important connections for residents to local facilities, and so it is important that a good bus service can be provided.
- 4.61 Older people may also be less familiar with technology than younger generations, and

Figure 26: Proportion of Population Aged Over 65



Figure 27: Average UK Retirement Age



so it is important that travel information and tickets are available in accessible formats, such as print or telephone.

#### **Diverse Communities**

- 4.62 We need to ensure our transport network is designed to enable all of our residents, regardless of background, race, culture, religion and beliefs, sexuality, age or gender, are able to travel safely and easily.
- 4.63 Reading is highly multi-cultural, and has the seventh highest proportion of residents born outside the UK of any non-London local authority in England<sup>63</sup>. Some of our residents have lower levels of English proficiency. Travel around Reading can be inherently more challenging for these people, as the majority of travel and route information is in English. This could discourage the use of public transport by people with lower levels of English proficiency, which could lead to reduced opportunities and increased social isolation.
- 4.64 The median age of Reading residents is 34 the 16th youngest of any UK local authority

outside London<sup>64</sup>. Younger travellers, in particular children, may have more difficult than the average user understanding complex information and responding to changes on the network (for example delays or cancelled services). Provision of appropriate information is therefore key to enabling younger people to use the network. In addition, children are more vulnerable whilst travelling, and so our transport network needs to be safe and secure, so that children feel comfortable whilst travelling and are able to travel independently.

- 4.65 There are a large number of visitors to Reading every year. Some of these are visitors on business, and others are for leisure reasons, such as Reading Festival. Visitors are less likely to be familiar with Reading and the transport network, and therefore clear and visible information is needed to allow them to plan and carry out their journeys.
- 4.66 Safety and security on our transport network and the provision of accessible information for all are key challenges we have identified in supporting our diverse communities in Reading.

Wayfinding Scheme - Travel Information

# Reading Station South







# **Removing Barriers to Healthy Lifestyles**

Reading's pedestrian network and public space has had significant investment over the years, but there are areas of the town which require enhancement, such as the street paving, landscaping and furniture. Improvements are also needed to better accommodate pedestrian movement and desire lines, which change as the pedestrian demand to, from and within the town centre alter. The quality of the environment in parts of the town centre is good, especially areas where enhancements have been delivered in recent years, but there are areas, and also many local centres outside the town centre, where improvements to the public spaces and streets will create a more welcoming and attractive space, with better provision for all people walking, cycling and those who are mobility impaired.

During the Covid-19 crisis the government measures in the lockdown allow for one form of exercise per day including walking, running or cycling and also advise people to stay local when exercising. As a result many people are re-discovering the footpaths, roads and parks in their local neighbourhoods as well as recognising the benefits of being outside for both their physical and mental well-being. In a post-Covid world creating and maintaining attractive spaces and removing barriers to healthy lifestyles may help this behavioural change to be permanent. Figure 28: Serious and Fatal Vulnerable Road User Collisions (2014 to 2018)



- 4.67 Safety is an important consideration for this Strategy, We have reviewed vulnerable road user collisions in the last five years, shown in Figure 28, to understand existing road safety issues and inform the development of the RTS. Areas where pedestrian movements conflict with vehicle movements (general traffic, taxis, buses and servicing movements) can be perceived as feeling less safe than areas which have been designed with greater pedestrian-only space, such as Market Square and Broad Street.
- 4.68 Pedestrians crossing the road can sometimes be subject to undue delay, where the street design currently prioritises cars. Whilst 29 traffic signal junctions were upgraded in the town as part of the LSTF programme, many still operate outdated technology. Upgrades to modern traffic signal systems and improved crossing facilities would better enable priority to be given to pedestrians, creating a more pedestrian-friendly environment and further encouraging walking.

- Wayfinding in Reading has been improved 4.69 through localised schemes which have delivered new and upgraded signage, however, consistent signage across the town centre and wider Borough is not yet in place. This makes sustainable travel less attractive, particularly for people unfamiliar with Reading. Therefore, there are opportunities to improve signage to encourage walking, cycling and bus use as a preferred mode over private car, both for a complete trip, and as part of a multi-stage trip.
- 4.70 Over the years, Reading has developed and signed a series of branded and coloured coded local cycle routes, shown in Figure 29, which provide connections between suburban areas and the town centre linking to key facilities and services, including schools, employment, leisure facilities and local centres. Our local cycle network is complemented by four National Cycle Network routes (4, 5, 23 and 422), linking Reading to major towns and cities, such as Basingstoke, Oxford, Newbury, Birmingham, Southampton, Bristol, and Swansea.
- 4.71 The local branded routes were developed to connect people to places, such as employment, education and local facilities and services, via the core network and wider 'linking' routes. The network is made up of

a combination of on and off-carriageway facilities, and designated quiet streets, and covers the wider Reading area.

4.72 The local cycle network is supported by a number of unbranded routes along quiet

Figure 29: Existing Branded Cycle Network

streets, providing feeder routes to the main network. In some areas, additional local routes are required, to better connect communities to local facilities, employment areas and the town centre. This will increase the attractiveness of cycling in Reading.





Figure 30: Percentage of Homes Within Reasonable Walking Distances of Local Facilities

4.73 Reading also suffers from bicycle theft, particularly in the town centre and areas to the south including Whitley. Whilst additional secure bicycle parking has been delivered in recent years, such as at the northern interchange of Reading Station, there is further opportunity for more secure and smarter bicycle parking across the town. Additionally, there are improvements that could be made to existing bicycle parking to provide increased levels of security, protection against weather and better storage for larger bicycles.

# Achieving Good Accessibility to Local Facilities and Employment

# **Local Facilities**

Good access to local facilities is key to enabling growth and supporting sustainable travel patterns. Within the wider Reading area, access to local facilities varies significantly, depending both on the type of facility and the location. Overall, access to public transport stops is good, with 90% of Reading residents living within 400 metres of a bus stop. However, accessibility to other amenities is significantly lower, with the majority of people living outside typical reasonable walking distances, as shown in Figure 30.

4.74 Accessibility to schools is reasonable in many areas, however, residents within the Central Neighbourhood Area, and parts of the Northern and Western Neighbourhood Areas are located a significant distance from both primary and secondary schools. The Western and Northern Neighbourhood Areas also have areas a significant distance from a local retail centre, along with the South Western Area.

- 4.75 GPs are often located close together, meaning they serve a wider catchment area, and can be a significant distance from some patients.
- 4.76 Many sports facilities are located where there is green space, for example at major parks, and so the opportunity to relocate or expand provision can be limited.
- 4.77 Many local facilities in Reading are clustered in groups. This can lead to benefits, as people are able to access multiple facilities in one trip, and these hubs often serve as the heart of local communities. However, these clusters of facilities can also lead to a greater proportion of residents living further away from them or can encourage increased car usage.
- 4.78 Access to the Royal Berkshire Hospital is particularly challenging leading to car congestion and a perceived difficulty in finding somewhere to park. Greenwave bus services between Mereoak Park and Ride and the hospital provide a useful and easy to use alternative for many hospital visitors.



Numerous buses link the hospital with Central Reading but relatively few offer direct links from residential areas of Reading.

- 4.79 Nationally, more than 50% of trips by all modes of transport in the morning peak hour are associated with education<sup>53</sup>.
- 4.80 There is a high level of car use for trips to and from school in Reading, contributing to congestion in the peak hours, and an extended afternoon peak period. The level of physical activity for children is reduced and in Reading 34% of children are overweight or obese by the time they leave primary school<sup>54</sup>. There is an opportunity for local facilities to be served by high-quality, frequent bus services, in order to reduce car travel where possible, and to enhance access to amenities for people who do not own a car.
- 4.81 Additionally, accessibility to local facilities should influence future land-use planning, to enable delivery of key amenities where they are required most, reducing the need to travel for communities. There is an opportunity with new developments to deliver facilities that serve both new residents or employees, and existing communities in the local area, contributing towards a shift to sustainable travel and also increasing social cohesion.



#### Figure 31: Existing Bus Network

# **Employment**

4.82 Up to 45% of car trips on the network in peak hours are related to employment<sup>68</sup>. Whilst many areas of employment in and around

Reading, such as the town centre, have good accessibility by sustainable modes, others are more accessible by private car, particularly for those not travelling from origins along the same radial corridor.



4.83 This leads to high levels of congestion on our network in peak hours, reduced levels of active travel and increased journey times, which leads to losses in productivity.
93% of local businesses that responded to a recent survey believe congestion affects productivity<sup>65</sup>.

# **Accommodating Development**

The pandemic will result in a significant and immediate downturn in the economy but there is uncertainty about what the lasting impact will be on the national and local economy. Significant development is planned in Reading and the surrounding area with at least 15,847 homes planned to be delivered between 2013 and 2036 in Reading alone. As well as this within Reading and the nearby local authority areas of South Oxfordshire, West Berkshire, Wokingham, Bracknell, Basinastoke and Deane, and Hart, over 5,000 homes are planned to be delivered each year and many of the people living in these homes will travel to Reading. Assuming the need for new homes is maintained. we will need to provide improvements to accommodate these additional travel needs and enable development to be delivered without affecting the health and wellbeing of residents within the Borough.

4.84 Reading is also an employment hub, and significant growth in employment floorspace and jobs is anticipated within the town and greater Reading area. The region's economy Figure 32: Planned Future Housing Growth



was the second fastest growing area of the UK between 2014-17 and is forecast to have the UK's 4th highest employment rate growth for 2018-21<sup>67</sup>.

- 4.85 The spatial strategy for development in Reading and the surrounding area is set out in the Local Plans for each Local Authority.
- 4.86 Without interventions, car traffic is predicted to increase as a result of development, leading to additional demand on roads across Reading, particularly key corridors. Levels of rat-running traffic through residential areas are forecast to increase,

as car drivers seek to avoid congestion. The RTS is therefore key to implementation of Reading's Local Plan, and will also support neighbouring Local Plans.

4.87 Development and transport need to be planned together, to enable people to make sustainable and healthy travel choices, to make best use of existing resources, and to encourage integration of communities. Transport improvements will be required to support development of proposed sites and overall increases in travel in and around Reading.

# 5. Our Policies

# Introduction

5.1 This chapter sets out our policies to support delivery of the overarching transport vision and objectives for Reading. These supporting policies are broken down by individual theme and provide the guiding principles for implementation of the strategy. This chapter also highlights the key statutory duties the Council must fulfil in its role as a Local Highway Authority.

# **Multi-Modal Policies**

# Sustainable Transport

- 5.2 We want to achieve a step change in the provision of walking, cycling and public transport choices for people travelling to, from and within Reading.
- 5.3 This will help us to achieve our overall vision for transport in Reading including enabling healthy lifestyles and creating a clean and green environment. It will also support our aim of providing an accessible transport system for all, and enable sustainable developments to come forward and to provide opportunities for local residents.

Figure 32: Roadspace Efficiency





## Policy RTS1 | Sustainable Transport

**1.1:** We will prioritise sustainable travel modes to offer an attractive and realistic alternative to the private car.

**1.2:** We will increase the capacity of the sustainable transport network by reallocating road space to sustainable modes.

**1.3:** We will complement any increase in general traffic capacity with sustainable transport improvements.

**1.4:** We will develop sustainable transport schemes in partnership with neighbouring Boroughs to support an increase in sustainable cross-boundary journeys.

#### The Environment and Climate Change

- 5.4 The environment plays a key role in supporting the quality of life, health and wellbeing of our residents. Our Transport Strategy will support the environment, including the aspirations of our Climate Change Strategy which sets out our ambition to become a carbon neutral town by 2030.
- 5.5 Opportunities to enhance the local environment through the creation of healthy streets, greening and providing better accessibility to encourage the use of our rivers and parks will be delivered through our Strategy.

# Policy RTS2 | The Environment and Climate Change

**2.1:** We will design our schemes to improve the built and natural environment, enhancing the quality of life of our residents.

**2.2:** We will ensure transport schemes deliver improved air quality, reduced emissions and biodiversity net gains.

**2.3:** We will adapt our transport network to prepare for climate change.

**2.4:** We will protect and promote the heritage of our town.

## **Equality and Inclusivity**

- 5.6 The Equality Act sets out our statutory duty to ensure that our policies and services do not discriminate against anyone and that we promote equality of opportunity, including the provision of transport that is accessible to all. All proposals that are considered at Council committee meetings are currently reviewed in line with Equalities Impact Assessment requirements.
- 5.7 The Inclusive Transport Strategy (ITS), published by Central Government in July 2018, builds on the Equality Act and sets out ambitions for inclusive transport whereby disabled people have the same access to transport as everyone else and for them to travel confidently, easily and without extra cost.
- 5.8 Considerable investment has already been made in ensuring the Reading Buses fleet is accessible to all through the provision of low-floor buses, complemented by audio messaging, on-board bus screens and accessible kerbs.
- 5.9 Improving inclusion means giving people safer, healthier and more affordable transport options. In turn this helps ensure people can remain independent and active lifestyles for longer and access key local facilities and services, such as leisure and health.

5.10 Affordability of transport is key to providing equality of opportunity and connectivity across Reading, particularly to those on lower incomes. We will continue to deliver schemes and programmes that reduce the cost of travel, provide alternative and more cost-effective modes of travel or help give people the information or skills they may need to travel more cheaply. Our concessionary fares and cycle training programme, Bikeability, are two examples of ongoing initiatives offering people on low incomes cost-effective travel choices.

# Policy RTS3 | Equality and Inclusivity

**3.1:** We will work with transport operators to deliver an accessible network for all, taking action to address barriers caused by physical infrastructure.

**3.2:** We will continue to undertake Equalities Impact Assessments as part of the development of new schemes and policies, as a minimum in line with our statutory requirements, to enable us to deliver transport improvements that cater for all residents.

**3.3:** We will continue to work with partners to deliver public transport, such as bus, community transport and taxi operators, that is affordable and accessible to all and reduce inequalities in our communities.

## **Development Control**

- 5.11 Our Transport Development Control team is a statutory consultee of the planning process and provides technical advice on the transport and highway implications of each development proposal submitted to the Planning Authority. They work collaboratively with developers to influence the transport approach and details of development, so that highway safety, convenience and amenity are improved through development, to avoid environmental degradation and to support economic activity, whilst enabling the delivery of our Local Plan.
- 5.12 We have developed a transport model for Reading, which we will require major proposals to use to test the impact of development on the town. Our access charge allows us to update and upgrade the model, so that it provides a suitable baseline for testing the implications of development growth in Reading and the wider area.

# Policy RTS4 | Development Control

**4.1:** We will work with developers to design development that supports delivery of our transport strategy.

**4.2:** We will work with developers to secure land for transport infrastructure where required.

**4.3:** New developments be will required to demonstrate how they will deliver healthy streets and make a positive contribution to the walking, cycling and public transport network and support sustainable travel, such as initially subsidising bus services, through the development and implementation of travel plans.

**4.4:** Private sector contributions, including Section 106 and the Community Infrastructure Levy, will be used where appropriate to improve the transport network and mitigate the impact of development, including through enhancement of walking, cycling and public transport facilities.



#### Sustainable Modes of Travel to School

- 5.13 It is vital that public transport and active travel options are available for all children to access education to improve children's physical activity levels through increased walking and cycling. Our overarching aim for school travel is therefore to increase the number of children walking, cycling or taking public transport and in reducing the number of car journeys to schools.
- 5.14 The Council has a statutory duty to develop and keep under review a Sustainable Modes of Travel Strategy (SMoTS) to school, which is a statutory document under the Education and Inspections Act 2006.
- 5.15 Our SMoTS includes policies to assist all schools with developing, implementing and monitoring ambitious school travel plans and increasing the use of sustainable transport options for travel to school. It also identifies the responsibility for providing road safety education and national standard cycle training and defines the process for developing measures to create safe routes to schools.

# Policy RTS5 | Sustainable Modes of Travel to School

**5.1:** We will update our SMoTS to reflect our priorities in delivering the national sustainable schools accreditation programme, Modeshift STARS, and new initiatives, such as school streets, seeking to create safer and more attractive environments around schools.

**5.2:** All schools will be incentivised to renew their school travel plan annually as part of the national accreditation scheme – Modeshift STARS and set ambitious targets to increase the percentage of the school community walking, cycling and using public transport.

**5.3:** We will encourage and support the promotion of sustainable travel to schools through implementation of education, training and initiatives, such as Bikeability and school streets.

**5.4:** We will work with the school community to identify barriers currently preventing sustainable travel and provide solutions to create safer and more attractive routes to schools.

#### **Smart Solutions and Innovation**

- 5.16 It is anticipated that technology will transform the way we work and travel within our plan period.
- 5.17 We will strive to remain at the forefront of technological advancements where they provide real benefits to those who live and work in Reading.
- 5.18 Reading is home to many high tech companies and start ups providing opportunity to collaborate and deliver innovation with the private sector.

# Policy RTS6 | Smart Solutions and Innovation

**6.1:** We will embrace the latest technologies to improve the efficiency and resilience of the transport network for the benefit of our residents.

**6.2:** We will work with businesses to encourage the use of technology to reduce the need to travel, and as a Council we will lead by example.

**6.3:** We will continue to promote Reading as a town that actively encourages and supports the testing of innovative solutions to defined transport challenges.

# **Public Transport Policies**

# **Public Transport**

5.19 For sustainable and successful growth, public transport will need to play a major role in delivering the vision of the Strategy across the plan period to 2036. A well-integrated, attractive and efficient public transport network is essential for meeting people movement demands of the future. Public transport can provide an alternative means of travel to the private car. If public transport provides attractive journey times, reliability and/or reduced cost compared to the private car, it can result in reduced congestion and emissions.

# Policy RTS7 | Public Transport

7.1: We will continue to build on the wellestablished bus and rail connections and work with partners across Reading and the wider region to establish an accessible, affordable reliable and sustainable, integrated public transport network.

**7.2:** We will support the evolution of public transport as technologies advance and new types of services become viable.

## **Bus and Community Transport**

- 5.20 Bus services provide the everyday access for millions of journeys each year within, to and from Reading. Buses represent the most efficient use of road space for the transport of people going to the same corridor or location yet buses are often seen stuck in queues of low occupancy cars going to the same place.
- 5.21 We will continue to invest in bus priority to improve the operation of buses to provide more capacity, more frequency, high quality and faster journeys, working with bus operators to re-invest the efficiency savings in improved services.
- 5.22 We recognise the contribution of Reading Buses as main public transport operator and major employer in Reading for over 100 years. The company is wholly owned by Reading Borough Council and a major asset in the provision of sustainable transport and the future development of inclusive and sustainable travel in Reading.
- 5.23 Cross town access from residential areas to schools, workplaces and the hospital is sometimes difficult and bus services will need to be developed to meet these travel needs.

- 5.24 We will continue to support the development of high-quality fast track and quality bus corridor services serving new development areas including business parks and housing in and outside of Reading. This will involve continuing to work with neighbouring authorities to secure investment in the transport network through new development. This will include investment in Fast Track Public Transport routes connecting strategic Park and Ride sites and offering easy interchange with fast journeys into Central Reading and key locations, for example the Royal Berkshire Hospital.
- 5.25 We will continue to work with education providers to ensure that school bus services are developed to support other sustainable ways of access to school and reduce the negative effects of cars on 'the school run'.
- 5.26 Community transport, including dial a ride services plays a key role in enabling those who are unable to use public transport to live independent lives.
- 5.27 The main dial a ride provider in Reading is Readibus who offer a comprehensive service, with support from local authorities, to support people who live in our local communities. We currently provide subsidy towards this service.



## Policy RTS8 | Bus and Community Transport

8.1: We will work with bus operators, businesses, health and education providers towards delivering high quality fast, frequent and reliable bus services that are not forced to take second place to excessive or inappropriate car use.

**8.2:** We will maximise the use of bus services by ensuring space on the highway is dedicated to buses or shared with buses, taxis, cycles and emergency vehicles where feasible, to ensure equality of urban mobility and to free up space for regeneration of streets with planting and improvements to the public space.

**8.3:** We will work with neighbouring authorities and other parties to enable the provision of community transport services in Reading for the benefit of our residents and reduce social isolation.

#### Rail

- 5.28 Reading's central location at the meeting point of seven rail lines and the historic development of frequent train services has given Reading a unique train network and we recognise the importance of Reading as a national rail hub and the contribution of train services to mobility to and from Reading. This has been enhanced by the redevelopment of Reading Station, the current construction of Green Park station and the upgrading of many of the trains used on Great Western Railway services.
- 5.29 Recognising that train is by far the quickest way into or out of Reading in virtually any direction, the local and longer links need to be developed by train companies and supported by Reading Borough Council as alternatives to increasing car use in the Thames Valley. We are a statutory consultee on train operating company franchises and Network Rail plans and will continue to work closely with these companies to ensure Reading is served by the maximum level of train services and at a consistent auality that passengers would expect. We will continue to challenge fares anomalies and poor services and at the same time support the development of improved train services where there are needs.
- 5.30 Western Rail Access to Heathrow remains a Network Rail project for delivery by 2027

which will open-up direct access by train from Reading. The Council will continue to push for this service to be realised to help reduce the numbers of cars heading to Heathrow from the Reading area.

- 5.31 We will support improvements on the North Downs rail line between Reading and Gatwick through schemes such as bi-mode trains and electrification of the line to give faster more frequent journeys to the airport.
- 5.32 We will continue to support and encourage the development of 'Park and Rail' and initiatives to improve station access in the wider area.

# Policy RTS9 | Rail

**9.1:** We will continue to lobby for improvement and work with the rail industry including train operating companies to provide improved services for train travellers to and from Reading.

**9.2:** We will continue to support the development of the other Reading Stations (Reading West, Tilehurst and Green Park) to ensure each is accessible and provides a high-quality entry to the rail network with high quality frequent and reliable train services.

# **Taxis and Private Hire Vehicles**

- 5.33 Taxi and private hire vehicles are a key part of the public transport network providing a service when other modes of public transport may be unavailable, or in areas that the current public transport network may not serve, allowing journeys that may not otherwise be possible to be made by public transport. This reduces the need for people to own private cars.
- 5.34 Our role seeks to ensure that providers of taxi and private hire services adhere to the quality obligations set out in the relevant licences, and are compliant with all relevant guidance on the conditions that arise from the application of the appropriate sections of legislation.
- 5.35 Alongside the police, we can revoke taxi and private hire licences if the licence holder does not meet their obligations. A penalty points system is in place for breaches of regulations, as set out in the licence holder handbook. Through these mechanisms, we will continue to work with taxi and private hire providers to deliver high-quality and reliable taxi services in Reading.
- 5.36 Technology can play a huge part in making taxis more accessible to people with the introduction of apps, cashless pay systems and enabling ride sharing.

- 5.37 We are also responsible for providing and maintaining suitable taxi ranks and pickup points, and we will continue to liaise with operators to maintain adequate and appropriately located facilities across Reading. We will continue to support a shift towards electric taxis and will work with taxi and private hire service operators to identify ways in which we can support fleet changes.
- 5.38 A new policy has been adopted to encourage taxi drivers to switch to cleaner vehicles to improve air quality and contribute towards the aim to be a carbon neutral town by 2030. We are initially offering incentives in the form of reducing licence fees for the cleanest vehicles. The following incentives are planned:
  - A 25% reduction in the vehicle fee for all Ultra Low Emission Vehicles (ULEVs) (emitting a maximum of 50g/km of CO2) from April 2020 and a 50% reduction for electric vehicles
  - A free vehicle licence fee for October 2021 to October 2022 for ULEVs or 100% electric vehicles which have never been part of Reading's taxi fleet before.
- 5.39 Additionally, by 2028, all hackney carriages in Reading will be required to be either electric or ULEVs.

5.40 This will contribute towards reducing, and eventually removing altogether, the most polluting taxis on Reading's roads, having a positive step towards combating the impacts of climate change.

# Policy RTS10 | Taxis and Private Hire

**10.1:** We will work with operators to deliver smart, accessible and efficient taxi services across the Borough.

**10.2:** We will work with taxi and private hire services, offering support and incentives to encourage a shift towards the use of cleaner vehicles.

**10.3:** We will require all taxis operating in Reading to be electric or hybrid vehicles by 2028.


#### **Waterways**

5.41 A number of leisure riverboat services currently operate along Reading's waterways. River transport services do not have the same capacity for people movement as other public transport services, however we support the continued and increased use of our waterways by private operators to provide services for leisure and commuter services that could contribute to reducing congestion, where this would not cause unacceptable local problems.

#### Policy RTS11 | Waterways

**11.1:** We will work with private operators to seek opportunities for external funding for waterway schemes and improvements to the connecting networks.

#### **Connected and Autonomous Vehicles (CAVS)**

- 5.42 The Government is committed to the UK being world leaders in the development and delivery of connected and autonomous vehicles (CAVs) and legislation that will enable CAVs to operate on the public highway without a 'driver' overseeing it. This is expected as soon as 2021.
- 5.43 Whilst there is significant uncertainty over when a private autonomous car that can go anywhere may come to the market, and whether we will see any within this plan period, there is a significant likelihood that Shared Autonomous Vehicles (SAVs) will come forward within the next 5 to 10 years.
- 5.44 These Shared Autonomous Vehicles, such as 15-seater pods operating with traffic in a demand-responsive way on pre-defined routes, have significant potential to provide last-mile connectivity for main public transport services such as at stations and Park and Rides, and provide door-to-door public transport to deliver a transport system for all.

### Policy RT\$12 | Connected and Autonomous Vehicles

**12.1:** We will monitor the development of Connected and Autonomous Vehicles (CAVs), in particular Shared Autonomous Vehicles (SAVs), and seek to implement feeder services to the FTPT and use SAVs on the FTPT as technology, legislation and costs align.

**12.2:** We will future proof the transport network for emerging and unknown technologies such as CAVs, by reallocating road space to public transport, and other forms of sustainable transport.

### **Active Travel Policies**

#### **Healthy Streets**

- 5.45 To support our local plan in its vision for Reading to be a clean, green, healthy, safe and desirable place, we will integrate the principles of the London's Healthy Streets<sup>65</sup>, and other best practice examples, into the development and delivery of walking and cycling schemes as detailed in our LCWIP and outlined below:
  - Inclusive streets suitable for people from all backgrounds
  - Easy to safely navigate and connect people to places
  - Provide shade, shelter and places to stop and rest
  - Walkable and provide options for cycling
  - Low levels of noise and air pollution
  - Enhancing streets to improve quality of life, support social interaction and enable active lifestyles
  - Create a sense of security

- 5.46 As part of the integration of the Healthy Streets principles, we will encourage the creation of green corridors. The greening of streets and increased biodiversity will improve air quality across the Borough, and in turn provide a more attractive environment for walking and cycling.
- 5.47 Around 75% of respondents supported the reallocation of road space to sustainable modes, including walking, cycling and public transport, as part of consultation on this strategy.

#### Policy RTS13 | Healthy Streets

**13.1:** We will encourage the creation of healthy streets in Reading, to improve air quality, reduce congestion and help make our communities healthier, greener and more attractive places to live, work, learn and play.

**13.2:** We will reallocate road space away from the private car, to provide healthier streets and encourage more sustainable, active modes of travel.





#### Walking and Cycling

- 5.48 Enabling and encouraging walking and cycling across the Borough to support healthy lifestyle choices and inclusive growth, where everyone benefits from Reading's success will continue to play a core role in our transport strategy.
- 5.49 Further to the completion of key infrastructure projects delivered through the Local Sustainable Transport Fund, we have set out ambitious plans to transform our streets and create an enhanced network of walking and cycling routes set out in our Local Cycling and Walking Infrastructure Plan (LCWIP). The plan sets out our long-term aims for encouraging more people living in, working in and visiting Reading to consider walking and cycling for local journeys, or as part of a longer multi-modal journeys.
- 5.50 We will aim to achieve this by prioritising pedestrian and cycle movements and providing safe and attractive routes that connect people to local services and support multi-modal journeys, such as those containing an element of bus or rail travel.

#### Policy RTS14 | Walking and Cycling

**14.1:** We will transform our walking and cycling network to be safe, clean and green and better connect people to local facilities and services, including education, retail, leisure and employment, as set out in the LCWIP.

**14.2:** We will create a hierarchy of walking and cycling routes, building on our existing network and seek to secure new routes, including through proposed developments, and, where feasible, segregate routes.

**14.3:** We will design our walking and cycling network to accommodate all users where feasible. This will include wheelchair users, adapted cycles, those who are visually impaired and cycles with trailers, for example.

**14.4:** We will integrate the LCWIP into crossdepartmental strategies to maximise the benefits of walking and cycling, including improved health and wellbeing, air quality, reduced emissions and to create a more attractive local environment.

**14.5:** We will monitor the development and uptake of new technologies such as e-bikes and e-scooters, to inform our walking and cycling strategy.

#### High-Quality Public Space

- 5.51 As set out in our Local Plan, we want to deliver attractive, high-quality public space throughout Reading, including at the town centre, local centres and the main walking and cycling routes in the Borough, to encourage healthy behaviours and improve community cohesion.
- 5.52 Building on the Reading Transport Strategy and our Local Plan, we will develop a Public Space Strategy for the town centre, which will set out our vision for the town centre and help shape future growth of the area, linking planning, development and transport. The creation of an attractive, connected streetscape will attract new business, create jobs and increase visitor numbers.

#### Policy RTS15 | High-Quality Public Space

**15.1:** We will deliver high-quality public space, encompassing streets and accessible interchanges across the Borough, including in our town and local centres, to bring social, health, economic and environmental benefits to all.

**15.2:** We will develop a comprehensive wayfinding system for the town to improve the travel experience of residents, employees and visitors in Reading, and people travelling through the town.

#### **Rights of Way**

- 5.53 We have a duty to prepare a Rights of Way Improvement Plan under Section 60 of the Countryside and Rights of Way Act 2000. This plan provides a strategy for local communities and visitors to access the countryside via more sustainable means.
- 5.54 This plan includes an assessment of the suitability and availability of public rights of way for all users (now and in the future), opportunities to improve the network and any changes to the management.
- 5.55 Strategic Rights of Way connecting residents to local facilities and services have been integrated in our LCWIP. We will continue to identify new opportunities to expand and improve the network through development proposals to ensure the routes are better integrated into the highway network and that routes are accessible to all.

#### Policy RTS16 | Rights of Way

**16.1:** We will work with developers to seek opportunities to deliver new and improved routes through development proposals to provide an integrated and accessible rights of way network for all potential users.

**16.2:** We will maintain and improve the existing Rights of Way network across the Borough.

Footpath 1 - Kings Meadow



### **Network Management Policies**

#### **Network Management**

- 5.56 The Council has a network management duty under the Traffic Management Act 2004, and our appointed Network Manager has responsibility for the movement of traffic in liaison with neighbouring local authorities and other agencies. The need to maximise the use of our existing highway network is critical to managing congestion within a tightly constrained urban area.
- 5.57 Part 2, Section 16(1) of the 2004 Act defines the following objectives in the context of local highway authorities managing their road networks:
  - To secure the expeditious movement of traffic on the authority's road network; and
  - To facilitate the expeditious movement of traffic on road networks for which another authority is the traffic authority.
- 5.58 Local authorities also have a duty under the Road Traffic Reduction Act 1997 to prepare reports from time to time setting out the levels of road traffic in their area and to publish forecasts and targets for reducing growth.



- 5.59 To fulfil the network management duty, a local authority may take any action that will contribute to securing more efficient use of the road network, or the avoidance, elimination or reduction of road congestion and other disruptions to the movement of traffic. Reading's approach is to be proactive in taking such actions, using innovative Urban Traffic Management and Control (UTMC) systems. Elements of the UTMC are automated to balance traffic flows. Using the information gathered on network performance, messages are generated and disseminated through various means to encourage smarter travel choices.
- 5.60 Our network management policies support the overall delivery of our LTP vision and objectives by:
  - Improving the operation, safety, efficiency, and effectiveness of the local transport network
  - Improving data collection and management to support other policy areas and strategies and the LTP3 targets and monitoring requirements
  - Co-ordinating a rapid response to network incidents, roadworks and planned events with effective multiplatform strategies, working with other parties where required (such as emergency services, utility providers and

event promoters) to minimise disruption and delay

- Continuing to review and assess new opportunities (legislative, technical and operational) and innovative technologies that may improve the network management function to ensure efficient use of assets
- Maintaining records of Traffic Regulation Orders and consolidate signing, ensuring that all proposed changes to the network have appropriate authorisation
- Developing, maintaining and implementing seasonal and other planned multi-platform strategies to ensure that the network is able to operate at optimum efficiency

#### Policy RTS17 | Network Management

**17.1:** We will maximise the performance of our network and manage our network to aid the movement of people, prioritising sustainable transport.

**17.2:** We will report on the current and forecast levels of traffic in Reading, and publish targets to reduce traffic growth.

**17.3:** We will increase monitoring of our transport network to inform transport schemes and policies.

#### **Road Safety**

- 5.61 We have a duty under the Road Traffic Act 1988 to provide road safety information and advice relating to the use of roads. We are also required to take measures to prevent treatable accidents from occurring by analysing patterns in the circumstances of accidents, including location and causation factors, and to prepare and design programmes to improve road safety by addressing these factors.
- 5.62 Road safety issues are addressed through a combination of measures based on engineering, enforcement and education. Our past approach has focused on local accident clusters with the aim to reduce the number of deaths and serious injuries on our roads in line with Government targets. This has been combined with enforcement work in partnership with Thames Valley Police, road safety education work based on community partnerships and an understanding of local issues, particularly where there is evidence that people living in poorer communities are more likely to become casualties in road traffic accidents.
- 5.63 Between 2000/02 and 2016/18, the number of fatalities and serious injuries on our network has reduced by 31%, with slight injuries reducing by 45% over the same time period<sup>68</sup>. Partnership working, enforcement and education will still be an important

element of road safety, but new guidance and analysis of current trends indicate a revised approach to reducing accidents. Therefore, our Road Safety Strategy focuses more on actions to improve safety for vulnerable road users (e.g. pedestrians, cyclists and motorcyclists) and address accident causation factors (e.g. speed, road user behaviour) rather than accident cluster sites, which are becoming rare.

#### Policy RT18 | Road Safety

**18.1:** We will take action to improve road safety for all and to further reduce fatalities and injuries on our network.

**18.2:** We will improve the safety of vulnerable road users through a combination of measures, including infrastructure enhancements set out in the Local Cycling and Walking Infrastructure Plan.

**18.3:** We will support and promote education programmes and road safety campaigns, particularly those that better protect vulnerable road users.

**18.4:** We will monitor accident data and transport safety developments to identify where we can deliver improvements to road safety.

#### **Streetworks**

- 5.64 We have a statutory duty under the New Roads and Streetworks Act 1991 to coordinate statutory undertakers works on the highway to minimise disruption to the transport network and limit the impact to residents.
- 5.65 Streetworks are necessary to maintain and provide utility services such as water, gas and electric which are mainly located within the public highway.

#### Policy RTS19 | Streetworks

**19.1:** We will continue to actively engage with statutory undertakers to co-ordinate streetworks within Reading.

**19.2:** We will investigate methods to improve the management of streetworks, such as permit and charging schemes, to provide access to the transport network.

**19.3:** We will seek to improve the accuracy of information for all users of the road and footways including suitable diversion routes when required.

#### Parking

- 5.66 Our Parking Policy details our approach to the ongoing development and delivery of parking management in Reading. Parking management is an important transport planning tool, enabling us to influence how people may choose to travel, with the aim of encouraging them to use more sustainable forms of transport, including Park and Ride facilities. We also recognise the importance of providing blue badge parking to enable those who are less mobile to access key facilities and services where they are less accessible by public transport, walking and cycling.
- 5.67 If left unmanaged, parking would soon become disruptive to the transport networks and services, as people would park for convenience, rather than considering other people's needs. This could lead to increased pressures on neighbourhoods, and movement could be affected to the detriment of road safety. There could also be an impact on emergency service response times.
- 5.68 Ambitious new parking standards are set out in the Local Plan, including the provision of electric vehicle charging points. Further details of our parking standards for new development and our approach to the provision and management of public car parks and on-street parking will be set out in our updated Parking Policy.



5.69 Parking management covers time restrictions, parking charges, controlled parking zones, residents parking permits and blue badges. Parking charges provide us with the opportunity to set appropriate parking prices that allow us to fund maintenance of public car parks, manage parking demand, provide new infrastructure such as electric charging points, and incentivise the use of Park and Ride facilities.

#### Policy RTS20 | Parking

**20.1:** We will manage the parking provision across the Borough, in public car parks, onstreet parking and across new developments, to influence sustainable travel choices, encourage sustainable patterns for travel and provide for those who are less mobile.

**20.2:** We will investigate new technologies and systems to improve the efficiency of kerbside usage, and implement these if effective.

#### Enforcement

- 5.70 Reading has an enforcement policy to try and balance the needs of all road users, at a time when demands continue to increase. The key objective is to maintain an appropriate balance between the needs of residents, visitors, businesses and access for disabled people, thereby contributing to the economic growth and success of the town.
- 5.71 Reading Borough Council introduced Civil Parking Enforcement under Part 6 of the Traffic Management Act 2004 from 31st March 2000, and in October 2005, powers were introduced under the Transport Act 2000 that made it possible for Reading Borough Council to enforce the regulations governing the use of bus lanes in the Borough.

#### Policy RTS21 | Enforcement

**21.1:** We will continue to enforce traffic and parking restrictions in Reading, to improve the effectiveness of our infrastructure and prioritise sustainable modes

#### **Demand Management**

- 5.72 Demand management measures such as road user charging, clean air zone, workplace parking levys and emission based charging can be used to reduce peak demand for the roads in Reading and encourage travel by sustainable modes.
- 5.73 These measures can help to improve the lives of our residents by improving air quality, reducing congestion and accidents, and enabling the reallocation of road space to sustainable modes.

#### Policy RTS22 | Demand Management

**22.1:** We will develop demand management measures to reduce congestion and improve the quality of life of our residents and prepare a supporting business case to implement potential schemes.

**22.2:** We will reinvest revenue generated by demand management measures in sustainable transport solutions as set out in the 'Our Schemes and Initiatives' chapter.

#### Motorcycles and Powered Two-Wheelers

- 5.74 Powered two wheelers (PTW) have the potential to deliver reductions in congestion when used as a substitute to the car, occupying less road space, and being permitted to use some bus lanes where it is deemed safe to do so. The use of PTWs also contributes to improved accessibility and social inclusion where, for some, they provide a cheaper alternative to the car. PTWs can give independence to young people, being available from age 16, and have the potential to increase access to employment or further education opportunities.
- 5.75 During transport scheme development, appropriate Safety Audits are undertaken which consider the needs of motorcyclists and vulnerable road users.
- 5.76 Motorcycle parking spaces will continue to be provided in appropriate locations within the Reading area, including at transport interchanges.

#### Policy RTS23 | Motorcycles and Powered Two-Wheelers

**23.1:** We will continue to work in partnership with the police, motorcyclists' representatives and motorcycle outlets to promote best practice in road safety and education for users of PTWs.

#### Freight and Sustainable Distribution

- 5.77 For a successful economy, freight movements (transporting raw materials to producers, or finished goods from producers to consumers) should be as efficient as possible. It is important to consider the environmental impact of freight operations and potential conflicts with other transport users and land uses in the vicinity. Freight vehicle drivers face different network constraints due to factors such as height and weight or because of the time-sensitive nature of their business. It is recognised that they require different route choice and travel information to other road users.
- 5.78 Our objective is to support sustainable distribution methods that bring economic benefits to Reading while reducing environmental impacts and social nuisance. Our policy for freight to support the overall delivery of our LTP aim and objectives covers:
  - To work with freight operators to help them operate a service that reduces impacts on the town in terms of noise and air pollution and also minimises carbon emissions
  - To develop the content and delivery of local travel and route choice information for freight operators



- To manage the loading and unloading of goods to improve the efficiency and operation of the surrounding network
- To promote measures that minimise the impact of freight transport on road maintenance and road safety
- To continue to evaluate and, where appropriate, enable consolidation and interchange options between freight modes to reduce the number of freight trips within Reading
- 5.79 This could be carried out through a Freight Partnership arrangement which would consider, evaluate and promote or implement technical and operational solutions to address identified local issues.

Electric Vehicle

### Policy RTS24 | Freight and Sustainable Distribution

**24.1:** We will work with operators to support the efficient movement of freight, improving reliability and journey times of deliveries and minimise impact of freight transport on the local road network.

**24.2:** We will work with operators to support the delivery of freight consolidation centres, to improve efficiency and reduce the number of last-mile delivery trips within Reading.

**24.3:** We will work with operators to explore and support more sustainable delivery methods, such as cargo bikes and electric micro-vehicles, for the last mile delivery.

#### **Highways Asset Management**

- 5.80 We adopt an asset management planning approach for the management of our infrastructure assets. Our Highways Asset Management Policy applies to the creation and construction, acquisition, operation, maintenance, rehabilitation and disposal of all our highway assets.
- 5.81 Our policy demonstrates our commitment to continue to deliver a service to the community via our assets at an agreed level of service, our legislative requirements are satisfied and exposure to risk is limited to acceptable levels.
- 5.82 Our Highways Asset Management Policy is prepared and implemented in line with the UK Roads Liaison Group's Well-Managed Highway Infrastructure: A Code of Practice.
- 5.83 We record how we manage and maintain our assets in our Highway Maintenance Manual. This details the procedures we use (and levels of service expected) to maintain each highway asset including street lighting, structures, drainage, road markings, winter maintenance, traffic signals and street cleaning. The document also includes standard details and materials approved for use on the highway.



#### Policy RTS25 | Highways Asset Management

**25.1:** We will maintain our transport infrastructure to a high standard, and deliver essential improvements to meet the demands of residents, local businesses and visitors.

#### Sustainable Drainage (SUDS) & Surface Water Management

- 5.84 Under the Flood and Water Management Act 2010 the Council is responsible for identifying and communicating flood risk, through the preparation of preliminary flood risk assessments, flood risk and hazard maps and the introduction of flood risk management plans.
- 5.85 Sustainable drainage systems (SuDS) are features designed to replicate the natural drainage of an undeveloped area. We deliver SuDS as part of our transport infrastructure, in line with policy EN18 of our Local Plan, to capture surface water runoff from infrastructure and discharge this at a natural rate back into watercourses, reducing the risk of flooding due to development.

#### Policy RTS26 | Sustainable Drainage (SUDS) & Surface Water Management

**26.1:** We will incorporate SUDS and surface water management into our requirements for transport schemes.

#### Smart City Approach

- 5.86 We fully embrace the concept of 'smart cities' in the delivery of our services. Our view of smart cities is in line with the UK Department of Business, Innovation and Skills (BIS) which 'considers smart cities a process rather than a static outcome, in which increased citizen engagement, hard infrastructure, social capital and digital technologies make cities more liveable, resilient and better able to respond to challenges'.
- 5.87 We have taken a lead in smart city development in the Thames Valley, securing cross authority smart city investment from the LEP, and we see our expertise in technology implementation, which is at the core of our network management and open data systems, as a key skill to bring to the developing smart city capability across the Council.
- 5.88 We already work across Berkshire authorities in procurements such as traffic signal maintenance to improve efficiency and reduce costs. These procurements are cross-sector, for example working with public health to deliver the beat the street sustainable transport programme, and working with TVB Police to share costs of monitoring CCTV. There are significant further opportunities to develop smart working, particularly given the central role of transport



in the delivery of a wide range of Council services. Transport has overlaps with many services across the Council from health to adult social care and there are opportunities to change the way we join up these services.

- 5.89 We will work collaboratively across the Council and other partners to secure funding and develop business cases to deliver transport services in a more integrated way. Our strategy will include:
  - Seeking to secure collaborative working and funding opportunities, both within and external to the authority, which will further our smart city approach, help the Council to deliver its services as a whole and provide cross-sector benefits and savings to maximise the value of public investment.
  - Keeping updated in relation to innovation and technology and embracing technology where there is a clear benefit to the delivery of our services.
  - Engaging with academia and business to better understand the opportunities and explore new business models for delivering services, and exchange knowledge with other smart cities to reduce investment risks.
  - Working collaboratively with schools, colleges and universities for the mutual benefit of delivering our services and

furthering the development of 'smart' skills in Reading.

- Make public data available for use to facilitate private investment and development of smart city solutions.
- Working to successfully deliver the Thames Valley Berkshire Smart Cities Cluster project.

#### Policy RTS27 | Smart City Approach

**27.1:** We will work collaboratively with partners both within and outside the Council to develop a Smart City Strategy for Reading.

**27.2:** We will work collaboratively with partners, create the platform for, and seek to invest in the Smart Cities approach to support future growth and to maximise the efficiency and attractiveness of our transport networks and services.

#### **Mobility Services & Sharing Economy**

- 5.90 The car ownership model could be replaced by a mobility service contract, where an autonomous vehicle could be called up on demand. This concept also opens up a new world of travel options for those who do not have access to a car or hold a driving licence.
- 5.91 Congestion has a significant negative economic and productivity impact. However, if a car could pick you up and drop you off and attend to someone else's iourney afterwards without the need for a driver, the efficiency of the model is vastly improved, particularly if you are willing to share your journey with someone else. We already share journeys on public transport yet are very reluctant to have strangers in our cars. This would not necessarily be a concern if we are buying a mobility package rather than a vehicle. Without the need to control the vehicle, we can also expect a marked increase in both productive and leisure time during travel.
- 5.92 The impact of congestion on air quality could also be vastly improved, since all vehicle technologies are moving towards 'zero emission at source' models. Cleaner air lends itself to more high-quality outdoor spaces. This brave new world also means that streets and accesses could be designed in different ways. Ugly signage, lighting,

barriers, traffic signals and markings could be removed.

- 5.93 The end goal is an integrated, clean transport network, travelling autonomously, attending to transport needs through sophisticated communication and data processing: anyone can get anywhere in reasonable time and at reasonable cost.
- 5.94 As outlined throughout the Challenges and Opportunities chapter, current expectations are that we will start to move away from individual car ownership towards mobility services over the period of the plan. Trials are developing Mobility as a Service (MaaS), where, instead of owning a car, an individual sign up to a monthly mobility service contract to provide them with all their travel needs. Users plan and pay for their journeys using an easy-to-use app, and the mobility service provider provides them with the most suitable transport for their travel needs, which can be public transport, cycle hire, a taxi or car hire. Reducina car ownership has the potential to significantly reduce car dependency without restricting an individual's opportunities for travel. This is just one example of potential business and sharina-economy-led models comina forward, Currently, commercial business cases have not been fully demonstrated.
- 5.95 In order that we are best placed to realise the benefits of such changes, we will actively monitor and review developments in this area and look to secure funding, where appropriate. These new services may also provide new opportunities for the delivery of Council-operated services.
- 5.96 Whilst we are hopeful that commercially viability Mobility as a Service models will come forward in the near future, we recognise that we need to tackle climate change and that improved, integrated, app-based journey planning and payment services that take us towards full MaaS would be very beneficial and would need to be led by us.

#### Policy RTS28 | Mobility Services & Sharing Economy

**28.1:** We will work with commercial providers to deliver Mobility as a Service models.

**28.2:** We will work with our neighbouring authorities to develop interim app-based journey planning and payment services that take us towards full Mobility as a Service.

**28.3:** We will integrate our systems and data to enable the development of an improved mbility service offering across our travel to work area, to improve ease of travel by non-private car modes.

# Communication and Engagement Policies

#### **Travel Information**

- 5.97 Travel information includes workplace travel planning, personalised travel planning, and static and dynamic travel information provision through signs, leaflets and technology. Travel information also assists in the management and monitoring of the transport networks, offering low cost interventions to reduce congestion and the impact of transport on the environment.
- 5.98 Our aim is to give people the information and assistance they need to enable them to understand what travel options are available, choose how and where to travel, and guide their travel behaviour so they are making sustainable travel choices when travelling within or through Reading, no matter the journey purpose or demographic.
- 5.99 We will deliver travel information by:
  - Securing and promoting real-time information for public transport through a range of channels to transport users and freight operators, including: arrivals and departures and traffic conditions and incidents;
  - Promoting the use and implementation of web, mobile, on-bus, bus stop and



key destination displays, and emerging technologies for disseminating travel information and advice to transport users;

- Supporting the delivery of customisable and personalised travel planning services that will encourage individual sustainable travel choices
- Facilitating open data access, encouraging and supporting the wider use of data captured by UTMC to provide additional information to the public through software development partnerships and make public data available for innovative applications that benefit transport users and network performance
- 5.100 Working with Government, operators, neighbouring authorities and other partners to secure and promote interoperable technology where appropriate
- 5.101 Travel information is also available in a number of other locations:
  - The provision of a bus information strategy is a statutory requirement under the Transport Act 2000, and details of corresponding policies to improve the provision, quality and accessibility of information available to public transport users are contained within our Public Transport Strategy

- Working with stakeholders to enable them to promote sustainable transport options to their workforce and visitors
- We use Intelligent Transport Systems (ITS) to distribute information across modes. A series of complementary technologies (such as sensors, computers, electronics and communication devices) integrated through management databases and strategies are used to improve the quality, safety and efficiency of transport networks. They deliver high quality traveller information often in real-time, leading to increased use of sustainable modes and fulfilling elements of the network management duty as required by the Traffic Management Act 2004.

#### Policy RTS29 | Travel Information

**29.1:** We will support and promote the use of a wide range of data and technology to influence travel behaviour and manage the transport network.

**29.2:** We will work with partners to deliver high quality, accessible, real-time data to assist users to make sustainable travel choices, recognising the differing needs of travellers.

**29.3:** We will work with businesses, and other key destinations, to support them in delivering their travel plans and providing sustainable travel advice to their workforce.

#### **Public Consultation and Engagement**

5.102 Communication and engagement with local residents is vital to ensure their needs are considered and integrated at key points in scheme and strategy development and to maximise the benefits within local communities and the town as a whole.

### Policy RTS30 | Public Consultation and Engagement

**30.1:** We will engage with residents, employees and other stakeholders to develop the details of our schemes and strategies from the early stages, so that the views of the local community are reflected in our approach.

**30.2:** We will develop evidence bases and technical assessments to support our schemes and strategies, and will make these publicly available where appropriate.

**30.3:** We will improve the way we engage with the public to make our consultations more accessible and make it easier for all to participate in the consultation process.

**30.4:** We will open-up our transport data for public use where possible.

# 6. Our Schemes& Initiatives

### Introduction

- 6.1 We have identified a number of transport schemes and initiatives to help address the challenges and take advantage of the opportunities set out in the Challenges and Opportunities chapter to deliver the transport vision and objectives. These are intended to be flexible and to be responsive to innovation, technological advances, funding availability and to reflect delivery of the 15-year strategy.
- 6.2 The schemes themes are summarised in the following sections and more details are provided on the individual scheme pages.
- 6.3 The detailed design and alignment of infrastructure schemes are yet to be determined. Design of all physical infrastructure will take into account the environmental constraints identified in the About Reading chapter. When infrastructure schemes come forward, they will be supported by relevant technical information and assessments.

### **Demand Management Schemes**

6.4 Due to key challenges including the declared climate emergency, car emissions causing poor air quality and the forecast levels of growth increasing future demand for travel, continuing with the status quo is

not an option. Therefore, alongside providing sustainable alternatives we must manage demand on our network to help to achieve our overall vision for Reading. This will involve making difficult choices and delivering some or all of the following schemes:

- Clean Air Zone
- Emissions-Based Charging
- Road User Charging
- Workplace Parking Levy

### **Multi Modal Schemes**

- 6.5 We have identified a number of schemes that will provide benefits to all road users providing benefits including smoothing traffic flow, more reliable journey times, improved air quality and productivity, these include:
  - Transport Corridor Multi Modal Enhancements
  - Inner Distribution Road (IDR) Multi-Modal Enhancements
  - North Reading Orbital Route
  - Third Thames Crossing East of Reading

### **Public Transport Schemes**

6.6 We have identified a number of public transport schemes that will provide a step change in public transport provision in Reading including:



- Quality Bus Corridors
- Concessionary and Discounted Travel
- Community Transport
- Demand Responsive Transport
- Fast Track Public Transport Corridors
- Park and Ride Network
- New Railway Stations and Upgrades
- Mobility as a Service (MaaS)

#### **Quality Bus Corridors**

- 6.7 Reading has one of the highest levels of bus use in the country and a highly developed core bus network. Quality Bus Corridors (QBCs) in this network have been identified to complement our FTPT network, where full route segregation may not be required. Although, further measures should be implemented to help the bus services run on time and gain priority over private vehicles where general traffic is delayed. Passenger numbers along these corridors are already high, and the user experience is important to maintain and increase the level of bus usage.
- 6.8 Improvements to the QBCs may require the reallocation of road space away from general traffic to encourage bus use and reduce car dependence. This will help to achieve traffic reductions and air quality improvements.

- 6.9 Measures and improvements for each QBC will be determined based on the specific challenges in the area, but could include:
  - Implementation of Red Route nostopping restrictions
  - Bus priority at junctions and/or other sections of the route, where buses experience delay
  - Improved bus access through implementation of bus gates
  - Carriageway widening or restricted onstreet parking to facilitate two-way bus movement
  - Removal of vertical traffic calming measures
  - Replacement upgraded bus shelters where this has not already been done
  - Improvements to accessibility of bus stops
  - Real-time information at main bus stops supported by information delivered to personal electronic devices.
  - Continued high-quality branding of services using the QBC
  - Continued Wi-Fi and USB charging facilities on buses using the QBC
- 6.10 Many of these features have been delivered in programmes across previous LTPs and need further development to serve the continued growth in use of public transport

and to mitigate the negative effects of car congestion.

#### Fast Track Public Transport Corridors

- 6.11 Our strategy includes a Fast Track Public Transport (FTPT) network across Reading to connect the wider city region and Thames Valley. The FTPT network will be designed to meet a set of standards above and beyond our Quality Bus Corridors, and may be designed for future public transport modes other than bus.
- 6.12 The Park and Ride proposals support the FTPT and interchange options, to increase travel capacity, reduce private car use and improve journey times, reliability and air quality on some of Reading's busiest roads. FTPT will deliver dedicated public transport lanes and routes, allowing for segregation of public transport and general traffic. Reallocation of road space for the FTPT will be considered, where land is constrained, and in order to realise traffic reductions and air quality improvements. Some orbital routes may not require segregation, but priority for FTPT public transport services will be important at congestion hot spots.
- 6.13 The long-term vision for FTPT incorporates a network that expands the public transport on offer rather than replacing existing networks. The FTPT network extends beyond Reading to offer public transport and interchange options to the wider city region.

- 6.14 The developing FTPT network links key employment areas, residential areas, transport hubs and Reading town centre and railway station, providing the additional transport capacity necessary to support the planned growth in and around Reading. Stops along FTPT corridors will be strategically located but limited in number, in order to provide a balance between improved access to key destinations along the route and faster journey times.
- 6.15 Cyclists, motorcyclists and taxis will not generally be permitted to use FTPT infrastructure outside the town centre, to avoid conflict and delay to fast public transport services operating on the network, which will stop only infrequently.
- 6.16 In summary, the FTPT corridors should:
  - Enable the use of vehicles propelled by bio gas, hybrid electric, fuel cell or other eco-friendly fuel/energy so that the system is clean and causes limited air pollution
  - Enable the use of high capacity vehicles with low floors to allow passengers to board and exit quickly. Vehicles with wide multiple doorways and capability to quickly accommodate wheelchairs and wider accessibility for the whole community

- Allow vehicles to be scheduled at very close intervals that accelerate up to top speed between stops and able to maintain headways. The stops and interchanges will be more limited than standard bus services but will be located to maximise the catchment area
- Deliver a segregated highway (wherever possible) with the possibility of some form of guidance and advance signals where traffic intersects the route to allow the system to 'jump start' on traffic
- Deliver routes that provide links to the town centre, major planned development sites, existing communities and terminate at or link to Park & Ride schemes. It will also provide orbital links allowing travellers to avoid central Reading and provide the potential for strategic links to surrounding areas and transport hubs
- Deliver boarding platforms which match the vehicle floor height with plenty of room to handle crowds quickly with a form of rapid payment procedure. Interchange with other modes (i.e. walk, cycle, car, taxi, bus, coach and rail) should be maximised
- Deliver interchanges and the pedestrian links designed to maximise safety and provide passengers with a sense of security

- Deliver interchanges at key locations, which will allow the integration of the transport systems with local communities and facilities
- 6.17 Whilst initially designed to carry buses, the FTPT network will be designed to be suitable to adapt in the future to carry other forms of public transport, such as guided buses, trams, trackless trams, light rail or autonomous shuttles/buses.
- 6.18 The FTPT network would offer a potential testing area for trials and early adoption of emerging technologies and legislation to enable services, for example: Mobility as a Service (MaaS); connected autonomous public transport services and demand responsive services.

#### **Park and Rides**

6.19 Reading's transport network currently includes Park and Ride sites at Mereoak, Winnersh Triangle and Madejski Stadium. A further Park & Ride located at Thames Valley Park is under construction. Our strategy involves expansion of our Park and Ride network, to intercept traffic travelling to Reading from the outskirts of the town and city region, and provide an alternative travel option to the private car. The facility seeks to attract those that do not have the option to travel by bus for their whole journey.

- 6.20 83% of people surveyed supported a comprehensive Park and Ride network to help reduce the number of cars on the road.
- 6.21 We have identified key road corridors used by people driving into Reading that are not currently served by a Park and Ride facility. Further assessment work will be required to understand environmental and land constraints to inform the precise location for each scheme, and the scale of each facility.
- 6.22 Our Park and Rides will be complemented by our FTPT and Quality Bus Corridors, so drivers using the Park and Rides will have access to high-quality bus services direct to Reading town centre, railway station, and key employment areas. These services will also provide benefits to local residents and employees living and working along the routes, as they will have the opportunity to access more frequent bus services.
- 6.23 At present, Park and Rides offer the opportunity to encourage interchange to public transport outside the edges of Reading, to reduce the number of vehicles travelling into our town and the congestion on the network.
- 6.24 Secure cycle parking hubs will be provided at our Park and Rides to enable access to the bus services for a wider range of users and to encourage active travel.

- 6.25 We expect in the medium term that our Park and Rides will evolve to provide higher levels of electric charging points for vehicles, as the adoption of electric vehicles increases. Given the strategic location of our Park and Ride sites, there is opportunity for these to become electric charging stations for both vehicles using the Park and Ride facility, and vehicles otherwise passing by.
- 6.26 This will mean a proportion of drivers using the charging facilities will be waiting for a period of time at the Park and Ride sites, while their vehicles charge, creating demand for facilities and amenities such as retail. In light of the climate emergency and emerging circular economy, we will seek to create green hubs at our Park and Rides to cater for this demand, which could include:
  - Travel information station
  - Parcel collection
  - Recycling and waste point
  - Household goods refill station
  - Food share-house / community fridge
  - Repair café
  - Library of things
  - Reuse shop
- 6.27 In the longer term, as there is a shift towards connected autonomous vehicles and a

change in the ownership model, existing parking facilities at our Park and Rides will evolve to become charging, servicing and repair hubs, where autonomous vehicles will be kept when not active on the roads. Park and Rides will become green interchange hubs, where people will be able to transfer from low occupancy CAVS (and other modes such as cycling) to higher occupancy shared autonomous vehicles to travel into Reading town centre, and also access a range of other facilities.

### **Railway Stations**

- 6.28 The regular rail services run to and through Reading on the Great Western Main Line, Reading–Basingstoke branch line and Reading–Taunton line, which can/will be accessed at Reading Railway Station, Reading West and a future committed railway station at Reading Green Park (planned to open in winter 2020). Significant investment is planned and progressing on the railways including: electrification, Elizabeth Line and Western Rail Link to Heathrow.
- 6.29 Improved access to the railway via improved and new railway stations (discussed below), and via footways, cycleways, bus services and Fast Track Public Transport services are important to increase rail use and realise the benefits of the wider rail investment and accessibility enhancements.



### **Active Travel Schemes**

- 6.30 We have identified a number of active travel schemes which will incorporate the principals of the healthy streets concept and best practice. The schemes will transform the transport network to make walking and cycling more attractive, enable improved air quality, improve health and wellbeing and reduce private car use and emissions. These include:
  - Town and Local Centre Public Space Enhancements
  - Strategic Pedestrian Routes
  - Local Pedestrian Routes
  - Strategic and Town Centre Cycle Routes
  - Local Cycle Routes
  - Sustainable and Safer Travel to School
  - Play and School Street Programme
  - Transport Interchange Cycle Parking
    Hubs
  - Residential Cycle Parking
  - Cycle Hire Scheme
- 6.31 Walking and cycling are low-cost, efficient, environmentally friendly modes of transport. They can contribute to reducing congestion levels, delivering physical and mental health benefits and improving accessibility. We

have identified a number of improvements that can be made to the current infrastructure to encourage increased levels of walking and cycling in Reading through the work carried out as part of the Local Cycling and Walking Infrastructure Plan (LCWIP).

- 6.32 Strategic cycle routes are proposed to link key transport hubs and major employment in Reading. They will provide protected space for cyclists on some of our busiest roads, whilst maintaining separation from pedestrians to avoid conflicts. Only pedal cycles and legal e-bikes will be permitted to use cycle superhighways.
- 6.33 Our strategic and town centre cycle network will be supported by a wide network of local and leisure cycle routes, providing connections to local facilities including education, retail, health and leisure. Opportunities to provide a new cycle hire scheme around Reading are being explored. Cycle hire facilities improve access to cycling, and therefore we plan to provide and expand our cycle hire network.
- 6.34 Public space plays a large part in the movement experience within Reading. It is recognised that there are areas of the town, particularly within the town centre and local centres, where improvements to the quality of public space would improve user comfort and make walking and cycling in

Reading more attractive. Improvements will be delivered to enhance the public space throughout the town centre. Alongside this, public space improvements offer the opportunity to enhance both road safety and perceptions of safety, through good design.

### **Network Management Schemes**

- 6.35 We have identified a number of schemes to manage travel demand on our networks to improve the efficiency and safety of the transport network. This will include embracing and trialling new technologies alongside ore traditional forms of network management including:
  - Traffic and Junction Management
  - Parking Schemes and Management
  - Road Safety Schemes
  - Electric Vehicle Charging
  - Smart City Initiatives
  - Intelligent Transport Systems (ITS)

### Communication and Engagement Schemes

- 6.36 To maximise the benefits of the schemes we deliver and achieve our overall objectives, it is vital to engage with local residents and key stakeholders to promote the benefits and enhancements that our schemes will bring to them, these include:
  - Marketing and Promotion
  - Travel Information and Advice
  - Training, Education and Initiatives
  - School Travel Accreditation Programme
  - Progress Reporting and Engagement

### **Our Schemes and Initiatives**

- 6.37 The following pages provide more detailed information on the individual schemes that in combination form our overall transport strategy.
- 6.38 The delivery of these schemes are subject to further scheme development, feasibility, consultation and funding. More information on funding, implementation and engagement with residents and delivery partners is outlined in subsequent chapters.

# **Demand Management**



#### **Demand Management**

#### **Delivery Partners:**

Wokingham Borough Council West Berkshire Council Oxfordshire County Council Department for Transport

#### **Summary:**

Due to key challenges including the declared climate emergency, car emissions causing poor air quality and the forecast levels of growth increasing future demand for travel, continuing with the status quo is not an option. Therefore, alongside providing sustainable alternatives we must manage demand on our network to help to achieve our overall vision for Reading. This will involve making difficult choices and delivering some or all of the schemes set out in this section.

The introduction of demand management measures will provide revenue to enable investment in sustainable transport options to provide attractive alternatives to the private car and increase options for travel around the town. This is therefore a fundamental element of our overall transport strategy. We are progressing investigative work on demand management options for Reading, but are also aware of the potential for demand management to be delivered on a wider scale, such as nationwide road user charging or mobility charging. We will monitor developments in this area, and will adapt our proposals in line with regional or national policy if required.

Each demand management measure is highly flexible and able to be deployed either in isolation, or in combination with other measures. We will undertake further work to determine the best package of demand management measures to implement in Reading.

Whilst we will deliver demand management within Reading Borough, it should be noted that the administrative boundaries of Reading mean key employment sites, such as the University of Reading and Green Park, will be split across boundaries. In the case of Thames Valley Business Park and Arlington Business Park, these will be entirely outside of the Borough. Given the large number of trips that are generated by these sites, we will commence discussions on the proposed options with Wokingham Borough and West Berkshire Councils at an early stage.

Demand management has an inherent risk of disadvantaging those on low incomes, and those who face barriers accessing public transport. To mitigate this risk as far as possible, we will design any demand management scheme with full consideration of equalities, and will carry out an Equalities Impact Assessment. Revenue generated by demand management will also be able to be reinvested back into the sustainable transport network to reduce or remove barriers to travel for all, in line with policy RTS3 Equality and Inclusivity.

#### Issue

Reading is a densely populated town, with high economic and social activity, leading to high levels of travel demand. In order to facilitate continued economic growth and development, transport capacity needs to be increased to accommodate the corresponding increases in demand to travel. There is no longer the available land to continue to provide more capacity for private vehicle travel and the environmental and health consequences are not acceptable or desirable when seeking to realise the Reading 2050 Vision and meet the aim of the RTS.

Evidence already indicates that Reading is unlikely to be able to meet the identified transport growth and air quality challenges without additional methods of managing traffic growth in parallel with investing in improving access for more sustainable means of travel. Therefore, doing nothing is not an option. The RTS is reliant upon external funding being secured to develop and construct new transport infrastructure to improve air quality and reduce car congestion.

#### Outcome

- Reduced traffic leading to reduced forecast congestion and improved forecast air quality
- Increased capacity for growth
- Reliable, ring-fenced income stream to allow us to deliver other elements of the RTS, including investing in alternative travel services, initiatives and infrastructure

#### **Clean Air Zone**

A Clean Air Zone (CAZ) would allow us to either restrict access or introduce charges for the most polluting vehicles, allowing us to improve air quality in the town.

Although a CAZ would not target all vehicles, and as a result would have a more limited impact on congestion compared to other demand management measures, it targets the most polluting vehicles, including businesses operating old vehicle fleets. This could have a significant impact on air quality in Reading, leading to associated health benefits. A CAZ could also be designed to target trips based on origin and destination, such as through-trips.

#### **Emissions-Based Charging**

Emissions-based charging charges drivers for various actions at a rate that is dependent on their vehicle's emissions. For example, drivers of more polluting vehicles parking in Reading could be charged a higher rate than low emission vehicles such as electric and hybrid. The charges could vary across the Borough and change depending on time and day.

#### **Road User Charging**

Road User Charging (RUC) could be implemented to seek to reduce traffic, without road closures. Charges for specific routes or zones could be levied, leading to reductions in traffic in key areas, or the scheme could apply across the Borough. Complementary measures to minimise the risk of traffic re-routing along unsuitable alternative roads would also be required.

RUC could apply to all vehicles using roads within the charging area, regardless of journey purpose, origin or destination. Alternatively, it could be implemented flexibly, for example to discourage the high volumes of through-traffic that Reading is currently subject to, or to discourage travel at peak times.

#### Workplace Parking Levy

A Workplace Parking Levy (WPL) would seek to encourage employees to shift towards sustainable travel. Employers could pass on levy costs to staff, and/or they may look to reduce their parking to reduce costs.

A similar approach to that already in operation in Nottingham would be proposed, and the levy would apply to all employers with employee parking over a certain threshold, with minimal exceptions. Varying rates could be applied in different areas of Reading, potentially dependent on their accessibility by other modes of travel.

A WPL would likely require expansion of existing controlled parking zones, to reduce the likelihood of overspill parking into residential areas. These would be applied in consultation with local residents.

#### Adapting to the Future

Demand management is inherently flexible, with the ability to change pricing or restrictions to adapt to a changing transport network over the long term, as well as dynamic pricing throughout the day and week.

We acknowledge that a demand management scheme cannot be delivered without reasonable alternative travel provision, such as public transport, in place. Therefore, we will implement demand management through a phased approach, that can adapt to changing travel patterns (for example a shift towards electric vehicles) and also allow the delivery of sustainable transport infrastructure in tandem.

In the long term, we expect that demand management will be seamlessly integrated with our MaaS scheme, and mobility demands via peak modes in peak locations at peak times would be subject to additional charges in comparison to offpeak travel.



#### Transport Corridor Multi Modal Enhancements

#### **Delivery Partners:**

West Berkshire Council Wokingham Borough Council Oxfordshire County Council Hampshire County Council Local Parish and Town Councils

#### Summary:

Multi-modal enhancements to major transport corridors, which could include:

- Reallocation of road space to walking, cycling and public transport
- Improved pedestrian and cycle provision, including wider, more accessible routes and upgraded /new crossings
- Improved public transport provision, including bus priority infrastructure, travel information and stop facilities
- Increase in capacity at pinch points
- Traffic signal upgrades
- Safety enhancements
- Removal of excessive street furniture
- Increased landscaping and vegetation
- Introduction of pedestrian and cyclist rest areas

#### lssue

These highway corridors are key routes that connect the wider urban area and strategic highway network to the centre of Reading. The routes also serve a number of high-density residential areas. Therefore, traffic volumes are high, particularly during peak morning and evening hours as the roads carry both strategic and local traffic.

The high traffic volumes give rise to congestion, which, in many locations, is further exacerbated by local traffic pinch points. The congestion and relative lack of high-quality pedestrian and cycle infrastructure leads to public transport and active travel being seen as unattractive.

- Reduced forecast congestion and improved forecast air quality
- Increased walking and cycling levels through enhanced user experience, including improved safety, reduced delay and better accessibility
- Shift to public transport through improved public transport journey times and reliability, upgraded waiting environment, and potential for further bus services to increase capacity
- Economic benefits through improved journey time reliability and increased travel capacity
- Improved biodiversity and urban environment



#### Issue

#### Inner Distribution Road (IDR) Multi-Modal Enhancements

#### Summary:

Multi-modal improvements to the IDR to reduce severance and reconnect communities, which could include:

- Reallocation of road space to walking, cycling and public transport
- Improved pedestrian and cycle provision, including wider, more accessible routes and upgraded /new crossings
- Improved public transport provision, including bus priority infrastructure, travel information and stop facilities
- Increase in capacity at vehicle pinch
  points
- Traffic signal upgrades
- Safety enhancements
- Removal of excessive street furniture, such as guard railing
- Increased landscaping and vegetation

The IDR forms a key part of the highway network in Reading, and as such, congestion and air pollution are major issues. The IDR carries significant levels of traffic providing access to the town centre or carrying traffic around the town centre to and from the radial routes it connects. Facilities for other modes, such as public transport, walk and cycles are limited. Enhancement is therefore needed to improve the experience and safety for cyclists and pedestrians, particularly crossing the IDR.

Traffic congestion on the IDR has proved to be a continuous issue within Reading. The route itself is dominated by motor vehicles and the road environment acts as a major barrier to sustainable travel modes such as walking and cycling, due to a combination of traffic volumes and speeds.

The IDR is one of the busiest roads in Reading, with parts of the route carrying almost 50,000 vehicles a day<sup>69</sup>. It encircles the town centre, causing high levels of severance, and is a significant barrier to pedestrian and cycle movements. The road suffers from high levels of congestion and poor air quality, with localised pinch points and very limited public transport priority.

Walking and cycling to and through the town centre is made less attractive by the significant barrier created by the IDR which disconnects communities, and public transport services experience delay, discouraging their use.

- A package of multi-modal improvements will help to encourage more sustainable travel, reconnect communities, whilst removing traffic pinch points and enabling improved traffic flow, leading to reduced forecast congestion and improved forecast air quality. This would offer health benefits to residents, employees and visitors to the town
- Improved journey time reliability would lead to economic benefit, and encourage the use of public transport, leading to a mode shift away from the private car
- An improved walking and cycling experience alongside better connectivity and reduced journey times for these modes and bus services would lead to a mode shift towards active travel and improved healthy lifestyles





#### North Reading Orbital Route

#### **Delivery Partners:**

South Oxfordshire District Council Oxfordshire County Council Local Parish and Town Councils

#### Summary:

A new orbital route around the northern edge of Reading linking the A4074 to the A4155. The new route would enable the delivery of an effective Park and Ride network in the north of Reading. It will include an FTPT route along its length, walking and cycling facilities and limited highway capacity for general traffic to help alleviate congestion in Caversham and over the River Thames.

The scheme will facilitate the reallocation of road space in Caversham and over the existing river crossings, to deliver public transport priority, walking, cycling and public space improvements. The route is linked to the delivery of the proposed Third Thames Crossing east of Reading, to provide an enhanced connection to the town centre and wider strategic network from the north of Reading.

We will work closely with Oxfordshire authorities to deliver the scheme, as it is reliant on land availability to the north of Reading.

#### Issue

Traffic currently uses Caversham as a throughroute, causing significant congestion and air quality issues for local residents in Caversham. A large proportion of this through-traffic travels to and from the north of Reading, passing through Caversham local centre and along local (often residential) roads, which leads to traffic delays and poor air quality in Caversham.

Bus journey times are unreliable as a result of the congestion, making public transport an unattractive option. There is currently limited opportunity to deliver public transport priority due to the constrained nature of the roads.

These issues will be exacerbated if development within Caversham and north of Reading in South Oxfordshire is delivered. This will increase traffic levels further as the new occupants are likely to make trips to Reading as it is a major employment, retail and leisure hub in the area.

#### Outcome

 Traffic to and from north of Reading would be routed around Caversham local centre facilitating reallocation of road space for improved public transport and cycle facilities serving the local community and town centre, This would reduce dependency on the private car and encourage a shift to sustainable transport, increasing capacity for travel into and out of Reading and improving air quality.

- When combined with the Third Thames Crossing, cars and lorries will be routed away from Caversham and Reading town centre, improving forecast congestion.
- The scheme would be linked to the delivery of Park and Ride facilities along Reading's northern boundary, the Third Thames Crossing and East FTPT. This would provide a highquality FTPT route from Park and Rides north of Reading to the town centre, via Thames Valley Park and Ride, further encouraging mode shift.

#### Adapting to the Future

Whilst initially designed to carry buses, the dedicated FTPT lanes will be designed to be suitable in the future to carry other forms of public transport, such as shared autonomous shuttles/ buses, guided buses, trams or light rail.

The FTPT lanes, combined with the wider FTPT network, would offer a potential testing site for trials and early adoption of emerging technologies and legislation to enable services, for example Mobility as a Service (MaaS), connected autonomous public transport services and demand responsive services.

#### Third Thames Crossing East of Reading

#### **Delivery Partners:**

Wokingham Borough Council South Oxfordshire District Council Local Parish and Town Councils Oxfordshire County Council Highways England Department for Transport

#### Summary:

Provision of a new multi-modal river crossing, including bus priority and segregated walking and cycling facilities, linking the eastern side of Caversham and the northern end of the A3290 and associated mitigation measures to protect and bring benefits to local communities.

The crossing will include sustainable transport provision, as well as capacity for private vehicles. The crossing would link to other proposed schemes including the East FTPT route, North Reading Park & Ride facilities and the North Reading Orbital Route.

The crossing enables the reallocation of road space to provide bus priority for services between Caversham and Reading town centre via the existing crossings of the River Thames. This will help to achieve traffic reduction and air quality improvements. The Cross-Thames Travel Group has been formed to develop the scheme and associated mitigation measures, including representation from all key stakeholders and Local Authorities. Feasibility work carried out by the group to date has concluded that the preferred location for the crossing is to the east of Reading. The scheme has been ranked as the second highest priority major transport scheme in the region by Transport for the South East and scheme development work is being undertaken by the Cross-Thames Travel Group.

#### Issue

Reading and Sonning suffer from through-traffic travelling between Oxfordshire and the M4 and southern England, as well as high levels of trips from Oxfordshire to and from Reading. This causes significant congestion in Reading town centre and Caversham, where traffic is required to cross the River Thames using either Reading or Caversham Bridges, which do not provide sufficient capacity to cross the river.

The network is significantly and adversely affected when there are incidents on or close to the bridges across the River Thames, such as traffic accidents and flooding. The approach to Sonning Bridge is vulnerable to flooding and this crossing becomes impassable during flood events. The diversion route from this bridge to Henley Bridge is also susceptible to flooding and this further reduces crossing capacity during flood events. This results in significant increases in traffic using Reading and Caversham bridges, and adds to the congestion in northern and central Reading. The current transport network has limited capacity to accommodate travel demand to Reading town centre and the strategic road and rail networks. The lack of bus priority crossing the river leads to slow, unreliable buses serving Caversham, making public transport in the area both less attractive and less commercially viable to deliver higher frequency services. Existing cycle links, including those to Thames Valley Park, are indirect.

- Significant benefits including reduced journey times, more reliable journeys, congestion relief, air quality improvements and network resilience
- The crossing and the associated North Reading Orbital Route would provide an alternative route for traffic away from the existing river bridges reducing congestion in Caversham and enabling the reallocation of road space to provide bus priority
- Increased attractiveness of public transport and potential to increase bus frequency due to improved journey times and reliability on the existing bridges in Reading and Sonning
- Increased attractiveness of cycling between, South Oxfordshire Caversham, Reading and Wokingham
- Associated mitigation measure protecting and bringing benefits to local communities



#### **Quality Bus Corridors**

#### **Delivery Partners:**

Public transport operators West Berkshire Council Wokingham Borough Council South Oxfordshire District Council

#### Summary:

High quality branded bus routes and infrastructure (bus shelters, real-time information, accessible buses, Wi-Fi and USB charging on buses etc.). Bus priority (potentially involving the reallocation of road space) should be further delivered to enable the bus services to avoid the impacts of congestion. Additionally, the expansion of the red route scheme along high frequency routes to improve traffic flow. Cyclists, motorcyclists and taxis will generally be permitted to use bus priority infrastructure provided to support our QBCs.

#### Issue

Car congestion is the single biggest factor limiting the delivery of quality reliable bus services as the bus services are hindered by congestion. This leads to increased journey times, reduced reliability and results in increased operating costs and limits the attractiveness of using bus services.

- Improved bus journey times and reliability along the main corridors in and out of the town centre. Modernised, high quality bus infrastructure will further improve the perception of bus travel and be more attractive for main mode of travel
- The improved attractiveness of bus travel, therefore reducing private car trips, easing congestion, and enabling higher level of trips to be accommodated on the transport networks to enable economic growth



#### **Concessionary and Discounted Travel**

#### **Delivery Partners:**

Public transport operators Wokingham Borough Council West Berkshire Council Oxfordshire County Council Bracknell Forest Borough Council

#### Summary:

We provide statutory concessions in accordance with national legislation, which allow older and disabled people to travel on buses for free during off-peak times. Additionally, we also provide concessionary travel for disabled people and their carers during peak times, and travel at all times on dial-a-ride services for eligible pass holders.

We will investigate the potential to provide further concessions for other sustainable trips within Reading. Potential options for this could include discounted or free travel for:

- Different population sectors (for example people aged under 18 or people living in low income households)
- Different trip types (for example travel to school or trips in certain parts of Reading)
- Different trip times (for example off-peak travel for more users or peak travel for older people.)

To support an expanded concessionary fares scheme, we will need to identify a revenue stream, for example that which could be generated by a demand management scheme.

#### Issue

Disabled and elderly people are more likely to be reliant on public transport than other members of the population and are also more likely than others to be financially less well off. At present, the concessionary fares scheme only provides for free travel during off-peak times. However, many journeys made by those with concessionary passes need to be made at peak times (for example trips to work or healthcare appointments). This can lead to increased social isolation, increased deprivation and poverty for those who struggle to pay for peak hour fares.

Reading suffers from congestion due to high levels of private car travel, leading to poor environmental quality and reduced productivity.

Over one in four cars trips on the network at peak times are related to school travel<sup>70</sup>.

Some areas of Reading are relatively deprived, with people at risk of social isolation without affordable travel options.

#### Outcome

Expansion of the concessionary fares scheme would provide a financial incentive encouraging bus travel in Reading and leading to a mode shift away from the private car. Depending on the details of the scheme, the following benefits could be realised:

- People developing life-long sustainable travel habits, resulting in a permanent mode shift away from the private car
- Increased accessibility to services and employment, resulting in economic benefit
- Reduced peak hour traffic, leading to reduced journey times, improved journey time reliability, reduced forecast congestion and improved forecast air quality
- Increased off-peak bus travel, leading to improved viability of bus services
- Mental health benefits (from social interaction and increased independence) and physical health benefits (from increased mobility)



#### **Community Transport**

**Delivery Partners:** ReadiBus Other community transport operators

#### Summary:

Reading is served by ReadiBus – a specialist transport service for people with restricted mobility. This operates as a 'dial-a-ride' service. Our strategy includes additional demand responsive travel services, which would serve all sectors of the population.

We will continue to support ReadiBus services, and investment in the scheme to enable more flexibility in booking.

#### Issue

People with restricted mobility are less likely to be able to travel by standard bus, or drive. Lack of suitable transport services can lead to isolation, alongside health and wellbeing impacts.

Currently, people using the ReadiBus service must book a set time in advance, using either the website or by phone. Furthermore, last-minute bookings cannot be made. This limits flexibility for travel.

- People with mobility impairments will be more able to travel freely, affording them greater independence and flexibility
- The scheme will reduce the likelihood of isolation and associated health impacts



### Demand Responsive Transport

#### **Delivery Partners:** Public transport operators

#### Summary:

Introduction of demand responsive transport services, primarily in areas not otherwise serviced by public transport. Supporting technology would be implemented, which could include a mobile app, website and/or phone system, to facilitate the operation of the scheme.

This allows provision of flexible bus access at times when it is difficult or expensive to provide frequent fixed route bus services.

#### Issue

Some areas of Reading are relatively isolated and have poor access to the town centre and local facilities. This is due to bus services not covering all areas of Reading. In particular, people with disabilities, young and older people and deprived communities are most at risk as they are less likely to be able to travel by alternative means.

#### Outcome

- Access to amenities would be improved in areas not currently served by public transport, providing affordable travel options for those on low incomes and encouraging reduced travel by car or taxi
- The scheme would also act as a feeder service to regular public transport services, providing door-to-door connectivity and increasing the attractiveness of public transport
- This would encourage a mode shift away from the private car and contribute towards reduced forecast congestion and improved air quality, as well as encouraging social interaction and allowing people to be independent for longer
- Investment in the system could provide a catalyst for the expansion of non-fixed route public transport services, with the emerging initiatives and technologies such as MaaS, autonomous and connected vehicles

#### Adapting to the Future

Technological advances mean that Shared Autonomous Vehicles (SAVs) are likely to become a cost-effective solution for 'last mile' travel for people and deliveries within the plan period. Currently, there are SAVs running in locations such as business parks across the world, although they currently require a driver except where they are operating on a fully private road. We expect UK leaislation to remove this requirement for a driver from 2021, and for the cost of vehicles to fall. Current SAVs are relatively small, carrying around 12 to 15 people, however the technology is scalable to any size of vehicle and we expect there will be a much wider choice available over the coming years, enabling them to provide new opportunities for an integrated public transport service.

It is likely that the evolution of SAV will follow on from the development of Demand Responsive Travel across the Borough and in the future, they will work together to provide high frequency doorto-door services to complement and enhance the fixed-route public transport network.

Reading will review all schemes and new development in the context of operation on opening but also suitability for the future deployment of SAVs, so that they are 'future ready'.



#### Issue

South Reading Fast Track Public Transport Corridor

#### **Delivery Partners:**

Wokingham Borough Council Public transport operators Royal Berkshire Hospital The University of Reading Private sector

#### **Summary:**

Staged delivery of an FTPT route along the A33 (including future development sites), linking Mereoak Park & Ride, south Reading business parks, Kennet Island, Madejski Stadium and Reading town centre is already underway.

There still remains significant sections along the A33, particularly northbound towards the town centre, where the FTPT should be delivered to provide priority. Car commuter congestion and lack of bus priority through junctions leads to delays to Greenwave bus services that use the FTPT route. This makes provision of effective public transport services along the A33 challenging.

Planned development in and around the Southern Neighbourhood Area is expected to further increase demand for travel along the A33 corridor, increasing congestion. Alternative travel options and capacity upgrades are required to support already increasing travel demand and unlock development sites.

- Significant cost savings to businesses through improvements to travel capacity, journey time and reliability
- Increased attractiveness of public transport and potential to increase bus frequency due to reduced operating costs and/or increased patronage
- Increased capacity for travel into and out of Reading, and reduced congestion leading to improved air quality
- Development in the Southern Neighbourhood Area will be unlocked



#### East Reading Fast Track Public Transport Corridor

#### **Delivery Partners:**

Wokingham Borough Council Public transport operators

#### Summary:

There are high levels of congestion, poor air quality, lack of public transport provision leading to unreliable journey times and a lack of continuous walking and cycling facilities in the east of Reading. These issues have a significant impact on the health and wellbeing of local residents, therefore the status quo is not an option and we must deliver a solution that addresses these issues.

An FTPT corridor in the eastern area of Reading would provide a sustainable travel option, reducing congestion and improving air quality to deliver benefits to local residents. It will link Thames Valley Park & Ride and Reading town centre (as well as Winnersh Triangle and Coppid Beech Park and Rides, and potentially North Park and Rides via Third Thames Crossing) to maximise benefits.

We are committed to working with Wokingham Borough Council to provide enhanced sustainable travel options and deliver the East FTPT to address issues facing local residents. We will work with Wokingham Borough Council to review the work that informed and supported the previous planning application for an East Reading public transport and active travel route, and identify the type of infrastructure that would best support the objectives of the East FTPT corridor. Solutions could include:

- A tidal-flow public transport scheme on existing highway (removing capacity for general traffic)
- Options to improve travel via the railway and rivers
- A new dedicated public transport route connecting the east of Reading and Thames Valley Park and Ride to the town centre

Any options will be investigated in conjunction with the implementation of complementary demand management measures.

#### Issue

Daily profiles, alongside congestion and observed queues, indicate that the corridor is operating at, or over capacity during the majority of the day. Traffic queues can reach 300–550 vehicles exiting Reading in the peak periods and between 60 and 200 vehicles entering Reading in the peak periods.

Traffic congestion and lack of bus priority on London Road leads to slow, unreliable public transport, increased operating costs and decreased service frequency. This makes bus travel less attractive, and limits opportunity to operate a greater range of bus services along the corridor.

Car demand to access the strategic rail and motorway networks is expected to grow with delivery of the Elizabeth Line, Western Rail Link to Heathrow and smart motorways.

Planned development in and around the Eastern Neighbourhood Area, Wokingham and Bracknell Forest is expected to increase travel demand and delay along the corridor, restricting growth in the area. Alternative travel options and capacity upgrades are required to unlock development

- Reduced congestion and improved forecast
  air quality
- Increased public transport services to the planned Thames Valley Park & Ride, to improve its attractiveness and extend the operating hours
- Increased attractiveness of public transport and potential to increase frequency due to reduced operating costs and increased support
- Significant benefits to residents and businesses through improvements to travel capacity, journey time and reliability
- Increased capacity for travel to and from Reading to help mitigate the impact of future development in Reading and Wokingham



### West Reading Fast Track Public Transport Corridor

**Delivery Partners:** West Berkshire Council Public transport operators

#### Summary:

Delivery of an FTPT corridor in the west of Reading.

The FTPT corridor will link the West Park and Ride to Portman Road Industrial Estate area, supporting regeneration of the area, as well as to the town centre. It will also provide benefits to public transport services for local residents along the corridor, including improved connections to the Oxford Road local centre, Tilehurst and Reading West stations and local schools.

There are also opportunities for the FTPT route to serve Rivermead Leisure Centre, the proposed new secondary school on Richfield Avenue and Cardiff Road Industrial Estate via the improved Cow Lane Bridges.

#### Issue

Traffic congestion and a lack of bus priority on A329 Oxford Road leads to slow and unreliable public transport, increased operating costs and decreased service frequency. This makes bus travel between western parts of Reading and the town centre less attractive and challenging to maintain headways and deliver higher frequency and passenger capacity.

Car commuter demand to access the strategic networks (rail and motorways) is expected to increase with the planned investment schemes such as: Elizabeth Line, Western Rail Link to Heathrow and smart motorways.

- Reduced congestion and improved forecast air quality
- Provision of high quality public transport services to the West Park & Ride, to encourage mode shift away from the private car and increased the combined benefits of the schemes
- Increased attractiveness of public transport and potential to increase bus frequency due to reduced operating costs and/or increased support



- Significant benefits to residents and businesses through improvements to travel capacity, journey time and reliability
- Increased capacity for travel to and from Reading to help mitigate the impact of future development

#### South West Reading Fast Track Public Transport Corridor

**Delivery Partners:** West Berkshire Council Public transport operators

#### Summary:

Delivery of an FTPT corridor in the south west of Reading, linking a future Park & Ride and Reading town centre.

This FTPT corridor will provide a fast public transport route from the South West Park and Ride to the town centre, encouraging mode shift from private car for the final stages of long-distance trips via the M4 motorway and removing cars from Reading's road network.

#### Issue

Traffic congestion and a lack of bus priority on the A4 Bath Road leads to slow and unreliable public transport, and also increased operating costs and decreased service frequency. This makes bus travel between western parts of Reading and the town centre less attractive and challenging to maintain headways and deliver higher frequency and passenger capacity.

Car commuter demand to access the strategic networks (rail and motorways) is expected to increase with the planned investment schemes such as: Elizabeth Line, Western Rail Link to Heathrow and smart motorways.

- Reduced congestion and improved forecast air quality
- Increased attractiveness of public transport and potential to increase bus frequency due to reduced operating costs and/or increased support
- Significant benefits to residents and businesses through improvements to travel capacity, journey time and reliability



- Improved and sustainable accessibility to the strategic transport networks to increase the catchment and travel benefits of the planned schemes
- Increased capacity for travel into and out of Reading



#### Orbital Fast Track Public Transport

#### **Delivery Partners:**

Wokingham Borough Council West Berkshire Council Public transport operators

#### Summary:

Delivery of orbital FTPT corridors, linking key transport hubs, residential areas and employment areas.

These services would reduce the need for people to travel into the town centre when they do not have an origin or destination within the centre, reducing the number of vehicles making through trips on the IDR. They will also enable cross town travel by public transport without needing to change services in the town centre.

These services could either be provided on existing routes or new routes such as the proposed North Reading Orbital Route.

#### Issue

41% of commuters travelling to work from home within the wider Reading area do not have an origin or destination within the Central Area. Therefore, there is a significant demand for orbital movements between residential, employment areas and railway stations/Park & Rides. Currently the majority of bus routes are radial, making public transport a less attractive choice for these journeys as it is indirect.

This leads to increased car travel and congestion within the town and city region.

Car commuter demand to access the strategic networks (rail and motorways) is expected to increase with the planned investment schemes such as: Elizabeth Line, Western Rail Link to Heathrow and smart motorways.



- Cost savings to businesses through improvements to travel capacity, journey time and reliability
- Increased attractiveness of public transport and potential for significant increase in overall bus patronage
- Increased capacity for travel around Reading, and reduced car commuter congestion leading to improved air quality
- Improved and sustainable accessibility to the strategic transport network to increase the catchment and travel benefits of the planned schemes

### Mereoak Park and Ride Expansion

#### **Delivery Partners:** Wokingham Borough <u>Council</u>

#### Summary:

Mereoak Park and Ride opened in 2015 with 570 spaces and is extensively used by people travelling from south of Reading, and the M4. It is served by Greenwave buses to Reading town centre, Madejski Stadium, Green Park and the Royal Berkshire Hospital. Mereoak is also the coach stop for Reading for National Express coach services. There is potential for the Park and Ride to become a major transport interchange hub, encouraging further use of the Park and Ride, with the provision of additional facilities and car parking at the site.

We will deliver increased parking provision, new electric vehicle charging points, and a facilities hub (which could include toilets, a waiting room and café, for example).

#### Issue

Planned development in and around the Southern Neighbourhood Area is expected to increase demand for travel along the A33 corridor, adding further delays or restricting growth within the heavily congested Neighbourhood area. Alternative travel options are required to unlock development sites in the wider area, and to increase capacity for travel into Reading.

Mereoak Park and Ride does not benefit from enclosed passenger waiting facilities or toilets. Demand to access the strategic networks (rail and motorways) is expected to increase with the planned investment schemes such as: Elizabeth Line, Western Rail Link to Heathrow and smart motorways. Mereoak Park and Ride



Outcome

- Improved amenity offering will increase attractiveness of Park and Ride facility
- Attract more motorway coach services to stop at this facility
- Additional car parking will provide increased capacity to travel by Park & Ride. This would increase usage of the Park and Ride and reduce congestion into the town, which, in turn, could enable increased bus service frequencies to the Park and Ride
- Increased capacity for trips along the A33 corridor, facilitating economic growth
- Improved sustainable accessibility to the strategic transport networks to increase the catchment and travel benefits of the planned schemes.


## **Thames Valley Park and Ride**

**Delivery Partners:** Wokingham Borough Council

#### Summary:

Delivery of a new Park and Ride facility at Thames Valley Park, servicing the town centre.

A new Park and Ride facility - Thames Valley Park and Ride – is being delivered by Wokingham Borough Council. The scheme includes 260 parking spaces west of Thames Valley Park and is proposed to be served by the existing Thames Valley shuttle bus services between the Park and Ride and central Reading.

East FTPT will provide a direct traffic-free route for this service, if delivered, as well as Winnersh Park and Ride and other eastern bus services. Further services passing the Park and Ride would increase the frequency services and increase the Park and Ride operating hours.

#### Issue

The A4 London Road operates at capacity with high levels of congestion occurring during peak periods. Planned development is anticipated to increase travel demand on this corridor and there is no capacity to accommodate this.

Demand to access the strategic networks (rail and motorways) is expected to increase with the planned investment schemes such as: Elizabeth Line, Western Rail Link to Heathrow and smart motorways.

- Car trips from the east into Reading will be able to use the Park and Ride and associated bus services to access Reading. This will increase the transport capacity into Reading town centre and facilitate economic growth
- Improved sustainable accessibility to the strategic transport networks to increase the catchment and travel benefits of the planned schemes



## Winnersh Triangle Park and Ride Enhancements

**Delivery Partners:** Wokingham Borough Council

#### **Summary:**

Winnersh Triangle Park and Ride provides a key link for those travelling from the south and east of Reading. Further enhancements are proposed to increase parking capacity and improve for the Park and Ride services.

The improvements delivered will need to cater for the growth of future technologies including the provision of more electric charger points.

We will seek to extend parking provision by decking the car park that will allow an increase in the parking spaces. This will cater for the demand with an increase in provision of electric charging points for both cars and buses to adapt to changing technologies. Waiting facilities and associated amenities will also be upgraded to enhance user experience.

East FTPT would improve the journey times and reliability of the supporting bus services.

#### Issue

Winnersh Triangle Park and Ride opened in 2015 with nearly 600 spaces for those travelling from the east of Reading. The Park and Ride has been well used and providing this key link to the town centre with buses departing every 15 minutes. However, there are currently no waiting facilities for passengers and there is limited provision for electric vehicles.

### Outcome

- Improved amenity offerings will increase the attractiveness of the Park and Ride facility
- Additional car parking will provide increased capacity to travel by Park & Ride
- Combined, this would increase usage of the Park and Ride and reduce congestion

Winnersh Triangle Park and Ride





## North Reading Park and Rides

### **Delivery Partners:**

South Oxfordshire District Council Oxfordshire County Council Local Parish and Town Councils

#### **Summary:**

The provision of a comprehensive Park and Ride network to the north of Reading serving the town centre.

The provision of Park and Ride facilities alone will provide benefits with the existing infrastructure. However, there is limited scope to provide a truly attractive alternative to the private car due the lack of ability to provide bus priority on routes through Caversham due to limited available space.

The benefits of this scheme would be maximised through the delivery of the North Reading Orbital and Third Thames Crossing.

#### lssue

North Reading suffers from high levels of congestion and is heavily constrained – in particular, the Reading and Caversham bridges over the River Thames. This has negative impacts on public space and air quality within Caversham.

Demand to access the strategic networks (rail and motorways) is expected to increase with the planned investment schemes such as: Elizabeth Line, Western Rail Link to Heathrow and smart motorways.

- Car trips from the main road network north of Reading will be able to use the Park and Ride and associated bus services to access Reading town centre, increasing transport capacity into the town centre and facilitating economic growth
- The North Reading Orbital Route will help link any North Park and Rides and the Third Thames Crossing would enable bus priority to be delivered on or on the approach to the existing town centre bridges across the River Thames and/or provide a prioritised alternative route into Central Reading south of the river, via East FTPT



## West Reading Park and Ride

**Delivery Partners:** West Berkshire Council Local Parish and Town Councils

#### Summary:

Delivery of a new Park and Ride facility at the western edge of Reading, serving the town centre.

This facility will be linked to the West FTPT corridor, providing local residents along the corridor improved connections to the Oxford Road local centre, Tilehurst and Reading West stations and local schools.

#### Issue

The A329 Oxford Road suffers from high levels of congestion and is heavily constrained in some areas. Planned development is anticipated to increase travel demand on this corridor.

Demand to access the strategic networks (rail and motorways) is expected to increase with the planned investment schemes such as: Elizabeth Line, Western Rail Link to Heathrow and smart motorways.

West FTPT would improve the journey times and reliability of the supporting bus services.

- Car trips from the west into Reading, including those from neighbouring areas, will be able to use the Park and Ride and associated bus services to access Reading. This will increase transport capacity into Reading town centre and facilitate economic growth. Residents of areas en-route will be able to access extra fast services into the town centre
- Improved sustainable accessibility to the strategic transport networks to increase the catchment and travel benefits of the planned schemes





## South West Reading Park and Ride

**Delivery Partners:** West Berkshire Council Local Parish and Town Councils

#### Summary:

Delivery of a new Park and Ride facility at the M4 Junction 12, to encourage mode shift from private car for the final stages of long-distance trips via the M4 motorway and removing cars from Reading's road network.

This facility will be linked to the South West FTPT corridor, which will provide a high quality public transport connection directly to Reading town centre.

#### Issue

The A4 Bath Road suffers from high levels of congestion and is heavily constrained in some areas. Planned development is anticipated to increase travel demand on this corridor.

Demand to access the strategic networks (rail and motorways) is expected to increase with the planned investment schemes including the Elizabeth Line, Western Rail Link to Heathrow and M4 smart motorway.

South West FTPT would improve the journey times and reliability of the supporting bus services to the Park and Ride.

- Car trips from the west into Reading (particularly those travelling along the A4 and M4) will be able to use the Park and Ride and associated bus services to access Reading increasing transport capacity into Reading town centre and facilitating economic growth
- Residents of areas en-route will be able to access fast services into the town centre or out to Calcot/Theale, encouraging a switch to public transport and reducing forecast congestion. This could lead to improvements in forecast air quality
- Improved sustainable accessibility to the strategic transport networks to increase the catchment and travel benefits of the planned schemes



## Reading Station Interchange Enhancements

**Delivery Partners:** Network Rail Great Western Railway

#### Summary:

Further enhancements to the Reading Station interchange to prioritise pedestrians, cyclists and public transport, including:

- Upgraded public transport stops with real-time passenger information and improved infrastructure to enhance user experience and encourage sustainable travel
- Improve the north/south active travel spine through planned development in the station area. This will include delivering an improved connection between Reading Station and Christchurch Bridge
- Improved access to/from Reading Station for cyclists, including through the subway, and connectivity to key local and national cycle routes
- Improvements in cycle parking through the provision of secure cycle hubs
- Signage and digital wayfinding to help visitors find their way to and from the railway station



### Issue

Reading station is a major transport hub and, with increased passenger usage anticipated over the coming years, improved transport infrastructure will be required to keep up with the demand and to accommodate growth in the Reading area. In addition, cycle theft in Reading is high, and discourages people from cycling to the railway station.

- Improved attractiveness for rail travel, therefore reducing forecast private car trips and forecast congestion, leading to improvements in forecast air quality
- Reduction in cycle theft
- Increased attractiveness of active travel through reduction in severance between the station and town centre
- Improved interchange experience between modes, increasing the attractiveness of public transport and active travel



## Reading West Station Upgrade

**Delivery Partners:** Network Rail Great Western Railway

#### Summary:

Delivery of a quality railway station upgrade, including:

- A ticket office and barriers
- Shelter
- Cycle parking
- Improved ramp entrance
- Lifts to both platforms
- Platform widening
- Canopies on the platforms and improved signage

Reallocation of road space to improve access on foot, cycle and bus.

#### Issue

The access to Reading West Railway Station is concealed and signage is poor, so its visibility from the roadside is limited. Natural surveillance and visibility on the ramps and on the platforms are poor. The ramp from Oxford Road is steep and has a number of steps and is therefore difficult or impossible to access for mobility impaired people or those with children, buggies or heavy goods. A temporary stepped access is provided to the other platform. There is a ramp to the other platform from Tilehurst Road but is isolated and natural surveillance is poor. The railway station is not secure. The platforms are narrow, and protection from the weather is very limited for both passenger and the part time railway station staff. Oxford Road suffers with significant congestion, which affects the journey times and reliability of the bus services accessing the railway station.

- Improved attractiveness for rail travel, therefore reducing forecast private car trips and forecast congestion, leading to improvements in forecast air quality
- Oxford Road corridor would be enhanced to improve personal safety and discourage antisocial behaviour
- Railway station investment can act as a catalyst for wider development and regeneration



## **Tilehurst Station Upgrade**

**Delivery Partners:** Network Rail Great Western Railway

### Summary:

Improve customer experience and make the station fully accessible providing lifts to allow customers to access all platforms. In addition, improve the access to the station by all modes to improve safety and user experience. This could include improved footways, crossings, drop-off/pickup layout, and additional cycle and car parking.

#### Issue

The access to Tilehurst Station is currently poor and inaccessible for users. There are no lifts to access some of the platforms making it unusable for some disabled users and therefore discouraging rail use.

- Improved attractiveness for rail travel, therefore reducing forecast private car trips and forecast congestion, leading to improvements in forecast air quality
- New facilities will make the station accessible to a greater range of potential users





## **Green Park Station**

**Delivery Partners:** Network Rail Great Western Railway West Berkshire Council

#### Summary:

A new railway station and interchange, serving Green Park and wider southern Reading is being delivered by Reading Borough Council.

The scheme includes a two-platform railway station and a multi-modal interchange to the east of the railway station, including a bus interchange, a park & ride facility, cycle parking, short stay car park (drop off/pick up), taxi drop-off, accessible parking facility and access road.

#### lssue

There are high levels of commuter car congestion on the A33, especially around Green Park. Significant development is planned to come forward in the area which will increase congestion without upgrades to the transport networks. Currently the only access into Green Park is by road via private car, bus or cycle. The high frequency bus services are susceptible to congestion where FTPT routes have yet to be delivered, with the potential to reduce the attractiveness of bus travel and increase journey time unreliability.





- Significant cost savings to businesses through improvements to travel capacity, journey time and reliability
- Reduced forecast congestion and delay leading to increased attractiveness of bus services and improved forecast air quality
- Significant development in the area would be unlocked, facilitating economic growth



## Mobility as a Service (MaaS)

**Delivery Partners:** Private sector Public transport operators

#### Summary:

Establish a sustainable MaaS scheme allowing residents, commuters and visitors to simply plan, pay for and undertake multi-modal journeys through an easy to use app linked to a single payment platform. MaaS can be set up as a pay as you go or as a monthly subscription for services. The principle behind MaaS is to reduce car ownership by providing a multi-modal service that gives users the confidence that all their travel needs can be conveniently met without owning a car. In the first instance this may be giving up / not buying a second car. Research shows that without a car on the drive, people travel substantially more sustainably which is necessary to meet Reading's climate targets and improve air quality and health. Increased sustainable travel will make high quality public transport services more viable which will enable more investment in services and greater take up of MaaS. MaaS is not about preventing all access to a car and car clubs and car hire can be part of a scheme.

To be effective MaaS needs a good geographical coverage so that the majority of journeys made by the traveller are within the MaaS area. For example, if a family has a second car primarily used for commuting, MaaS should be able to provide an effective alternative.

We will look to work with neighbouring authorities, public transport operators and commercial providers to build a more integrated service. There are also commercial companies working to establish MaaS services on a fully commercial model although without success to date in the UK. Reading will monitor progress of these should it be beneficial to encourage a company to lead on MaaS services. We will deliver a MaaS 'light' service in and around Reading working with neighbouring authorities and operators to quickly take practical steps towards a full MaaS service building on existing smart cards, apps and web services in the region in the first instance to actively encourage modal shift. Marketing and branding will be a key part of this. Should viable commercial services come forward then we will work with operators to facilitate the commercial MaaS service in place of a Councilled scheme.

We would expect MaaS to be accessible to users via a mobile app. For many people (including some older and disabled people) a service that brings together all travel options into one location and facilitates journey planning, booking and integrated payment is likely to be viewed as a easy to use, and could lead to increased independence for some users.

However, we also recognise that some users, particularly some older or disabled people, may have difficultly using an app to plan, book and pay for their travel. To mitigate this risk as far as possible, we will design any MaaS scheme with full consideration of equalities, and provide alternative access and booking options, such as a website and a telephone service. We will also provide high-quality customer support and education programmes to enable these users to better access MaaS. We will carry out an Equalities Impact Assessment for any MaaS scheme, in line with policy RTS3 Equality and Inclusivity.



#### Issue

Currently there are no multi-modal travel planning services in Reading which streamline journeys and allow for users to make a single payment option for complete journeys. This can make public transport both complex and expensive for users, discouraging its use.

### Outcome

 The availability of a sustainable MaaS scheme will offer improved mobility and access to services whilst reducing the use and consumption of transport resources. A more streamlined transport system will create more reliable, convenient and cost-effective journeys which encourage the uptake of more sustainable travel. This will result in a, reduction in private car use, carbon impact and will free up road capacity for further improvements for sustainable travel



#### lssue

## Town and Local Centre Public Space Enhancements

#### Summary:

We will enhance the experience of visiting central Reading and local centres including access between buses and other modes of transport by removing or reducing conflicts between motorised transport and walking and cycling.

Improvements could include providing adequate facilities for deliveries, manage available kerb space and removal of obstructions to free bus movement on approaches to central areas. Improvements could also be made to provide better access for walking and cycling in and around Reading town centre, including to Reading Station and better access for bus passengers to key interchanges in the town centre, as well as creating car or vehicle-free areas, and providing rest and amenity areas.

Effective management of deliveries, blue badge parking and on and off-street parking will all contribute towards a more accessible town centre. The perception of safety for vulnerable road users along some of the key road corridors, at local centres and the town centre is poor. These roads experience high levels of congestion and suffer from poor air quality. Major road links, such as the IDR, cause significant severance, and make walking and cycling unattractive. Wayfinding has been introduced over time and is sometimes disjointed, and the wider public space environment has become cluttered and inconsistent.

#### Outcome

- Active travel would be enabled, and access would be improved to the local facilities and the town centre, leading to reduced car trips and forecast congestion
- Alongside increased green space, air quality would be improved and exposure to pollution could be reduced through greater separation of people and vehicles
- Road safety and perceived safety could be improved
- Improvements to public space could attract people and businesses to the area, leading to economic growth

Broad Street





### **Strategic Pedestrian Routes**

#### **Delivery Partners:**

Wokingham Borough Council West Berkshire Council

#### Summary:

We will provide improvements to encourage walking and improve options for multi-modal interchange on key walking routes which connect major employment areas, transport hubs, the town centre and district hubs across the Reading area. Improvements should reduce conflict with traffic and other road users and improve safety and perception of safety. Further work will be undertaken to identify strategic pedestrian routes for improvements, which could include:

- Roadspace reallocation
- Enhanced public space
- Resurfacing
- Lighting and CCTV
- New/improved crossings
- Improved signage
- Street clutter removal and consolidation
- Introduction of pedestrian and cyclist rest areas
- Increased landscaping and vegetation

#### Issue

Strategic pedestrian routes are of variable quality in Reading, and areas of poor provision reduce the attractiveness of the routes and discourage people from walking, both as a main mode, or as part of a multi-mode trip. In many locations, private car travel is prioritised over pedestrian movements and pedestrian routes can be narrow and poorly maintained. This can make routes particularly difficult to use for disabled people and other vulnerable users such as parents with pushchairs.

### Outcome

- Improved accessibility for all users
- Increased walking levels and shift away from private car travel, leading to reduced forecast congestion and improved forecast air quality
- Increased levels of physical activity leading to improvements in mental and physical health
- Improved active travel journey times leading to economic benefit
- Improved access to public transport, leading to increased public transport use, potential for service frequency enhancements, additional capacity into Reading and reduced journey times

#### Reading Town Hall Square



### **Local Pedestrian Routes**

#### Summary:

Create a network of local pedestrian routes that connect people to local facilities and provide feeder links to the strategic pedestrian network.

#### Issue

Local pedestrian routes connecting people to local facilities, such as schools, shops and healthcare are often indirect and poorly maintained, leading to high levels of car use for short trips. This contributes towards health issues and causes congestion.

The quality of routes can make active travel particularly difficult for disabled people and other vulnerable users such as parents with pushchairs.

Many of our local centres are located on or adjacent to key transport routes, and local congestion caused by people using their cars for short trips has consequential effects on the wider network, such as delays to public transport.

- Improved accessibility for all users
- Increased accessibility of local facilities
- Walking will be encouraged, increasing levels of physical activity
- Reduced walk journey times leading to
  economic benefit
- Mode shift away from private car leading to reduced congestion, improved air quality and improved public transport reliability
- Potential safety benefits for pedestrians, such as reduced obstructions on footways, including parked vehicles



## Reading Borough Council Working better with you

## Strategic and Town Centre Cycle Routes

### **Delivery Partners:**

Wokingham Borough Council West Berkshire Council Oxfordshire County Council Bracknell Forest Borough Council

#### Summary:

Given the compact nature of Reading Borough, there is significant opportunity for improvements to increase cycling levels and create a shift away from private car travel.

We will create a strategic cycle network based on the principles of London Cycle Superhighways to connect major destinations (including employment centres and transport hubs) along key transport corridors and in the town centre. These routes include both radial and orbital routes as well as enhanced routes within the town centre.

Improvements will include reallocating road space, segregation between pedestrians and cyclists and traffic, surface improvements, crossing enhancements, two-way cycle facilities, parking restrictions, signage, reducing street furniture and increasing accessibility for all.

Associated pubic space improvements would enhance key corridors including those in deprived areas.



#### Issue

There are limited dedicated cycle connections along key corridors and, where these do exist, they often connect people to places by indirect and unattractive routes where the quality of provision is variable. Low route quality in some locations can make routes particularly difficult to use for those with adapted cycles, such as tricycles, recumbent cycle, wheelchair cycles or cycles with trailers.

### Outcome

• Improved accessibility for all users

- Increased cycling levels and shift away from private car travel, leading to reduced forecast congestion and improved forecast air quality
- Reduced conflict between cyclists and pedestrians
- Increased levels of physical activity leading to improvements in mental and physical health
- Improved active travel journey times leading to economic benefit
- Improved access to public transport, leading to increased public transport use, potential for service frequency enhancements, additional capacity into Reading and reduced journey times

## Local Cycle Routes

#### Summary:

The creation of a new or improved local cycle network along lightly trafficked routes, linking communities to local facilities such as shops, leisure facilities, healthcare and education.

Cycle facilities will include a mixture of shared or segregated foot/cycleways, oncarriageway cycle lanes, cyclist awareness signage and crossing facilities. Shared use facilities will have an interim role to play as we transition towards the provision of segregated cycle infrastructure.

Improvements to borough-wide local routes are proposed as part of the LCWIP. These routes will take into account different types of bicycle for those with particular mobility needs.

#### Issue

The local cycle network is incomplete and often follows less direct and quieter routes, with disjointed and/or missing connections. This leads to high levels of car use for short trips. This contributes towards health issues and causes congestion.

Low route quality in some locations can make routes particularly difficult to use for those with adapted cycles, such as tricycles, recumbent cycle, wheelchair cycles or cycles with trailers.

Many of our local centres are located on or adjacent to key transport routes, and local congestion caused by people using their cars for short trips has consequential effects on the wider network, such as delays to public transport.

- Improved accessibility for all users
- Increased accessibility of local facilities
- Cycling will be encouraged, increasing levels of physical activity
- Reduced cycle journey times leading to economic benefit
- Mode shift away from private car leading to reduced forecast congestion, improved forecast air quality and improved public transport reliability
- Potential safety benefits for cyclists



Mandatory Cycle Lane, Wokingham Road





## Sustainable and Safer Travel to School

**Delivery Partners:** Schools Local communities

#### Summary:

Introduction of a package of measures to encourage sustainable and safer travel to school, which could include:

- Local road closures at school start and finish times
- New and improved pedestrian and cycle crossings
- Reduced vehicle speed limits
- Traffic calming measures
- Increased cycle and scooter parking provision
- Support to set up Park and Strides, walking buses or bike buses

In addition, encourage schools to enrol in the Modeshift STARS to influence the modal shift of school travel for children and staff.

#### Issue

Parents using cars when dropping off and collecting children from school contributes significantly to congestion in Reading. This leads to poor air quality on some of the main corridors and town centre, as well as around schools themselves. The issue at schools is made worse by vehicles waiting with engines on, particularly where there is limited parking space availability.

Congestion around schools also leads to road safety issues.

Usage of the private car to travel to and from school reduces activity in children and has impacts on their mental and physical health and wellbeing.

- Health benefits of improved air quality and increased active travel levels
- Influencing long term travel behaviours by enabling and encouraging children to walk, cycle or bus to school rather than depend upon the car
- Improved road safety, potentially leading to a reduction in accidents
- Shift to sustainable travel for journeys to school, leading to improved journey time reliability



Signage at Caversham Primary School



## Play and School Street Programme

**Delivery Partners:** Local communities Schools

#### Summary:

We will offer support to local communities and schools who would like to organise temporary street closures for up to three hours, to create Play and School Streets. We will also advertise the benefits that community and play events can bring to children and neighbourhoods.

Play and School Streets give children the chance to play safely in their street without any danger from traffic. This initiative was trialled in 2013 - 2014 across the Borough and a number of streets successfully took part in Play and School Street activities.

#### Issue

Traffic levels in Reading lead to a perceived lack of safety for children playing outside. Many minor roads have high numbers of vehicles travelling along them, leading to reduced opportunities for children to play outside. Additionally, many homes in Reading are some distance from significant outside play space.

Current evidence shows that the amount of time children play outside is reducing, and their independent mobility is declining.

### Outcome

- Temporary street closures improve perceived safety and encourage children to play in the street. They have been shown to increase levels of physical activity, contributing to children's health, and also increase social interaction between both children and adults
- The temporary closures build confidence to use street spaces more fully when the closures are no longer in place and helps to reestablish the street as a shared space, rather than one dominated by vehicles
- Street closures have also been shown to encourage informal activities that help to develop cycle confidence, better providing children with the skills to enable to choose cycling as a mode of travel<sup>71</sup>

School Streets Trial (2014) - Geoffrey Field Infant and Junior School & Christ the King Catholic Primary School





## Cycle Parking Hubs and Facilities

#### **Delivery Partners:**

Network Rail, Great Western Railway, South Western Railway Local residents and community groups

#### Summary:

Provision of secure, covered cycle hubs at transport interchanges, with the potential for manned security to provide additional reassurance at major hubs. Hubs can provide a large number of secure spaces with double height racks and include facilities including CCTV, lighting, electric charging points, bicycle repair stands, pumps, and 24-hour access with key cards. Cycle hubs have been installed at Dorking, Brighton, Lewes and Horsham Stations and demonstrate the success of these cycle hubs.

Establishment of residential cycle parking facilities, particularly in areas of terraced housing. Provide communal cycle hangars in residential areas which provide safe storage for residents who currently do not have the provision and as a result do not own a bike. Cycle hangers are designed to provide a secure on street solution, which are accessed by a resident using a key.

#### Issue

The lack of secure, covered and convenient cycle parking facilities, such as CCTV, electric charging points and maintenance stands, at origins and destinations is a key barrier to cycling and can reduce the attractiveness of cycling for both local and longer multi-modal journeys. In addition to the challenges faced when parking bicycles at key destinations, such as the town centre and transport interchanges, many residents also lack the necessary storage space to keep a bicycle at home and are therefore discouraged from owning a bike and cycling to work or for leisure trips. The lack of cycle parking hubs and facilities can encourage car travel, increasing congestion around the town centre and transport hubs, and also reduces levels of active travel.

### Outcome

- New and improved cycle parking hubs and facilities would encourage an increase in cycling as people would feel safe storing their bikes at key destinations, including transport interchanges and residential areas.
- By providing more residential cycle parking across the Borough, it will encourage more residents to own a bike and use it to travel to work and for leisure purposes. This will help to encourage a modal shift from car use to cycling, which in turn will reduce congestion and improve air quality around the town centre.

Two Tiered Cycle Hub, Reading Station





## **Cycle Hire Scheme**

### **Delivery Partners:**

Private sector Wokingham Borough Council West Berkshire Council Oxfordshire County Council

#### Summary:

The provision of a new cycle hire scheme to serve Reading and the wider area. Investigate opportunities to upgrade the existing cycle hire infrastructure and include possible fleets of e-bikes and/or e-scooters.

#### Issue

Reading is not currently served by an active cycle hire scheme. Opportunities to provide a new cycle hire scheme around Reading are being explored. Cycle hire stations will be located at key destinations across Reading, including transport hubs, employment centres and near other local facilities and services. Existing infrastructure from the previous scheme will be upgraded, and new hire stations provided to serve the wider Reading area to encourage more cycle trips into the town centre.

- Cycle hire hubs would increase access to cycling and complement other transport options.
- It provides opportunity for those who do not currently own a bicycle to try cycling, potentially leading to significant increases in cycling and physical activity.
- Increasing access to cycling could lead to corresponding reductions in car commuting and forecast congestion and could lead to improved air quality



## **Network Management**



## Traffic and Junction Management

#### Summary:

We will deliver infrastructure schemes to improve our network efficiency, including:

- Junction type changes
- Removal of highway pinch points
- Traffic signal upgrades
- Reallocation of roadspace
- Lane allocation changes
- Changes to junction layouts
- Delivery of public transport priority
- Delivery of pedestrian and cycle priority

#### Issue

Many parts of our highway network are not designed to accommodate the current level of multi-modal movements. There are local pinch points that cause congestion and areas that lack sufficient provision and priority for active travel and public transport. Parts of our network are also under-utilised and there is wasted space.

### Outcome

- Reduced traffic journey times, reduced forecast congestion and improved forecast air quality
- Reduced active travel and public transport journey times, leading to mode shift away from the private car
- Improved bus journey time reliability
- Increased network capacity

#### Modal Filter



## **Parking Schemes and Management**

#### Summary:

Technological advances now enable our kerbs and parking spaces to be managed dynamically, improving efficiency of usage.

Kerb-space could be booked for a variety of uses, such as general parking, disabled parking, short-stay parking, loading, servicing or as a bus stop. Usage could be managed through dynamic pricing, with higher charges applied for certain booking types at particular times of day. Improved efficiency of kerb-space will allow us to remove onstreet parking that obstructs pedestrian, cycle or public transport routes.

We will also be able to manage charges for on-street and off-street parking, to discourage travel during peak periods and to encourage modal shift away from car to sustainable transport such as buses or Park and Ride.

Multiple booking methodologies could be used, including mobile applications.

We would expect any parking management system to be accessible to users via a mobile app. However, we recognise that some users, particularly some older or disabled people, may have difficultly using an app to plan, book and pay for their parking. To mitigate this risk as far as possible, we will ensure our parking management schemes have full consideration of equalities, and provide alternative access and booking options, such as a website and a telephone service.

We will also provide high-quality customer support and education programmes to enable these users to better access our parking management schemes. We will carry out an Equalities Impact Assessment for any parking management scheme, in line with policy RTS3 Equality and Inclusivity.

### Issue

Kerb-space and parking in local centres and Reading town centre is limited. Unmanaged onstreet servicing and deliveries combined with car parking can cause congestion and blocking of pedestrian and cycle movements as well as the ability for buses to access kerbs.

In some areas across the Borough, parking is unmanaged and on-street parking is obstructing the use of footways and cycleways. Poor management of parking leads to more vehicles circling streets to find parking spaces and queuing to wait and leave car parks when they are already full.

- Improved access to local facilities through increased parking provision at certain times of day, in particular for disabled people where disabled parking is currently limited.
- Reduced obstruction of people and vehicle flows leading to reduced congestion, improved journey time reliability and associated economic benefit.
- Improved public transport reliability leading to a mode shift away from private car and associated reduction in congestion and improvements in air quality.
- Reduced emissions and economic benefits, as drivers would be directed automatically to either their pre-booked space or the closest available parking, so drivers (including of commercial vehicles) would not need to wait for spaces to become available.
- Improved emergency service response times.
- The management system will allow us to better address inappropriate parking practices such as the blocking of footways or parking on double yellow lines.
- Improved transport data to inform future schemes and policies.

## **Network Management**



## **Road Safety Schemes**

#### Summary:

We will provide safe roads and pavements, including crossings, that prioritise and encourage walking, cycling and public transport.

Schemes could include:

- Improved crossings
- Street clutter removal and consolidation
- Introduction of rest areas for pedestrians and cyclists
- Cutting back vegetation
- Traffic calming
- Reduced speed limits
- Improved parking and loading design
- Resurfacing
- Signage and lining
- Lighting and CCTV

#### Issue

Whilst a number of road safety schemes have been implemented in recent years in Reading, further improvements need to be delivered to improve the safety of vulnerable road users and to remove pinch points which can cause dangerous driver behaviour.

#### Outcome

- Reduced active travel and public transport journey times and improved public space, leading to mode shift away from the private car, reduced forecast congestion and improved forecast air quality
- Increased journey time reliability leading to economic benefits
- Improved road user safety, leading to fewer collisions and lower network disruption

#### **Crossing Enhancement**



### **Electric Vehicle Charging**

Key Delivery Partners: Utility providers Car manufacturers

#### Summary:

Charging infrastructure needs to be provided around Reading to support the shift towards electric vehicles and the Government commitment of no new petrol or diesel vehicles to be sold after 2035, or earlier.

We will support installation of electric vehicle charging points on-street within the Borough and will also support the introduction of electric car club vehicles and associated charging bays. Various placement methods for on-street electric charging points will be considered, such as within existing street furniture, with priority given to avoiding and minimising street clutter.

Within public car parks, we will convert existing spaces to electric vehicle parking spaces, including at our Park and Ride sites. We will also monitor EV demand and review land use policies for the installation of EV garages as battery technology improves across the growing EV fleet.

#### Issue

Reading has declared a climate crisis and needs to support the switch to low carbon vehicles, including electric vehicles.

Reading suffers from poor air quality, caused generally by the high volumes of traffic experienced in the town. The majority of vehicles using the roads in Reading are not low or no emission vehicles and contribute towards poor air quality conditions.

There are a limited number of electric vehicles charging points in Reading. Central Government is considering a ban on the sale of petrol, diesel and hybrid cars nationwide from 2035 or earlier, and we anticipate that there will be a significant shift towards electric vehicles before this. A high-quality network of charging infrastructure will be required to support this.

### Outcome

- Improved air quality and reduced carbon emissions, through encouraging a mode shift towards electric vehicles
- Economic benefits in terms of reduced vehicle operating costs

### Adapting to the Future

We are seeking to reduce the volume of traffic travelling into and through Reading town centre. The RTS will deliver the public transport and active travel infrastructure needed to support this.

Access to public transport provision in Reading is excellent within the town centre area. There is opportunity to encourage the shift away from combustion vehicle use in this part of the town through conversion of existing on-street residents' parking bays to electric vehicle car club bays. This will enable residents to use an electric car when required, but also helps reduce the need for car ownership, removing polluting vehicles from our network at an accelerated pace.

Developing battery technology, the take up of EVs and the challenges of providing sufficient peak power at homes to charge cars is likely to both enable and necessitate a different, garage approach, to the current, predominately home based EV charging model. Therefore, charging points outside people's homes, in public car parks, at places of work or on-street will no longer be practicable to deliver or required. Instead, our Park and Ride sites will be adapted to create charging hubs and interchange points for public transport including electric shared autonomous vehicles. We will also look to identify other potential sites for EV charging and it is anticipated that the Adept Live Lab project will help this.

## **Network Management**



## Intelligent Transport Systems (ITS)

#### Summary:

Big data, machine learning and artificial intelligence (AI) are transforming the way we understand how our networks are operating and our ability to predict future operation and the management decisions that can be made.

We are currently building a predictive system based on machine learning which fuses a number of network datasets (for example Bluetooth journey time monitoring, Automatic Number Plate Recognition, traffic loops, bus position). In addition, we are deploying an Internet of Things (IoT) communications platform that will help us collect real-time network condition data.

The system being built will provide network operators with enhanced information to manage the network and provide traveller information. Further work is needed to fully integrate this system into the existing strategy management tools to fully realise its value to network management and there is an expectation that the ADEPT project will provide the work that will enable this. We will use these improved insights to better manage the network and promote sustainable travel including:

- Direct peak traffic demand to more appropriate options, such as towards P&R instead of town centre parking
- Use media and traffic control measures to redirect traffic in emergency situations and enable effective emergency responses, through integrated ITS, such as green light corridors
- Give people real-time information about air quality and the climate impacts of their travel choices, as part of encouraging more sustainable travel
- Provide network information to support the promotion of Mobility as a Service
- Develop smart alternatives to M4 closure diversions and subsequent gridlock in Reading through smart traffic management. Traffic lights dynamically respond to incidents and help redirect traffic around the town
- Use smart solutions to keep public transport out of congestion both at known hotspots and during periods of disruption

### Issue

Reading suffers from high levels of congestion, and we currently do not have sufficient infrastructure to allow us to effectively manage our whole network in real-time, minimising delays and allowing us to respond effectively to changing demand or any incidents on the network.

### Outcome

- Improved traffic management leading to reduced forecast congestion and improved forecast air quality
- Improved transport data to allow development of better applications and to inform future transport schemes and policies
- Smooth traffic flow
- Improved public transport journey times, leading to increased attractiveness of public transport and a shift away from private car
- Ability to manage traffic to prevent disruption to pedestrians, cyclists and public transport
- Reduced emergency service response times through the ability to hold conflicting traffic back and automatically turn lights green for blue-lighted vehicles

## Adapting to the Future

ITS development will be an integral part of the Smart Cities and Mobility as a Service action plans. The digital twin model for Reading will include fully integrated real-time data relating to the transport network, enabling more effective management of the network. Machine learning will enable greater autonomy of the transport system, with less requirement for human intervention.

## Smart City Initiatives

**Key Delivery Partners:** Private sector Other public bodies

#### Summary:

Transport impacts on a wide range of services delivered by the Council, being a driver for everything from economic growth and business rate retention, to social isolation, mental and physical health and education and to, most critically, meeting our climate targets.

Transport is a derived demand, meaning it is there to get people or goods from A to B, with the need to travel being defined by the activities that the individual is undertaking or the destination of the goods. Very few trips are made purely for the journey.

With transport having such a cross authority role, there is significant potential for our transport team to work more closely across the authority to tackle the challenges around the sustainable delivery of transport. This will build on previous initiatives such as the Beat the Street programme which was jointly delivered by health and transport teams to encourage active travel. Reading is the lead authority on the Thames Valley Berkshire Smart City Cluster project. This project is focused around the Internet of Things (IoT) and has been working to increase collaboration between departments within Reading and also improve cross working between Reading Borough Council, Wokingham Borough Council, Bracknell Forest Council and West Berkshire Council. The project is delivering pilots around a number of challenges set by the local authorities.

The Smart City approach will look to make best value of data from both the perspective of what it can tell us about our transport network and also from the perspective of its potential value to the local authority. We will use it to improve our understanding of people's travel needs and will work cross-sector and cross-authority to address the transport challenges, using data and technology to address these needs where they provide the optimum solution. The £4.75m ADEPT Thames Valley Berkshire Live Lab project which covers the six Berkshire authorities will draw insights from transport, energy and health data. This will provide a good cross-sector example of a smart approach to transport service delivery. Reading will look to build on this project in the future.

#### Issue

Technology is rapidly developing, whilst, at the same time, the need to respond to the transport and environmental challenges that face us from a cross-sector approach is increasing. Electric vehicles are a good example of this, where transport policy to encourage the take up of electric vehicles represents a huge energy supply challenge, and this requires an integrated approach. Setting policies that can respond flexibly and quickly to the adoption of changing technologies and enable good decision making to be made is a real challenge. There is significant pressure to quickly act to address the climate change, and technology coupled with a smarter cross-sector approach should be a significant part of this solution.

- A smart city strategy for Reading, with transport fully integrated into this strategy, and cross-sector procurement and projects that tackle climate, sustainable travel and congestion. Considerations could include new procedures for procurement that can make decision-making quicker
- Growing further funding opportunities around the Thames Valley Berkshire Smart City Cluster project, working with neighbouring authorities and cross-sector to develop smart solutions to challenges where transport forms a part

## **Network Management**



- Successful deployment of the ADEPT project and the capitalisation of the outcomes of this, to maximise the value of data and improve the management of the transport network. This will allow movement of more people, supporting economic growth, whilst reducing their carbon footprint and not exacerbating air quality and congestion issues
- Traffic congestion, mobility and air quality are major transport challenges facing Reading today. These impact the daily lives of the residents, workers and visitors to the town. To meet these challenges, smart city initiatives will be utilised to optimise sustainable transport opportunities and reduce congestion. Smart initiatives will help to create a more effective transport network that help to improve safety, increase productivity and improve mobility. Overall this will contribute towards improving air quality, encouraging healthier lifestyles and attracting new business investment for the town

#### Adapting to the Future

We will change our internal processes, and lobby Government, to be able to undertake an approach of radical incrementalism to changing technology and tacking climate change. We need to be able to act quickly and implement technology and schemes to address the climate impacts of transport based on reasonable likelihood that it will take us in the right direction and be prepared to change direction if it does not work as expected. Large studies to identify the best solution can be overtaken by technological change and may lead to 'too little – too late'.

We will work to develop a digital model of Reading (known as a digital twin), that will integrate real-time and historic transport data with other data such as that relating to health, air quality, noise, energy, waste and crime. This will allow us to quickly test schemes and policies prior to implementation, allowing us to refine our ideas and designs to best serve Reading, and expose unforeseen problems before they become a reality.



# **Communication and Engagement**

## **Marketing and Promotion**

#### **Delivery Partners:**

Public transport operators Media Public services (for example schools and GPs)

#### Summary:

We will develop a comprehensive package of travel marketing, promotion and raising awareness for all transport users to inform them of travel choices and improve their understanding of new schemes and initiatives, which could include:

- Signage
- Development of mobile travel apps
- Advertising on local and social media
- Real-time information and marketing on the transport network
- Promotional events, e.g. 'Clean Air Day'
- Promotional material at local facilities and services, such as healthcare facilities, schools and community hubs
- Promotional material for development travel plans
- Press releases to explain new schemes and initiatives

#### Issue

High volumes of private car trips in to, from and within Reading causes significant congestion in the town, with associated climate, health and wellbeing and economic impacts.

Currently, marketing and promotion of sustainable travel in Reading is limited and is not generally able to respond to rapidly-changing travel conditions.

#### Outcome

- Travel marketing and awareness campaigns using a wide range of media can be highly successful at increasing understanding across various population sectors of issues resulting from certain transport choices, and awareness of what can be done to resolve these issues
- Promotion of sustainable travel options and new schemes and initiatives will encourage mode shift away from the private car, greater uptake/use and support for change. In turn, car mileage would decrease, leading to reduced forecast congestion and improved forecast air quality. Economic growth would be supported through increased capacity for trips into Reading
- Real-time information allows dynamic decision-making and allows the users of the transport network to better respond to changes in demand or incidents

No Idling Campaign





# **Communication and Engagement**



## **Travel Information and Advice**

### **Delivery Partners:**

Neighbouring Local Authorities Transport operators Media Private sector

#### Summary:

Travel information enables people to make informed choices about how they travel. We will provide or facilitate high quality, realtime travel information through a number of means, which could include:

- Mobile apps
- Real-time information boards
- Variable message signage
- Print (including accessible forms such as Braille and foreign language formats)
- Our website
- Personalised travel advice
- Information boards and signage

We will develop a wayfinding strategy to share our information and we will open up our data for public use, allowing the private sector to develop travel information apps We will support businesses and organisations to develop travel plans, and to join the national travel accreditation programme Modeshift STARS Business

We recognise the diverse needs of our residents and we will ensure travel information and advice is provided in accessible formats.

#### Issue

Reading suffers from high levels of congestion and a mode shift away from the private car is needed to reduce the negative impact traffic has on the town. Currently there is limited travel information available which enables people to make informed decisions about how they travel. In particular, the network struggles to respond well to disruption, as there are very limited means of publicising this disruption, potential travel impacts and alternatives to people.

#### Outcome

- Improved wayfinding and greater public knowledge of sustainable travel options, leading to mode shift away from private car, reduced forecast congestion and improved forecast air quality
- Improved ability to respond dynamically to network disruption, leading to reduced congestion
- Greater awareness of specific barriers to sustainable travel, enabling implementation of

measures to overcome these where possible

- Digital wayfinding will provide an integrated product and digital platform that is inclusive and socially engaging for users. We will encourage or co-ordinate transport operators to share data to develop co-coordinated travel information and real-time data. This will help to encourage the use of public transport and other sustainable mode choices, such as walking, cycling or car clubs
- Improved accessibility of information for all users of the transport network





**Delivery Partners:** Local schools

Summary:

Community groups

Bikeability

training

Training, Education and Initiatives

Training courses could include:

• Adult cycling programmes

Road safety road shows

• Pedestrian and scooter road safety

We will work with schools to deliver ageappropriate training to all children, as well as offer training to adults in the community.

• Young driver safety awareness training

## **Communication and Engagement**

#### Issue

All road users need the necessary skills to be able to use our streets safely.

Children travelling to and from school (and travelling at other times) risk conflict with other road users. Road safety training is critical to assist in development of awareness of risks and reduce the number of pedestrian and cyclist casualties on our roads.

Young drivers are over-represented in accidents; drivers aged 17 to 19 make up only 1.5% of drivers on the roads but are involved in 9% of fatal and serious collisions. One in four 18 to 24-year olds crash within two years of passing their test<sup>71</sup>. Young drivers are much more likely to be over-confident, take excessive risks and be less able to identify and assess hazards.

#### Outcome

- Decreased pedestrian and cyclist casualties
- Increased levels of walking and cycling to and from school, leading to reduced congestion and improved air quality around schools
- Decreased road traffic collisions
- Reduced network disruption due to collisions, leading to improved journey time reliability and productivity
- Development of cycling skills leading to potential for life-long behaviour change

Bikeability



## **Communication and Engagement**



## School Travel Accreditation Programme

**Delivery Partners:** Local schools

#### Summary:

Modeshift STARS is an accreditation scheme that operates nationally, and supports schools, pupils and parents to make sustainable and healthy travel choices, through an easy-to-use online platform. The scheme recognises excellence through accreditation and a national awards programme.

Two schools in Reading have already gained awards, one Bronze and one Gold. Building on the success of these schools, we will encourage more schools to take part in the scheme and support them to work towards both accreditation and national and regional awards.

#### Issue

Car travel to and from school contributes heavily to traffic on the road network, leading to increased congestion and air pollution. Children are particularly vulnerable to the effects of air pollution, with studies showing that this can lead to decreased lung capacity and increased likelihood of developing asthma.

A high proportion of children in Reading are overweight or obese by the time they leave primary school, and across the UK, only 17.5% of children meet daily guidelines for physical activity<sup>72</sup>.

### Outcome

- The travel planning programme will encourage children, parents and staff to make more sustainable travel choices, leading to a mode shift away from the private car.
- This will help to reduce forecast congestion and improve forecast air quality, as well as improve the health and wellbeing of children

The Heights and Moorlands Primary School's





# **Communication and Engagement**

#### Issue

Public engagement in the detailed development stages of schemes is generally low, and so there is higher risk of public opposition and objection.

#### Outcome

- Public engagement in the transport strategy and development of schemes will result in improved scheme designs that better respond to public opinion and needs
- This will reduce the risk of non-approval and increase the speed at which we will be able to deliver our vision

Transport Strategy Visioning Consultation, School Workshop



## Progress Reporting and Public Engagement

**Delivery Partners:** Media

#### Summary:

We will provide regular updates on progress in delivering the transport strategy. This will include updates through press releases, residents' newsletters and via social media platforms to reach a wide range of the population of all ages, language, economically active, retired, students, unemployed, families, single people, couples, etc.

Engagement with residents within and outside the Borough will be undertaken to spread awareness and help achieve the goals set out in this strategy.



## **Prioritising Our Schemes**

- 6.39 The schemes and initiatives have been identified to best meet the RTS objectives listed below. We have compared the likely outcomes of each scheme and initiative against the RTS objectives in order to prioritise these.
- 6.40 The delivery of the schemes and initiatives will be subject to funding availability, status of any supporting development, land availability (if third party land requirements), and engagement of delivery partners. We have ranked each scheme or initiative towards each objective. The scores are summarised in the following tables, the darker colours represent higher scores. Each objective has been weighted equally when assigning an overall score to each scheme or initiative.



Creating a Clean and Green Readina

**Supporting Healthy Lifestyles** 

**Enabling Sustainable and Inclusive Growth** 

communities so that everyone can benefit



**Connecting People and** Places

Promote the use of sustainable modes of transport by providing attractive alternatives to the private car, helping to provide a transport network that is fast, affordable, connected and resilient



**Embracing Smart Solutions** 

Use technology to manage the network efficiently and allow informed travel choices, whilst enabling Reading to become a smart, connected town of the future

destinations and increase personal safety

Enable sustainable growth and connect

from Reading's success

Provide transport options to enhance quality of

life, reduce emissions and improve air quality to

create a carbon neutral town

Demand Management Schemes	Create Green and Clean Reading	Supporting Healthy Lifestyles	Enabling Sustainable and Inclusive Growth	Connecting People and Places	Embracing Smart Solutions
Demand Management Scheme Options	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$

Multi-Modal Schemes	Creating a Green and Clean Reading	Supporting Healthy Lifestyles	Enabling Sustainable and Inclusive Growth	Connecting People and Places	Embracing Smart Solutions
Transport Corridor Multi Modal Enhancements	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$
IDR Enhancements	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$
North Reading Orbital Route	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{}$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{\sqrt{\sqrt{2}}}$
Third Thames Crossing East of Reading	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$



Public Transport Schemes	Creating a Green and Clean Reading	Supporting Healthy Lifestyles	Enabling Sustainable and Inclusive Growth	Connecting People and Places	Embracing Smart Solutions
Quality Bus Corridors	$\checkmark$	$\sqrt{}$	$\sqrt{}$	$\checkmark$	$\checkmark$
Concessionary and Discounted Travel	$\checkmark$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$	$\sqrt{}$
Community Travel	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark\checkmark\checkmark$	$\checkmark$	$\sqrt{}$	$\checkmark$
Demand Responsive Travel	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$
South Fast Track Public Transport Corridor	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark\checkmark\checkmark$	$\sqrt{\sqrt{\sqrt{2}}}$
East Fast Track Public Transport Corridor	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$
West Fast Track Public Transport Corridor	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark\checkmark\checkmark$	$\sqrt{\sqrt{\sqrt{2}}}$
South West Fast Track Public Transport Corridor	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$
Orbital Fast Track Public Transport	$\checkmark$	$\sqrt{}$	$\sqrt{}$	$\checkmark$	$\sqrt{\sqrt{\sqrt{2}}}$
Mereoak Park and Ride Expansion	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\sqrt{}$
Thames Valley Park and Ride	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$

Public Transport Schemes	Creating a Green and Clean Reading	Supporting Healthy Lifestyles	Enabling Sustainable and Inclusive Growth	Connecting People and Places	Embracing Smart Solutions
Winnersh Triangle Park and Ride Enhancements	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{}$	$\sqrt{}$
North Reading Park and Rides	$\checkmark$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{}$
West Reading Park and Ride	$\checkmark$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$	$\sqrt{}$
South West Reading Park and Ride	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{}$
Reading Station Interchange Enhancements	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$
Reading West Station Upgrade	$\checkmark$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\checkmark$
Tilehurst Station Upgrade	$\checkmark$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\checkmark$
Reading Green Park Station	$\checkmark$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$
Mobility as a Service	$\checkmark$	$\checkmark$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$	$\checkmark$


Active Travel Schemes	Creating a Green and Clean Reading	Supporting Healthy Lifestyles	Enabling Sustainable and Inclusive Growth	Connecting People and Places	Embracing Smart Solutions
Town and Local Centre Public Space Enhancements	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$ $\checkmark$
Strategic Pedestrian Routes	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{}$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$
Local Pedestrian Routes	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$
Strategic Cycle Routes	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{}$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$
Local Cycle Routes	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$
Sustainable and Safer Travel to School	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$	$\sqrt{}$	$\checkmark$
Play and School Streets Programme	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Cycle Parking Hubs and Facilities	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{}$	$\sqrt{}$	$\checkmark$
Cycle Hire Scheme	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$	$\checkmark$	$\sqrt{}$	$\sqrt{}$

Network Management Schemes	Creating a Green and Clean Reading	Supporting Healthy Lifestyles	Enabling Sustainable and Inclusive Growth	Connecting People and Places	Embracing Smart Solutions
Traffic and Junction Management	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Parking Schemes and Management	$\sqrt{}$	$\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\sqrt{}$	$\checkmark$ $\checkmark$ $\checkmark$
Road Safety Schemes	$\sqrt{}$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$	$\sqrt{}$	$\sqrt{}$
Electric Vehicle Charging	$\sqrt{}$	$\checkmark$	$\sqrt{}$	$\sqrt{}$	$\checkmark$ $\checkmark$ $\checkmark$
Intelligent Transport Systems	$\sqrt{}$	$\checkmark$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{\sqrt{\sqrt{2}}}$
Smart City Initiatives	$\checkmark\checkmark\checkmark$	$\checkmark$	$\sqrt{}$	$\checkmark$	$\sqrt{\sqrt{\sqrt{2}}}$



Communication and Engagement Schemes	Creating a Green and Clean Reading	Supporting Healthy Lifestyles	Enabling Sustainable and Inclusive Growth	Connecting People and Places	Embracing Smart Solutions
Marketing and Promotion	$\sqrt{}$	$\sqrt{}$	$\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$
Travel Information and Advice	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$	$\checkmark$ $\checkmark$ $\checkmark$
Training, Education and Initiatives	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$	$\checkmark$	$\checkmark$
School Travel Accreditation Programme	$\sqrt{}$	$\sqrt{\sqrt{\sqrt{2}}}$	$\sqrt{}$	$\sqrt{}$	$\checkmark$
Progress Reporting and Engagement	$\sqrt{}$	$\sqrt{}$	$\checkmark$	$\sqrt{\sqrt{\sqrt{2}}}$	$\checkmark$

# Complementary National and Regional Schemes

# **National Schemes**

- 6.41 We will lobby external stakeholders to secure investment in the national transport networks to enhance the connectivity of Reading.
- 6.42 This will include schemes such as the M4 smart motorway, enhancements to the major road network, the Elizabeth Line, electrification and other measures to decarbonise the railway network and the proposed Western and Southern Rail Links to Heathrow.
- 6.43 This may also include national demand management measures such as a national road user charging scheme. Any local demand management schemes will need to be complimentary to this.

# **Regional Schemes**

- 6.44 We will work with neighbouring authorities to build on the schemes within our strategy to improve connectivity to the wider region.
- 6.45 The FTPT network could be enhanced through the south east public transport corridor within Wokingham's current strategy which includes proposals for high-quality express bus services along the A329 corridor.

- 6.46 The comprehensive Park and Ride network set out in our strategy would be complemented by other Park and Rides in the region including Coppid Beach Park and Ride.
- 6.47 A Park and Ride at Coppid Beach will provide a facility to serve people travelling to Reading from the eastern parts of Wokingham, and from Bracknell. This will link to the overall network through the East and South FTPT corridors and will provide an attractive alternative to the private car for those travelling to Reading from the east.
- 6.48 We will support further improvements to the rail network at stations outside the Borough such as Theale Station upgrade which is included in West Berkshire Councils strategy.

# **Grazeley Garden Settlement**

- 6.49 We will work with Wokingham and West Berkshire Councils on the potential development of around 15,000 homes at Grazeley Garden Village.
- 6.50 This will result in significant increases in traffic demand, potentially leading to increased congestion in south Reading. If the development comes forward, there is insufficient capacity in the existing transport network to accommodate this travel demand.

- 6.51 To accommodate the development, a comprehensive package of sustainable transport and infrastructure measures will be required to be delivered in advance of significant new housing coming forward.
- 6.52 The package of transport measures includes enhanced Park and Ride facilities and FTPT provision into Reading, walking and cycling infrastructure linking to the wider network and capacity improvements to the M4 Junction 11.
- 6.53 Infrastructure improvements will also enhance connectivity to existing local railway stations and/or provision of a new railway station as part of the development.

Figure 34: Proposed Future Regional Transport Network



# 7. Funding & Implementation

# **Potential Funding Sources**

7.1 We are under increasing financial pressure, with cuts to our budget and inconsistent streams of funding available. Figure 35 shows how our revenue budget has decreased by nearly 30% in real terms per resident of Reading since 2015<sup>72</sup>, and is expected to be almost 40% lower in 2020.

Figure 35: Historic and Forecast Revenue Budget Changes

7.2 Therefore, we must work hard to secure funding from other sources, to enable us to deliver the infrastructure Reading needs to support its residents, employees, visitors and economy.





# **Funding Bids**

- 7.3 We have an excellent track record for successfully bidding for funding from Central Government and obtaining funding from a range of other sources, including the Department of Transport, Thames Valley Berkshire Local Enterprise Partnership and the European Union.
- 7.4 Funding from successful bids has been used previously to deliver schemes such as Christchurch Bridge, South FTPT, Mereoak Park & Ride, Winnersh Park & Ride, NCN Route 422, Reading West Railway station, and major upgrades to Reading Railway Station and the M4 Junction 11.

# **Parking and Enforcement**

- 7.5 Our enforcement of traffic restrictions is proposed to continue, including bus lanes and parking, as set out in Chapter 6. We have seen an increase in compliance over recent years which is the objective of our enforcement, rather than for revenue generation.
- 7.6 We also charge for on-street pay and display parking, Council-owned car parks and resident parking permits in Reading. Revenue from parking and from penalty charge notices is ring-fenced for transportrelated schemes, in accordance with the

Road Traffic Regulation Act 1984, and so cannot be spent on other Council services. In previous years, we have used revenue from parking and enforcement to fund schemes such as supported bus services and discretionary concessionary fares, road safety schemes, and highway drainage improvement works.

# **Developer Contributions**

- 7.7 We also use developer contributions (through Section 106 obligations and the Community Infrastructure Levy) to deliver many of our schemes. Developer contributions are also used to complement other funding streams, particularly for large schemes. For example, a fifth of the funding for Christchurch Bridge came from developer contributions (£1.2 million), with the remaining £4.7 million from the Local Sustainable Transport Fund.
- 7.8 Developers can be required to deliver infrastructure needed to support proposed development. We also collect developer contributions to fund new bus services for developments in their early years.
- 7.9 We will continue to work with developers to negotiate funding and delivery of transport infrastructure identified in this strategy that supports new developments. However, some of the schemes identified in this Local Transport Plan will require a significant level

of capital funding, alongside revenue funding to help operate and maintain the new infrastructure.

# **Demand Management**

- 7.10 As set out in Chapter 6, we are planning to introduce demand management measures in Reading. Further work is being carried out to determine which measures would be most effective.
- 7.11 Demand management offers the opportunity to better manage traffic growth, whilst also providing a reliable, continuous funding stream for Reading. Revenue raised from demand management will allow us to accelerate delivery of elements of the RTS, as the funds will be reserved for transport projects.
- 7.12 A continuous funding stream also allows us to more easily deliver transport schemes which require revenue (rather than capital) funding, such as an expanded concessionary or discounted travel scheme.

# **Our Implementation Plans**

7.13 Many of the potential funding mechanisms to support delivery of our transport strategy are still evolving, and so our implementation plan will be refreshed every three years, to allow our funding plans to be updated.

#### Figure 36: Neighbourhood Area Action Plans

# **Implementation Plan**

7.14 Our implementation plan sets out our indicative delivery programme and mechanisms for our transport schemes. We will publish a detailed delivery programme on an annual basis, which will allow us to adapt to changing technologies, budgets and development proposals. We will also develop strategies to provide further detail and implementation strategies to support our policies.

# **Delivery Partners**

- 7.15 We have identified a number of key delivery partners in our implementation plan. Further information on our stakeholders and partners is detailed in the next chapter.
- 7.16 Other key delivery partners include local schools, public services, the media, businesses and community groups.

# **Delivery Mechanisms**

- 7.17 We will deliver our schemes through a number of mechanisms:
  - Major Capital Schemes (MCS): Our major capital-funded schemes will be delivered as individual projects, and are dependent on the availability of capital funding, among other factors.



- Revenue Schemes (RS): Our revenue schemes will be delivered as on-going projects, and are dependent on the availability of revenue funding, among other factors.
- Neighbourhood Area Action Plans (NAAP): Our Neighbourhood Area Action Plans, covering the areas shown in Figure 36, will be used to deliver local interventions, working closely with local communities to develop scheme details.



	Timescale			Deliuser, Maakariser		
	2020-2025	2025-2030	2030-2036+	Delivery Mechanism		
Demand Management Schemes						
Demand Management Options				Revenue Schemes		
	Multi Modal Schemes					
Transport Corridor Enhancements				Major Capital Schemes		
IDR Enhancements				Major Capital Schemes		
North Reading Orbital Route				Major Capital Schemes		
Third Thames Crossing East of Reading				Major Capital Schemes		
	Public	c Transport Schen	nes			
Quality Bus Corridors				Neighbourhood Area Action Plans		
Concessionary & Discounted Travel				Revenue Schemes		
Community Travel				Revenue Schemes		
Demand Responsive Travel				Revenue Schemes		
South Fast Track Public Transport Corridor				Major Capital Schemes		
East Fast Track Public Transport Corridor				Major Capital Schemes		

	Timescale			Delivery Meek mierr
	2020-2025	2025-2030	2030-2036+	Delivery Mechanism
West Fast Track Public Transport Corridor				Major Capital Schemes
Orbital Fast Track Public Transport				Major Capital Schemes
Mereoak Park and Ride Expansion				Major Capital Schemes
Thames Valley Park and Ride				Major Capital Schemes
Winnersh Triangle Park and Ride Enhancements				Major Capital Schemes
North Reading Park and Ride				Major Capital Schemes
West Reading Park and Ride				Major Capital Schemes
South West Reading Park and Ride				Major Capital Schemes
Reading Station Interchange Enhancements				Major Capital Schemes
Reading West Station Upgrade				Major Capital Schemes
Tilehurst Station Upgrade				Major Capital Schemes
Green Park Station				Major Capital Schemes
Mobility as a Service (MaaS)				Revenue Schemes



	Timescale			Delburge Marshard	
	2020-2025	2025-2030	2030-2036+	Delivery Mechanism	
Active Travel Schemes					
Town Centre & Local Centre Public Space Enhancements				Neighbourhood Area Action Plans	
Strategic Pedestrian Routes				Major Capital Schemes	
Local Pedestrian Routes				Neighbourhood Area Action Plans	
Strategic Cycle Routes				Major Capital Schemes	
Local Cycle Routes				Neighbourhood Area Action Plans	
Sustainable and Safer Travel to School				Neighbourhood Area Action Plans	
Play and School Streets Programme				Neighbourhood Area Action Plans	
Cycle Parking Hubs & Facilities				Neighbourhood Area Action Plans	
Cycle Hire Scheme				Major Capital Schemes	

	Timescale			Delivery Machanian	
	2020-2025	2025-2030	2030-2036+	Delivery Mechanism	
Network Management Schemes					
Traffic and Junction Management				Neighbourhood Area Action Plans	
Parking Schemes and Management				Revenue Schemes	
Road Safety Schemes				Neighbourhood Area Action Plans	
Electric Vehicle Charging				Major Capital Schemes	
Intelligent Transport Systems (ITS)				Revenue Schemes	
Smart City Initiatives				Revenue Schemes	

	Timescale			
	2020-2025	2025-2030	2030-2036+	Delivery Mechanism
	Communicatio	on and Engageme	ent Schemes	
Marketing and Promotion				Revenue Schemes
Travel Information and Advice				Revenue Schemes
Training, Education and Initiatives				Revenue Schemes
School Travel Accreditation Programme				Revenue Schemes
Progress Reporting and Engagement				Revenue Schemes

# 8. Partnerships & Stakeholders

# Introduction

- 8.1 Our Strategy is ambitious, therefore working in partnership with key stakeholders is vital to its successful delivery. Transport issues are material considerations for many activities, services, agencies and organisations. One of our major assets is the interest and involvement of our local communities, businesses and other stakeholders and our commitment to consultation and consideration of their different viewpoints in all aspects of scheme design and implementation.
- 8.2 We participate in numerous formal and informal, internal and external partnerships to support a joined up, overarching approach to delivery of our key services and future plans. We will continue to engage with local residents and members of the business community when forming transport policies and strategies, and proposals are framed to take account of the diverse needs and aspirations of local stakeholders. We also receive and review communication from partners and the public on transport matters on an ongoing basis.
- 8.3 Partner involvement and public engagement allows us to access both expert and local knowledge, and this helps to justify our approach. We can outline specific interventions or local initiatives at an early stage of option development or

scheme design to seek public contribution to help shape them. We seek feedback during implementation and on scheme completion. It also encourages partner and local community involvement in schemes and the decision process, to build greater confidence in, and ownership of improvements in the local community.

8.4 A range of consultation techniques and methods are used, appropriate to the audience and subject matter. These include partnerships and various channels of communication. Innovative ways of keeping up with social change, social media and building better engagement are part of our long-term strategy.

# **Partnerships**

- 8.5 Reading is at the heart of a wide sphere of economic influence within the Thames Valley. It is part of a variety of partnership groups in this area, reflecting the need to work across Local Authority boundaries for different levels of service delivery, lobbying for investment and prioritising transport projects to support Reading's role as a major hub in the Thames Valley and wider southeast region.
- 8.6 As part of our Smart Cities initiative, and to make the most efficient use of our limited available resources, it is important that we



work positively with our strategic partners, which include neighbouring Local Authorities and Local Highway Authorities, the Thames Valley Berkshire Local Enterprise Partnership and strategic transport bodies including Transport for the South East, the Berkshire Strategic Transport Forum and the Berkshire Local Transport Body.

- 8.7 We also partner with other bodies, such as Reading UK Community Interest Company and the Community Safety Partnership.
- 8.8 Our key delivery partners are:

# National / Regional

- Central Government including Department for Transport
- Thames Valley Berkshire LEP
- Transport for the South East
- Network Rail
- Highways England

# **Neighbouring Local Authorities**

- Wokingham Borough Council
- West Berkshire Council
- Bracknell Forest Borough Council
- Hampshire County Council

- Oxfordshire County Council
- South Oxfordshire District Council
- Local Parish and Town Councils

# **Transport Operators**

- Train operators including Great Western Railway and South Western Railway
- Bus operators including Reading Buses
- Community transport operators including Readibus
- Reading taxi associations

# Local Community

- Community groups and local residents
- Private sector including local businesses
- Education providers including the University of Reading, colleges and schools
- Public services including the Royal Berkshire Hospital
- Media
- 8.9 We will seek to work collaboratively with our partners to:
  - Develop shared ideas and solutions to deliver our transport Strategy
  - Widen the beneficial impacts of our

schemes and policies to surrounding areas and communities

- Deliver sustainable economic growth
- Seek greater levels of funding to allow us, and our partners, to accelerate our delivery plans.

# Transport for the South East

8.10 Reading Borough Council is a partner in Transport for the South East (TfSE) – a new body which brings together representatives of 16 transport authorities and five local enterprise partnerships to improve the transport network and grow the economy of the whole South East area. Its key aim is to support and grow the economy by delivering a quality, integrated transport system that makes the region more productive and competitive and improves the quality of life for all whilst protecting the environment. TfSE is already working closely with Central Government and is intended to become a statutory body by 2020. We will continue to work closely with TfSE in the future.

# Thames Valley Berkshire Local Enterprise Partnership

8.11 The Thames Valley Berkshire Local Enterprise Partnership (TVBLEP) is a business-led partnership, responsible for determining the key investment priorities to which public funds are directed to implement its emerging Industrial Strategy (and current Strategic Economic Plan (SEP)). We have worked closely with TVBLEP to deliver many elements of our previous LTPs, and our relationship will continue to be important in the delivery of our vision for the RTS.

# **Berkshire Strategic Transport Forum**

8.12 The Berkshire Strategic Transport Forum (BSTF) similarly brings together TVBLEP, the six unitary authorities (including Reading Borough Council), DfT, Highways England, Network Rail, Heathrow Airport Limited, and various train and bus operating companies to discuss and consult on cross-boundary strategic transport issues. The BSTF forms the transport policy arm of the LEP covering a range of issues, and thus making a substantial contribution to the SEP.

# Berkshire Local Transport Body

8.13 The Berkshire Local Transport Body (BLTB) was established in March 2013 in response to the Department for Transport's wish to devolve Local Transport Major Schemes Capital Funding to local control. The Body consists of six elected members and six private sector representatives recruited and appointed by the LEP. This is a competent publicly accountable Joint Committee which can prioritise and implement transport capital schemes on behalf of the LEP Forum.

# **Neighbouring Authorities**

- 8.14 Delivering our vision for transport will require effective working with neighbouring local transport authorities and local transport operators to deliver effective cross-boundary transport networks that respond to the needs of all users. Working in partnership with other organisations will help to provide better outcomes for door-to-door journeys and deliver value for money results.
- 8.15 We recognise the importance of ensuring maintenance, infrastructure and transport services are not affected by authority boundaries, particularly with substantial growth in neighbouring areas which will likely increase movement to, from, and through the Borough. Our partnerships with neighbouring authorities are particularly important to us and the implementation of cross-boundary schemes, and we will continue to work closely with them to develop and deliver these schemes that support growth in the area, including:
  - Demand management
  - Key transport corridor multi-modal improvements
  - North Reading Orbital Route
  - Third Thames Crossing East of Reading
  - New and upgraded railway stations

- Radial and Orbital FTPT
- New and expanded Park and Rides
- Quality bus corridors
- Concessionary travel schemes
- Strategic pedestrian routes
- Strategic cycle routes
- Cycle parking hubs and facilities
- Cycle hire scheme
- Smart city initiatives
- Intelligent transport systems

# **Reading UK CIC**

8.16 Supporting the objectives of the LEP, Reading UK is a Community Interest Company (CIC) created in 2007, which operates as a private sector-led partnership with the public sector, to create opportunities and remove barriers to growth in Reading. The CIC's Economic Plan for Reading 2016–2020 supports opportunities to strengthen the local economy and improve the reputation of the Reading region. In 2017/18, Reading UK delivered against these objectives with a series of high-profile programs and projects, including the launch of the Reading 2050 Vision which raised Reading's profile as a place of growing opportunity. We will continue to work closely with Reading UK to deliver our vision for transport in line with the Reading 2050 vision.



# **Community Safety Partnership**

- 8.17 No one agency can tackle crime, or fear of crime, by working alone, particularly in the current economic climate. In Reading, we believe that crime, disorder, anti-social behaviour and the fear of crime can only be tackled through partnership working.
- 8.18 The Community Safety Partnership comprises of statutory agencies, including Reading Borough Council, Thames Valley Police, the National Probation Service, the Community Rehabilitation Company, Royal Berkshire Fire and Rescue Service and Public Health. These agencies have joined forces to tackle crime, anti-social behaviour and the fear of crime, and are committed to supporting and working alongside our communities in reducing the impact of crime and disorder that concern them locally, including transport issues.

# Forums

8.19 Various information and consultation forums have been set up for members of the public and transport-user groups, to facilitate engagement and discussion around a number of topics. Forums particularly relevant to the delivery of the RTS include those opposite.

- 8.20 We will continue to engage and consult with these forums to deliver our transport strategy and vision for Reading.
  - The Cleaner Air & Safer Transport Forum, made up of local interest groups and key partners, influences and facilitates the development of the Council's sustainability agenda, including climate change, transport and air quality.
  - The Mid and West Berkshire Local Access Forum, which comprises membership from Reading, Wokingham and West Berkshire unitary authorities, local landowners and user groups, and has been instrumental in the preparation and delivery of our Rights of Way Improvement Plan;
  - The Access and Disabilities Working Group, which facilitates discussion on improving accessibility in Reading, ensuring that the needs of disabled transport users are considered through our transport strategy and delivery; and
  - The Older People's Working Group, which identifies and promotes awareness of issued facing older residents and provides a channel for older people to influence the development of local services, including transport.

# Governance

## **Policy Committee**

The cross-party committee oversees the overall direction of the Council's strategy, policy and budget, including economic development and regeneration.

# Strategic Environment, Planning and Transport Committee

The cross-party committee is responsible for statutory and non-statutory functions relating to Environment, Planning, Highways and Transport.

## Traffic Management Sub-Committee

The sub-committee acts as a consultative body to promoting public transport, walking and cycling within Reading.

# Reading Area Transport Strategy Delivery Group

Led by RBC and attended by representatives from all key stakeholders including neighbouring local authorities and Thames Valley Berkshire LEP.

# 9. Monitoring & Review

# Introduction

9.1 Performance monitoring is key to ensuring the successful delivery of this strategy and monitoring progress against our objectives. We will undertake monitoring, surveying and data capture to support this, to inform our detailed scheme development and keep our evolving transport programme under review.

## Figure 37: Annual Town Centre Monitoring Survey Locations

# **Data Collection**

9.2 We will continue to collect additional data to support us in developing our schemes and initiatives to best deliver our vision, including the annual town centre monitoring surveys.





# **Performance Indicators**

- 9.3 We have identified a number of key performance indicators and targets against which we will monitor our progress which are set out in the following tables.
- 9.4 Progress towards our targets and delivering our vision for transport in Reading will vary year on year, depending on when individual schemes are delivered. We have therefore set overall targets for the RTS to achieve by 2036.

	Performance Indicator	Data Source	Baseline	Target By 2036	Monitoring Frequency				
	Multi-Modal Indicators								
1	Car trips to,from and through the town centre	Annual cordon count (Reading Borough Council)	22,100 per day (2017-2019 average)	Reduce by 20% to 17,600 by 2036	Annual				
2	Road transport carbon emissions	Carbon Dioxide Emissions Statistics (Department for Business, Energy & Industrial Strategy)	134.6 kt CO2 (2008)	Reduce by 50% to 67 kt CO2 by 2036	Annual				
	Public Transport Indicators								
3	Bus usage in the Borough	Bus Statistics (Department for Transport)	22.5m trips (2018/19)	Increase by 25% to 28.1m by 2036	Annual				
4	Park and Ride usage	Bus ticketing data (Reading Buses)	560,536 per year (2019)	Increase by 100% by 2036	Annual				
5	Rail usage – entries and exits for all stations	Office of Rail & Road	18,120,959 per year (2018/19)	Increase by 25% to 23.5m by 2036	Annual				
6	Public transport trips to the town centre	Annual cordon count (Reading Borough Council)	50,700 per day (2017-19 average)	Increase by 45% to 73,500 by 2036	Annual				

	Performance Indicator	Data Source	Baseline	Target By 2036	Monitoring Frequency				
	Active Travel Indicators								
7	Proportion of adults walking at least 3 times per week for main journey purpose	Walking and Cycling Statistics (Department for Transport)	30.8% (2017/18)	Increase to 50% by 2036	Annual				
8	Proportion of adults cycling at least 3 times per week for main journey purpose	Walking and Cycling Statistics (Department for Transport)	5.1% (2017/18)	Increase to 10% by 2036	Annual				
9	Active travel trips to, from and through the town centre	Annual cordon count (Reading Borough Council)	41,100 per day, 2017-2019 average	Increase by 10% to 45,300 by 2036	Annual				
		Network Management I	ndicators						
10	All people killed or seriously injured on the highway network in the Borough	Road Safety Statistics (Department for Transport)	50 per year (2016-18 average)	Reduce by 50% by 2036	Annual				
11	Public satisfaction with highway maintenance (including roads, footways and street lighting)	Highway & Transport survey (Ipsos MORI)	52% satisfied (2018)	Increase by 25% to 65% by 2036	Annual				
	Communication and Engagement Indicators								
12	School travel planning Modeshift STARS accreditation	Modeshift STARS data (Reading Borough Council)	2 schools achieved accreditation (2019)	All schools achieved accreditation by 2036	Annual				



# 9.5 Reviewing Our Strategy

- 9.6 Given the longer-term time scales for this strategy, it will be regularly reviewed to ensure it remains current and that it is best placed to respond to future needs and opportunities as they arise.
- 9.7 Our Strategy has been developed in partnership with local residents, businesses and stakeholders through an extensive consultation which was undertaken during summer 2019. It is underpinned by statutory assessments relating to the environment, health and equality to ensure the impacts of the plan provide positive benefits and meet relevant legislation in these key areas.
- 9.8 Challenges and opportunities have been identified based on robust data and adopted policy, with priorities and policy approaches identified to deal these challenges and embrace opportunities as they arise.
- 9.9 Further engagement and analysis will be undertaken as individual schemes and initiatives are developed. We will work with a range of partners and technical and academic research groups in order to support the robust technical work of developing, testing and validating options, particularly on innovative projects.

The Oracle



9.10 When elements of the strategy are delivered we will monitor, benchmark and measure the results to monitor progress, and influence the methodology by which future actions are prioritised and approved. This integrated cycle allows the RTS to be continuously reviewed and updated to ensure the overall vision and objectives of the strategy are delivered.

# Glossary

# Artificial intelligence

The capability of a machine to imitate intelligent human behaviour, like visual perception, speech recognition and decision making

# Autonomous vehicles

Vehicles that can operate without a driver

# Big data

Extremely large datasets that can be analysed to reveal patterns and trends

# **Biodiversity**

The variety of all living things, including plants, animals and habitats, and their interactions together within a particular area

# **Carbon emissions**

The release of carbon dioxide (CO $_{\rm 2})$  into the atmosphere

# **Carbon neutral**

Achieving and overall balance between CO<sub>2</sub> produced and CO<sub>2</sub> taken out of the atmosphere

# Connected autonomous vehicles

Vehicles that are both connected and autonomous

# **Connected vehicles**

Vehicles that can talk to both each other and the infrastructure around them (for example traffic lights)

# Decarbonisation

The reduction or removal of CO<sub>2</sub> emissions from a product or process

# **Digital twin**

A digital model of a town, which includes networks such as transport and power, and historical and real-time data.

# Fast Track Public Transport (FTPT)

Public transport that uses dedicated lanes and routes, and so is separated from general traffic, and has limited numbers of stops so it is a faster service serving key destinations

# GVA

A measure of the value of goods and services produced in an area, industry or sector of the economy

# IDR (Inner Distribution Road)

The ring road that surrounds Reading town centre, which comprises Vastern Road, Forbury Road, part of the A329 and Caversham Road



# Interchange

The action of switching between transport modes or services, or a place where this happens (such as a railway station)

# **Internet of Things**

A network of all devices that are connected to the internet, for example computers, phones, as well as things like some traffic lights, cars, washing machines and fridges

# **Local Transport Plan**

A statutory document setting out the objectives, policies and schemes intended to improve transport in an area. The Reading Transport Strategy is Reading's Local Transport Plan to 2036.

# **Machine learning**

Where a computer programme can access data and use it to learn for themselves, rather than being explicitly programmed by a person

#### Mode

The method of travel, such as walking or by bus

# Mode shift

A change in the mode of transport

#### Natural surveillance

Where something is naturally visible by other people, for example from passing traffic or nearby homes

#### Orbital movements and routes

A movement or route that is around Reading, rather than to, from or across the town centre

# **Particulate pollution**

A mixture of tiny solid and liquid droplets that float in the air

#### **Pinch point**

A part of the public highway where congestion is particularly likely to occur (whether vehicle congestion or congestion of pedestrians, cyclists or public transport)

# Public Right of Way

A path that anyone has the legal right to use on foot, and sometimes using other modes of transport

# **Quality of life**

The conditions in which we live, including social factors such as environment and physical and mental health, as well as material and economic factors

#### **Real-time data**

Data that is delivered immediately after collection

# Shared autonomous vehicle

An autonomous vehicle that can carry many people and operates as a public transport service

# Sustainability

Meeting the needs of the present, without compromising the ability of future generations to meet their needs

#### **Traffic Regulation Orders**

A legal tool which allows local authorities (like us) to restrict, regulate or prevent the use of any public road, or right of way

# Wayfinding

The process of working out where you are, how to get to where you want to be and following the route accordingly

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