Local Transport Plan
LTP – Full Draft Local Transport Plan

This strategy acts as guidance for anybody requiring information on how the county council will manage rail infrastructure and rail services in Gloucestershire up to 2041.

Maps in this document are schematic representation of transport proposals only and not representative of actual routes or locations.
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**Separate Associated Documents:**

- Integrated Sustainability Appraisal Report & Appendices
- Habitats Regulations Assessment Draft

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Foreword

Welcome to the Local Transport Plan (LTP). This plan sets out the transport strategy for Gloucestershire for 2015-2041, reviewed to reflect national policy updates and local priorities in the face of change.

We are living in a time of unprecedented change in terms of population growth, housing demand, and technological advancement. At the same time, there are key challenges including the urgency of reducing CO2 emissions to combat climate change and the need for a more inclusive transport system. These issues demand a decisive response to how transport is planned and organised, enabling the way we travel to change profoundly within the LTP delivery period to 2041.

Geographically, Gloucestershire is at a cross roads. It connects via strategic rail and road networks to major cities, such as Birmingham, Bristol, Cardiff and London. However, Gloucestershire is also a gateway to its own valued landscapes, distinctive towns and vibrant local economies. It must be safeguarded as a destination.

The LTP is structured around a transport picture of Gloucestershire based on a patchwork of distinctive travel corridors. These spatial areas are termed the ‘Connecting Places Strategy’ areas. Transport, and the decisions all of us make about how and why we travel, is key to reducing our CO2 impact. Gloucestershire recognises the urgency of this issue; the County Council declared a ‘climate emergency’ in 2019. In the light of this the LTP has developed new policy areas and strengthened target P1-14 - Reduce per capita transport carbon emissions. This LTP review has considered how to move towards a more sustainable transport delivery model. The plan seeks to optimise the existing transport network to full capacity, and recognises that we cannot build our way out of projected traffic growth.

We need to; enable open source data, support innovation and low carbon infrastructure, invest in transformative new public transport infrastructure and multi-modal interchange, invest in highly attractive cycle links for high usage cycling, encourage active travel and better integrate strategic land use, infrastructure and transport planning.

As we move towards 2041, people will seek more responsive and less environmentally damaging modes of transport. The LTP is instrumental in enabling Gloucestershire to offer real transport choice and the innovations behind it. It will help build out the evidence base so that we can understand how transport impacts can be mitigated. It will lock ‘futures thinking’ into our decision-making by updating the LTP in line with the 2050 Vision, the Gfirst LEP Local Industrial Strategy and the carbon agenda; it will encourage the resourcing of smarter choices and transport mode shift by building on the new attitudes and opportunities for transport in Gloucestershire.

The policy interventions enable the use of more sustainable modes of travel in a climate of rapid change. Gloucestershire is on the cusp of huge societal changes. The Local Transport Plan will be systematic in supporting the transport services and mechanisms underpinning those changes.
Gloucestershire’s Local Transport Plan (2015-2041) Shaping the way to 2041

Local Transport Plan
Shaping the way to 2041

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This strategy acts as guidance for anybody requiring information on how the county council will manage rail infrastructure and rail services in Gloucestershire up to 2041.
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1.0 Introduction

1.1 Gloucestershire’s revised Local transport Plan discusses the transport strategy in two stages: until 2031 and up to 2041. The main body of the Plan sets out our vision for transport until 2031, roughly in line with the time horizons for growth allocations in the adopted Local Plans. However, emerging trends in technology and society as well as strategic ambitions in Gloucestershire that reach beyond this time horizon require a more ambitious strategy that will shape the way Gloucestershire will develop until 2041 and beyond. It is envisioned that this vision for 2041 will inform discussions with Gloucestershire Districts on current Local Plan reviews and that there will be another review of this Local Transport Plan, once Gloucestershire’s areas of growth post 2031 are better understood.

1.2 This chapter will bring together emerging trends and visions of how mobility will change over the next decades with possible growth scenarios in Gloucestershire and their impacts on the transport infrastructure required to achieve them. This will start a conversation with our partners to dovetail with emerging revised Local Plans and key documents such as Gloucestershire’s Local Industrial Strategy (LIS).

1.3 A central part of the Government’s Industrial Strategy is the ‘Future of Mobility Grand Challenge’. In its March 2019 paper ‘Future of Mobility: Urban Strategy’, Government sets out the principles which will guide its approach to emerging mobility technologies and services. However, as a predominately rural County, Government’s ambition to publish a paper on the future of rural mobility in due course will be of utmost importance. This strategy will explore how the benefits of transport innovation can be enjoyed by everyone, wherever they live.

2.0 Future Challenges

2.1 Looking towards 2041, Gloucestershire is facing demographic, social, economic and technological changes that will provide both challenges and opportunities to deliver Gloucestershire’s vision of:

‘A resilient transport network that enables sustainable economic growth by providing door to door travel choices for all, making Gloucestershire a better place to live, work and visit’
Economic prosperity and the need for improved connectivity

2.2 Improving connectivity is at the heart of economic prosperity as expressed in the LEP’s Strategic Economic Plan and the Gloucestershire 2050 vision¹. In the future, national and international connections will become even more important; sustainable, clean transport connections with existing major urban centres and international airports including London/Heathrow, Bristol, Birmingham, and Cardiff will be vital to provide this connectivity.

2.3 Gloucestershire’s connectivity currently depends largely on its highway network, with car and van travel making up 65% of all travel to work journeys in the county².

¹ Launched in 2017, 2050 Vision includes the specific ambition for improved transport connectivity across the city region
² Census 2011 data
However, this connectivity is already considerably impacted by congestion on parts of the network. With expected traffic growth and the traffic generated by Gloucestershire’s growth ambitions Gloucestershire’s future productivity could be significantly impacted if steps are not taken to improve the efficiency of the overall mobility offer in Gloucestershire.

2.4 Gloucestershire has been successful in attracting significant investment in transport infrastructure to accommodate growth, including more than £50 million Growth Deal funding invested in transport projects and Highways England’s commitment to deliver the A417 ‘Missing Link’ scheme (between £250m and £500m). Gloucestershire County Council is also bidding for funding to improve J10 on the M5. Nevertheless, with increasing traffic growth levels, the significant growth expected in Gloucestershire up to 2031 and emerging equally ambitious growth ambitions beyond 2031, simply trying to increase highway network capacity will be neither possible nor affordable. More innovative solutions need to be found that optimise all transport modes serving Gloucestershire.

Inclusion

2.5 Gloucestershire has a low population growth rate and an aging population. At the same time, research undertaken for the Gloucestershire 2050 Vision suggests that growth in the number of jobs in Gloucestershire will outpace the availability of working age people (20-64 years) over the next 20 years. This makes it ever more important to fully understand the emerging mobility needs and expectations of people of all age groups, to ensure that Gloucestershire is successful in its ambitions to act as a "Magnet County", attracting and retaining young and working age people to live and work in Gloucestershire and to cater for the mobility needs of people aged 65 years and above.

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3 Regionally, traffic growth mirrors population increases (2015-2050), the South West forecast being the highest. Nationally, the proportion of traffic in congested conditions in 2050 is forecast to range from 8% to 16% compared to 7% in 2015 (DfT – Road Traffic Forecasts 2018). In the top 20 urban areas in the UK, drivers lost an average of 178 hours a year due to congestion, costing UK drivers £7.9 billion in 2018, an average of £1,317 per driver. (http://inrix.com/press-releases/scorecard-2018-uk)

4 Gloucestershire has experienced a lower rate of growth in population compared with the South West and England and Wales between 2010 and 2017, with the slowest growth being in young people 0-19 years and working age people between 20-64 years, as compared to growth in the older population aged 65 years and above.

5 Children and Young People’s Needs Assessments 2018

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2.6 In rural areas, there are lower levels of connectivity and fewer transport options available that in the towns and cities. Public transport is often limited or in frequent, leading to problems for residents that do not have access to a private vehicle. Moreover thirteen of the most deprived wards in England are in Gloucestershire, meaning that affordable transport options are required.

2.7 This could be achieved through technological innovation and emerging Mobility as a Service (MaaS) models which aim to achieve a seamless integration of multiple modes of transport. Offering access to a broader mix of transport and mobility options will also benefit objectives of social inclusion and will benefit more deprived areas of Gloucestershire (see reference to inclusion in the Overarching Strategy).

Changes in attitude and consumer behaviour

2.8 There is growing evidence that the public attitude towards transport and the negative impacts of transport is changing. A recent Government survey shows that there is increasing concern about Climate Change, with 80% of respondents in the 2019 survey saying they were 'very' or 'fairly' concerned about climate change. Transport is a key contributor to greenhouse gas emissions and the transport sector will have to address this if Gloucestershire wants to achieve its carbon dioxide (CO2) transport emission target of zero emission per capita by 2050. Similarly, transport is the source of air pollutants that impact public health; noise (please finds further information on CO2 emissions and air quality in the environment section of the LTP Overarching Strategy).

2.9 At the same time, evidence suggests changes in the values and attitudes of young people with young adults in Great Britain and other countries driving less than young adults did in the early 1990s. Research suggests that the rise in motoring costs have discouraged young people from...
learning to drive - some say they would “never” be interested in learning to drive. This has resulted in a decline in young full car driving licence holders in England, 3% drop (2010-2017) for drivers aged 17-20 years\(^9\).

3% young licence holders in England

2.10 There is also a growing understanding that more active forms of transport can play a key role in supporting a physically active lifestyle which is related to reduced incidence of many chronic conditions, including reductions in obesity levels, which is addressed in more detail in health & wellbeing section of this LTP (see Overarching Strategy).

Innovation

2.11 In Gloucestershire 70.3% of businesses are ‘innovation active’, compared to the national average of 55.1% and GFirst LEP has the second highest rate of innovation activity compared to other LEPs\(^10\). The mobility solutions of the future will need to ensure that Gloucestershire stays highly connected, delivering digital and integrated transport connectivity to stimulate business growth. Broadband and mobile connectivity continues to be vital for business, communities and increasingly also for future mobility services. Gloucestershire is in a very good starting position to make best use of its digital connectivity, with Fastershire delivering in Phase I & II almost 98% of homes and businesses across Gloucestershire and Herefordshire with access to superfast broadband. The rollout of %G services will enable data to be streamed more quickly and in greater quantity. Gloucestershire’s future digital connectivity strategy will explore opportunities for full fibre and mobile connectivity.

\(^9\) Source - National Travel Survey: England 2017 and Table NTS0201
2.12 The mobility solutions of the future will depend on strong digital connectivity to ensure a continued high level of multi modal physical connectivity. At the same time, innovations in technology and in business models emerging in the transport sector will directly benefit businesses in Gloucestershire.

3.0 Horizon Scanning

3.1 The way we travel has always been shaped by new technology, inventions, new business models and social change. Our transport system is again at the cusp of radical changes. Gloucestershire needs to be prepared to adapt to future mobility needs and this chapter sets out the role of innovation in ushering in a new transport era.

3.2 Advances in data science, artificial intelligence and sensing technology are increasing the speed of transport innovation. Cleaner transport, automation, new business models and actual new modes of travel are about to transform how people, goods and services move in Gloucestershire. The importance of understanding and meeting the opportunities and challenges this will bring cannot be overstated, and particularly in a county that has a rural identity and no major city.

3.3 Technological advances in data, artificial intelligence and sensing technology have increased the speed of transport innovation. Future transport will be cleaner, automated, present new business models and new modes of travel. Key outputs driving these technological advances and societal changes are:
   - Better integration of all modes
   - SMART Places & Innovation
   - New vehicle technologies
   - Shared Mobility
Better Integration of all Modes

3.4 The fundamental question for Gloucestershire’s future transport network will be how to balance the demand for clean growth and improved connectivity with an increasingly congested transport system that is in many places at capacity. Ensuring that the existing infrastructure is used to its maximum efficiency will be at the core of the future of mobility in the County. This can only be achieved through a significant mode shift from the private car to public transport and active forms of travel. At present, 1% of mode share for Gloucestershire is rail, as opposed to the national figure of 5%\(^{11}\). This is despite the fact that Gloucestershire is well connected by rail to all major conurbations in the region, such as Birmingham, Bristol, London and South Wales, indicating significant growth potential.

3.5 Congestion on the road network could be reduced significantly, if more people used rail, buses or decided to walk and cycle. Proposals for how an improved public transport and active travel network in Gloucestershire could look like are outlined in the spatial potential growth scenarios beyond 2031 below. Significant investment in mass public transport, for example in a rapid transit system between Gloucestershire’s main conurbations, and strategic as well as local walking and cycling routes will be key to meet Gloucestershire’s future mobility needs.

3.6 Changes in how the passenger transport business model operates will have profound impacts on the way we purchase, consume and demand travel in future years. One of the difficulties in urban and semi-urban transport systems is the lack of co-ordination between different transport providers. People want to know how to get from A to B as easily as possible, whether that’s on foot, by bicycle, bus, train, hire car or taxi – or a mixture of some or all of those. The increasing availability of shared data, accessed through smartphone applications will allow us to plan our journeys more efficiently and conveniently. Overall, transport will become more integrated, smart, clean and efficient and people will increasingly view Mobility as an on-demand, personalised service (Mobility as a Service (MaaS)). Dynamic demand responsive transport will be better integrated with mass public transport which will become the backbone of mobility in more densely populated areas.

3.7 In rural areas, demand responsive transport services will link to core public transport routes. Traditional forms of demand responsive transport include services such as Dial-a-Ride. These services need to be expanded to attract a larger customer base, including younger passengers, through the provision of dynamic demand responsive transport, such as the PickMeUP minibuses in Oxford, which collects passengers form a ‘virtual bus

\(^{11}\) 2011 Census data (Office for National Statistics)
Gloucestershire is addressing these challenges head on with its ‘Total Transport’ project which will provide a public facing web based ‘one-stop shop’ portal, for travel information, journey planning and booking. The portal will benefit communities, especially those lacking conventional transport options, by providing journey planner information for both scheduled (e.g. timetabled buses) and ‘alternative’ transport solutions (e.g. community transport, dial-a-ride etc.) via Application Programming Interface (API) from key systems. Providing information in this way has not yet been achieved on any other platform in the UK and will remove a key barrier to information and cultural barriers to services.

3.9 The increased integration of transport modes via internet platforms will be mirrored by physical transport interchange hubs. These Interchange Hubs will offer the opportunity to provide wider community benefits e.g. thought the dissemination of information related not just to transport, but also to health and wellbeing. They may also be combined with other transport related services, such as the provision of secure parcel collection boxes and access to low carbon vehicle solutions for onward connectivity. Just like passenger Interchange Hubs, freight distribution centres will also help to minimise unnecessary local trips.

**SMART Places & Innovation**

3.10 ‘SMART’, Self-Monitoring Analysis and Reporting Technology solution is a term that can be applied to any asset. For example, a SMART bridge or building has the ability to alert us of its changing condition. This becomes possible because the physical and digital worlds are converging. As we embrace this it may transform the way we travel and allow more efficient ways of managing and maintaining facilities and infrastructure.

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13 Digital innovation in planning SMART places is a key area of research for the Association of Directors of Environment, Economy, Planning and Transport (ADEPT), which represents Place Directors from local government authorities together with LEPs and corporate partner members. A report by ADEPT, “Planning SMART Places Final Report (2017)” recognises where digital innovation and approaches can be adopted to shape places that are sustainable, accessible and promote wellbeing. ‘Big data’, meaning insight and intelligence using behavioural economics to stimulate mode shift, will bring opportunities centred on digital infrastructure and connectivity that is central to future mobility

14 Planning SMART Places, unlocking growth and place-making through innovations (ADEPT Nov 2017)
3.11 Improved data use will enable us to manage traffic on our roads in more efficient ways. Intelligent Transport Systems (ITS) are already used to advise road users of disruptions, and maximise the efficiency of traffic signals to keep the highway network operating as efficiently as possible. ITS vary in technologies applied, from basic management systems such as car navigation; traffic signal control systems; variable message signs; automatic number plate recognition or speed cameras to more advanced applications that integrate live data and feedback from a number of other sources.

3.12 All of these systems are reliant on high quality data and GCC will work with district councils and transport network operators, including Highways England, to release open source data to ensure that users of the network enjoy better journeys, limited road capacity is used efficiently and drivers are directed to the most appropriate routes. An example of the benefits of sharing data is the digitalisation of Traffic Regulation Orders (TROs) to ensure that information such as weight restrictions is available on all relevant navigating systems, thus directing HGVs away from unsuitable routes. Currently Gloucestershire road works are digitised and available in an online mapping format (roadworks.org). Street Manager, a nationally funded digital street works planning service to be launched in 2019 will replace existing systems and provide improved accuracy and real time data free to technology companies and app developers to use. Allowing existing providers such as Google maps to enhance their services to help drivers GCC already digitised some TROs, including all parking restrictions through www.gloucestershiretraffweb.co.uk and will continue this process. Equally, Gloucestershire already complies with government ambitions to ensure that all bus timetables and routes are openly published.

3.13 An example of how the availability of live data influences driver behaviour where it informs drivers of available parking spaces, thereby reducing levels of driving around the county’s towns searching for a space. Enabling drivers to access real-time parking availability and tariffs, including on-street spaces also supports more efficient use of local parking provision.

3.14 GCC will continue to work with Highways England and other key stakeholders to explore and develop innovative measures to improve the efficiency of the transport network, including car parking, through technology.

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15 Bus Open Data: Publication of Government Response to 2018 Consultation: On 26th March the DfT published the response to the bus open data consultation. Further information can be found here: www.gov.uk/government/consultations/bus-services-act-2017-bus-open-data and here: www.gov.uk/government/news/bus-revolution-to-put-power-in-passengers-hands The DfT intends to make the Regulations during Summer 2019 with the first set of requirements for route and timetable data to be openly published by bus operators to come into effect from 07 January 2020. Simultaneously the DfT will publish guidance for bus operators and local transport authorities explaining how to meet the new requirements; the guidance will be updated and released as a new version as new requirements are phased in.

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3.15 In 2017 Government announced plans to ban the sale of new petrol and diesel cars in Britain by 2040. In 2018 the “Automated and Electric Vehicles Act 2018” came into force, as part of the Government’s industrial strategy to promote the development and deployment of both automated and electric vehicles and in line with policies on climate change.

Zero Carbon
Gloucestershire 2050

3.16 The move towards clean vehicle technology will reduce transport related emissions and make our city centres greener and quieter. The challenge for Gloucestershire will be to provide the infrastructure required to support the new vehicle technologies, e.g. though a network of electric vehicle charging points as outlined in Overarching Strategy.

3.17 The electrification of vehicles and bikes, as well as the introduction of micromobility vehicles will make transport more environmentally friendly and adds more modes of transport to the mix.

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16 Micro mobility describes the ways in which we get around in the ‘first and last mile’ of trips. Examples are bike share programs adjacent to train stations, or the Paris scheme of dockless GPS-enabled e-scooters is operated, that enables users to rent electric scooters just paying for the time they are used. The scooters are found and unlocked by app; the scooters can be left wherever riders want to leave them, as long as they take photos of the location to encourage responsible behaviour.
3.18 New vehicle technologies will allow us to use our existing transport infrastructure more efficiently. Vehicles capable of communicating with each other and with infrastructure have the potential to provide information to network operators and users in real time to optimise fleet and network management. Estimates suggest there are at least 3 million vehicles with internet connectivity on UK roads, with 50% of new vehicles expected to be connected by 2020\(^{17}\). Looking further into the future, it is likely that the self-driving vehicles that are currently being developed and tested will become a reality. This will not only affect privately owned cars, but will also mean that we will see driverless bus and shuttle pod services and demand responsive, driverless ride sharing and taxi services. This will make these transport offers increasingly convenient and significantly reduce their operating costs. Similarly, it is likely that goods and freight transport will become more automated and drone technology will become available.

3.19 While these innovations in vehicle technology open up exciting new opportunities for our future mobility, they will have to be well managed and integrated in a wider mobility offer, in order for them to reduce rather increase congestion and to make a positive contribution to the urban environment.

**Shared Mobility**

3.20 While fully autonomous vehicles will not be on our roads in the immediate future, already the global market for ride share services has grown significantly with an increasing number of people using their smart phones to catch a ride\(^ {18}\). This is driven by new business models emerging as a result of increasing digital connectivity where data is used to directly market goods and services tailored to personal preferences. For example, the Uber business model works on these principles, a service that has revolutionised ride-sharing.

3.21 The potential to reduce congestion and transport related CO2 emissions by reducing the number of single occupancy car trips made could be substantial. Gloucestershire will however, face particular challenges, as many of these ride-share services are currently only available in big urban centres and, like all public transport services, demand responsive services are more costly to operate in less densely populated areas.


\(^{18}\) DfT 2019: Future of Mobility: urban Strategy: “The proportion of 18-75 year olds owning or having access to a smartphone increased from 52% in 2012 to 87% in 2018. Nearly 9 in 10 smartphone users (87%) use their phones for travel purposes, with navigation and route planning being the most popular uses.”
3.22 Another shared mobility model focuses on sharing access to vehicles, including cars, bicycles and scooters. Car clubs have seen a rise in popularity in the UK as these provide travellers with the independence of a private vehicle, whilst not involving the high costs associated with ownership. In Gloucestershire, a number of car clubs are already operating, including ‘Carshare Gloucestershire’, which has over 3000 members\(^\text{19}\).

3,000 members

Car clubs can reduce the overall number of vehicles on the road and if electric vehicles are used, further environmental benefits can be achieved. Likewise shared use of bicycles can encourage travellers to use more active modes of transport.

3.23 An increase in shared mobility will support Gloucestershire to reduce congestion on its road network and meet its environmental targets.

4.0 Summary

4.1 By 2041, significant investment in Gloucestershire’s public transport and active travel infrastructure will be complemented by technological and business model innovations. In combination, these changes will have the potential to support sustainable economic growth by improving Gloucestershire’s connectivity through enabling a more efficient use of existing infrastructure and a better integration of all transport modes. Transport will contribute to making Gloucestershire an attractive place to live work and visit for all age groups through the provision of high quality mobility services without the need to own a private car, providing green infrastructure and access to the natural resources Gloucestershire has to offer.

4.2 Community Connectivity is enhanced through the provision of easy access to mobility services in rural as well as urban environments, integrating demand responsive transport offers with mass public transport. This is complemented by the availability of a broadened transport mode mix, with the emergence of electric bikes and low-carbon alternatives (micromobility vehicles).

4.3 A significant investment in infrastructure for active travel will improve community health and wellbeing and increase the overall attractiveness of the County.

4.4 The resulting significant mode shift towards public and active travel options, combined with cleaner vehicle technology will allow Gloucestershire to achieve its CO2 reduction targets and conserve the environment.

4.5 For all of these interventions, cooperation with all delivery partners as well as the private sector is central. GCC will therefore work with the LEP, transport operators and the districts to discuss ways to implement the necessary steps to prepare Gloucestershire for the mobility challenges that lie ahead. Key actions Gloucestershire can already take include:

- Encouraging the sharing and harnessing of data through the creation of standards and platforms that make it easier to access and use transport data, for example at transport hubs; via Thinktravel and smart parking apps, App-based taxi/private hire e.g. Uber, App-based journey planning & real time information e.g. City Mapper, App-based demand responsive bus services
- Prepare for smart / connected infrastructure / asset management / traffic control systems
- Continue to support Mobility as a Service (MaaS)
- Fostering experimentation and trialling especially within the new City Region but also in terms of innovative approaches to rural travel and access needs
- Identifying where investment will help business benefit from mode shift and increased transport mode capacity.
- Preparing the urban environment by supporting the development of public and urban space which offers mode choice and enables the innovations in transport to be fully delivered
- Support full public dialogue to explore and build on the new attitudes to and experiences of transport in Gloucestershire
5.0 Potential Growth Scenarios Beyond 2031

5.1 The technological and social changes outlined in the previous chapter indicate that Gloucestershire will have to adapt to the profound changes to the movement of people, goods and services move around the county. This means investing in our strategic road and rail network to ensure Gloucestershire continues to strengthen its connectivity to major growth centres in Birmingham, Bristol, Cardiff and London.

5.2 On a local level, a growth vision for Gloucestershire that goes beyond the currently published Local Plans is being developed by the District Councils, in cooperation with GCC, the LEP and other partners. The Connecting Places Strategy will set out the transport ambitions and infrastructure improvements needed to accommodate projected employment and housing growth set out in the currently adopted Local Plans. This chapter will bring together what we understand about future transport trends and innovations with strategic transport considerations based on a number of potential future spatial development scenarios that go beyond the currently adopted local plan periods.

5.3 A lot is still unknown about the transport needs that will emerge out of the developing growth vision beyond the current Local Plan periods. However, we hope that by visualising the strategic direction growth in Gloucestershire may take, and by setting out our transport ambitions for these scenarios, we can shape a conversation with communities and businesses in Gloucestershire that will ensure actual positive change.

5.4 We have already seen the benefits of this approach through the Gloucestershire 2050 conversation, instigated by the University of Gloucestershire, and our growth scenarios are loosely based on three boards established by Leadership Gloucestershire to progress the ideas developed in the Gloucestershire 2050 vision.

* Central Gloucestershire City Region Board
* Rural Ambition Board
* Severn Vale Board
Our Vision for Growth in Central Gloucestershire

5.5 Our vision for growth in central Gloucestershire comprises the Cheltenham and Gloucester conurbations. Cheltenham and Gloucester are two distinctive settlements with strong historical and cultural identities. It is here that the mobility innovations discussed above are likely to be the most evident. The 2050 vision proposed that, together, Cheltenham and Gloucester and the surrounding areas will grow into a ‘City Region’ that will coordinate growth and development, while ensuring that both urban centres retain their distinct character.

5.6 This area will see substantial growth over the coming years; with 25,276 out of the total growth ambition of 60,000 (45.46%) new homes and 88.8ha of the 300 ha (29.59%) employment land identified in Local Plans up to 2031 in this area. With the JCS now being reviewed, it is likely that this area will see an even higher allocation of housing and employment land in the future.

5.7 The significant growth envisaged, will be allocated in sustainable locations, with good public transport, walking and cycle links to existing urban centres. The urban centres of Cheltenham and Gloucester will see significant investment in walking and cycling infrastructure, road space allocations to sustainable transport and with key corridors served by high frequency, high quality public transport. This will enable integrated business growth opportunities and high quality and affordable new homes while reducing the negative impact of transport such as on air quality and noise, thus allowing both urban centres to fully capitalise on their high quality streetscapes and attractive settings.

5.8 The City Region will be the county’s magnet for young people who will find it easily accessible through a seamlessly integrated, multi-modal transport offer and without the need for private car ownership. Young people will not only be drawn to the region by Gloucestershire’s higher education offer and high quality employment opportunities, they will also be attracted by the high standards of the green transport infrastructure providing ready access to sustainable green spaces and first-class leisure and cultural opportunities.

5.9 The City Region already hosts a major digital, technology and aerospace cluster. A further cornerstone and driver of economic growth will be the Cyber Business Park. With the delivery of proposed 45 hectares of employment land, focussed on cyber industries the region will generate new high skilled jobs, initiated by the new GCHQ Cyber Innovation Centre. The Cyber Business Park will continue to grow into a cyber hub of national and international importance attracting more business in the cyber and security sector to Gloucestershire.
Transport infrastructure will have a key role in enabling delivery of this vision for cyber as well as the significant wider business and housing growth. This does not only mean the provision of a functioning, high quality and reliable transport network to provide mobility within this new City Region, but also high quality and fast access to key destinations in the City Region and beyond. Mass transit systems will play their part; systems such as; light rail, high frequency bus routes and guided busways. Mass transit systems will be subject to further studies. In addition, there are opportunities to be realised for the local economy to benefit from and to shape the technological and structural changes in transport set out above.

Strategic Transport Priorities

The existing highway network suffers from high levels of congestion, leading to low network resilience and poor journey time reliability, the transport interventions needed to enable growth beyond that currently set out in the Local Plans will have to maximise the efficient use of existing infrastructure and bring forward significant change in the way people and goods move within the City Region.

This will be accommodated through the significant investment planned for the Strategic Road Network in the region which will allow the M5 to continue to provide fast road transport connections to Birmingham, Bristol and beyond, easily accessible in both directions from junctions 10, 11 and 11a. The essential Missing Link scheme will contribute greatly to faster, safer and more reliable journeys on the A417, supporting Gloucestershire’s economic prosperity by providing a fully duelled link between the M5 and the M4.

Efficiency on the road network will be maximised through intelligent transport systems and connected vehicles that will provide real time journey, key event and weather information that will inform and empower drivers to make better journey decisions. The majority of all vehicles will be electric, supported by a network of electric vehicle charging points.

However, the continued functioning of the M5 as a reliable and fast link providing regional connectivity can only be ensured with a transport strategy that will also see a significant shift in demand from the M5 to the Birmingham to Bristol rail link that runs in parallel to the M5. The same is true for the City Region’s east west connectivity provided by the A40 which is also paralleled by a rail line. The current trend of increasing passenger numbers travelling by rail will continue, with officers lobbying for a 20min service on the Bristol to Birmingham line stopping at Ashchurch, Cheltenham, Gloucester and Cam & Dursley, as well as a 20 min services from Cheltenham/Gloucester to Cardiff (Stopping at Lydney).

20 61% Increase in passenger numbers between the years 07/08 and 17/18. (Office of Road and Rail)
This level of growth will only be possible, if supported by substantial investment in rail infrastructure including the two passing loops listed in the LTP schemes list and substantial line speed and signals improvements. The passing loops are lengths of track several times longer than the train and allow faster services to pass local stopping or freight services to ensure punctuality and additional capacity on the line. Gloucester Station will also see signal upgrades and capacity constrains at Cheltenham Station will need to be addressed by upgrading the existing station or considering a new station between Cheltenham and Gloucester.

5.15 With rail services providing regional and inter urban connectivity, a step change in public transport provision within the City Region will be delivered through the introduction of a mass public transport solution on the core strategic link in the city region linking Bishops Cleeve north of Cheltenham to Quedgeley in the south of Gloucester. Further work is required to establish the feasibility and cost efficiency of a number of solutions that could delivery this core public transport corridor, including a rapid transit bus system with automated shuttle services. It is however key, that this public transport core route links the two urban centres in the City Region, their train stations, with other key interchange hubs and high trip generating destinations, such as Hospitals and key employment sites.

5.16 Local bus services will be further strengthened through significant investment in bus priority measures, a high quality vehicle fleet and improved accessibility through mobile phone apps providing real time information and integrated ticketing solutions. Strategic interchange hubs at all M5 motorway junctions, all railway stations and some other key locations will link the core public transport corridor and these high frequency, high quality bus services to long distance travel opportunities. Freight deliveries will also be taken to distribution centres located next to the motorway junctions and then transferred onto low emission vehicles for local delivery.

5.17 A high density of demand responsive transport providers, both private companies and community transport type services provided by the voluntary and charity sector will complement local bus services. All interchange hubs, strategic and local, will provide seamless interchange with mass public transport, demand responsive transport options, and active modes of transport.

5.18 High quality, prioritised cycle routes for mass cycle use on the strategic cycle desire lines will feed into the urban centres of Cheltenham and Gloucester and integrate with the public transport provision. This strategic cycle network will be supported by a high quality local walking and cycle network, continuously updated and improved in line with guidance given through the Local Cycle and Walking Infrastructure Planning process. Over time the strategic cycle network will link to Tewkesbury and Bishop’s Cleeve in the north and Quedegeley/Sharpness and Stonehouse/Stroud in the south.
Figure A - Strategic Transport Priorities in the Cheltenham and Gloucester City Region
Our Vision for Tewkesbury and Ashchurch

5.19 There are significant growth ambitions also for the north of Gloucestershire, in the Tewkesbury and Ashchurch area. The Joint core strategy has allocated about 20ha of commercially accessible employment land and about 3,000 homes in this area. A key growth site is a 64.4ha former army base site in Ashchurch which was due to be released by the MoD for the delivery of up to 2,125 new homes. However, while it is anticipated that this site will come forward in the long term, the MoD will now be retaining the site for another 10 years, with a smaller portion (15.8ha) potentially to be disposed of earlier.

5.20 In addition to the already allocated development sites, Tewkesbury Borough Council (TBC) has successfully bid for Garden Town status for the Tewkesbury Ashchurch Garden Community which will receive an initial £750,000 to support the fast-tracking of required specialist survey and planning work necessary for the development. This Garden Town community would see up to 10,195 houses for Tewkesbury at Ashchurch and between 11,000 – 16,000 new jobs depending on employment densities over the period to 2041.

5.21 The vision for the Tewkesbury and Ashchurch growth area is one of sustainable growth of two distinct, but integrated centres in Tewkesbury town centre and around Ashchurch station. The Tewkesbury Area Draft Concept Masterplan sees Tewkesbury Town Centre maintaining its role as the main historic centre, while the Ashchurch Local Centre provides a gateway to Tewkesbury, while keeping its own distinct identity as the new contemporary core of the emerging community. The Ashchurch Local Centre will be located around an improved local railway station and the area around St. Nicholas Church.

Garden Town

10,195 houses, 16,000 new jobs to 2041
5.22 By focusing the significant growth ambitions around Ashchurch station, by balancing jobs and homes, and through the provision of local services, the masterplan seeks to create a high level of self containment, enabling people to live and work in the same area. This will enable the Tewkesbury and Ashchurch area to build on its already high number of cycle trips to create a community that uses active modes of transport for the majority of local trips making best use of existing infrastructure and natural assets.

5.23 The outstanding historical natural setting, stunning view and easy access to three Areas of Outstanding Natural Beauty (AONB) and the areas proximity to local universities will attract highly skilled graduates and professionals who will find fast regional connectivity and local high quality employment opportunities. The associated employment land will allow local business to grow and will attract new businesses in the Energy, Engineering, Cyber Security and Information Technology related sectors.

**Strategic Transport Priorities**

5.24 The Tewkesbury and Ashchurch growth area clearly looks to Birmingham and the West Midlands in the north and Gloucester and Cheltenham in the south. These strategic road and rail connections will have to be strengthened if the proposed growth ambitions are to be accommodated. An upgrade of junction 9 on the M5 and a new offline dual carriage way for the A46 is an existing LTP scheme of highest will create a strategic and viable express alternative to the M5/M42 and allow the opportunity to connect with other regional economies. The A46 is a core distributor for the logistics, warehousing and manufacturing industry with 20% of all goods from these sectors in the midlands transported via the A46.
Tewkesbury/Ashchurch’s local economy is centred upon those industries and will improve the efficiency of the delivery of goods and services. This would encourage inward investment and the spread of growth along the A46 corridor. The improvements will also provide convenient connectivity to the Trans Midland Trade Corridor which forms the £115bn economic spine of the country with access to a potential 2.8m jobs. The improvements would also have national benefits with the A46 providing a cross country national route connecting the ports in Humberside to those in Avonmouth via the A46/M5.

5.25 However, as in other parts of the County, conventional highways infrastructure alone will be unable to facilitate the level of development planned for this area. At Ashchurch Station, increases to service frequencies to three trains an hour will be supported by the Ashchurch passing loop referenced in Rail policy document (PDS) of this LTP. The station itself will be made more attractive through a high quality station building and will serve as a multi modal strategic interchange hub with easy access for walking, cycling bus and rail.

5.26 Like Ashchurch Station, the town centre of Tewkesbury will also function as an interchange hub for active travel and public transport services, with a particular focus on providing mobility as a service and link to demand responsive transport options.

5.27 A dense network of local cycle routes will feed into a high quality, prioritised cycle routes for mass cycle use on the strategic cycle desire lines between the northern growth area, Bishops Cleeve, Cheltenham and Gloucester, with a particular focus on active travel links into Tewkesbury town centre and into the new Ashchurch Local Centre. Cycling and walking connectivity will be supported by new cycle and walking infrastructure to overcome barriers between new and existing sites, amenities, facilities and developments.

5.28 Similar to the Gloucester and Cheltenham City region, the Tewkesbury and Ashchurch growth area will be connected through a core sustainable transport corridor. The new junction 9 on the M5 and offline carriage way for the A46 have significantly reduced vehicle flows on the existing A46 alignment allowing for the creation of a high quality, convenient and safe pedestrian, cycle and mass public transport sustainable travel corridor between the two growth area centres in Tewkesbury and Ashchurch. The creation of this sustainable corridor will have wider social benefits as the severance issues that are occurring today will be overcome and the barriers that currently divide the communities will be removed.
5.29 A new strategic Interchange Hub and freight distribution centre located in close proximity of the new A46 alignment and the new M5 Junction 9, will further manage traffic levels on the local road network and directly link to core public transport corridors, made more attractive by bus priority measures, a high quality vehicle fleet and improved accessibility through mobile phone apps providing real time information and integrated ticketing solutions.
Figure B - Strategic Transport Priorities in Tewkesbury/Ashchurch
Our Vision for Rural Ambition

5.30 Gloucestershire’s rural areas with their attractive landscape and strong rural communities are a key asset to the attractiveness of Gloucestershire as a whole. The transport vision for this area is one that improves connectivity to support a vibrant rural economy that compliments the vision for growth elsewhere in the County. Tourism and the visitor economy is an important sector for the rural economy and the entire County. Latest figures show that total visitor spend for the county is over £1.1 billion, employing over 26,000 people, which represents 8% of all employment21.

5.31 While many transport challenges such as congestion pinch points, air quality and transport reliability are similar to those in urban areas, rural areas face specific challenges to provide an inclusive transport system that provides connectivity to all residents, and links not only to the urban centres near by, but also beyond the county.

5.32 However, it is not just about connectivity to bigger centres, there is significant growth potential in the rural areas themselves, with 35% of premises in our rural areas now being connected to world leading digital connectivity – with 1GB fibre to the premise. This will drive further investment including agri-tech, which has an enormous global potential and is already emerging through the RAU’s Farm 491 Innovation and Incubation Hub.

Strategic Transport Priorities

5.33 Technological interventions will affect rural areas just as the more urban growth areas of Gloucestershire. However, technologies advances will pose slightly different challenges to be addressed. For example, it needs to be ensured, that there is a high enough coverage of electric vehicle charging points in rural areas (Overarching Strategy).

5.34 Digitalisation of information will help to address some of the issues currently faced by local communities, such as Lorries using inappropriate routes or road safety, for example if information such as weight restrictions becomes available through mainstream mapping and routing software.

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21 Great Britain Tourism Survey (GBTS) 2016

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Through portals such as the Thinktravel ‘Total Transport’ project, demand responsive transport services will provide public transport accessibility in rural locations, however, uptake of commercially operated ride share companies may be slower than in urban areas, as the companies providing these services may see less densely populated areas as less commercially attractive.

Major growth areas, currently allocated in the relevant Local Plans are in Cirencester in the Cotswolds and Lydney and Cinderford in the Forest of Dean. Should further growth be allocated in the Forest of Dean, accessibility to and from the forest would have to be strengthened, particularly in the north-east, into the Gloucester and Cheltenham City region and south, into south Wales and over the Severn bridge, into Bristol.

In the Forest of Dean, Lydney train station will see significant enhancements and frequency increases and will have developed into a multi-modal interchange hub. In combination with other modes, rail services now provide a viable alternative to the car, relieving two road infrastructure bottle necks, i.e. the A40 access to the Gloucester/Cheltenham City Region and the A48 at Chepstow.

High frequency bus services, supported by bus priority, will link other towns in the forest to Lydney train station, into the Cheltenham and Gloucester City Region and across the Border into South Wales and Bristol. The area west of the River Severn also provides scope for a transport interchange hub to improve access to the City region and relieve the current highway pinch point on entry to Gloucester.

Increased services from Lydney are combined with better interchange and improvements at Severn Tunnel Junction, providing fast and convenient connections from the Forest of Dean to Bristol and South Wales. Officers will also investigate the possibility of a direct rail connection from Lydney/Chepstow, through the Severn tunnel to Bristol.

However, strengthening rail services in the Forest of Dean may not be sufficient to alleviate the already apparent capacity constraints on the A48 at Gloucester and more notably Chepstow. If this is the case, a new bypass in Chepstow may be needed to ensure that traffic can flow more freely, opening up the area around Chepstow in both, Gloucestershire and Monmouthshire for additional growth and allowing traffic through Chepstow town centre to be dominated by more active and sustainable modes of transport.
Improve connectivity Interchange Hubs

3.41 Depending on the magnitude of growth in the Forest and depending on where growth in the Stroud District is located, a completely new access point may also be considered, in the form of a new Severn Crossing (Glos2050).

3.42 In the Cotswolds, Kemble station now has an hourly service to London an addition to an hourly service to London, changing at Swindon. In addition to demand responsive services, it is served by high frequency bus routes, as well as attractive, high quality active travel routes, linking it to Cirencester and Tetbury.
The north Cotswolds will also have direct rail links, to London via Oxford, from Moreton-in-Marsh linking it to the UK Growth ‘Knowledge’ Arc with its ambitions for economic growth associated with and supported by university research. The Growth Arc focusses on high-tech industries, particularly manufacturing and research and is anticipated to contribute £90bn to the UK economy. Gloucestershire has a number of high-tech industries, with the Central Severn Vale leading in Cyber Technologies; this gives great scope to contribute and benefit from this market. The North Cotswolds is an attractive place to live, which may encourage those who work in these high end jobs to reside here. Moreton in Marsh could be regarded as Gloucestershire’s gateway to the cyber hub from the north east and vice versa for the Growth Arc from the west. This allows the potential for the station with its connections to London and Oxford to become a major interchange hub for sustainable travel. Rail station improvements will help encourage much needed mode change on the A429 corridor.
Figure C - Strategic Transport Priorities in Rural Areas

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Our Vision for the Severn Vale

3.44 The Severn Vale area benefits from both; an attractive landscape, including parts of the Cotswold AONB as well as close links to both the Central Gloucestershire City Region, bigger conurbations, such as Bristol and Bath in the South, and a direct rail link to Swindon and London.

3.45 It has a strong economic base, with a very important manufacturing industry that generates 22% of all jobs (double the regional and national average) in the area which is the opposite to the national picture of structural decline. The Severn Vale is also home to the recently opened Berkeley Green University Technical College (UTC) as well as the South Gloucestershire and Stroud College. The Berkeley Green UTC in particular is located on the decommissioned Berkeley nuclear power station site which has been regenerated into a Green Energy and technology park.

3.46 Significant growth is suggested in this area to 2040 with 12,800 additional dwellings and new employment land. Existing, as well as new transport infrastructure will be the key to accommodating this growth.

3.47 Key growth areas identified in the emerging Stroud local Plan are in the areas of Stonehouse, Cam, Hunts Grove, Cambridge, Newtown and Sharpness, the latter of which is proposed to accommodate 2400 new homes up to 2040 and a further 2600 in the years beyond.

Strategic Transport Priorities

3.48 Glos2050 vision has considered the potential role of a third crossing of the River Severn between the Forest of Dean and Stroud districts. Whilst to date this has been described as a Lydney-Sharpness bridge, other locations have been suggested through consultation. Significant growth allocations would have to be made both, in the Forest of Dean as well as in the Stroud District area, to justify a transport infrastructure investment of the magnitude of a third river crossing. However, the 2050 vision considers that a new Severn bridge could create stronger links between the Forest of Dean and Stroud districts and would connect much of England to South Wales in a new way that takes pressure off the M4 and M5. A railway bridge could link Cam and Dursley station with Lydney station. Locally the third river crossing would provide better links with shorter journey times; however the crossing would have a wider economic value by opening up land on either side for the creation of new communities, of which the River Severn would previously have been a major barrier to delivering. However, the wider transport impacts of a third Severn crossing still need to be better understood.
The rail network in this area offers great potential for growth, with a 40 min rail journey into the centre of Bristol from Cam and Dursley Station (24mins) and a 1 hour 40 min train journey to London from Stonehouse, 1 hour 35 minutes from Stroud and 1 hour 20 minutes from Kemble.

Offers great potential for growth

40 minutes

Rail journey into Centre of Bristol

The latter service will now have an increased service frequency to London which will see an hourly direct service and an additional hourly service to London, changing in Swindon. Cam and Dursley Station would benefit greatly from the extension of the Bristol Metrowest 2 service to Gloucester, providing half hourly services to Bristol. It is our ambition that service frequencies at Cam and Dursley Station would increase to three trains per hour in the future.

All four rail stations in the area will develop into strategic interchange hubs, ensuring easy access to major urban centres in Bristol, Swindon and London, as well as the Gloucester and Cheltenham City region. High frequency bus routes will connect these stations to larger settlements, including potential new settlements in the Sharpness area and rural parts of the district will be served through high quality, easily accessible demand responsive transport services.
3.51 An additional rail station or sustainable transport hub for high frequency bus travel could be provided between Stonehouse and Gloucester to take the pressure off of the network which, if the station or hub was not provided, would result in residents having to travel north or south into Stonehouse or Gloucester respectively for sustainable onwards travel. Residents in the south of the area may benefit from additional stations outside of the county boundary for travel to Bristol and the South. The creation of sustainable and/or active travel links can support green movement to those facilities if they were to come forward.

3.52 The emerging strategic allocations will be highly accessible by cycle allowing scope for a network of dedicated walking and cycle routes that are located on the key desire lines to local services and facilities within the settlements as well as between the allocation sites and interchange hubs. These direct links would allow for ease of movement as well as create an attractive and safe environment for all users encouraging an increase in sustainable travel modes for short journeys. Furthermore, the advancement in technology of ebikes will make longer sustainable commuting journeys easier and the variable terrain in the Severn Vale less of a challenge for all users. The ebikes could be left securely at the interchange hubs at specific charging points whilst the users make the onward journey via bus or rail, or take the ebike with them, like any conventional bike, and carry on their sustainable journey at their destination.

3.53 Unlike the other areas of the county, the Severn Vale has a well established Canal Network that links Sharpness and Gloucester via the Gloucester & Sharpness Canal and links the Stroud Valleys to the Gloucester and Sharpness Canal via Stroudwater Navigation. Heritage Lottery and Highways England funding enabled the means of providing the ‘Missing Mile’ of Stroud Water Navigation under the M5 Motorway to allow its restoration to Saul Junction.

3.54 Although water based freight transport is unlikely to occur, the future potential of a water based transport method remains. The primary benefactor of the reconnected canal network is its offering as a viable off-road cycle and walking route which connects key Severn Vale growth areas to the city region and provides an attractive tourist leisure route to boost the local economy.

3.55 Sharpness is a strategic allocation site that has the potential to benefit greatly from an enhanced walking and cycling network within the allocation area. However, Sharpness is isolated in its location so would require a range of transport modes to serve external trips, in particular a direct express public transport link to Cam and Dursley railway station and along the A38to Gloucester/Cheltenham and into the Bristol city region. The current bus journey time between Sharpness and Cam and Dursley station is approximately 50 minutes and fails to compete with the ease of the private
motorcar currently. The service can be timetabled to coincide with MetroWest rail services to ensure convenient onward travel to the growth areas of Gloucester and Bristol and beyond to the South West and London.

3.56 The combination of the increased Metrowest services, express bus services into surrounding settlements and new developments as well as dedicated cycling and walking networks ensures that Cam and Dursley station is the focal point of the allocation sites in the southern part of the Severn Vale and links to it should be prioritised and maximised to their full potential from future development. In addition to the rail network, the M5 will remain a key transport corridor with a number of express bus services operating on it allowing for regional and national travel. The express bus services can serve additional interchange hubs located at the junctions on the M5.
Figure D - Strategic Transport Priorities in the Severn Vale
6.0 Potential long-term ambitions

6.1 In the chapter “shaping the way to 2041”, this LTP sets out the technological and social changes that will shape Gloucestershire’s transport system over the coming decades. This, combined with potential growth scenarios beyond the currently adopted Local Plan periods, will define the need for future transport interventions. While a lot is still unknown about the direction of these developments, the below list of conceptual scheme ideas will shape our long term ambitions for the future development of the transport network in Gloucestershire, illustrated in Table 1.
### Table 1: Long-term Ambitions for Future Development of the Gloucestershire Transport Network

<table>
<thead>
<tr>
<th>CPS</th>
<th>MODE</th>
<th>Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSV/CR, TEW, SV</td>
<td>Public Transport - Bus</td>
<td>A network of strategic interchange hubs, including at all M5 junctions, including freight distribution centres.</td>
</tr>
<tr>
<td>Country</td>
<td>Public Transport - Bus</td>
<td>High frequency strategic bus corridors supported by bus priority measures.</td>
</tr>
<tr>
<td>CSV/CR, TEW, SV</td>
<td>Ped/Cycle</td>
<td>High quality, prioritised cycle routes for mass cycle use on the strategic cycle desire lines, linking Tewkesbury/Ashchurch in the north to Cheltenham and then Gloucester, via Bishop’s Cleeve. From Gloucester it will link to a West of Severn interchange hub and extend into the Severn Vale, branching off into the growth areas in Sharpness/Berkeley and towards Stonehouse and Stroud.</td>
</tr>
<tr>
<td>County</td>
<td>Highways</td>
<td>New Urban Traffic Control Centre (this will need to be reviewed to better understand the needs of connected vehicles) FOR REFERENCE ONLY</td>
</tr>
<tr>
<td>CSV/CR</td>
<td>Ped/Cycle</td>
<td>An expanded local and strategic cycle network, including high quality cycle links within the Cheltenham and</td>
</tr>
<tr>
<td>CPS</td>
<td>MODE</td>
<td>Scheme</td>
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</tr>
<tr>
<td>CSV/CR</td>
<td>Public Transport</td>
<td>Rapid transport system linking Cheltenham and Gloucester and extending to Bishop’s Cleeve – Hardwicke/Quedgeley</td>
</tr>
<tr>
<td>CSV/CR</td>
<td>Public Transport - Rail</td>
<td>Address capacity constrains at Cheltenham Station by upgrading the existing station or considering a new station between Cheltenham and Gloucester.</td>
</tr>
<tr>
<td>CSV/CR</td>
<td>Public Transport - Rail</td>
<td>Gloucester station improvements.</td>
</tr>
<tr>
<td>CSV/CR, TEW, SV</td>
<td>Public Transport – Rail</td>
<td>Line speed and signal improvements on the Birmingham to Bristol line, to accommodate substantial service improvement ambitions.</td>
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<tr>
<td>FODDC/RA</td>
<td>Public Transport – Rail</td>
<td>Improved connectivity from Lydney/Chepstow, through the Severn tunnel to Bristol.</td>
</tr>
<tr>
<td>RA</td>
<td>Public Transport – Rail</td>
<td>Strategic multi-modal interchange expansion with improved and enhanced walking, cycling and bus accessibility to the surrounding settlements at Lydney, Moreton-in-Marsh and Kemble Railway stations.</td>
</tr>
<tr>
<td>RA</td>
<td>Ped/Cycle</td>
<td>An expanded local and strategic cycle network, linking into to Lydney, Coleford, Cinderford and Chepstow in the Forest of Dean and into Moreton and Cirencester in the Cotswolds, with a particular focus on the link between Cirencester and Kemble Station.</td>
</tr>
<tr>
<td>RA</td>
<td>Ped/Cycle</td>
<td>Designated quiet routes/lanes for leisure cycling in the forest of dean and the Cotswolds.</td>
</tr>
<tr>
<td>RA</td>
<td>Public Transport – Rail</td>
<td>Electrification of GWR Mainline including Kemble Link Extension (This scheme was previously in the LTP, however it is a very large scale Network Rail/DfT project that is more likely to occur in the period up to 2041, therefore it is deemed more appropriate to be included in the future ambitions list.)</td>
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<tr>
<td>TEW</td>
<td>Public Transport - Rail</td>
<td>Further improvements to Ashchurch station, including a high quality station building to support its role as a Strategic multi-modal interchange with improved and enhanced walking, cycling and bus accessibility.</td>
</tr>
<tr>
<td>TEW</td>
<td>Ped/Cycle</td>
<td>An expanded local and strategic cycle network, into Tewkesbury town centre and into the new Ashchurch Local Centre, supported by new cycle and walking infrastructure to overcome barriers between new and existing sites, amenities, facilities and developments.</td>
</tr>
<tr>
<td>TEW</td>
<td>Public Transport - Bus</td>
<td>Sustainable travel corridor on the present A46 connecting Ashchurch with Tewkesbury (this is dependant on the M5 junction 9 and A46 scheme listed as strategic scheme in this LTP).</td>
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<tr>
<td>CPS</td>
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<td>Scheme</td>
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</tr>
<tr>
<td>SV</td>
<td>Public Transport – Rail</td>
<td>Significant improvements to Cam and Dursley station, including a high quality station building to support its role as a strategic multi-modal interchange with improved and enhanced walking, cycling and bus accessibility.</td>
</tr>
<tr>
<td>SV</td>
<td>Public Transport – Rail</td>
<td>Strategic multi-modal interchange expansion with improved and enhanced walking, cycling and bus accessibility to the surrounding settlements at Stonehouse and Stroud Railway stations.</td>
</tr>
<tr>
<td>SV</td>
<td>Ped/Cycle</td>
<td>An expanded local and strategic cycle network, into local market towns and new settlements, supported by new cycle and walking infrastructure to overcome barriers between new and existing sites, amenities, facilities and developments.</td>
</tr>
<tr>
<td>SV</td>
<td>Public Transport – Rail/Highways</td>
<td>Third Severn Crossing (in conjunction with significant growth in the Forest of Dean and Stroud Districts)</td>
</tr>
<tr>
<td>SV</td>
<td>Highways</td>
<td>M5 Junction 14 upgrade (in cooperation with South Gloucestershire, where this junction is located).</td>
</tr>
<tr>
<td>SV</td>
<td>Public Transport - Rail</td>
<td>A new railway station or transport interchange hub on the Gloucester to Bristol Public Transport Corridor.</td>
</tr>
<tr>
<td>SV</td>
<td>Ped/Cycle</td>
<td>Connectivity improvements to create a fully linked canal network, including an active travel corridor along the canal.</td>
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The policies set out in this document will be delivered through the implementation of the associated proposals and, subject to funding, the schemes identified in the Connecting Places Strategies. These scheme priorities are also set out in a separate Delivery chapter addressing funding, monitoring, governance and review.
Local Transport Plan
Overarching Strategy

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**Target Audience**
Anyone wanting to find out about how the county council will address the challenges of sustainable economic growth whilst reducing carbon emissions and improving the health and well being of people in Gloucestershire. This document specifically includes policies on:
- Environment
- Reducing Carbon Emissions
- The Growth Agenda
- Community Health & Wellbeing
- Influencing Travel Behaviour

This strategy acts as guidance for anybody requiring information on how the county council will manage rail infrastructure and rail services in Gloucestershire up to 2041.
Contents Amendment Record
This report has been issued and amended as follows:

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Gloucestershire’s Local Transport Plan (2015-2041) Overarching Strategy

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1.0 Introduction

The production of a Local Transport Plan (LTP) is a statutory requirement under the Local Transport Act 2008 for Local Authorities. However, its role has changed. It no longer provides the basis of a financial allocation from the Department for Transport (DfT). Instead it sets out the long term policy structure for local transport delivery including a set of scheme priorities.

1.1 The LTP links to a number of strategic documents which will help shape Gloucestershire’s future. Figure A illustrates the relationship of these documents. It also identifies three supporting plans which enable the delivery of the LTP and provide more information on Gloucestershire County Council’s (GCC) approach to highways maintenance investment, highways development management and managing the Public Rights of Way network.

1.2 A new multi document structure has been developed reflecting different transport modes and place based strategies now included within the LTP. Figure B illustrates the new multi document structure.

1.3 Gloucestershire is at a major cross road for routes accessing the west of England and Wales. The M5, A38 and A429 link the county North-South, the M50, A40, A419 East-West and the A417 links the M5 to the M4. 88% of the resident population work within Gloucestershire and the county has a higher proportion of people aged over 65 – especially in the north Cotswolds - when compared to the average for England and Wales. Where people travel outside the county to work this is typically to Bristol, Swindon and the south east.
Figure A – Strategic Context of LTP

- Council Strategy
- Local Industrial Strategy (LIS)
- Strategic Economic Plan (SEP)
- Local Plans & Neighbourhood Development Plans
- Manual for Streets (MFS) & Technical Specifications
- Transport Asset Management Plan (TAMP)
- Public Rights of Way (PRoW) Improvement Plan
- Government Agency Investment Plan
  - e.g. Road Investment Strategy
  - Continuous Modular Strategic Planning process
- National Planning Policy Framework (NPPF)
- Integrated Sustainability Assessment

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**Figure B – New Multi Document Structure**

**LTP Shaping the Way to 2041**

**LTP Overarching Strategy (2015-2031)**

- **LTP Transport Mode Policy Documents**
  - PD1 – Public & Community Transport
  - PD2 – Cycle
  - PD3 – Freight
  - PD4 – Highways
  - PD5 – Rail
  - PD6 – Walk

- **LTP Connecting Places Strategy (CPS)**
  - CPS1 – Central Severn Vale
  - CPS2 – Forest of Dean
  - CPS3 – North Cotswold
  - CPS4 – South Cotswold
  - CPS5 – Stroud
  - CPS6 – Tewkesbury

**Annexes & Associated Documents**

**LTP Evidence Base Review**

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1.4 Gloucestershire’s iconic landscapes, natural environment, heritage and culture all play a major role by attracting business and staff into the county demonstrating that it is a popular place to live and work. This all contributes towards sustainable economic growth.

1.5 Gloucestershire’s vision for transport is for:

‘A resilient transport network that enables sustainable economic growth by providing travel choices for all, making Gloucestershire a better place to live, work and visit’

1.6 The vision encapsulates the importance of journey time reliability, travel choice and access as the economy grows. It is important to move away from a culture where the car is the dominant mode of transport towards one where the car is one transport choice within a range of travel options. For some residents it may not be feasible to have a full range of transport choices, but there may be a choice for part of their journey.

1.7 The integration of travel modes providing travel choices is essential to reduce transport carbon emissions and to manage congestion in our urban areas. Information enables people to make decisions about how and when they travel. As technology advances during the plan period GCC will ensure travel information is provided in accessible, useful formats to raise awareness of, and confidence in using different travel options.

1.8 The key objectives for Gloucestershire’s Local Transport Plan set out below align with the Integrated Sustainability Assessment objectives:

- Protect and enhance the natural and built environment
- Support sustainable economic growth
- Enable safe and affordable community connectivity
- Improve community health and wellbeing and promote equality of opportunity

1.9 The LTP objectives were developed by identifying the key challenges which the county council and its delivery partners will need to overcome. The LTP vision and objectives will be delivered through policies, outlining how different parts of the transport network will overcome the identified transport challenges. LTP policies are also summarised in Annex 3.0. The logic map in Annex 2.0 summarises the transport challenges and links them to; key objectives, policies and the expected outcomes for each LTP objective.
Gloucestershire’s Local Transport Plan (2015-2041) Overarching Strategy

1.10 The LTP is structured around a number of travel corridors, each of which has distinctive transport issues and opportunities set out in six spatial strategies entitled Connecting Place Strategies (CPS). The CPS areas are tailored to address; transport priorities in different parts of the county and identified based on shared economic, social and environmental features. A ‘Link and Place’ approach was applied with the aim to identify travel focused strategy areas based on connections, moving away from a district based perspective (Table A).

1.11 Each CPS area sets out priorities based on strategic, major and local schemes. Annex 4.0 provides the overall countywide scheme priorities. LTP schemes represent the transport priorities for Gloucestershire and into bordering counties, rather than a commitment by the county council to funding. Priorities identified in this LTP provide the basis for future funding bids, as opportunities arise, and discussions with funding partners, such as government, GFirst LEP, Public Health, statutory bodies, transport operators, district councils, developers and the private sector.

1.12 Gloucestershire’s ‘Link and Place’ Spectrum was identified through defining characteristics, set out in Table A. This approach advocates the consideration of roads and railways as movement conduits (links) between places, illustrated in Figure C. The Link and Place Spectrum will inform future investment decisions by recognising those links which are essential to securing conditions for sustainable economic growth and demonstrating Gloucestershire is a place to do business and attract investment. This approach will ensure efficiency and value for money, which comes through the prioritisation of network investment via the Link and Place.

Table A – Gloucestershire’s Link and Place Spectrum – Defining Characteristics

<table>
<thead>
<tr>
<th>Link Type</th>
<th>Highway Characteristic</th>
<th>Journey time reliability</th>
<th>Road environment</th>
<th>Typical speed</th>
<th>Bus network</th>
<th>Streetscape</th>
<th>Ambience and Place</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Link</td>
<td>Strategic Road Network (SRN)</td>
<td>Critical for national</td>
<td>Motorway</td>
<td>70-30</td>
<td>Limited bus access</td>
<td>Mainly no community interaction</td>
<td>Function is for traffic only</td>
<td>M5, M50, A417, A46, A40</td>
</tr>
<tr>
<td></td>
<td>Managed by Highways England</td>
<td>economy</td>
<td>Dual Carriageway</td>
<td></td>
<td></td>
<td>Where this exists results in linear community</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High vehicle</td>
<td>Small section</td>
<td></td>
<td></td>
<td></td>
<td>severance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Link Type</th>
<th>Highway Characteristic</th>
<th>Journey time reliability</th>
<th>Road environment</th>
<th>Typical speed</th>
<th>Bus network</th>
<th>Streetscape</th>
<th>Ambience and Place</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Link</td>
<td>Major Road Network (MRN)</td>
<td>Critical for local economy</td>
<td>A roads Dual carriageway</td>
<td>70-30</td>
<td>Strategic bus service</td>
<td>Mixed</td>
<td>Mixed</td>
<td>A38, A48, A4136, A419, A4019, A429, A40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Single carriageway</td>
<td></td>
<td>High frequency services linking key destinations (places)</td>
<td>Urban through routes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District Link</td>
<td>Distributor link Rural road</td>
<td>Critical for local access – reliability good</td>
<td>A or B road Single carriageway</td>
<td>60-30</td>
<td>Strategic and non-strategic services</td>
<td>Rural routes where communities are bisected this results in linear severance</td>
<td>Mixed</td>
<td>A46, A417, B4633, B4077, B4088, B4231, B4234</td>
</tr>
</tbody>
</table>
## Gloucesteshire's Local Transport Plan (2015-2041) Overarching Strategy

<table>
<thead>
<tr>
<th>Link Type</th>
<th>Highway Characteristic</th>
<th>Journey time reliability</th>
<th>Road environment</th>
<th>Typical speed</th>
<th>Bus network</th>
<th>Streetscape</th>
<th>Ambience and Place</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suburban Link</td>
<td>Residential or commercial areas High level of use High busy in peak times</td>
<td>Moderate delays to be expected</td>
<td>Dual carriageway</td>
<td>40-20</td>
<td>Destinations for many services</td>
<td>Highway part of built form – significant interactions between highways users and place usually journey end points</td>
<td>Busy with increased pedestrian and cyclist interactions</td>
<td>Town or village centres</td>
</tr>
<tr>
<td>Local Link</td>
<td>Residential Rural ink Access only</td>
<td>Single carriageway Cul-de-sacs</td>
<td>60-20</td>
<td>Limited to non-strategic local services</td>
<td>Highly built up or rural No severance caused by highway</td>
<td>Low vehicle numbers Agricultural vehicles Horse riders High pedestrian or cycle use</td>
<td>Housing estates or quiet rural routes</td>
<td></td>
</tr>
</tbody>
</table>
Figure C – Gloucestershire’s Link and Place Spectrum
2.0 Summary of Evidence Base

2.1 Gloucestershire is a highly attractive place for people to live and work, do business and visit. It has a large number of natural assets, including three Areas of Outstanding Natural Beauty. Unemployment is low and Gloucestershire’s economy is strong and resilient.

2.2 Between 2012 and 2016 the economy of Gloucestershire grew from £14.2 billion to £16.3 billion\(^1\). Gloucestershire has seen an above average growth in productivity since 2015-16\(^2\). Employment in the county includes a range of high skilled jobs, including in advanced manufacturing, cyber security and intelligence, research and development, and increasingly in digital and creative sectors. Gloucestershire has a large small to medium enterprise (SME) community (84.5% in 2018); and our larger business sector accounts for around one hundred organisations, with 250 or more employees\(^3\). The drivers of the county’s future economic success will be critical to determining the long term connectivity priorities for Gloucestershire.

2.3 Over the period 2016 to 2031, the population of Gloucestershire is expected to increase by almost 63,000 people (10.1%). Population growth will be focused in and around existing urban areas, such as Gloucester City (14.9% increase) and Cheltenham (6% increase) where already over two thirds of Gloucestershire’s residents live. Assuming the current population trends continue, Office of National Statistics (ONS) projections suggest that the population in Gloucestershire will rise by 92,200 (2016 – 2041).

Population Increase

\(^1\) GVA balanced by GFirst LEP
\(^2\) [www.ons.gov.uk](http://www.ons.gov.uk) – sub-regional productivity (labour productivity GVA per hour worked and GVA per filled job indices by local enterprise partnership
\(^3\) [www.nomisweb.co.uk](http://www.nomisweb.co.uk)
2.4 Population growth will be focused in and around the Joint Core Strategy (JCS) area. Figure D shows Tewkesbury and Gloucester are projected to have the largest percentage increases over the 25 years to 2041 (21.05% and 17.5% respectively, whilst Cheltenham is projected to have the smallest increase (9.2%)\(^4\). Mid 2017 estimates show the majority of the population live in urban areas, but still a high percentage live in rural areas (28.6%)\(^5\).

\(^4\) [https://inform.gloucestershire.gov.uk/media/2082298/overview_-_population_projections_for_gloucestershire_2016-41-2.pdf](https://inform.gloucestershire.gov.uk/media/2082298/overview_-_population_projections_for_gloucestershire_2016-41-2.pdf)

Figure D – Gloucestershire projected population growth to 2041

Projected population growth by district 2016-2041

2.5 The dominating feature of the projections above the national average is the sharp increase in the population 65 years and above. The proportion of those over 65 years or above will have risen from 20.8% (2016) to 28.9% (2041) of the population of Gloucestershire. By comparison, the working age population (aged 20-64) is projected to rise by only 1% over the same period. This increase is lower than the national trend for this age group and means that by 2041 the working population in Gloucestershire will have fallen from 56.7% (2016) to 49.9% (2041) of the population.

2.6 The Gloucestershire 2050 Vision research has suggested that while the number of jobs in Gloucestershire will grow over the next 20 years, the number of working age workers to fill those jobs will not grow at the same rate, but more slowly. However, economic projections should be viewed with caution and only give us the general direction of travel. This is because the future nature of jobs is changing in a global society and it is
predicted that employment in the future will be based on a portfolio of careers in a move towards a gig economy. The nature of employment available in Gloucestershire will also change over the next 20 years.

2.7 Along with population growth, annual average daily flows (AADF) in Gloucestershire for all major roads has increased by 17% between 2000 and 2017 as illustrated in Figure E. In comparison, the observed changes in AADF nationally increased by 2.3% over the same period. Increased traffic flows leads to peak hour congestion across the urban and some rural road networks. Department for Transport’s (DfT) Road Transport Forecasts 2011 publication forecasts that nationally, by 2035, 24% of all traffic will be travelling in very congested conditions in urban areas (compared to a 2010 baseline of 13%), with congestion expected to worsen on all classification of road. In the UK, the traffic scorecard analysed congestion and the severity of it in the top 20 urban areas. Drivers in the UK lost an average of 178 hours a year due to congestion, costing UK drivers in 2018 £7.9billion, an average of £1,317 per driver.

2.8 There is an increasing trend towards a widening of travel patterns, spread across a broad range of origins and destinations, with ‘pull’ destinations such as Swindon, Bristol, Birmingham and Cardiff drawing people out of the county for their shopping, leisure and employment. Figure F shows that there are strong connections to neighbouring counties. The West of England (incorporating South Gloucestershire, Bristol, and Bath & North East Somerset) has twice the number of cross boundary journey to work trips commencing in Gloucestershire as any other neighbouring county or local authority area. Worcestershire is next, followed by Swindon, Wiltshire, and Oxfordshire. Journeys to work on an east-west axis are lower in number.

Figure E - Gloucestershire Annual Average Daily Flow Profile (all major roads) 2000 - 2017

Gloucestershire - Traffic dataset

- Other %
- Cars %
- Buses_Coaches %
- LGV %
- HGV %
- All Vehicles %
Figure F – Gloucestershire Connects Out Commuting (2011 Census Journey to Work Flows)
2.9 London is an important destination for work trips from Gloucestershire, as is the West Midlands. These two large urban areas attract similar numbers of commuting trips from the county. Gloucestershire to London journeys from Cotswold district are higher than from any other district, reflecting the location and presence of rail stations with direct services to London both from the North Cotswold Line (Moreton) and South Cotswold Line (Kemble). The next largest flows from Stroud and Cheltenham reflect a number of factors, including rail service availability. This underlines that as national and international connections become ever more important, sustainable clean transport connections with existing major urban centres will be vital for the future connectivity of Gloucestershire.

2.10 Despite the importance of regional connectivity, Gloucestershire’s strong local economy and high levels of employment. Figure G shows Cheltenham and the Cotswolds have a job density of more than 1 job for every resident of working age and Forest of Dean, Gloucester, Stroud, Tewkesbury and Gloucestershire also have high job density ratios (0.55, 0.85, 0.85, 0.99 and 0.88 respectively)\(^\text{10}\). Resulting in a high degree of ‘self-containment’ with more than 80% of journeys to work for people residing in Gloucestershire made to employment within the County\(^\text{11}\). This self-containment highlights the potential for short distance trips to transfer where appropriate to non-car modes, such as active or public transport. Figure H maps the patterns for Gloucestershire for both in and out commuting, based on mode of travel.

10 https://www.nomisweb.co.uk/query/construct/summary.asp?mode=construct&version=0&dataset=57 (residential population by working age (aged 16 – 64) in 2017

11 Based on 2011 Census data
**Figure G – Gloucestershire Job Density**

**Job density by district 2017**

- Cheltenham: 1.2
- Cotswold: 1.1
- Forest of Dean: 0.6
- Gloucester: 0.9
- Stroud: 0.8
- Tewkesbury: 0.7
- Gloucestershire: 0.6
Figure H – Gloucestershire County Commuting - Annual Population Survey (2010-2011)
2.11 The impacts of a growing population and increasing traffic and congestion will have to be mitigated and with Gloucestershire currently meeting at least 85% of it’s energy needs (for heating, power and transport) from fossil fuels\(^{12}\), there needs to be a step change in way we travel, including significant mode shift in combination with a dramatic rise in the use of clean emission vehicles if GCC wants to fulfil its target for carbon reduction by 2030 and be carbon neutral by 2050\(^{13}\). Transport accounted for 36.6% of all CO2 emissions (per capital tCO2) in Gloucestershire in 2017. This was below the national figure of 44.6%.\(^{14}\) Nationally, transport accounts for 27% of all greenhouse gas emissions; road passenger cars account for 55%, HGVs 16.4%, LGVs 15.4% and buses 2.6%, as opposed to railways 1.5% (by source 2017) in Figure\(^ {15}\).
2.12 Gloucestershire’s Local Transport Plan aligns with the Gloucestershire Climate Change Strategy for a low carbon and resilient county. The Gloucestershire Sustainable Energy Strategy aims to reduce per capita transport carbon emissions, in order to contribute to achieving the government’s climate change commitments (part of the United Nations COP21 Agreement). The LTP target to reduce per capita transport carbon emissions has been strengthened in line with a commitment at local and national level. Gloucestershire County Council, along with a number of district authorities, has declared a climate change emergency in recognition of the priority to work towards a low carbon county.16


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2.13 A move towards a more sustainable transport network will not only reduce carbon emissions, it will also reduce air and noise pollution and create a healthier and more inclusive society. There is a challenge for Gloucestershire, as the number of non-car households in the county is 17%\textsuperscript{17}, which is significantly lower than the national average of 26%. This reflects the county’s generally rural and affluent nature. As would be expected from high car ownership, car and van travel is the predominant choice of travel to work within Gloucestershire, making up 67% of the modal share.

2.14 The challenge for Gloucestershire will be to provide an inclusive transport network, accessible for all, which acknowledges the rural nature of the County while providing mobility for all age groups and abilities, including for households without access to a private car (nearly 20% of Gloucestershire’s households). This will be particularly important for Gloucestershire’s pockets of deprivation which include eight of the most deprived wards in England\textsuperscript{18}. These wards suffer from rates of low income, unemployment, low educational attainment, poor health and housing. For this reason, access to affordable travel options including active travel options, public and community transport is essential to provide continued accessibility to healthcare, education, employment, skills and training for all. Gloucestershire’s current level of accessibility of key services is measured and mapped through Inform Gloucestershire\textsuperscript{19}.

2.15 Active travel modes will be important to improving accessibility for all, improving health and wellbeing. The use of a cycle network extends the radius in which people may look for work and access education and services considerably, especially with the introduction of ebikes. It helps reduce social exclusion often within the groups experiencing the greatest isolation. For some people with disabilities cycling can allow them to engage in work and education opportunities. It can also be instrumental in helping them improve their mental and physical wellbeing\textsuperscript{20}.

2.16 Promoting behavioural change will be the key to achieving the ambitions of this plan to convince more people to walk, cycle or use public transport.

\textsuperscript{17} 2011 Census data (Office for National Statistics)
\textsuperscript{18} https://inform.gloucestershire.gov.uk/deprivation
\textsuperscript{19} https://inform.gloucestershire.gov.uk/accessibility-transport-and-internet/accessibility-transport
3.0 **Environment**

3.1 **Summary**

3.1.1 Transport investment can be both an enabler of environmental benefits (such as public transport reducing the use of private vehicles), but also a cause of dis-benefits, through issues such as air pollution, noise and carbon emissions. In May 2019 the UK Parliament declared a climate change emergency, a decision endorsed by GCC Full Council. Reducing transport related carbon emissions is one of the key actions that follow this decision. At the same time, climate change leading to increases in the occurrence of extreme weather events can also have a detrimental impact on the reliability of the transport network and the safety and wellbeing of its users.

3.1.2 For this reason, the Local Transport Plan is subject to an Integrated Sustainability Assessment (ISA) which includes five assessment criteria; including Strategic Environmental Assessment and Habitats Regulations Assessment, but extends into Equalities Impact Assessment, Health Impact Assessment and Community Safety Assessment, which will be published alongside the Local Transport Plan on the GCC website. The ISA includes the following objectives that cover overarching impacts on our; environment, heritage, safety, health and wellbeing:

- Improve air quality
- Reduce carbon dioxide emissions from transport
- Protect and enhance protected habitats, sites, species, valuable ecological network and promote ecosystem resilience and functionality
- Protect, enhance and promote geodiversity
- Protect and enhance the character and quality of landscapes and townscapes and visual amenity
- Conserve and enhance the heritage assets and the wider historic environment including buildings, structures, landscapes and archaeological remains and their settings
- Protect and enhance the water environment.
- Conserve soil and agricultural resources and seek to remediate / avoid land contamination.
- Reduce risk of flooding
- Promote the prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated, minimise the production of waste and support re-use and recycling
- Reduce the need to travel by car or move goods by roach and promote sustainable modes of transport
3.1.3 As a county with three Areas of Outstanding Natural Beauty (AONB), protection and enhancement of the county’s natural and historical environment is vital to Gloucestershire’s prosperity as it attracts people to live, study, work and visit the county for the purposes of leisure and tourism. Transport infrastructure can help people access healthy environments, for example through the provision of, green infrastructure, which is a network of multi-purpose spaces that provide the opportunity for the co-ordination and delivery of environmental improvements, to support investment and improve quality of life. The Gloucestershire Local Nature Partnership has published a Green Infrastructure Pledge\textsuperscript{21} which commits signatories to ‘making Gloucestershire a pioneer of green infrastructure, creating a better, more attractive place to live, work and visit, as well as becoming an exemplar for the rest of the country.’ These initiatives are usually inclusive of blue infrastructure such as rivers, ponds, ditches and canals.

3.1.4 Furthermore, access to healthy, natural environments can help:

- Support economic and social regeneration
- Improve public health
- Improve educational outcomes
- Reduce crime and antisocial behaviour
- Help communities adapt to climate change
- Improve quality of life across an entire area

\textsuperscript{21} [www.gloucestershirenature.org.uk/green-infrastructure-pledge](http://www.gloucestershirenature.org.uk/green-infrastructure-pledge)
3.1(a) Reducing Transport Carbon Emissions

3.1.5 The Gloucestershire Climate Change Strategy (2019) sets out a low carbon, resilient vision for Gloucestershire to 2030 and an ambition for a carbon neutral county council by 2050, with a five year rolling programme to develop and implement an action plan to achieve our ambition.

3.1.6 At a corporate level GCC takes due regard of the strategic risk to climate change through the Corporate Risk Management Strategy, and specifically to a commitment to climate change through membership of the Local Adaptation Advisory Panel (LAAP), England. This panel advises the cross Government Adapting to Climate Change Programme on its priorities, particularly in relation to the Climate Change Risk Assessment (CCRA) and the National Adaptation Programme (NAP), helping to ensure national policies and structures are ‘local-government friendly’ going forward.

3.1.7 In 2017 transport contributed close to 36% of Gloucestershire’s carbon emissions. Gloucestershire County Council endorses UK parliament’s declaration of a climate change emergency and committed to deliver a carbon neutral county by 2050. This is reflected in the LTP target to reduce the per capita transport carbon emissions (LTP PI-14).

3.1.8 Promoting mode shift from the single private vehicle to sustainable modes of transport such as walking, cycling and using public transport will increase interventions to improve air quality whilst increase physical activity levels, bringing with it benefits to public health and contributing to reduced CO2 and air pollution. Air Quality is directly considered in policy LTP PDO.2.
Figure J – Transition to Reducing Transport Carbon Emissions

Funding
- Thinktravel programme to promote sustainable travel modes to schools, businesses and the community
- Sustainable transport proposals and identify bidding opportunities to deliver improvements
- Electric Vehicle Charge Points

Supporting
- Pipeline of schemes to introduce:
  - Energy efficient LED street lighting, dimming & switch off
  - Energy efficient LED traffic lights
  - Reduction in fleet mileage
  - Installation of solar panelled parking meters

Engaging
- With local schools, local employers who have a keen interest in sustainability
- With local industry leaders in sustainability
- With utility services to find the most cost effective way to EV-Charge Points Network

3.1.8 Gloucestershire County Council has already taken action to reduce transport CO2 emissions (Figure J).
- Funding a continuing Thinktravel programme to promote sustainable travel modes to schools, businesses and the community.
- Securing funding for electric vehicle charging points in Cheltenham and Gloucester.
- Continuing to develop sustainable transport proposals and identify bidding opportunities to deliver improvements.
- Engaging with local employers who already have a keen interest in sustainability and are industry leaders.
3.1.9 Further action will need to be taken by developing a pathway which will identify how we intend to deliver on carbon neutrality and what adaptation to climate change resilience in terms of risk to health, wellbeing, highway asset from high temperatures, risk to energy supply that may effect a functioning transport network and risk to natural capital, biodiversity, soils and ecosystems. A ‘Reducing Emissions Pathway’ will aim to deliver this action plan. The pathway may consider a number of options which could include among others; reducing travel demand in the first place, extending the electric vehicle charge point network, investigating low emission or clean air zones, providing air quality standards for a model access protocol, carbon offsetting, but it will certainly require the interaction with other sectors to achieve its goal.

3.1.9 However, radical changes are needed in the way we travel, for transport to play its part in achieving a zero carbon energy future for Gloucestershire by 2050. The Gloucestershire Sustainable Energy Strategy sets out how this ambition is to be achieved, including decarbonised electricity and an ambition for half of all new vehicles to be electric by 2028. This is in line with the Government commitment to end the sale of all new conventional petrol and diesel cars and vans by 2040.

3.1.10 The challenge for Gloucestershire as a largely rural county will be to provide the infrastructure needed to support the uptake of low emission vehicles, to increase public understanding of ultra-low emission vehicles and to encourage their uptake. Figure K illustrates the current access to the county’s electric vehicle charge point network (within 5min drive) based on Open Charge Map. This map is in development and will be updated on continual basis to our LTP webpage.

Zero carbon
Gloucestershire
2050

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Figure K – Gloucestershire’s EV Charge Point Network - Access within 5min drive (based on Open Charge Map – June 19)
3.1.11 At the same time, conventional mass public transport and active travel options are also more applicable in urban settings and more flexible demand responsive travel options will have to be provided in more rural settings. The LTP strategy to deliver these is outlines in Public & Community Transport policy document as well as in the chapter on shaping the way to 2041, which also describes the role emerging technologies, can play to aid these ambitions.

3.1.12 Whilst a change to low emission vehicles will be important to reducing transport related carbon emissions, it has to be seen in the context of a hierarchy of interventions to stabilise carbon emissions, as outlined below in Figure L:

3.1.13 The integration between land use planning and transport determines the basis of our travel patterns and demand management is therefore at the heart of a more sustainable transport network, as set out in policy (LTP PD 0.3) above. In addition this plan seeks to promote behavioural change to encourage people to use more sustainable and active modes of travel, as outlined in Thinktravel approach to influencing travel behaviour (LTP PD 0.6) below and to minimising the need for travel, e.g. through major employers adopting virtual working, localised travel initiatives and smarter supply chain practices.

*Figure L – Interventions to stabilise carbon emissions*
Further information on how transport can reduce its impact on climate change is included in the LTP mode Policy documents and the LTP targets to increase the use of cycling, rail and bus (targets LTP PI-8, LTP PI-7 and LTP PI-9 respectively).
3.2 (a) Policy LTP PD 0.1 – Reducing Transport Carbon Emissions and Adapting to Climate Change

LTP PD 0.1 – Reducing Transport Carbon Emissions and Adapting to Climate Change

GCC will work with its partners to reduce transport carbon emissions by 2050 and improve air quality in the county by addressing travel demand, promoting the use of sustainable modes of transport and the uptake of ultra low emission vehicles to tackle climate change.

GCC will do this by implementing the following policy proposals:

- Work in partnership with district councils, the GFirst Local Enterprise Partnership, Western Gateway Sub Transport Board, Highways England, Homes England and Department for Transport and any other necessary government bodies, to seek investment in sustainable transport and active travel infrastructure as funding opportunities arise.
- Support digital connectivity to reduce travel demand in the peak hours.
- Ensuring that the infrastructure required for low emission vehicles in the future, for example a network of electric vehicle charging points or alternative technologies.
- Working towards electric vehicle charging points being provided at interchange hubs and other key locations.
- Promoting cleaner public sector vehicle fleet.
- Work with public transport providers to accelerate the change to clean vehicles.
- Encouraging behaviour change to address the need to reduce travel demand to promote sustainable transport modes and develop lower-emission driving, aligning closely with our policy of influencing travel behaviour change through the Thinktravel programme.
- Minimise energy usage of traffic signals and street lighting.
- Resolve to implement and strengthen the Gloucestershire Sustainable Energy Strategy and the Climate Change Strategy, by embedding the principles of the transition towards a circular economy.
- Resolve to deliver on the recommendations following the county council’s declaration of a climate change emergency, through the introduction of a ‘Reducing Emissions Pathway’, and identifying climate change resilience adaptation in order to develop a mitigation package against the risks.
- All overarching and mode policies will take this policy into account.
3.3(a) Expected Policy Outcomes

4.3.1(a) The implementation of this policy will contribute to Gloucestershire’s ambitions to become carbon neutral by 2050.

4.3.2(a) The priorities to reduce transport carbon emissions include:
- Reduction in travel demand
- Increase sustainable and active travel modes
- Benefits to public health and air quality
- Support demand management by the optimal use of the existing highway network and repositioning highway for active travel modes
- Create well designed, implemented and managed transport infrastructure
- Deliver on the Council’s commitment to the climate change agenda
- Accelerate the uptake of ultra-low emission vehicles
- Transition towards a circular economy

3.1(b) Local Environmental Protection

3.1.16 The interventions outlined in the previous chapter aim to reduce transport related carbon emissions and other air pollutants from transport including nitrogen oxides and particulate matter. Poor air quality is a significant threat to public health in the UK contributing to roughly 40,000 premature deaths every year. The Government has set out their strategy to address air pollution in their Plan for tackling roadside Nitrogen Dioxide concentrations, 2017. Air Quality Management Areas (AQMA) for nitrogen dioxide (NO2) are designated if current or projected levels breach, or are likely to breach, the objective of 40 micrograms per cubic metre (40 µg/m3) as prescribed by the Air Quality Regulations.

3.1.17 Data based on a national model and applied to Gloucestershire, exposure to particulate matter air pollution is estimated to contribute to around 278 deaths a year. Poor air quality also has a large cost in terms of health and social care use, and lost productivity. The Council has produced a

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Gloucestershire’s Local Transport Plan (2015-2041) Overarching Strategy

Review of Air Quality and Health in Gloucestershire (2018) which sets out the relationship between air quality and health and interventions which can be applied at the local level.\(^{24}\)

3.1.18 The National Institute for Clinical Excellence (NICE) has reported the most cost-effective interventions as: integration of air quality in local planning decisions; low emission zones (restriction of heaviest polluting vehicles); changing to emission-controlled diesel or compressed natural gas; driver training to address driving style (reduce idling); smoothing traffic flows through speed reductions; and specific interventions to support active travel. All of these interventions are considered within the policies in the LTP.

3.1.19 To help protect people’s health and the environment, district authorities in Gloucestershire measure air pollution against national air quality objectives. Generally, air quality in Gloucestershire is good. However, the county has seven areas declared as Air Quality Management Areas (AQMAs) which are all based upon congested highways.

3.1.20 Noise can also have major implications for quality of life, health, economic prosperity and the natural environment. The government estimates that the annual social cost of urban road noise is up to £10 billion\(^{25}\). The European Commission requires the government to create noise maps indicating the public’s exposure to environmental noise and to adopt action plans based on the noise mapping results. These are to be updated on a 5 year cycle, with the latest update in 2017. The action plans are expected to investigate and, if necessary, manage noise issues including identifying appropriate noise reduction measures.

3.1.21 As a local highway authority, GCC has a responsibility to adopt approaches to controlling the impact of noise from road traffic, including:
- Control of noise at source (including vehicle emission limit values)
- Planning controls – through transport and land use planning mechanisms
- The use of Construction Management Plans or Quiet Delivery plans
- Compensation and insulation - in the case of new or improved highways
- Road maintenance


3.1.22 Previous mapping prepared by DEFRA suggested those at greatest risk from noise pollution live along major transport corridors such as the M5, M50, A46 and A417.

3.1.23 Other factors which impact on the environment include severance, visual intrusion of traffic and transport infrastructure, and water borne pollution from highway drainage. These factors should be considered in the design and management of transport infrastructure, taking account of the county’s Highways and Biodiversity Guidance to meet its statutory duty to conserve biodiversity.\(^\text{26}\).

3.1.24 Gloucestershire contains both statutory and non-statutory designated sites that are protected for their importance for nature conservation. Prime among these sites are Special Areas of Conservation and Special Protection Areas, which form the Nature 2000 European network of core internationally important habitats and/or rare, declining and threatened species. In addition to the Natura 2000 sites, there are also globally important wetlands designated as Ramsar Sites. There are also a large number of nationally important Sites of Special Scientific Interest, National Nature Reserves, Ancient Woodlands, Local Wildlife Sites, Local Geological Sites, some Local Nature Reserves and many green spaces that support wildlife and enhance the wellbeing of the local population.

3.1.25 Any potential direct or indirect impacts on these sites that may arise from new or upgraded transport interventions will be appropriately assessed, mitigated, and/or compensated for, in line with existing best practice and relevant legislation over the lifetime of the LTP. This would include the Natura 2000 (European) sites and Ramsar sites for which Habitats Regulation Assessment will be carried out, as necessary, prior to final decisions being made on transport interventions. Opportunities for enhancement of these sites through transport interventions will be explored wherever it is feasible and appropriate to do so.

3.1.26 At scheme development stage GCC commits to following the necessary stage process for Habitats Regulations Assessment (HRA), where a conceivable effect is possible, thus ensuring no significant adverse impacts on the integrity of European or Ramsar sites as a result of schemes arising from the LTP. Opportunities for enhancement of these sites through transport interventions will be explored wherever it is feasible and appropriate to do so.

3.1.27 It is GCC policy to avoid the unnecessary sterilisation of valuable

mineral resources and safeguard the county’s minerals and waste infrastructure. All transport schemes within or impacting on designated Mineral Safeguarding Areas (MSAs) are subject to a MSA assessment. GCC is mindful of minimising the loss of natural and historic capital. Land contamination remediation is considered at a strategic level through the Gloucestershire Pollution Group to which GCC are a partner and at a local highway level at scheme feasibility.
3.2(b) Policy LTP PD0.2– Local Environmental Protection

LTP PD0.2 – Local Environmental Protection

GCC will work with District Councils and other partners over the lifetime of the LTP; to minimise the impact of transport on landscapes, townscapes, heritage assets and the wider historic environment, to protect and enhance the water environment, protect soils and agricultural resources, to reduce the risk of flooding, to improve air quality, reduce levels of noise pollution by achieving biodiversity net gain and preserving and enhancing geodiversity and the historic environment, from traffic or improvements on the highway network.

GCC will do this by implementing the following policy proposals:

- Promote the use of sustainable and active travel modes and align closely with our policy of influencing travel behaviour change through the Thinktravel programme.
- Work with district councils to improve air quality, levels of noise and light pollution, including reducing severance and visual intrusion by adopting the latest good design practice (e.g., Building with Nature) and to develop, adopt and deliver Air Quality Action Plans required where Air Quality Management Areas have been declared, in relation to transport emissions. This should include plans for decreasing solo car use and the promotion of walking and cycling active modes of travel.
- Ensure that developers or scheme promoters, through the planning process, undertake assessments to determine if their development or scheme will be subject to or create poor air quality or noise in excess of the thresholds as advised by Government and to commit to mitigating those effects that address traffic impacts on the natural environment and designated sites, in particular those within 200m of a main road.
- Comply with Highways Biodiversity Guidance for Gloucestershire or subsequent guidance and the Green Infrastructure Pledge.
- Seek contributions from industry, government and developers towards the costs of installing electric vehicle and bike charging points where such facilities will help to ensure that the opportunities for sustainable transport modes are taken up.
- Promote energy saving, water conservation, improvements in surface water run-off and provision of SuDS, in both new schemes and retrofitting of existing schemes (where opportunities arise), recycling and use of sustainable materials in construction and operation of transport projects encouraging whenever possible local suppliers that use sustainably-sourced and locally produced materials.
• Promote the use of increasingly more sustainable waste management practices with transport-related infrastructure projects in line with the waste hierarchy.
• Align with the emerging Air Quality and Health Strategy for Gloucestershire.
• Tackle air quality issues in the county by promoting virtual working and the uptake of active travel and low emission vehicles and the supporting infrastructure.
• Where developers produce Health Impact Assessments as part of their application, these consider the impact of travel and transport – both positive and negative – on health and wellbeing of residents and communities.
• Support environmentally sustainable transport access to the natural environment for both local residents and visitors.
• Preserve and enhance the geodiversity of highway asset wherever practicable.
• Work with parish councils and communities to identify and seek solutions that minimise the impact of proposed developments.
• Transport development proposals will need to demonstrate that significant adverse impact upon public rights of way and recreational highways will be minimised, and suitable permanent diversions or alternative routes are provided, if necessary. Temporary diversions or alternatives may be required during construction.
• Working with partners and other statutory bodies, such as Historic England, the council will aim to minimise the impact of transport on heritage assets and protect and enhance the quality environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings and ensure that due regard is given to the need to undertake archaeological investigations.
• Promote transport schemes which tackle traffic congestion in Gloucestershire’s historic villages, towns and city.
• Improve physical access and/or interpretation, understanding and appreciation of the significance of heritage assets as part of transport development where appropriate.
• Mitigation will be considered for the transport interventions that have significant adverse impact on water availability or quality or fail to achieve the targets of the Water Framework Directive.
• Measures will be taken to prevent soil from being adversely affected either physically or by pollution during transport intervention development.
• Working with its partners and other statutory bodies, such as the Environment Agency and Natural England, Gloucestershire will use natural processes to promote greater flood resilience to the network, ensuring Sustainable Drainage Systems (SuDS) and Natural Flood Management (NFM) are employed wherever possible.
• Realise opportunities for green infrastructure enhancement associated with transport infrastructure resilience and performance through both the integration of green, blue and grey infrastructure, and the delivery of green naturally-based solutions to aid mitigation requirements. The latter
includes carbon, nutrient and water capture to provide cleaner air, improved water quality, more sustainable flood risk management and increased resilience to climate change, as well as other place-making and visitor economy objectives. The latter includes carbon reduction, clean air, flood risk management and increased resilience to climate change, as well as other place-making and visitor economy objectives.

- Maximise the opportunities for transport interventions to contribute towards major new initiatives, including Nature Recovery Networks and large-scale woodland creation.
- Support Natural England’s work on the Green Transport Corridors and Green Infrastructure Agreements, as well as their recommendations of the Linear Infrastructure Network, ensuring that within or adjacent to the rail network and Major Road Network, green infrastructure can deliver biodiversity gains, ecological connectivity and ecosystem services.
- Where possible, protect geological sites from degradation and removal caused by transport interventions and where practicable provide enhancements to the geological site and to its accessibility.
- Any potential direct or indirect impacts that may arise from new or upgraded transport interventions will be appropriately assessed, mitigated, and/or compensated for, in line with existing best practice and relevant legislation on statutory and non-statutory designated sites that are protected for their importance for nature conservation.
- Commit to following the Habitats Regulations Assessment process for the protection of the Natural 2000 (European) sites and Ramsar sites, where a conceivable effect is possible.
- All overarching and mode policies will take this policy into account.

### 3.3(b) Expected Policy Outcomes

#### 3.3.1(b) The implementation of this policy will contribute to the delivery of an effective transport network that serves to support growth whilst balancing sustainability and environmental concerns.

#### 3.3.2(b) The transport priorities to protect the environment include:

- Improve the air quality in AQMA areas by minimising congestion and delays and reducing transport demand by optimal use of the existing highway network and re-positioning highway for active travel modes.
- Increase sustainable and active travel modes.
- Create well designed, implemented and managed highway infrastructure.
4.0 Gloucestershire is Growing

4.1 Summary

4.1.1 Transport and digital connectivity are key to the quality of place for people to live, work, study and to invest in. Fastershire is a partnership to bring faster broadband which extends beyond technology, to include social and digital inclusion and a business support programme, FasterBusiness. This plan identifies how a transport network can be provided which addresses existing trip demand whilst ensuring resilience as the economy grows and transport demand increases. Whilst recognising digital connectivity’s role in the local economy in terms of reducing the demand for travel and equally supporting future transport demand.

4.1.2 Improving connectivity to support the County’s economy is at the heart of any ambitions to invest in transport infrastructure and services. Gloucestershire’s growth map below shows the potential GDP uplift of improved transport connectivity to our neighbouring authorities, based on improved business to business connectivity only. It therefore only shows part of the economic benefits from transport investment and reduced journey times. The importance of these regional transport connections will also be influenced by future growth, both within the County, and beyond. The map therefore also highlights the significant growth ambitions in Gloucestershire, with Local Plans in Gloucestershire, in combination seeking to provide around 60,000 new homes, and to support a similar number of new jobs through the allocation of approximately 300 ha of employment land. It also highlights the significant growth ambitions in our neighbouring authorities.

4.1.3 The majority of Gloucestershire’s housing and employment growth will be in the urban centres of Gloucester and Cheltenham. The housing requirement for Gloucester, Cheltenham and Tewkesbury were set out in the Joint Core Strategy (JCS), which was approved in December 2017, identifying housing and employment land across the 3 Districts to 2031. Local plans identify further housing requirements for the other districts: Cotswold (8,400), Forest of Dean (6,600) and Stroud (11,400). The agreed provision for the county is therefore 61,575 houses by 2031. The JCS identified a need for additional housing and employment consisting of 35,175 new home and 192ha of employment land creating 39,500 new jobs to 2031, however it was adopted with a commitment for immediate review and as such these totals may increase. Local plans for Cotswold, Forest

27 www.fastershire.com
of Dean, and Stroud have approved employment land of 24ha, 25-30ha, and 50ha respectively. **Figure M** shows the anticipated projections for growth to 2031. In addition to the significant growth already identified in the existing Local Plans, the Stroud Local Plan is currently under review and aims to deliver a 40% increase from the figure in Stroud’s adopted Local Plan.
Figure M – Gloucestershire’s Growth to 2031
Gloucestershire’s Local Transport Plan (2015-2041) Overarching Strategy

4.1.4 Major transport investment is crucial to the delivery of strategic housing and employment allocations and the LTP has been informed by the Infrastructure Delivery Plans (IDPs) of the adopted Local Plans as well as the latest available transport evidence for the emerging reviewed Local Plans.

4.1.5 Gloucestershire’s Local Transport Plan aims to set out the policies needed to deliver a transport system able to accommodate current and future economic and housing growth and identifies the key scheme priorities required to deliver Gloucestershire’s growth ambitions while achieving Gloucestershire’s ambition to reduce carbon emissions.

Supporting Development

4.1.6 There is significant growth planned during the life-time of the LTP. GCC’s strategic highway network must be resilient to growth opportunities and new development should be allocated and supported at sustainable locations, with easy and cost effective access to public transport and a high propensity to walk and cycle. Development patterns that reduce the need to travel long distances and encourage active travel modes are an essential element of sustainable development. The location and nature of all new development, commercial and residential, has a major bearing on both the need to travel and how people choose to travel. New development offers both a challenge and opportunity to improve local transport networks, better mobility for non-car users and active travel practices by overcoming barriers and improving connectivity, whilst taking due regard for vulnerable users and compliance with the Equality Act.

4.1.7 Whilst there will be clear opportunities to establish sites that will be car-free there is a general requirement to ensure that development is still accessible and serviceable by private vehicles. Whilst every opportunity will be taken up to ensure the highest levels of uptake of sustainable modes our network must be resilient to the significant levels of growth especially in areas where the cumulative impacts of development would be severe in terms of the existing capacity of the strategic highway network and local distributor routes. Failure to manage travel whilst encouraging development will result in worsening and expansion of existing congested networks, if appropriate levels of mitigation are not secured. In many instances the existing highways deficit i.e. ability to take on greater levels of traffic is not there and the improvements required exceed the levels of funding that could be anticipated directly from development opportunities. In these instances GCC will seek to address known highways deficit locations through other funding mechanisms including central government and CIL.
A coordinated approach to working with our partners and developers is essential to secure improvements to local, multi modal, transport networks to mitigate the impact of new development on the transport network and the environment. Sustainable development that supplements existing development can only function if the transport network and the transport service capacity & frequency can be addressed. Consideration for sustainable development at locations where sustainability can be unlocked at a lower financial cost should not be ruled out.

The LTP targets to minimise the impacts of new development and ensure that the highway network is resilient to anticipated traffic growth whilst ensuring that active travel modes are well thought out, appropriate and sustainable. The consequence of not addressing this through the LTP would be a reduction in the attractiveness of Gloucestershire as a place to live, work, visit and invest.

Development designed appropriately in the right locations, has the ability to influence different travel demands and opportunities in order to help reduce the number of car trips made and encourage sustainable and active travel. This ensures Gloucestershire’s transport infrastructure is both physically and financially sustainable.

Where there is a current or justifiable potential demand, GCC will secure developer agreements and contributions toward improved or expanded public transport infrastructure and service provision. Failure to efficiently integrate sustainable transport into new developments will limit travel options, especially for those without access to private transport and increases air quality and congestion impacts.

Early engagement to establish whether new developments should safeguard for future bus use and where it is deemed not necessary; developments are to be designed as walkable environments to encourage sustainable travel. Extending, diverting or creating new bus routes to serve new development sites is difficult to implement, but where applicable developer contributions will be sought. Where it may not be appropriate to divert a bus service through a development, instead, the provision of good, direct pedestrian access from the development to the existing route might be the most effective solution. Where there is no existing nearby bus service, it may be appropriate to consider alternative demand responsive solutions, such as community transport, taxis & private hire vehicles, especially in the early stages of a development, before it reaches a point where a conventional service can be introduced and sustained.

The re-development of strategic sites close to urban centres offers opportunities for the encouragement of active travel through the provision of convenient routes, which increase permeability. This will be achieved by designing in walking, mobility scooter and cycle-friendly measures from the outset. Distance is a significant factor in deciding how to make a journey, the longer the perceived or actual trip length or journey time the less
likely it is that cycling or walking will be chosen over the car. One way of providing a ‘walking and cycling advantage’ is to increase permeability by allowing cyclists and pedestrians to use routes not permitted for motorised vehicles. Journey times may be significantly reduced by opening up ‘cut-throughs’ from one road to another or by providing paths across green spaces. These small schemes provide value for money, giving significant gain for comparatively little investment. New development can help fund or strengthen these linkages.

4.1.14 Diverting traffic from the strategic road network onto inappropriate local roads can erode the attractiveness of some informal routes used by pedestrians and cyclists, so that highly valued undesignated routes simply disappear. As a result, the car can become the preferred mode of travel and difficult to offset the trend without building expensive dedicated infrastructure to influence step-change for example segregated cycle facilities. If direct, quiet links through and between places are identified and safeguarded, non-motorised trip rates may increase without the provision of extensive dedicated walking and cycle-specific infrastructure. ‘Invisible infrastructure’ is a term applied to infrastructure and measures which are not specifically active travel but which contribute to the creation of a walking, mobility friendly and cycle-friendly highway environment. This infrastructure can include:

- Land-use and development policies that reduce the need to travel and decrease reliance on private car use.
- Discourage motorised traffic within the central areas of towns and cities, such as physical restraint or charging.
- The management of car parking through cost and availability, workplace parking charges and residents’ parking.
- Traffic management and calming measures including vehicle exclusion, home zones, 20 mph zones & 20 mph speed limits
- Public transport policies, infrastructure and services that create a viable and sustainable alternative to car use and facilitate multi-modal journeys.
- Workplace and school travel plans, and individualised travel marketing, encouraging alternative modes to the car.
- Introduce environments that are tailored to non-car modes.
- The informal pedestrian and cycle network of quiet routes and ‘cut throughs.’

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4.1.15 Personalised Travel Planning (PTP) will be secured through planning, where appropriate, at new developments to encourage travel by bus, rail and active modes. Promoting sustainable travel options with people early on, when they are first making decisions on how to travel is more effective than at a later stage once travel habits have formed.

4.1.16 Funding streams will be identified to support the delivery of core strategies including developer funding, the Community Infrastructure Levy (CIL), central government grants and local capital funding for transport infrastructure.
4.1.17 Investment in transport infrastructure is crucial to provide a modern reliable transport network that meets travel demand whilst reducing transport related carbon emissions and ensuring communities are well connected. There are, however, challenges to maximising investment in Gloucestershire’s transport infrastructure. These are:

- Rural areas do not have the population density to help generate the critical mass needed to attract and secure transport investment.
- The County Council does not necessarily have control over the timescales for s106 agreement contributions which are developer led specific triggers, normally being dependent on the progress of the development. Other factors such as the size and complexity of the development may be relevant.
- There is an infrastructure funding shortfall identified in Infrastructure Delivery Plans (IDPs) which underpin all Core Strategies and Local Plans. IDPs are regularly reviewed and updated, and where infrastructure is identified within them as a requirement of development, such appropriate funding streams will need to support the development.
- The need to ensure efficiency and value for money.
- GCC needs to cooperate closely with the district councils to ensure that strategic transport priorities are reflected in CIL.
4.2(a) Policy LTP PD 0.3 - Maximising Investment in a Sustainable Transport Network

LTP PD 0.3 – Maximising Investment in a Sustainable Transport Network

GCC will work with partners to ensure the delivery of a financially sustainable transport network, through maximising opportunities for inward investment.

GCC will do this by implementing the following policy proposals:

- Work with the district councils, GFirst Local Enterprise Partnership, Western Gateway Sub Transport Board, Highways England, Homes England and Department for Transport and any other necessary government bodies, to provide relevant information on transport issues to inform the development of Development Plans and support the delivery of the Local Enterprise Partnership’s Strategic Economic Plan and Local Investment Strategy.
- Work in partnership with district and borough councils, the GFirst Local Enterprise Partnership, Western Gateway Sub Transport Board, Highways England, Homes England and Department for Transport and any other necessary government bodies, to maximise opportunities for inward investment as funding opportunities arise in order to develop the county’s transport network.
- Seek contributions from developers towards priorities and schemes contained within the Local Transport Plan in line with the policies and tests outlined in the National Planning Policy Framework (or any subsequent legislation).
- Where the Community Infrastructure Levy (CIL) or similar approach is introduced by Local Planning Authorities in Gloucestershire, GCC will work with district authorities to ensure strategic transport priorities are identified through a CIL framework.
- Where possible, transport strategies arising in support of development should have regard to the potential to achieve betterment for trips originating near the development, and facilitate or synergise with priorities for investment with neighbouring authorities and transport providers including; Highways England, bus operators and Train Operating Companies. This should be considered on the basis of travel corridors, such as the M5, A46 or other locally strategic corridors.
- Work with district authorities, partners and stakeholders to seek to ensure that land or routes that may be required for transport uses during the LTP period are protected from any development that may compromise the use of that land in future for transport purposes.
4.3(a) Expected Policy Outcomes

3.3.1(a) The implementation of this policy will result in affordable and focused investment in transport infrastructure that reduces carbon emissions and recurring congestion, further mitigating against the impacts of development and secures a sustainable and resilient highway network.

3.3.2(a) The priorities for attracting future investment for transport infrastructure will depend on the potential funding source becoming available. The priority assessment process outlined in the Delivery chapter and will form the basis on which schemes are to be put forward and can be adapted to account for specific funding priorities.
4.2(b)  Policy PD 0.4 Integration with land use planning and new development

**LTP PD 0.4 – Integration with land use planning and new development**

GCC will work with local planning authorities to make a positive contribution towards a step change in sustainable land use planning and enable multi-modal transport opportunities with a clear priority towards sustainable travel choices. GCC will support planning authorities and require developers, through agreements and securing of planning obligations; to mitigate against the impacts of proposed new development on the transport network and transport infrastructure by requiring site master planning and making sure transport considerations are integral to the design of schemes and contribute to making high quality places.

GCC will do this by implementing the following policy proposals:

- Work with the district and parish councils and transport operators, to ensure that new development is appropriately connected to the existing transport network with good access to inclusive public transport and a high propensity to walk, cycle and be mobility friendly.
- Support digital connectivity and virtual working in order to reduce the need to travel.
- Work with parish councils and communities to identify and seek solutions that minimise the impact of proposed developments. Support new compact, higher density mixed use development with priority given to development of new sites already served by public transport over other more remote and inherently less sustainable locations.
- Development will be resisted where safe and suitable access is not provided or where the severe impact on the transport network cannot be mitigated.
- Require that developers provide the necessary transport infrastructure to mitigate the significant impact of proposed development on the highway and transport networks and to ensure that the opportunities for sustainable travel have been taken up. Travel plans will be required where appropriate to promote sustainable modes of transport.
- Encourage early consultation with GCC to agree design principles at pre-application.
- Ensure all new highway schemes which are delivered by the Local Highway Authority, developers or scheme promoters are designed using the principles of Manual for Streets (MfS) and the county’s technical specification for new streets.
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- Support and work in partnership with communities in identifying local transport needs and solutions (e.g. through Parish and Neighbourhood Development Plans).
- Ensure the developer identifies and incentivises sustainable transport measures ahead of delivering necessary highway capacity deficit.
- Ensure development sites contribute towards the improvement of the strategic and LCWIP desire lines.
- Secure developer contributions through s106 towards securing; improved, expanded or new public transport, community transport or any other form of mass transport provision and/or infrastructure where there is a current or potential demand. That all schemes on the local highway network are subject to appropriate Context Reports and audits (including but not exclusively Countywide Cycleway, LCWIPs, green infrastructure, road safety, non-motorised users, walking, cycling and quality audits) before design approval.
- Ensure developments identify, protect and exploit opportunities for sustainable transport mode use based on active design principles including ‘invisible infrastructure’, whereby the spatial grain and layout invites slow speeds and direct route priority for active travel (walk, cycle, mobility friendly and public transport) over other modes.
- Ensure developments identify and safeguard existing and potential quiet highway routes and connections, within and between settlements, where walking, cycling and mobility scooter user modes are to be promoted to support community connectivity and permeability.
- Promote MaaS services, such as car sharing in order to encourage sustainable car use within new housing or employment developments.
- Work with developers and transport scheme promoters to consider, when designing new active travel schemes, factors which influence the success of routes and facilities in terms of their use and function, such as gradient, lighting, natural surveillance, integration and signing.
- Ensure developers promote existing public transport infrastructure and realistic opportunities for travel choice are provided and consistently and comprehensively promoted to residents, employers and visitors.
- Mitigate the significant residual cumulative impacts of planned growth and windfall sites in the county by securing Development Plan compliant contributions from developers, businesses and local partners to deliver travel plans and promote smarter travel choices including marketing and incentives to encourage sustainable travel and modal shift.
- Use Personalised Travel Planning (PTP) and travel plans as part of the toolkit of measures for delivering smarter travel choices, where appropriate, in new and existing residential developments, making sure that travel plans are maintained and enforced.
- Encourage the use of innovative design to enhance the aesthetic appeal and desirability of using inclusive public transport facilities.
- Where developers undertake Health Impact Assessments as part of their application, these consider the impact of travel and transport – both positive and negative – on the health and wellbeing of residents and communities in the broadest sense.
- Support multi-functional green and blue infrastructure to underpin the overall sustainability of new development by performing a range of...
functions including flood risk management, the provision of accessible green space transport corridors, climate change adaptation and supporting biodiversity.
- All overarching and mode policies will take this policy into account.

### 4.3(b) Expected Policy Outcomes

4.3.1(b) The implementation of this policy will secure future development and growth at sustainable locations by delivering transport infrastructure that does not act as a constraint to unlocking sustainable development and provides safe, reliable and convenient transport choices connected to new developments.

4.3.2(b) The priorities for enabling development include:
- Secure development in sustainable locations, with good access to public transport and a high propensity to walk and cycle, by supporting the case for new developments to be built as part of urban extensions and within existing brownfield sites to mitigate the impacts of the development on the highways network.
- Support regeneration through transport interventions in main towns.
- Ensuring that the optimum contribution can be sought from private developers when new houses are built, to invest into the transport network.
- Ensuring new developments make best use of existing public transport and mobility services.
- Actively encouraging the enhancement of the aesthetic appeal and desirability of public and active transport facilities in new developments.
- Encouraging Personalised Travel Planning for residents/employees of new development.
- A fit-for-purpose cycle network that optimises the available opportunities.
- Recognise, safeguard and reinforce the qualities of quiet, direct, unimpeded access for walking and cycling to and from development.
4.3.3(b) The priorities linking proposed developments with existing networks and development opportunities will be those identified in the Infrastructure Delivery Plans for the District Local Plans.

5.0 Community Health and Wellbeing

5.1 Summary

5.1.1 In general, Gloucestershire’s residents enjoy good physical and mental health and wellbeing. However, this overall picture hides health inequalities, where poor socio-economic circumstances lead to poorer health outcomes and impact on community safety. This can be seen, for example, in the gap in life expectancy between people living in the most and least deprived parts of the county.

5.1.2 The alignment of transport and health strategies, play a key role in securing health objectives through:

- Improving access to income, employment, housing, education, services, amenities, facilities and social networks crucial to maintain a healthy vibrant and cohesive community
- Influencing the quality of the urban environment (air quality, noise, severance and risk of collision) to achieve social, mental and physical health outcomes
- Influencing lifestyle and travel behaviour to address many of the UK’s key economic, environmental, social, mental and physical health issues, and associated care costs

5.1.3 Increasing levels of physical activity across the whole population are explicit goal of transport planning and investment. Both have health and wellbeing benefits. Active travel and high quality public transport services should be prioritised and walking and cycling routes should be safe and form a continuous accessible network. Planning for active travel will provide ‘triple wins’ for the economy, health and the environment. Environments promoting and supporting physical activity as an integral part of daily activities will achieve and sustain better health outcomes and narrow the gap in health inequalities. This policy therefore has strong links to the walking and cycling policy documents.

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28 https://fingertips.phe.org.uk/profile/health-profiles/area-search-results/E10000013?place_name=Gloucestershire&search_type=parent-area
5.1.4 The switch to more active modes of travel (walking and cycling) and away from the private car usage can provide opportunities for physical activity as an integral part of daily activities. Heart disease, respiratory disease, stroke and cancer are amongst the most common causes of death in the UK. Adults who are physically active have a 20-30% reduced risk of premature death and up to 50% reduced risk of developing major chronic diseases such as coronary heart disease, stroke, diabetes and cancer.

5.1.5 The National Institute for Clinical Excellence (NICE) has produced guidance on the importance of place making and urban environments which promote walking and cycling as a means of improving public health. Good urban design can also attract investment, create jobs and improve quality of life.

5.1.6 NICE Quality Statement [QS:183] Physical activity: encouraging activity in the community recommends that local authorities prioritise pedestrians, cyclists and people who use public transport when developing and maintaining connected travel routes; that workplaces have a physical activity

---

30 www.nice.org.uk/guidance/ng90

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programme to encourage employees to move more and be more physically active including having evidence that employees receive information tailored to the workplace about accessible walking and cycling routes which include public transport options, distances involved, cycle parking, maps, routes, alternative route directions and safety; and that schools and early years settings have active travel plans that are monitored and updated annually.

5.1.7 NICE quality standard 181 Air pollution: outdoor air quality and health (2019) recommend that: local authorities identify in the Local Plan, local transport plan how they will address air pollution, including enabling zero- and low-emission travel and developing buildings and spaces to reduce exposure to air pollution; that local planning authorities assess proposals to minimise and mitigate road-traffic-related air pollution in planning applications for major developments; and that public sector organisations reduce emissions from their vehicle fleets to address air pollution.

5.1.8 A number of good practice guides have been produced including:

<table>
<thead>
<tr>
<th>Guide</th>
<th>Source</th>
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<tbody>
<tr>
<td>Urban Design Guide</td>
<td></td>
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<tr>
<td>Manual for Streets, DfT and GCC technical specifications</td>
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<tr>
<td>Sport England Active Design guidance</td>
<td></td>
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<tr>
<td>‘Everybody active, every day. What works: the evidence</td>
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</table>

5.1.9 A reviewed Gloucestershire Joint Health & Wellbeing Strategy will be launched later in 2019, following extensive community and partner consultation. The new strategy contains seven priorities of relevance to a lesser or greater extent to the transport strategy for the county; physical activity, adverse childhood experiences (ACEs), mental wellbeing, social isolation and loneliness, healthy lifestyles (initially focusing in reducing obesity), early years and best start in life and housing. In regard to community safety, there are links to this strategy and the strategic priorities set

31 www.nice.org.uk/guidance/qs183/chapter/Quality-statements (QS:183), June 2019
32 www.nice.org.uk/guidance/QS181
34 Source- National Association of Transportation Officers https://nacto.org/publication/urban-street-design-guide
35 www.sportengland.org/facilities-and-planning/active-design
Gloucestershire’s Local Transport Plan (2015-2041) Overarching Strategy

5.1.10 Active Gloucestershire is the local Active Partnership whose vision is to get everyone in Gloucestershire active every day. To this end Active Gloucestershire is the lead organisation for a whole systems behaviour change programme, called ‘We Can Move’ (formerly Gloucestershire Moves). Gloucestershire County Council’s Thinktravel programme supports the principles of Active Gloucestershire, providing travel choices that enable active travel as part of daily activity for all.

5.1.11 Consideration of ‘Human Health’ is a legal requirement in the Integrated Sustainability Assessment (ISA) in the LTP accompanying documents. A health impact assessment (HIA) is an integral part of a SEA to identify and inform health issues in the Local Transport Plan. The HIA should provide an evidence base for the LTP and help to mitigate the negative effects of transport on health and well-being. It addition, the HIA can help to:

- Coordinate the public health concerns in respect of air quality, noise and climate change, and
- Contribute to the wider agenda relating to quality of life and reducing health inequalities.

5.1.12 Improving public health is important in achieving long-term savings in health care. The Gloucestershire Integrated Care System (ICS) includes three priorities, one of which is that ‘there will be more support for people to stay healthy and independent and develop active communities that promote prevention and self-care.’

5.1.13 Wellbeing is also strongly linked to how connected individuals are to services and communities. According to the NHS, Older people are especially vulnerable to loneliness and social isolation, which can have a serious effect on health. With an ageing population in Gloucestershire, providing a high level of community connectivity accessible to all is therefore a key objective of this LTP, as outlined also in the policy document on Public & Community Transport policy document.

5.1.14 Recognise the benefits to health and wellbeing from other policies that protect and enhance; biodiversity net gain, blue and green infrastructure, landscapes, townscape and the historic environment from the adverse effects of transport.

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37 www.activegloucestershire.org
38 www.england.nhs.uk/integratedcare/integrated-care-systems/gloucestershire-ics
Connectivity that is inclusive and does not depend on access to a private car will also address issues of deprivation and social exclusion. Inclusive transport improves access to employment, education, health services, and opportunities for social or leisure interaction which is important to the health and wellbeing of everyone. Inclusive transport also provides the backbone to accessibility for many disabled and vulnerable people in our communities. The ‘Total Transport’ project approach described in the Public & Community Transport policy document will aim to make accessible transport available to a wider audience by providing an online platform with access to transport information and opportunities for wider choice of transport options for everyone.

Gloucestershire’s current level of accessibility of key services is measured and mapped through Inform Gloucestershire. Inclusive transport is a national strategy (DfT 2018) and a priority for this plan. GCC supports rail, bus and community transport operators serving Gloucestershire’s vulnerable and disabled passenger users to provide easily accessible, convenient and affordable transport. GCC has invested in Real Time Passenger Information and more recently in GlosTalk a mobile phone application designed to assist bus passenger users, with information provided in accessible formats. Gloucester Bus Station provides an accessible interchange hub and access is being improved at both Gloucester and Cheltenham Railway Stations through ‘access for all’ and GFirst LEP growth deal funding.

[40] https://inform.gloucestershire.gov.uk/
5.2 **Policy LTP PD 0.5 Community Health and Wellbeing**

**LTP PD 0.5 Community Health and Wellbeing**

GCC will work with partners to improve community health and wellbeing and safety by encouraging greater numbers of people from all social and economic groups and including those with disabilities, to use safe and affordable multi-modal travel options (e.g. by walking or cycling or by public transport) for short distance trips; helping children and adults, including families and those economically and physically disadvantaged to enjoy more independent, physically active lifestyles; improving air quality; and connecting people to services, employment, housing, education, health services, social and leisure amenities to allow equality of opportunity to health, social and economic wellbeing and remove barriers that can create social isolation.

GCC will do this by implementing the following policy proposals:

- Identify opportunities for transport and health outcomes and resources to be aligned to attain cross-sector health benefits and cost savings.
- Ensure Health Impact Assessments (HIAs) are used where appropriate – either within a Strategic Environmental Assessment (SEA) or as a standalone exercise – to understand the impact on health and wellbeing (and on health inequalities) in its broadest sense and mitigate negative impacts and enhance positive impacts where possible.
- Align with; the emerging Climate Change Strategy, the Gloucestershire Sustainable Energy Strategy, the Air Quality & Health Strategy for Gloucestershire, the county’s Joint Health and Wellbeing Strategy and the strategic priorities set out the Police & Crime Commissioners’ Plan.
- Support ‘Safer Gloucestershire’ to create a safer county.
- Investigate community based vehicle restriction zones that will benefit communities and protect vulnerable highway users from a safety and health perspective, during peak congestion periods.
- Improve inclusive public transport accessibility, including demand responsive public and community transport options.
- To deliver campaigns to increase cycling, walking and use of public transport across all segments of the population and target those with the greatest propensity to use alternatives to the car.
- Reduce both actual and perceived risk to personal safety by encouraging the adoption by transport operators of safeguarding policies and...
improving pedestrian and cycle infrastructure by making it feel safe to use and visually appealing.

- Integrate pedestrian, cycle and horse riding routes with the road network where it is safe to do so to promote a cohesive path network and, where a route has to cross a busy road, provide a safe crossing point.
- Ensure pedestrian and cycle routes are safe and form a continuous accessible network accessing town centres, residential areas, employment areas, and routes to schools.
- Support the Rights of Way and Countryside Access Improvement Plan where there is an identified need to accommodate less mobile users, walkers, cyclists and horse riders, within the existing Rights of Way network.
- Encourage people away from busy routes, where traffic flows or speeds cannot reasonably be reduced, by agreeing measures to safeguard quieter and safer routes and improve inclusive accessibility to and within green space, rural and inter-urban settlements.
- Encourage the use of the rights-of-way network for utility journeys, particularly in the urban fringe and between some villages by ensuring their safety and accessibility.
- Encourage developers to include both informal and formal inclusive playable space in new development and engage children and the local community in the design process to ensure streets should be safe for children to play, and where pedestrians, cyclists and other mobility users are encouraged and supported through inclusive street design and development layout.
- Identify and exploit opportunities to align active travel objectives with wider stakeholders’ priorities e.g. around workplace health and wellbeing and productivity, Gloucestershire Healthy Living and Learning (healthy schools programme), healthy lifestyles service priorities, Gloucestershire Moves and active / connected communities.
- Investigate community based vehicle restriction zones that will benefit communities and protect vulnerable highway users from a safety and health perspective, during peak congestion period.
- Recognise the benefits to health and wellbeing from other policies that protect and enhance; biodiversity net gain, blue and green infrastructure, landscapes, townscapes and the historic environment from the adverse effects of transport.
- All overarching and mode policies will take this policy into account.

5.3 Expected policy outcomes

5.3.1 The implementation of this policy will ensure Gloucestershire has an inclusive transport network that encourages people to be physically active thus improving health and wellbeing, increasing social interaction and contact with the outdoor environment.
5.3.2 Promote equality of opportunity to access employment, housing, education, services, amenities and social networks to maintain a vibrant community that supports economic growth for all.

6.0 Influencing Travel Behaviour

6.1 Summary

6.1.1 Behavioural change is at the heart of the aims and objectives set out in this Plan. Gloucestershire’s Thinktravel initiative aims to inform, educate and inspire people to make journeys in a smarter, more sustainable way and therefore reduce single occupancy car journeys on the transport network. The Thinktravel initiative is supported by an online information portal providing information about sustainable travel options such as walking, cycling, using public transport and car sharing aimed at individuals, communities, schools and businesses.

6.1.2 As part of Local Sustainable Transport Fund (LSTF) delivery, segmentation analysis was used to determine, street-by-street, people’s probable propensity in the Cheltenham and Gloucester to change travel habits and to what modes. This is particularly relevant in a county with large rural areas and an urban core, which will require very different approaches to the challenge of convincing people to travel more actively and sustainably.

Segmentation or mosaic analysis considered propensity for mode shift at a street level; Propensity is affected by the extent to which residents can use a mode other than the private car to make some of their daily journeys combined with the extent to which they might want to
6.1.3 Transfer from car to other modes is most likely in larger urban settlements with high quality, reliable and frequent public transport. Levels of walking and cycling are also strongly influenced by feelings of personal safety.

6.1.4 To enable greater awareness of travel choice, each CPS area will require its own bespoke approach to behavioural interventions covering local cultural, social and economic factors. As these types of measures rely so heavily on human choice and perception, it will be essential for Local Plans and, importantly, Neighbourhood Plans to embed smarter choices tools within these localised strategies.

6.1.5 Reliable, up to the minute travel information on travel conditions can influence travel behaviour. GCC will increase the role of technology to assist in the dissemination of journey information. There are several tools available to support this and, as funding becomes available, GCC will aim to upgrade its travel information offer through the Thinktravel web portal.
6.2 Policy LTP PD 0.6 Thinktravel - Influencing Travel Behaviour

LTP PD 0.6 Thinktravel - Influencing Travel Behaviour

GCC will continue to use the ‘Thinktravel’ brand and associated marketing and information tools to ensure we carry out a range of travel awareness initiatives to influence travel behaviour change and promote the benefits and use of sustainable modes of transport.

GCC will do this by implementing the following policy proposals:

- To work with its partners to reduce single occupancy private car use by promoting alternative travel choices to individuals through a variety of media channels.
- To deliver campaigns to increase cycling, walking and use of public transport across all segments of the population and target those with the greatest propensity to use alternatives to the private car.
- To work with local businesses, educational establishments and housing developers to secure appropriate travel plans to encourage sustainable travel and to investigate and implement measures to overcome specific barriers.
- Within Travel Plans, support the promotion of walking & cycling for journeys under 2km and 5km respectively. Promotional material will be issued alongside infrastructure improvements using methods that have been tested nationally and applied through the Thinktravel programme.
- To encourage operators to provide discounted fares for young people, families and regular travellers, and other incentives to increase patronage
- To ensure accurate service availability, timetable information and location information is available at all bus stops and railway stations within the county and through the Thinktravel website (www.thinktravel.info).
- To introduce Real Time Passenger Information systems, and improve the quality of information provided at passenger waiting facilities in conjunction with Thinktravel travel information apps and other mobile phone based technologies.
- To work with partners and providers to embrace technologies which support Thinktravel objectives such as charging points for electric vehicles, bike share schemes and SMART ticketing.
- Recognise the benefits to influencing travel behaviour from other policies that; support health and wellbeing, protect and enhance; biodiversity net gain, blue and green infrastructure, landscapes, townscapes and the historic environment from the adverse effects of transport.
- All overarching and mode policies will take this policy into account.
6.3 Expected policy outcomes

6.3.1 This policy will help embed the Thinktravel travel promotion into the delivery of LTP objectives and ensure that Thinktravel initiatives will enable people to benefit from existing and emerging travel opportunities which best meet local needs.

6.3.2 This policy will also help increase the attractiveness, understanding and wide use of transport alternatives to the private car and in more parts of the county, assisting in reducing reliance on the private car.

6.3.3 The priorities for future Thinktravel promotions include:
- The brand to be recognisable and trusted by all residents of Gloucestershire
- The Thinktravel website to be the first choice in Gloucestershire to access active travel, car share, sustainable business travel and transport information
- Build the smarter choices evidence base to support funding bids and inform scheme operation and design
- Support the aims and objectives outlined in this Plan
- Thinktravel well work with partners to increase active travel to the benefit of the health and wellbeing of all
The policies set out in this document will be delivered through the implementation of the associated proposals and, subject to funding, the schemes identified in the Connecting Places Strategies. These scheme priorities are also set out in a separate Delivery chapter addressing funding, monitoring, governance and review.
Local Transport Plan
Policy Document 1 – Public & Community Transport

Version | Draft Document
---|---
Last Revised | November 2019
Review Date | 
Category | Transport Planning
Owner | Gloucestershire County Council

Target Audience
Anyone wanting to find out about how the county council will manage public and community transport within Gloucestershire. This document specifically includes policies on:
- Gloucestershire’s bus network
- Community Transport including voluntary car schemes
- Transport Interchange Hubs
- Improving the quality of the transport network
- Travel Information
- Coach travel
- Links to policy on concessionary travel and home to school travel

This strategy acts as guidance for anybody requiring information on how the county council will manage rail infrastructure and rail services in Gloucestershire up to 2041

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Contents Amendment Record
This report has been issued and amended as follows:

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<th>Issue</th>
<th>Revision</th>
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8.3 Expected Policy Outcomes

9.0 Communicating Travel Information

9.1 Summary

9.2 Policy LTP PD 1.7 – Communicating Travel Information

9.3 Expected Policy Outcomes
1.0 Introduction

1.1 Public and community transport services play a key role in enabling communities to function and will be at the centre of Gloucestershire’s ambitions to reduce greenhouse gas emissions. They provide access to facilities and services, as well as offering an alternative to car use. In this document public transport refers to bus and coach transport, private hire vehicles, community transport and home to school transport. A separate rail policy document is covered in the Rail Policy Document (PD5).

1.2 Gaps in the bus network, access to public transport information and the value of bus travel in reducing car usage and congestion continue to be key issues. There is a prevailing sense that more investment is required to improve the transport networks to avoid Gloucestershire becoming disadvantaged economically, socially and environmentally; through unsustainable traffic congestion, under-utilised rail capacity; and inadequate bus services if LTP transport initiatives and policies are not delivered.

1.3 Congestion on the highway network disproportionately impacts on bus travel, not only by imposing substantial increases in journey times and reducing service reliability but also with the practicalities of stopping at, and pulling away from, bus stops in queues and heavy traffic. This creates inefficiencies in the operation of bus services, in that more buses are required to maintain the same level of service. With congestion expected to worsen, a key expectation of this LTP Public and Community Transport Policy will be to help deliver secure sustainable transport networks in the face of forecast traffic growth, congestion and the climate change challenge.

1.4 In addition to conventional bus services, community transport; private hire vehicles and taxis provide additional demand responsive provision where required. The Thinktravel Total Transport portal will bring community, voluntary and public transport together under one platform, making accessible transport available to a wider audience, that previously have not considered these options as a travel choice. The Overarching Strategy sets out the policy for Influencing Travel Behaviour (LTP PD 0.5) through the Thinktravel programme.
1.5 District councils are the licencing authorities for taxis and private hire vehicles and GCC will work in partnership with district authorities to bring about a uniform policy standard of service provision across the county, including support the ambition for ultra-low emission vehicles. Currently, private hire platforms such as Uber only operate in limited towns in Gloucestershire however, it is likely that these platforms will continue to grow in the future and GCC will investigate the impacts this will have on the counties transport system.

1.6 Looking into the future, bus and demand responsive transport services have an important role in the provision of Mobility as a Service (MaaS) applications. MaaS is the integration of various forms of transport services into a single mobility service accessible on demand, online or through smart cards and apps, which are able to offer contactless ticketing journeys, journey planning and integration with travel hubs including bike hire, taxis and car sharing schemes.

1.7 The objective of the LTP Public and Community Transport Policy is to provide an attractive, reliable alternative and choice to car travel. Achieving this will involve reviewing highway designations and working with bus operators to provide attractive services that benefit from measures that give priority over private transport as well as exploring technological opportunities to increase the attractiveness of demand responsive transport services Table A outlines the expected outcomes the LTP Public and Community Transport Policy Document and linkages to the overarching LTP objectives.
<table>
<thead>
<tr>
<th>Objective</th>
<th>Expected Outcomes</th>
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| Protect and enhance the natural and built environment                    | • Reduced transport derived carbon emissions  
• A reduction in solo car use, and an increased uptake of sustainable transport modes (walking, cycling and public transport)  
• Reduce the adverse impact of transport on Gloucestershire’s high quality natural, built and historic environments |
| Support sustainable economic growth                                       | • The transport network is reliable, efficient, fit for purpose and demonstrates value for money  
• Increased journey time reliability  
• Greater economic activity  
• Increased footfall in retail areas, particularly town centres  
• A transport network resilient to extreme weather events  
• A thriving tourist industry which benefits from ease of access to the county’s natural, built and historic environmental assets |
| Enable safe and affordable community connectivity                         | • Individuals benefit from economic prosperity and social benefits, such as being able to access employment, education and training  
• A financially sustainable passenger transport network  
• Reduce risk of social isolation and loneliness  
• An integrated transport network which provides genuine transport choices and ease of access  
• A transport network which provides individuals with the confidence to consider all travel choices |
| Improve community health and wellbeing and promote equality of opportunity | • Less car trips resulting in fewer journey delays  
• Improved air quality  
• Better safety, security and health by reducing the risk of death, injury or illness arising from transport  
• Access to services, employment, education, training, amenities and a social network |
2.0 Summary of Evidence Base

2.1 Buses have a key role to play in reducing transport emissions and GCC’s target to become carbon neutral by 2050. The potential to reduce greenhouse gas emissions through mode shift to buses is considerable, as buses accounted for only 2.6% of transport emissions in the UK in 2017\(^1\). However, the challenges to achieve this mode shift are equally great with bus vehicle traffic declining by 18% over that last 5yrs and Gloucestershire’s bus passenger journeys reducing by 1.1% in 2017/18 compared to the previous year (Though, this is still better than the national decline in bus passenger journeys of 3.2% (England outside London)\(^2\)).

2.2 County wide just 4% of travel to work is by bus. Only in the main urban centres of Cheltenham and Gloucester is bus use comparable with the national average of 7%. The areas of Cotswolds, Forest of Dean and Stroud have particularly low bus usage for travel to work, reflecting their more rural character. This is concerning, not only for environmental reasons, but also because a lack of transport is recognised as a barrier to access employment and other services.

2.3 In 2018/19, 20.0 million passenger journeys in Gloucestershire were made by bus. Of these, 29% were made by older and disabled people holding concessionary travel passes\(^3\). Such journeys have reduced in recent years from 6.7 million in 2010/11 to 5.4 million in 2018/19 partly due to demographic changes and the eligible age rising to 66yrs for pensionable concessionary pass holders.

2.4 Concessionary travel users influence the inter-peak bus service provision. The rise in pensionable age for women in particular has seen falling concessionary journeys over the last 5 years but for bus operators this has been offset by a rise in fare paying passengers, making inter-peak services more commercially viable. **Figure A** illustrates the frequency of services operating across Gloucestershire bus network.

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3. 2018/19 Bus Statistics (Department for Transport)
2.5 90% of bus services are operated commercially by private operators. This accounts for most services within the county’s urban areas and the major inter-urban routes. Additional subsidised bus and community transport services provide links where demand is less, such as in rural areas, or to meet the needs of vulnerable users.

2.6 A summary analysis of the existing position regarding bus services in Gloucestershire is shown in Table B.

Table B – Gloucestershire Bus Service SWOT Analysis

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
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<tbody>
<tr>
<td>• Extensive and fairly strong commercial network, with good levels of</td>
<td>• Congestion slows travel times and makes buses unreliable</td>
</tr>
<tr>
<td>investment in high quality services</td>
<td>• High car ownership</td>
</tr>
<tr>
<td>• Some Transport Hub provision in place</td>
<td>• Poor perception of bus services</td>
</tr>
<tr>
<td>• Budget to support other services</td>
<td>• Peripheral employment sites poorly served, as bus services tend to be</td>
</tr>
<tr>
<td>• Network of community transport providers</td>
<td>arterial (lack of orbital services)</td>
</tr>
<tr>
<td>• Real time information</td>
<td>• Non-users find buses difficult to understand</td>
</tr>
<tr>
<td></td>
<td>• Community transport provision patchy across the county</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities</td>
<td>Threats</td>
</tr>
<tr>
<td>• Total transport approach to achieve greater integration of different</td>
<td>• Funding reductions for supported services</td>
</tr>
<tr>
<td>services</td>
<td>• Worsening road congestion, which will increase costs and lead to</td>
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©Gloucestershire County Council 2019
• Bus Services Act 2017 provides new powers for franchising and enhanced partnerships with opportunities for improved ticketing and information
• Funding from development and growth
• On-demand transport and technology developments
• Young people not as car-dependant
• Development of portal to access information about all types of passenger transport services

Concessionary Travel Scheme

2.7 GCC continues to administer the English National Concessionary Travel Schemes within Gloucestershire for those of pensionable age or with a qualifying disability, meeting the full terms of the legislative requirements related to the provision of concessionary bus passes to those entitled to them. GCC also considers discretionary elements for the scheme to ensure they maximise opportunities to reduce social and rural isolation.

2.8 The scheme has ‘spill-over’ benefits to other groups and policy areas such as enhanced bus service frequencies driven by enhanced demand, less reliance on bespoke alternative transport, such as patient transport, complementing health care objectives and other county council strategies such as Single Adult Programme. The aim is to reduce reliance on the private car and provide the ability to travel that might not otherwise be available to some concessionary bus pass holders, opening up travel opportunities that support healthy, safe and engaged communities. Concessionary travel reimbursement rates for operators are set by the Department for Transport calculator. Gloucestershire offers a slightly higher level or reimbursement recognising the importance of a healthy commercial bus network. Further information can be found here: www.gloucestershire.gov.uk/transport/apply-for-a-free-concessionary-bus-pass.

Home to School Transport

2.9 Home to School bus services are contracted transport services that operate across Gloucestershire. In 2019 GCC carry around 5,200 young people per day on transport services funded by the council. The remainder find their own way by local bus services, privately commissioned school
transport, cycling, walking and car. Policy changes regarding post 16, grammar and faith schools have brought the number of funded bus passes for students down considerably.

2.10 GCC has a statutory requirement to ensure that all children are able to access compulsory school age education, as poor access to schools can be a cause of deprivation and social exclusion. To meet this requirement GCC has published its home to school transport policy for children between 4-16 years on the GCC website. It states which 4-16 year olds are entitled to bus passes and how to apply for them.

2.11 Students post 16 years are not entitled to receive free transport to their school/college. Transport assistance for most students aged over 16 is a discretionary provision, however, the county council remains committed to ensuring that all students receive access to education and will continue to meet best practice expectations set out within the home to school travel policy guidance.

2.12 GCC continues to work with bus operators to ensure driver standards subject to DBS checks and a high quality bus fleet with CCTV and compliant with the latest emission standards and Government (VOSA) safety regulations for all council contracts operating home to school transport.

2.13 GCC will also continue to work with schools on their travel plans whilst promoting and encouraging young people through our Thinktravel programme to take up active travel modes where safe to do so, as an alternative to car travel.

3.0 Gloucestershire’s Bus Network

3.1 Summary

3.1.1 Local bus services play a key role in enabling communities to function and the local economy to prosper. Local bus services aim to provide:

5 www.gloucestershire.gov.uk/transport/school-and-college-transport/apply-for-a-new-or-lost-school-bus-pass

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Opportunities to access work and services, facilitating economic development and improving quality of life – this is particularly the case for population groups without access to private transport, such as the elderly, mobility impaired, rural communities and the increasing proportion of young people who chose not to drive

- Environmental and public health improvements resulting from reduced car use (particularly in respect of air quality, noise and pollution)
- Improved road safety as public transport options are safer than using the car
- Significant increase in carrying capacity and efficient use of road space, especially compared to the single occupancy car driver
- Reducing the cost of congestion to businesses
- Equality benefits as public transport options are more affordable and accessible to younger, older, disabled and lower income users.
- Active life styles and healthier communities
- Public realm improvements by reducing traffic volume and severance in town centres

3.1.2 There are a number of different bus operators in the county, ranging from those who operate a single route only to those such as Stagecoach who operate a large number of routes, for example the majority of the network in Cheltenham and Gloucester. One of the challenges facing bus service provision in the county is that current services are focussed on radial movements; however, orbital movements are likely to become more important as areas on the edge of key settlements are developed for housing and employment.

3.1.3 Figure A provides the basis of Gloucestershire Bus Network and informs future investment decisions regarding the quality of bus infrastructure required on higher frequency routes to increase demand for these services. Conversely this map also highlights those parts of the county where infrequent services operate and reliability may be factor for people not choosing to use the bus.

3.1.4 A large proportion of Gloucestershire’s population is able to access the main urban centres during core commuting hours. However, the frequency of cross-border bus provision is relatively low. GCC will continue to work with neighbouring authorities to ensure that cross-boundary links are developed and maintained.

3.1.5 Travel provision in the county is not always sufficiently flexible to cater for the range of travel demands outside of the 9am to 5pm day. Limited travel provision outside core business hours has implications for night time economies, shift workers and evening hour hospital access. This can undermine economic growth opportunities and drive social inequality issues if communities do not have equal opportunities to access employment, goods and services.
3.1.6 Interchange between bus and rail is likely to be an opportunity for improvement in the future. These opportunities would potentially be of value in enhancing bus/rail connectivity for residents in the south of the county that gravitate to centres outside of the county, such as Bristol and Oxford. The key challenges are ensuring that bus services provide coverage of both urban and rural areas in the county, providing connectivity with key services and employment and educational opportunities whilst being affordable and financially sustainable.

3.1.7 It is important for GCC to direct its financial resources effectively with the aim of improving the commercial viability of the network through the provision of complementary services and specific services that meet particular policy objectives, such as avoiding social exclusion or isolation. Access to education and training, employment, non-emergency health care and essential (food) shopping are considered priorities.

3.1.8 GCC spends about £3 million p.a. supporting various bus and community transport services. In rural areas, bus use and provision has been reducing, such that supported service in those areas often provide poorer value for money. However, many needs still exist in these areas. Therefore, a new model of provision will be needed, which provides more appropriate solutions that make good use of new technology. This is likely to include agile, innovative, MaaS and community-based solutions, where transport is flexible and responsive. A change in public, community and users’
expectations will need to occur, with all interested parties becoming more involved in the design and provision of services, some of which might be crowd-funded. Equally, solutions may well be car based on car share and lift sharing, rather than bus.

3.1.9 A ‘total transport’ approach is necessary, drawing together the resources deployed on various types of specialist provision, including non-emergency patient transport and school transport. NEPT and school transport is part of phase 2, currently unfunded. Such integration will provide economies of scale by linking together different passenger demands and increasing utilisation of existing vehicles.

3.1.10 Moving to this new model of provision will require significant resource, both in terms of staff to carry out reviews and work closely with communities and other interested parties, and funding for technology to facilitate the provision of more on-demand types of service. A pilot “demand responsive” minibus service is currently proposed for two of the more remote areas of the county targeting both young people, for example college students, and older and disabled people, as well as commuters.

3.1.11 New thinking will also be needed in urban areas, as town and city centres start to adjust to new roles, with less emphasis on being retail centres. It will be vital to ensure that new residential and commercial centres are located on or close to the existing bus network, such that they support and strengthen the commercial network, rather than dilute it. Tackling congestion and enabling modal shift to sustainable travel choices will be key to ensuring efficient and effective bus operations and the provision of services that are attractive to car users. Good quality bus priority measures will be central to this.

3.1.12 The purpose of continuing to maintain and develop the bus network is three-fold:
- To support the economy and growth by providing access to facilities and services for people with no alternative.
- To support efficiency within society and the economy by offering travel choice for people with private transport.
- To support measures to promote health and fitness and care for the environment.

3.1.13 In order to meaningfully target resources and identify opportunities, a hierarchy of bus provision is proposed and is set out in Table C.
### Table C - Bus Network Standards – towards an effective network

<table>
<thead>
<tr>
<th>Tier 1</th>
<th>A route that is one or more of:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Commercially operated (i.e. no GCC subsidy)</td>
</tr>
<tr>
<td></td>
<td>• High frequency (one bus every 30 minutes or less)</td>
</tr>
<tr>
<td></td>
<td>• High use (a minimum of 250,000 passenger trips per year)</td>
</tr>
<tr>
<td></td>
<td>• Inter-urban (operating between 2 urban areas of at least 20,000 population)</td>
</tr>
<tr>
<td></td>
<td>• Intra-urban (operating entirely within an urban area of at least 20,000 population)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tier 2</th>
<th>A route that is one or more of:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Partially commercial (GCC subsidises a maximum of 50% of the route)</td>
</tr>
<tr>
<td></td>
<td>• Medium frequency (one bus every 31-180 minutes)</td>
</tr>
<tr>
<td></td>
<td>• Medium use (50,000-250,000 passenger trips per year)</td>
</tr>
<tr>
<td></td>
<td>• Part urban (serves at least one urban area of at least 10,000 population)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tier 3</th>
<th>A route that does not meet any tier 1 or 2 criteria, likely to include:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Majority or entirely subsidised</td>
</tr>
<tr>
<td></td>
<td>• Low frequency (2 buses per day or less)</td>
</tr>
<tr>
<td></td>
<td>• Low use (under 50,000 passenger trips per year)</td>
</tr>
<tr>
<td></td>
<td>• Rural (no urban centres of at least 10,000 population)</td>
</tr>
</tbody>
</table>
3.2 Policy LTP PD 1.1 – Gloucestershire’s Bus Network

LTP PD 1.1 - Gloucestershire’s Bus Network

GCC will take appropriate action to develop and maintain a comprehensive bus network in-line with the standards set out in Table C above.

GCC will work with partners and communities to provide realistic opportunities for travel choice by bus for residents, employers, and visitors and promote them as an alternative to the car to encourage increased levels of use.

GCC will do this by implementing the following policy proposals:

- Work with transport providers to provide an appropriate level of service throughout the day, evening and at weekends to links communities with employment, education, health services, retail centres and social/leisure opportunities and enable connectivity between bus and rail services.
- Work with neighbouring authorities and bus operators to provide cross-boundary services to key local destinations outside the county.
- Where services cannot operate on a commercial basis GCC may choose to subsidise those which are socially necessary, subject to the funding available.
- Support linkages between urban centres on key bus corridors. For locations not served by these corridors, access should be to the nearest key settlement.
- Support Gloucestershire’s most vulnerable residents by providing the means for them to access the services they need including ‘Total Transport’ solutions.
- Develop the ‘Total Transport’ approach to utilise all appropriate forms of transport available in Gloucestershire before procuring individual transport solutions and encourage travel behaviour change.
- Encourage transport operators to invest in ultra-low emission vehicles and maintain the quality of their vehicles to ensure high quality bus fleet, VOSA compliant, has CCTV in operation, and where necessary on dedicated school & community bus services drivers must be DBS checked.
- Maintain the phased introduction of traffic signal based bus priorities measures at highway network pinch points.
- Deliver bus lanes and other bus priority infrastructure in alignment with Thinktravel cycling and walking objectives where this can be justified.
- Consider all overarching and mode policies need to taken into account alongside this policy.
3.3 Expected Policy Outcomes

3.3.1 The implementation of this policy will result in a fit for purpose and financially sustainable bus network that provides strong connections for Gloucestershire to allow everyone to benefit from economic prosperity and the social benefits that the bus network has the potential to provide.

3.3.2 The priorities for maintaining a functioning bus network include the following schemes:
- A40 bus corridor improvements, Cheltenham
- A438 / A46 bus corridor improvements, Tewkesbury
- A4019 bus corridor improvements, Cheltenham
- Interchange Hubs, both local and strategic
- Bus advantage improvements for Bruton Way
- Bus advantage at signals at Innsworth Lane and Oxstalls Lane

4.0 Improving the quality of road based public transport

4.1 Summary

4.1.1 Investing in Gloucestershire’s bus network is critical as poor bus connections, services and network efficiency undermines links between people, places and businesses. Improvement in bus priority measures and bus technology will not just improve bus journey time reliability, but also the efficiency of the highway enabling the bus to be a more competitive option when compared to the car. Maintaining the quality of the environment surrounding bus stops is equally important to encourage use and customer safety.

4.1.2 Though buses already have low carbon emissions per passenger, investing in an ultra-low emission vehicle fleet for all public and community transport services will reduce the impact on climate change further and also prevent buses from contributing to air quality problems.
4.1.3 There is an increasing understanding of the value of investing in bus technology in terms of raising awareness of services being provided and the ease of use when customers access services. The use of smart phone apps and Real Time Passenger Information (RTPI) and public transport apps will increase awareness and confidence in the reliability of services, whilst the introduction of multi-operator SMART ticketing can reduce the barriers for existing passengers and attract new ones. Some 99% of the county’s public service buses are equipped with contactless ticketing technology that has an influence on reducing barriers to bus travel, but 10% still have no contactless payment mechanism on bus. GCC will work with our major operators to seek to address this gap.

4.1.4 To affect change across all age groups, the focus must be on seamless transfer between modes and ease of payment where relevant. However, investment in digital technology to assist travellers must not exclude those without internet access and we actively encourage such people to use our libraries as the means of being able to do so.

4.1.5 Continued investment in bus infrastructure is also essential for a functioning bus network. Gloucester Transport Hub is a recent example of bus infrastructure investment through Local Enterprise Partnership that has dramatically transformed bus user’s experience, connecting rail and bus
interchanges, and making improvements for pedestrians and cyclists. The maintenance and upgrade of passenger waiting facilities providing RTPI, attractive shelters, clear stop flags and accessible information needs to continue to make bus travel an attractive travel option.

4.1.6 Investment in bus corridor improvements, which provide bus priority with bus lanes, bus priority signals and improved passenger waiting facilities, brings a number of benefits including reductions in congestion at pinch points in the highway network providing improved service reliability. The improvements also further enhance the attractiveness of using the bus service encouraging people to move away from the car.

4.1.7 It is important to have effective tools in place to help prioritise investment in the county’s bus network. The bus network standards (Table C) is one such tool that GCC is using. Bus network standards focuses on where investment is required by targeting investment on high frequency routes and identifying those areas that have limited service availability.

4.1.8 Housing growth areas should also be priority areas for investment. Failure to align transport investments with housing growth areas will lead to increased reliance on the road network to access employment and education, resulting in increased congestion, delays and carbon emissions. GCC Public and Community Transport Policy in regards to new developments is set out in the Overarching Strategy.
4.2 Policy LTP PD 1.2 – Improving the quality of road based public transport

LTP PD 1.2 – Improving the quality of road based public transport

GCC will encourage investment in public and community transport to increase patronage, improve safety and promote bus travel as a viable alternative to the car.

GCC will do this by implementing the following policy proposals:

- Work in partnership with local communities to maintain the quality of waiting facilities and their surrounding environment.
- Encourage transport operators to invest in ultra-low emission vehicles and maintain the quality of their vehicles to ensure high quality public and community transport fleet. To maintain the phased introduction of traffic signal based bus and cycle priority measures at highway network pinch points along strategic corridors.
- Maintain the phased introduction of Real Time Passenger Information systems where it is technically and financially viable to do so and; improving the quality of information provided at passenger waiting facilities, the Thinktravel website and other travel applications that may be provided through mobile phone based technologies. Real time displays will be prioritised for stops in market towns and interchange Hubs.
- Work in partnership with district councils, Highways England, the Local Enterprise Partnership, developers and Department for Transport to seek investment in the county’s transport network as funding opportunities arise.
- Work with our major operators to address the gap in contactless ticketing and help create seamless transfer between public transport modes.
- Reduce both actual and perceived risk to personal safety by encouraging the adoption by transport operators of safeguarding policies and improving public transport infrastructure by making it feel safe to use and visually appealing.
- Consideration of all overarching and mode policies need to taken into account alongside this policy.
4.3 Expected Policy Outcomes

4.3.1 The implementation of this policy will result in affordable and focused investment in the bus network that will increase the demand, accessibility, service quality and safety of bus travel in Gloucestershire.

4.3.2 The mix between investment and affordability will be tackled through maximising funding opportunities, prioritising investment via the Bus Hierarchy and the formal appraisal of bus investment schemes.

4.3.3 Our Integrated Transport Unit (ITU) work with key partners to maintain inward investment into local bus services. Going forward, the opportunities for funding will come from a greater range of sources and ITU will act as a central point of contact for discussions with developers regarding contributions and designs of their schemes.

4.3.4 The priorities for investing in the bus network include the following schemes:

- Ongoing bus infrastructure improvements to existing stops including the upgrade of facilities such as Real Time Passenger Information, bus shelters and information availability.
- Introduction of contactless payment mechanisms for remaining major bus operators to facilitate multi-operator SMART ticketing.
- Bus Corridor Improvements – Cheltenham – Gloucester via Churchdown.
- Bus Corridor Improvements Tewkesbury- Cheltenham.
5.0 Bus Priority

5.1 Summary

5.1.1 Gloucestershire continues to promote bus priority in terms of bus lanes and bus gates. These are primarily located within the Gloucester and Cheltenham districts and are the responsibility of GCC. An exception to this is the A40 (Highnam) bus lane, which was implemented by, and remains the responsibility of Highways England.

5.1.2 Bus lanes facilitate the movement of buses along congested routes, helping to maintain punctuality. They may also provide some advantage to buses over the car in terms of travel time, which can increase their attractiveness.

5.1.3 The use of bus lanes and the application of prohibition of driving orders are managed by Traffic Regulation Orders, but the effectiveness of these orders relies on enforcement. In the case of bus lanes there are two options, either the Police as it is a “moving violation” or by the use of Automatic Number Plate Recognition (ANPR) cameras operated by GCC. The latter can be difficult to administer if there are a large number of “other” vehicles permitted to use the lanes as they need to be included on a white list of exempted vehicles. ANPR is only currently used on “bus gates” within the county where the restriction is maintained to only permit local buses, taxis (hackney carriage, but not private hire vehicles) and pedal cycles. Clear signage is also important to ensure bus lanes are used appropriately.

5.1.4 Whilst there are clear benefits to extending the user groups that have access to bus lanes, it is clear there are a number of implications and safety issues that result from this. Consideration must be given to the interaction that all the exempted vehicles have on each other and also any pedestrian and bike movements adjacent to or across the bus lane. A review of other local authorities’ approaches to the use of bus lanes has found that there is no national or consistent approach, although the majority of authorities reviewed have tended to keep the use of bus lanes to local buses, taxis and pedal cycles only. Some authorities also allow motorcycles. A balance needs to be struck on the number of vehicles permitted to use bus lanes as the more vehicles permitted, the more chance for delays to be incurred by the buses that the lanes were intended to assist. Consideration of bus lane width can be a contributing factor to multi use of bus lanes.

7 There are limitations on how bus lanes and prohibition of driving orders can be signed so that they are compliant to TSRGD and therefore enforceable. There is evidence that when some drivers see other vehicles using a restricted lane they will do likewise unless the signs are very clear.
5.2 Policy LTP PD 1.3 Bus Priority

LTP PD 1.3 – Bus Priority

To manage and develop bus priority to facilitate the free movement of buses along congested routes, ensuring the safe movement of all highway users.

GCC will do this by implementing the following policy proposal:

- To consider locations where it would be beneficial to introduce further bus priority measures, including the removal of general highway capacity, in order to improve the attractiveness of public transport over the car.
- To restrict the use of bus lanes to the following users:
  - Buses and coaches
  - Taxis (Hackney carriage)
  - Private Hire Vehicles may be permitted to use bus lanes on county council maintained highways, where local circumstances allow and the impact on other users is minimal.
  - Pedal cycles
  - Emergency service vehicles
  - Motorcycles, where it is possible to provide a consistent route approach and following a robust risk assessment.
- Investigate appropriate multiple occupancy vehicle users of bus lanes.
- Use guidelines outlining where motorcycles could or could not be considered for exemption to using bus lanes.
- To adhere to the standard width of 4m for the implementation of new bus lanes where feasible, to minimise the risk of incidents with other road users. The minimum bus lane width should be 3m, where buses should follow a cyclist until there is space in the adjacent lane to overtake.
- The use of bus lanes will be managed by Traffic Regulation Orders and enforced by the Police or by the use of Automatic Number Plate Recognition (ANPR) cameras operated by GCC. Where Traffic Regulation Orders are broken by road users GCC will use a civil enforcement process to administer fines.
- Consider all overarching and mode policies need to taken into account alongside this policy.
5.3 Expected policy Outcomes

5.3.1 The implementation of this policy will develop the network of bus priority measures and maintain the efficient and safe use of bus lanes. The priorities for investing in bus priority measures are provided in the Delivery chapter.

6.0 Coach Travel

6.1 Summary

6.1.1 Long distance coach travel plays a key role in providing long distance road based Public Transport options and supports tourism into the county, particularly with day trips to Cheltenham and the Cotswolds.

6.1.2 The majority of long distance services, which provide an alternative travel choice to the car and train mainly for leisure and recreation purposes, are provided by National Express and Megabus, linking Gloucestershire with destinations such as Bristol, Hereford, the West Midlands and London and airports and rail connections to Europe and Ireland.
6.2  **Policy LTP PD 1.4 – Coach Travel**

**LTP PD 1.4 – Coach Travel**

GCC will work with coach operators to provide a reliable and efficient coach network that supports tourist day trips and connects communities, employment and services in Gloucestershire with key locations outside the county.

GCC will do this by implementing the following policy proposals:

- To work with coach operators to maintain and where possible enhance long distance coach travel to major urban areas outside the county and airport facilities in Bristol, Birmingham and London.
- To work with transport providers to provide an appropriate level of service throughout the day and at weekends.
- To improve connectivity between bus and rail services by allowing bus services longer waiting times at stations where feasible.
- To encourage transport operators to invest in ultra-low emission vehicles and maintain the quality of their vehicles to ensure high quality fleet.
- Consideration of all overarching and mode policies need to taken into account alongside this policy.

6.3  **Expected Policy Outcomes**

6.3.1  The implementation of this policy will enhance coach travel in and out of the county resulting in more travel choice available for long distance travel.
7.0 Community Transport including Voluntary Car Scheme

7.1 Summary

7.1.1 Community transport operates within the voluntary sector and plays an important role in filling gaps in services not provided by local buses and trains (the mainstream public transport network), as well as meeting the more specific needs of particular groups or individuals in the community. It includes the provision of transport for those unable to use conventional bus services, such as through dial-a-ride or volunteer car services. Minibuses may also be available for community groups to use for outings. Some operators also provide local bus services that are open for all to use.

7.1.2 There are several community transport organisations, usually charities in their own right, across the county that focus on meeting needs in their areas. Some schemes collaborate with others to achieve economies of scale or to improve their visibility. The Forest Routes initiative jointly promoted provision and achieved mutual assistance amongst community transport providers within the Forest of Dean.

7.1.3 GCC provides £0.5 million per year in annual grants to support community transport providers, as this is often the last line of access to public transport for vulnerable people. There may be opportunities to protect and enhance community transport through a Total Transport approach. The Thinktravel Total Transport portal will bring community, voluntary and public transport together under one platform, making accessible transport available to a wider audience, that previously have not considered these options as a travel choice. This could include better integration of the funding and delivery of patient care transport, demand responsive community transport services and car or lift-share schemes. There is a need to clarify the training and permit requirements for those providing shared services.

7.1.4 The Department for Transport (DfT) has been consulting on “The use of section 19 and section 22 permits for road passenger transport in Great Britain”. The consultation sets out why and how they propose to amend legislation and guidance about who can operate public service vehicles (PSV) without a PSV operator licence, using the system of permits set out in sections 18 to 23A in the 1985 Transport Act. The outcome following a consultation has been announced by the government.
Previously, the DfT and Driver Vehicle Standards Agency (DVSA) took the view that holders of section 19 and 22 permits were exempt from the need to hold a PSV operators licence because they are either engaged in road passenger transport services exclusively for non-commercial purposes or their main occupation is not being a road passenger transport operator. The term "non-commercial" was equated to "not-for-profit" and it was assumed that permit-holders would not compete with PSV licence-holders. However, following a legal challenge, these assumptions are no longer sustainable and, as a general rule, if a transport service is provided in return for payment, it should be treated as commercial, even if the organisation providing it operates on a not-for-profit basis.

Since the Transport 1985 Act, some not-for-profit permit-holders have expanded and now compete actively with profit-making PSV licence-holders, particularly for local authority contract work. The Government has consulted on how to clarify domestic law and guidance to ensure fair competition for commercial contracts and greater clarity for operators about their legal obligations. It proposes to amend the 1985 Act to clarify that permits may only be granted to, and held by, organisations that meet one or more of the exemptions set out in the Regulation.

The Government has no plans to end the permit system.
7.2  Policy LTP PD 1.5 – Community Transport

LTP PD 1.5– Community Transport including voluntary car schemes
GCC will support those with limited travel choice and local communities to develop innovative responses to local transport need.

GCC will do this by implementing the following policy proposals:

- Develop the ‘Total Transport’ project to strengthen the community and voluntary transport offer to a wider user base.
- To work with community transport providers including voluntary car schemes to deliver a step change in the way community transport is perceived, used and delivered in Gloucestershire, particularly in rural areas
- To work with public transport operators (Bus, Community Transport and Rail) to encourage service timetables which complement one another, where it is operationally feasible
- To encourage communities to recognise the role of Community Transport when writing their Neighbourhood Development Plans.
- To monitor developments form the DfT with regards to the section 19 and 22 permit issue and to support community transport providers were possible.
- To encourage transport operators and voluntary car schemes to invest in ultra-low emission vehicles and maintain the quality of their vehicles to ensure high quality fleet.
- Consider all overarching and mode policies need to taken into account alongside this policy.

7.3  Expected Policy Outcomes
7.3.1  The implementation of this policy will result in an enhanced role for community transport type schemes within Gloucestershire, in particular by providing better access to rural areas where subsidy levels for conventional bus services are too high and providing more accessible services for all.
7.3.2 The priorities for delivering a strong and engaged Community Transport offering to those with limited choice include the following initiatives:

- Providing support towards the delivery of passenger transport in partnership with local communities to maintain their quality of life
- Work with internet providers to improved broadband connectivity to increase awareness of Thinktravel initiatives, travel information and service delivery
- Advice and training for local communities regarding community transport permits and service planning

8.0 Transport Interchange Hubs

8.1 Summary

8.1.1 Gloucestershire has plans to move towards an interchange model, which is multi-modal and encompasses car share, community transport demand responsive services, bus, rail and bike interchange facilities. These Interchange Hubs will support housing growth pressures, urban traffic congestion, carbon emissions and rural transport challenges.

8.1.2 Transport Interchange Hubs are the future new model to replace existing Park & Ride facilities and consider additional locations. These hubs should be located on strategic rail or bus corridors where existing commercial super high frequency services (core super routes) and frequent services (high frequency) are in place. In addition, Strategic Interchange Hubs will become a vital transport strategy at interchange points on the highway network, e.g., at motorway junctions, such as M5 J10 & J12 where the opportunities to remove traffic from the highway network is greatest and the potential to attract commercial bus services is viable in the long-term.

8.1.3 The Interchange Hub model has potential to provide commercially viable facilities, which attract business rates and other maintenance charges, resourced through parking charges and third party contributions and commercial operator contracts, such as development, private sector, public transport operators.

8.1.4 Transport Interchange Hubs identified in Figure B will:
Identify Core Super Routes. This will be based on the Core Super Routes identified on the below map (though further Core Super Routes in the urban centres of Gloucester and Cheltenham will also be identified).

Support bus priority along high frequency and core super routes.

Support the implementation of Interchange hubs at all train stations and existing P&R sites as well as at a number of additional locations. These Transport Interchange Hubs will be multi-modal, providing interchange between rail stations, conventional bus services, demand responsive transport options, and active modes of transport.
Figure B – Transport Interchange Locations (incl. proposed)
8.1.5 Transport Interchange Hubs will allow people to undertake their journey part-way by car, transferring to sustainable modes of transport to their final destination. Interchanges Hubs can provide connectivity with inter-urban and rural communities, link demand responsive services such as community transport with public transport and active travel opportunities for improved connectivity to a wider transport user group.

8.1.6 Existing site facilities will be reviewed as part of the overall policy update and opportunities for new sites will be considered subject to; existing commercial high frequency bus corridors ‘core super routes’ in the medium term, satisfactory business case and support from the local planning authority. Very high frequency bus corridors serving Transport Interchange Hubs should prioritise the provision of bus priority measures to enable competitive journey times and the long term viability of hubs. Interchange facilities should ideally include upgraded passenger waiting facilities, Real Time Passenger Information, safe and secure parking for cycles, accessible parking, electric vehicle charging and good quality cycling and walking access, segregated where necessary.

8.1.7 Transport Interchange Hubs and Local Interchange facilities link with parking policies, as it provides additional parking for people travelling to town centres to that already available at those destinations. Consequently, Interchange parking needs to be managed alongside town centre off-street and on-street parking facilities, in terms of overall capacity, charging and parking duration.

8.1.8 To ensure that strategic Transport Interchange Hubs and Local Interchange facilities are as attractive as possible, the transfer between modes needs to be quick and straight forward, therefore buses need to be frequent. Equally, the provision of bus priority measures along the route would encourage people to see the benefit of using the bus rather than the car.

8.1.9 Local Interchange Hub facilities differ from strategic hubs in so far as they don’t have dedicated car parking constructed and maintained by the county council, but are likely to be located near smaller parking facilities, utilising existing private or on road parking facilities. Figure B illustrates the bus routes where multiple Local Interchange Hub facilities could be considered, subject to a feasibility assessment. Local Interchange sites also provide an opportunity to encourage increased levels of physical activity amongst transport users by providing cycle parking facilities and some may also be located near cycle routes where sufficient transport demand and commercial viability exists.
8.2 Policy LTP PD 1.6 – Transport Interchange Hubs

LTP PD 1.6 – Transport Interchange Hubs

GCC will work with our partners to provide realistic opportunities for travel choice for residents, employers, and visitors through the delivery of Strategic Transport Interchange Hubs and Local Interchange facilities.

GCC will do this by implementing the following policy proposals:

- Strategic Transport Interchange Hubs are defined as located on, or have the potential to attract, very high frequency transport corridors ‘core super routes’ and having significant parking for cars and bikes.
- All railway stations should be enabled to fulfil interchange hub functions for maximum integration with all modes and onward connectivity.
- Local Interchange Hubs are defined as on residential roads or situated on dedicated cycle routes or near private car parking where sufficient demand and commercial viability exists. Some local Interchange Hubs may be focused on interchange between public transport and active travel modes only, without the provision of dedicated car parking.
- Transport Interchange Hub facilities should ideally include upgraded passenger waiting facilities, Real Time Passenger Information (RTPI), electric vehicle and bike charging points, safe and secure parking for cycles and accessible car parking, along with fit for purpose and safe segregated good quality cycling and walking accesses.
- Work with local planning authorities, communities and developers and bus operators to identify Strategic Transport Interchange Hub facilities located on existing very high frequency commercial ‘core super routes’ bus corridors, or have the potential to attract very high frequency routes, which encourage mode transfer onto a bus for part of the journey.
- Where developer funding can be gained towards such sites the county council will take a lead role in ensuring facilities and infrastructure can be established to help to mitigate traffic growth.
- Continue to promote and where necessary work towards the further development of existing commercially operated Strategic Transport Interchange and will consider opportunities for new sites, subject to a satisfactory business case and support from the local planning authority.
- Seek third party funding to support the construction and maintenance of new Strategic Transport Interchange Hubs and endeavour to identify
locations that ensure that the bus service has potential in the medium term to be operated on a commercial basis.

- High frequency bus routes serving Transport Interchange Hubs should be prioritised for the provision of bus priority measures.
- Support multi-modal integration at Transport Interchange Hubs with demand responsive transport options, as well as walking and cycling infrastructure where viable.
- Work with district councils to align on and off street parking policies and tariffs in central areas to encourage the use and viability of interchange hubs and to support measures to improve air quality in urban areas.
- Work towards the provision of Local Interchange Hub or similar in all town centres for integration with all modes and wider connectivity.
- Consider all overarching and mode policies need to taken into account alongside this policy.

### 8.3 Expected Policy Outcomes

8.3.1 The implementation of this policy will result in more integrated travel choices for transport users through the availability of strategic and local interchange facilities. These sites will offer more financially secure services, the ability to encourage increased levels of physical activity through the promotion of active travel and infrastructure connections to/from sites, support demand responsive services, and a greater opportunity to reduce the number of private vehicles in urban areas, with the associated benefits for the environment and journey travel times.

8.3.2 Priorities include the delivery of strategic and local interchange facilities located on existing very high frequency routes ‘core super routes’ and high frequency routes, respectively. New interchange hub schemes are subject to feasibility studies and site prioritisation will be based on capacity, likely mode transfer and bus frequency.

8.3.3 Existing strategic interchange sites will continue to be developed and improved by GCC, with the long term aim of reducing financial subsidy, without undermining the frequencies and facilities. Any new strategic interchange sites will need to demonstrate their commercial viability.
9.0 Communicating Travel Information

9.1 Summary

9.1.1 Information enables individuals to make decisions about how and when they travel. A key challenge for public transport in the county is finding ways to improve people’s access to information about what travel options are available to them. Mobile digital connected platforms are providing bus information in real time to many more bus users. Thinktravel provides access to bus timetables and journey planning, reference to the Thinktravel – Influencing Travel Behaviour policy (LTP PD 0.6) is contained in the Overarching strategy.

9.1.2 GlosTalk is a mobile phone App designed to assist any one who needs to access bus information within Gloucestershire. It provides clear, reliable and accurate information about bus services, in both text and audible format. GlosTalk is designed to deliver seamless travel choices within Gloucestershire while on the move.

9.1.3 The availability of good quality travel information is fundamental in supporting the use of buses and enabling travel choice. A lack of information can lead to a reliance on private transport modes increasing demand placed on the highway network. The LTP objective on information is to provide clear and accurate information on services for passengers through a variety of mediums, reaching every individual in every location. The main challenges to meeting this objective are being able to provide information (access) in a range of ways, both before and during the journey and ensuring all information is comprehensive and straight forward to interpret (clarity).
9.1.4 There is a significant opportunity to incorporate technological advances and Intelligent Transport Systems (ITS) into the fabric of the transport network, particularly in the Central Severn Vale. Using systems such as linked intelligent signals, advertising information displays and a live travel information feed through the Thinktravel website would all serve to allow better use of the existing network to be made.

9.1.5 Real Time Passenger Information (RTPI) is an electronic information system which provides expected arrival time and destination of next bus. It is provided on a range of electronic media including phones and displays at bus stops and stations. RTPI has the potential to increase public transport use through the highly visible promotion of service updates direct at bus stops aiding an individual’s decision making process to wait and use a bus.
LTP PD 1.7 – Communicating Travel Information

GCC will provide clear and accurate travel information on services for passengers through a variety of outlet mediums, reaching every individual in every location.

GCC will do this by implementing the following policy proposals:

- To encourage public and community transport operators to use the Thinktravel website (www.thinktravel.info) to provide up to date information on fares and services.
- To optimise the use of RPTI by ensuring existing displays are located in key stops and interchanges, to add to this network of displays where financially and technically feasible, and to continue the support of mobile based technologies, such as GlosTalk, for those with access to them.
- To support GlosTalk mobile application and develop the Total Transport platform to extend travel options to a wider audience.
- To support the marketing of bus services and ticketing options for journeys within travel corridors where there is a greater propensity to influence travel choice.
- To ensure accurate service availability, timetable information and location information is available at all bus stops and railway stations within the county and through the Thinktravel website (www.thinktravel.info). And explore the use of social media to disseminate information using the Thinktravel brand and provide it in a variety of formats to meet customer expectations.
- Consider all overarching and mode policies need to taken into account alongside this policy.

9.3 Expected Policy Outcomes

9.3.1 The implementation of this policy will provide comprehensive yet simple information about journey times, reducing information as a barrier to public transport and community transport use in Gloucestershire.
9.3.2 The priorities for securing a robust bus travel information system include the following schemes:

- Enhanced passenger waiting facilities including RTPI at bus stops in market towns and interchange hubs.
- Simplify bus travel information through real-time applications such as GlosTalk and website portal Thinktravel.
The policies set out in this document will be delivered through the implementation of the associated proposals and, subject to funding, the schemes identified in the Connecting Places Strategies. These scheme priorities are also set out in a separate Delivery chapter addressing funding, monitoring, governance and review.
| Local Transport Plan  
| Policy Document 2 - Cycle |

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This strategy acts as guidance for anybody requiring information on how the county council will manage rail infrastructure and rail services in Gloucestershire up to 2041.

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Contents Amendment Record
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Gloucestershire’s Local Transport Plan (2015-2041) Policy Document 2 - Cycle

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1.0 Introduction

1.1 Introduction

Cycling supports each of the overarching economic, social, environmental and health objectives of the LTP. It can also provide a highly inclusive mode of transport across all abilities and ages. Economic benefits can be achieved with high benefit: cost ratios, as cycle schemes help meet cost savings through more efficient use of the highway network, and a cascade of knock-on health, environmental and economic benefits.

1.2 As part of the Government’s National Cycling and Walking Investment Strategy, local authorities are encouraged to develop Local Cycling and Walking Infrastructure Plans (LCWIPs). These plans should set out a prioritised long term investment strategy, which will deliver an increase in the number of cycling and walking journeys, with a particular focus on people who do not currently walk or cycle. GCC intends to produce a number of area-based LCWIPs, the first of which is for the Central Severn Vale area, covering Cheltenham and Gloucester (Figure D).

1.3 These LCWIPs will support the delivery of infrastructure supplementing the Countywide cycle desire lines identified in this chapter. Whilst evidence indicates that dutch-type levels of investment could lead to 20-24% of all commute trips being made by cycle in Gloucestershire, areas targeted for investment will be those which may exhibit good levels of cycling now, but, importantly, which have the potential to harness increased cycle flows due to a high latent demand. The DfT Propensity to Cycle Tool reveals that the potential for cycling to increase mode share is particularly high in parts of Cheltenham and Gloucester and especially under a scenario where dutch levels of investment are applied.

Of course, real increases in cycling cannot be sustained through only investing in parts of the network where potential is high as people’s cycle journeys are complex and mix using major cycle corridors with the fine grain of permeable neighbourhood networks. However, evidence shows that creating high quality spinal networks into which other networks mesh can recoup huge increases in cycle flows as a percentage of all modes.

1.4 Cycling investment should cater for people of all ages and abilities, including people who do not currently cycle. Gloucestershire’s ‘Thinktravel’ initiative aims to inform, educate and inspire people to make journeys in a smarter, more sustainable way, including cycling. The Overarching Strategy sets out the policy on Influencing Travel Behaviour (PD 0.5).

1.5 Land use planning also has a major bearing on both the need to travel and how people choose to travel. As set out in the Overarching Strategy (see LTP PD 0.2), integrating new development therefore provides an excellent opportunity to create better cycling opportunities and travel practices by overcoming barriers and improving connectivity.

Table A outlines the expected outcomes of the Cycling Policy Document and linkages to the overarching LTP objectives.

**Table A – Expected outcomes from Cycling Policy Document**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Expected Outcomes</th>
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| Protect and enhance the natural and built environment | • Reduced transport derived carbon emissions  
• A reduction in solo car use, and an increased uptake of sustainable transport modes (walking, cycling and public transport)  
• Transport schemes are designed to reduce the adverse impact of transport on Gloucestershire’s high quality natural, built and historic environments |
| Support sustainable economic growth                | • Gloucestershire is a place to do business and attract investment  
• The transport network is reliable, fit for purpose and demonstrates value for money  
• Increased journey time reliability  
• A transport network resilient to extreme weather events  
• A thriving tourist industry which benefits from ease of access to the county’s natural, built and historic environmental assets |
| Enable safe and affordable community connectivity  | • Individuals benefit from economic prosperity and social benefits, such as access to employment, education and training  
• An integrated transport network which provides genuine transport choices for people of all ages and abilities  
• A transport network which provides individuals with the confidence that they are safe |
| Improve community health and wellbeing and promote equality of opportunity | • Less car trips resulting in fewer journey delays  
• Increased number of walking and cycling trips  
• Improved air quality  
• A healthy more active population (addressing obesity and associated conditions)  
• Inclusive form of transport |

### 2.0 Summary of Evidence Base

#### 2.1
Research undertaken for the Department for Transport (DfT) into the value of cycling\(^2\) sought to quantify the health, economic and environmental benefits of cycling. Some of the highlighted benefits are listed below. Furthermore, investment in walking and cycling seems to offer good returns. The low costs and significant benefits of walking and cycling schemes mean that they offer high benefit-cost ratios of up to 19:1\(^3\).

- Cycle friendly environments promote more physical activity in later life  
- Children who cycle are more attentive and achieve better results in their education  
- Well designed infrastructure facilities more cycling by a wide section of the community, including more women and people with disabilities  
- A typical cycling city could be worth £377 million in healthcare cost savings  
- Cycle parking delivers 5 times higher retail spend than the same area of car parking  
- Compact town centres that are optimised for walking and cycling have 2.5 times higher retail spend per unit area than traditional towns

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\(^2\) Fiona Raje & Andrew Saffrey: The Value of Cycling (2016)  
\(^3\) A. Davis, Value for Money: An Economic Assessment of Investment in Walking and Cycling (2010)
2.2 The 2011 Census records a greater percentage of cycle to work trips in Gloucestershire (5.3%), compared to the national average in England of 2.8%, as illustrated in Figure A. The share of cycle trips is particularly high in the Central Severn Vale and Tewkesbury Connecting Places Strategy (CPS) areas, where more cycle infrastructure is available. In Cheltenham cycle to work figures accounts for 7.2% of all journeys taken. Whilst wards, such as Tewkesbury Newtown, exhibit high cycle to work trip levels (over 9%). Figure B illustrates the county’s cycling hotspots in red.

2.3 Much of the county’s population is within reach of facilities, jobs and education by bike from the point of view of distance (up to 5km). Reducing physical or psychological barriers to cycling, and encouraging greater numbers to consider cycling, is fundamental to this policy document. The focus of investment in cycling during the LTP period will be in the more developed areas and especially where new development is to be allocated through local development plans.
2.4 Utility cycling (i.e. cycle trips with a purpose, such as for work or education) in rural areas is less likely to occur than in urban areas, which are more densely populated and where destinations are closer. Nevertheless, utility trips between communities and from rural areas into urban centres contribute to LTP objectives. Recreational cycling can benefit Gloucestershire’s local economy especially in rural areas. Where practicable, opportunities will be taken to maximise the benefits of both utility and recreational cycling when delivering inter-urban measures such as elements of the National Cycle Network (NCN).
Figure A - Cycle to Work Levels across Gloucestershire (2011 Census)
Figure B - Cycle to Work hotspots across Gloucestershire (2011 Census)
2.6 National government pilot programmes have demonstrated that growth in cycling can be achieved through focused investment in both infrastructure and ‘soft’ measures such as cycle-training. As an example, during the three-year Cycling Demonstration Towns programme\(^4\) cycling levels across the six towns within the trial showed an overall increase of 27% compared with their 2005 baselines\(^5\).

2.7 Given their inherent advantages of relatively flat, compact urban areas, Gloucester, Cheltenham and Tewkesbury could potentially achieve similar levels of growth, given sufficient support and funding (although it may be noted that they already exceed the cycling levels of some comparable towns). This would contribute to the capacity of the local transport network and accommodate increased transport demand generated by ambitious growth proposals through the Joint Core Strategy.

2.8 Gloucestershire has a track record for the successful delivery of behaviour change programmes, evidenced by the Thinktravel programme which, funded through the Government Local Sustainable Transport Fund (LSTF), delivered a range of successful projects between 2012-2017 in education, job centres, training providers, businesses, and in communities to encourage mode shift and reducing air pollution in Gloucestershire. It also made a major difference to accessing education, employment and training:

- Bike IT Plus (Schools 2012-16) – 64% of pupils engaged in the project for over 2yrs travel actively to school, 5% reduction in pupils travelling to school by car\(^6\)
- Journeys to Jobs (2016-17) – 400 people benefitted from bus & bike vouchers\(^7\)
- Business Engagement (2016-17) – 50% of staff encouraged to cycle to work (West Cheltenham Business Survey)\(^8\)
- Thinktravel CIC Toolkit (2016) – Legacy online toolkit for business, communities and schools
- Thinktravel website (ongoing) – Legacy online resource for all sustainable travel options

2.9 The study ‘Changing Travel Behaviour Scoping Exercise’, produced in 2013 as part of the Local Sustainable Transport Fund (LSTF) programme for Cheltenham and Gloucester, identified scope for increased cycling. In particular, it highlighted educated suburban families and young urbanites without cars as being those with the greatest propensity to change travel behaviour. Transport for London came to similar conclusions\(^9\).

\(^4\) Valuing increased cycling in the Cycling Demonstration Towns DfT and Cycling England 2009
\(^5\) Analysis and synthesis of evidence on the effects of investment in six Cycling Demonstration Towns DfT 2009
\(^6\) Bike IT Plus Gloucestershire Final Report 2015-2016
\(^7\) Gloucestershire’s Thinktravel Smarter Choices Final Report 2017
\(^8\) Gloucestershire’s Thinktravel Smarter Choices Final Report 2017

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2.10 With cycling (including e-bikes and other low-carbon alternative) becoming more popular, there is an increasing opportunity for cycling to also appeal to harder to reach groups. For example, people living in areas of Gloucestershire that are hilly, or those enjoying ‘comfortable maturity’ that belong to a group which can reap the greatest benefits in terms of health and independent living. Another important group is women; nationally, males are more likely to cycle to work than females (3.9% of male workers compared with 1.6% of female workers). Targeting those less inclined to cycle can be as valuable as encouraging those who are more willing to cycle, and can be a key determinant of significant mode shift towards cycling and ‘tipping points’ (where a modest rise in cycling levels suddenly gathers pace).

2.11 Another approach, advocated by Cycling England, concentrates activities around ‘hubs’ with a focus on the three Ps: People, Place and Purpose. A hub need not be a physical place devoted to cycling; it might be a programme that encourages cycling to school. The People are the students; the Place is their school; and the Purpose is health and more sustainable trips to school. Other hubs could comprise workplaces, public transport interchanges, health programmes or shopping centres. In such ways, not only are the easy wins captured, but also those segments of the market that are more difficult to reach.

2.12 The benefits of cycling contribute to a reduced need for public expenditure directly, in terms of decongestion of the road network, and, indirectly, in terms of the costs to society of poor health and wellbeing due to sedentary lifestyles. This fundamentally supports not just transport demand management, but wider service demand management, especially in relation to social care. Cycling is key to preventative investment.

2.13 It is well recognised that the best opportunities to encourage cycling are at life stage changes, when new habits are formed. These include changing schools or jobs, issues affecting health and mobility, reduced access to a private car or moving to a new house. Travel Plans that frame these junctures in people’s lives can aid changes in travel behaviour in favour of more sustainable modes such as cycling.

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9 Analysis of Cycling Potential Tfl 2010 identifies the segments with the greatest propensity to cycle as being ‘Urban Living’ (young, professional city dwellers who travel more than average but have low levels of car ownership, driven by lifestyle choice rather than income), ‘High earning professionals’ and ‘Young couples with families’. Note, according to this study, young couples have little in common with the two other segments. This demonstrates the need to target interventions according to local needs.

10 “Frequent cyclists are typically white, male, between 25 and 44 on a higher than average income” – these groups, and people like them, still have a substantial potential for growth. But “much of the potential comes from women, ethnic minorities, younger and older people, and those on a lower income” Tfl 2013

11 Census 2011 – analysis of method of travel to work by gender
2.14 A previous LTP consultation revealed significant support for cycling in both urban and rural Gloucestershire. Issues highlighted included:

- Cycling is an important mode in Gloucestershire for existing and potential cyclists, as well as those who do not wish to cycle but understand its value to wider quality of life objectives.
- There is significant support for segregated cycling provision. For example, 79% of women would like to see more protected cycle lanes even if this means less space for other road traffic. This may be seen as controversial as the presumption is in favour of providing for cyclists on carriageway with other traffic unless traffic volumes and speeds preclude this. However, in the light of this response there needs to be closer consideration of the role of segregated cycling facilities, particularly in the vicinity of schools, colleges and land uses which may generate a high cycle trip demand. Gloucestershire County Council’s Walking and Cycling Network Report (2018) highlights the growth in cycle use on segregated routes. For example, a 70% increase has been recorded on the Honeybourne Line in Cheltenham since 2010 and 24% along Metz Way in Gloucester.

- Desire to see more integration between cycling and other modes to allow journey versatility and easier ‘seamless trips’. This document picks this up with its proposal for local, integrated, interchange hubs contained in the Public & Community Transport Policy Document (PD1) Bike carriage on buses and trains should also be encouraged.

- In rural areas, there is significant potential for leisure and tourism cycling to benefit the local economy whilst having important spin off benefits for utility travel between the smaller settlements as the electric bike market grows. UK cycle retailer has forecast an increase of 30% in e-bike sales in 2020.

70% Increase in cycling

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12 Sustrans: Bike Life - Women: Reducing the gender gap (2018)
13 DfT Local Transport Note no. 2/08
14 GCC historic loop counter data (2010-2017)
3.0 Gloucestershire’s Cycle Network

3.1 Summary

3.1.1 Cyclists are highway users and, when on the carriageway, they are traffic. It is important to recognise that the whole of the highway network, outside of parts of the Strategic Road Network managed by Highways England, is the cycle network. The reality however, is that some roads, junctions or roundabouts create barriers to cycling movement and deter higher levels of cycling. It is for this reason that the LTP seeks to create an established cycling network – not because cyclists should be confined to a network – but so that cycling movement can be enabled and promoted on all key desire lines, and especially where cycling is inhibited on the main transport movement corridors.

3.1.2 Figure C shows the county proposed strategic cycleway network of key cycle desire lines across the county. The aim is to link the main urban settlements and areas of housing and jobs growth through a combination of quiet ways and dedicated cycle facilities. Investment in cycle facilities will be targeted at these desire lines, with a view to complete sections of cycleway as opportunities arise and funding becomes available.

3.1.3 The priority section will be the Central Severn Vale from Bishops Cleeve to Gloucester. This serves the main population centres, where cycling levels are highest and links the main growth sites. The route also takes advantage of new links planned between Bishops Cleeve and Cheltenham Racecourse, the Highways England scheme along the A40 corridor and towpath improvements along the Gloucester and Sharpness Canal.
3.1.4 In addition to connecting the strategic county cycleway desire lines, the Local Cycling and Walking Infrastructure Plans (LCWIP) has developed cycle network maps for Cheltenham and Gloucester that set out; the strategic desire lines, the primary and secondary network (see Figure D). This is the starting point of a rolling programme of cycle route assessments for the county. This will help to meet the county’s carbon and health objectives.

3.1.5 Barriers to higher levels of cycling can be varied and complex; they may reflect physical barriers on the network or factors around safety, navigability or signing (for example). To understand this better the county council completed the ‘Barriers to Cycling Study’ (2014/15) identifying barriers across urban and some parts of the rural areas. This captured insights from local cyclists and culminated in a list of prioritised infrastructure investments\textsuperscript{16}.

3.1.6 The Barriers to Cycling Study also revealed support for segregated (off-carriageway) cycling provision, citing lack of off-road infrastructure as the most prevalent barrier to cycling, and improving provision for cyclists in rural areas. The information has framed cycle network priorities (the key corridors). It helped reveal which strategic gaps should be addressed, in order to create an effective cycle network. Similarly, Sustrans noted busy traffic in Gloucester, indirect routing between Gloucester and Cheltenham and the incomplete route with varying path widths beside the A40 in Cheltenham as part of its National Cycle Network Review in 2018.

3.1.9 As part of the development of the Local Cycling and Walking Infrastructure Plan (LCWIP) for Cheltenham and Gloucester, a number of proposals for improved cycling infrastructure have been identified and assessed, including the proposed cycle improvements either end of the Highways England cycle scheme between GCHQ, Cheltenham and Gloucester city centre. The LCWIP proposals then link the Highways England scheme to the canal towpath adjacent to the A430.

3.1.10 Additional external funding will be sought for the schemes identified in the LCWIP process and strategic cycle schemes, such as the Bishop’s Cleeve to Cheltenham cycle route improvements (Figure C). Other cycle schemes will be brought forward during the LTP plan period, as more priorities are agreed and opportunities arise through development or through the availability of funding for cycle infrastructure.

\textsuperscript{16} The study identified priorities for improved cycling infrastructure on six corridors: Cheltenham: Centre to A40 east and to A435 south corridor; Lydney: central area barriers; Stroud: central area barriers; Tewkesbury - A38/A438 junction to A38 south corridor to east of town; Gloucester: Outer ring road network linking Walls roundabout to Cole Avenue; Cirencester: A429 (south west) corridor and A417 (east corridor).
3.1.11 In providing new or upgraded cycle infrastructure there are a wide range of approaches which will reflect site and route specific conditions and opportunities. The DfT Cycling ‘Hierarchy of Provision’ (DfT Local Transport Note 2/08) advises that cyclists, as traffic, should first and foremost be on the highway and that means of slowing or reducing motorised flows should be considered before cyclists are directed to use on or off carriageway facilities. However, in its 2018 Inclusive Transport Strategy the DfT commits to reviewing the Local Transport Note 2/08. In addition, consultation for previous studies undertaken by GCC, reveal a high level of support for high quality shared use facilities where they confer real advantage to the cyclists (as well as removing them from roads shared with motorised traffic). There may be a need for a dual network, particularly in the vicinity of schools, colleges, major employment sites and population centres. This is relevant in the town of Tewkesbury, where cyclists can use both carriageway and segregated facilities for continuous and connected sections of route.

3.1.12 A blanket approach cannot be applied; for example, a key concept is ‘invisible infrastructure’ where, through careful street space design and management, there is no requirement for heavily engineered cycle-specific infrastructure. Cycle friendly streets, free of cycle specific infrastructure, can be interspersed with route segments which correspond with cycle lanes (on / off road), signage, cyclist priorities at lights, segregated routes, bus lanes, controlled crossing points and grade separated crossings. The end result needs to be a coherent network of good quality routes, which should help to make cycling more convenient and safe, such that it is a more attractive mode, inclusive for all.

**Figure C – Countywide Strategic Cycleway Network (desire lines)**

- Cycle desire lines linking primary areas of growth
- Cycle desire lines linking smaller settlements within the County
- Areas of growth - housing and jobs

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3.1.13 In developing cycle networks and infrastructure the following principles will be adopted (Figure E). This is taken from government guidance on developing LCWIPs\(^\text{18}\).

**Figure E – Principles of Cycle Network & Infrastructure Guidelines (DfT LTN2/08)**

- **Coherent**: The network should be coherent. It must link all the places cyclists want to start and finish their journeys with a route quality that is consistent and easy to navigate. Abrupt changes in the level of provision for cyclists will mean that an otherwise serviceable route becomes disjointed and unusable by the majority of potential users.

- **Direct**: Routes for cyclists should be direct and fast from origin to destination, at least as direct and preferably more direct than those available for motor vehicles, in order to make cycling preferable to driving.

- **Safe**: Cycle networks should improve cyclists’ safety and provide a safe environment to cycle on and through. Consideration should be given to reducing the speeds of motor vehicles to acceptable levels, particularly when cyclists are expected to share the carriageway. The need for cyclists to come into close proximity and conflict with motor traffic should be removed, particularly at junctions where the majority of incidents occur.

- **Comfortable**: Smooth surfaces, with minimal stopping and starting, without the need to ascend or descend steep gradients and which present few conflicts with other users, creates comfortable conditions that are more conducive to cycling. The presence of high speed, high-volume motor traffic affects both the safety and the comfort of the user.

- **Attractive**: Cyclists are more aware of the environment they are moving through than people in cars or other motor vehicles. The attractiveness of the route itself will affect whether users choose to use it.
3.2 **Policy LTP PD 2.1 Gloucestershire’s Cycle Network**

**LTP PD 2.1 – Gloucestershire’s Cycle Network**

GCC will deliver a high quality coherent, direct, safe, comfortable and attractive cycle network by improving cycle routes and reinforcing quiet highway connectivity.

GCC will do this by implementing the following policy proposals:

- Promote Gloucestershire’s cycle network through Thinktravel.
- Work with delivery partners, other agencies, and community stakeholders to identify and remove barriers (physical and psychological) and enhance to cycling.
- Improve cycle links between and within settlements throughout Gloucestershire.
- Focus investment in cycling in more developed areas and especially where new development is planned where the propensity is greatest.
- Recognise the role and function of the existing quiet lane network and seek to expand this where possible to provide safe cycle linkages.
- Ensure developers assess the needs of all pedestrians and cyclists within their development design and any improvements associated with the development.
- Ensure all cycle infrastructure will meet approved design standards; for example Manual for Streets (MfS), LCWIP and emerging DfT cycle design guidance and best practice, and as well as addressing the needs of those with mobility impairments.
- Ensure cycle routes are safe and form a continuous accessible network accessing town centres, residential areas, employment areas, and routes to schools.
- Ensure all schemes on the local highway network will be subject to appropriate context reports and audits (including the Countywide Cycleway, LCWIPs, green infrastructure pledge, road safety, non-motorised users, walking, cycling and quality audits) before design approval.
- Support the development and promotion of the leisure cycle network and Public Rights of Way network in order to encourage greater use, linking both communities and leisure attractions, including findings from the latest National Cycle Network Review.
- Work in partnership with communities in identifying local transport needs and solutions (such as through Parish and Neighbourhood Plans, Travel Plans, JCS, health & wellbeing strategies and plans).
- Work with district and borough councils to ensure that new development is well connected to the existing transport network and walk, cycle and mobility friendly.
- Ensure development sites connect to the strategic and LCWIP desire lines
- Consider all overarching and mode policies need to taken into account alongside this policy.

3.3 Expected Policy Outcomes

3.3.1 This policy will seek to improve the cycle network by
- Utilising opportunities as they arise
- Responding to safety requirements
- Identifying and addressing barriers to cycle movement

3.3.2 The implementation of this policy will focus on the delivery of physical infrastructure providing more segregated routes for cyclists, together with ‘soft’ measures to promote cycling as a feasible and attractive mode of travel. A key policy outcome will be greater connectivity within and between communities at reduced social and economic cost, including improved access to schools and employers.

3.3.3 The priorities for further developing a functioning cycle network are demonstrated in Figure F and listed in the Delivery chapter.
Figure F – Gloucestershire Cycle Scheme Priorities

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4.0 Cycle Asset Management

4.1 Summary

4.1.1 The maintenance of the carriageway and segregated cycle routes contributes to cycle safety. Cyclists are disproportionately affected by debris in the gutters, where they may need to take up their road position, and the prevalence of potholes, which can present serious safety risks. Similarly, issues of standing water and surfacing materials all impact directly on cyclists. Not only are cyclists interested in the maintenance of the highway asset, they will be affected by the maintenance schedule that is applied to the main, secondary and tertiary transport networks.

4.1.2 The maintenance of the cycle network is dependent on various factors. As the network consists of highway, shared use footways and bridleways, as well as bespoke cycle routes, it needs a co-ordinated approach to maintenance across all these assets. Developing an asset management plan only for bespoke routes would have little value (although these do need to be maintained and footway and cycle track lifecycle planning needs to be considered). Some of the best and most frequently-used cycle routes do not include much, if any, cycle infrastructure. This is because they offer quiet, direct, cycle-friendly conditions through what is sometimes called ‘invisible infrastructure’ or simply through traffic-restricted side streets.
4.2 **Policy LTP PD 2.2 Cycle Asset Management**

**LTP PD 2.2 Cycle Asset Management**

GCC will manage cycle infrastructure in line with the Highways Asset Management Framework and other guidance or policies such as the Codes of Practice for Well Managed Highway Infrastructure.

GCC will do this by implementing the following policy proposals:

- Work with the Highways Maintenance supplier to deliver the works and services outlined in the Transport Asset Management Framework.
- Manage the street lighting network to minimise environmental impact without compromising on road safety and personal security.
- Continue to deliver the GCC ‘Highways Local Initiative’ where local members (county councillors) can prioritise the delivery of highway services that deliver cycle improvements measures for the community.
- Ensure promoters of new transport schemes comply with the Enhanced Materials Policy (MFGS) whereby appropriate materials are specified and the full costs of implementation and future maintenance are factored into the scheme budget.
- Regularly review the winter maintenance and vegetation clearance procedures and policies and in line with the Gloucestershire Highways Biodiversity Guidance or subsequent guidance.
- Work with partners to maximise investment in the county’s cycle network as funding opportunities arise. This will include working in partnership with the Local Enterprise Partnership, district / borough councils, Parish and Town Councils, developers, Sustrans, Gloucestershire Local Nature Partnership, Highways England, and Department for Transport.
- Follow green infrastructure principles in the design, maintenance and operation of cycling infrastructure as set out in the Gloucestershire Green Infrastructure Pledge.
- Deliver cycle path maintenance works outlined in the Transport Asset Management Framework.
- Ensure development sites contribute towards the improvement of the strategic and LCWIP desire lines.
- Consider all overarching and mode policies need to be taken into account alongside this policy.

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19 [www.gloucestershirenature.org.uk/green-infrastructure-pledge](http://www.gloucestershirenature.org.uk/green-infrastructure-pledge)
4.3 Expected Policy Outcomes

4.3.1 The implementation of this policy will result in well maintained infrastructure, which offers significant and sometimes disproportionate benefit to cyclists. The above policies ensure that the factors affecting cyclist comfort and safety are addressed through LTP policy and the Transport Asset Management Framework.

4.3.2 The priorities for maintaining a functioning cycle network and cycle access improvements will be prioritised in line with GCC’s highway maintenance programme.

5.0 Active Travel: Safety, Awareness and Confidence

5.1 Summary

5.1.1 Cyclists may use the public highway, designated shared use paths and bridleways. However, due to perceptions, habits and genuine concerns many people are deterred from cycling.

5.1.2 About half the households in England own bicycles, but a much smaller proportion of households use them. Less than 2% of commuters (nationally) and 4.5% (in Gloucestershire) cycle to work\textsuperscript{20}. For cycling to be a credible alternative to other modes, better awareness is needed alongside physical infrastructure improvements. The Marketing Cycling Handbook\textsuperscript{21} makes this point well:

\begin{quote}
“It’s easy to think of persuasive arguments in favour of cycling. The challenge is communicating them effectively to the people who are most likely to try it for themselves. That means thinking, and taking action, at a local level”.
\end{quote}

\textsuperscript{20} National Census 2011
\textsuperscript{21} Marketing Cycling Handbook, National Cycling Strategy Board, 2004
5.1.3 There is a groundswell of evidence that shows that marketing and promotion increase levels of cycling. The LTP aims to increase the mode share of cycling with carefully targeted marketing and promotion, continuing under the Thinktravel banner that was established through the LSTF programme.

5.1.4 It is also necessary to address people’s safety concerns. Those who already cycle, or who are contemplating cycling for some of their trips, need to both feel safe and be safe. This can be supported through direct cycle and driver training and promotional material which emphasises behaviours and actions to promote safety.

5.1.5 Evidence indicates that there can be safety in numbers. The more cyclists that are present on the network, the more motorists anticipate them and adjust their speed\(^ {22}\). Cycling casualties are now around a third less than the 1994-98 average. At the same time, more people are cycling, with an increase of more than 10% since 2007-2008. If a cyclist is trained and behaves assertively their risk of injury reduces further. The LTP supports the provision of cycle training for both children and adults, including school and workplace training.

5.1.6 Children generally want to cycle\(^ {23}\). They are known to prefer to walk and cycle to school than be driven by their parents. Studies have shown that nationally only 2% cycle to school whilst 50% would like to\(^ {24}\). It is estimated that by 2050 with current trends, 70% of children will be obese\(^ {25}\). Encouraging active travel by walking and cycling to school is one way of tackling this challenge.

\(^{22}\) Strategic Environmental Assessment Environmental Report for Gloucestershire’s Third Local Transport Plan 2011-26 Appendix D: Effects on Human Heath January 2011

\(^{23}\) Nearly half of children surveyed by Sustrans in 2010 wanted to cycle to school but only 4% were allowed to.
5.1.7 Training school children to cycle safely will enable them to gain personal mobility and independence, improve physical and mental health and their social skills. It will help to embed cycling as ‘normal’ behaviour in later life. Adults too can benefit from cycle training. Offering suitable training as part of a workplace travel plan may encourage employees to cycle to work. Cycle training schemes are available to all primary and secondary schools in the county. They can also be directly booked for any adults or children. Training is provided to the national Bikeability standard.

5.1.8 Recent cooperation between Gloucestershire Police and GCC road safety team has included Operation Close Pass (persuading drivers to give cyclists room when passing), and speed awareness and enforcement campaigns.

24 Bike It review Sustrans 2010
5.2 **Policy LTP PD 2.3 Active Travel: Safety, Awareness and Confidence**

**LTP PD 2.3 Active Travel: Safety, Awareness and Confidence**

GCC will contribute towards better safety, security, health and thereby longer life expectancy by reducing the risk of death, injury or illness arising from journeys travelling by bike and other forms of transport. This will be provided by working with partners to improve personal safety perceptions of using the transport network services and promote the use of inclusive public transport and active travel options to contribute to enjoyment and psychological wellbeing.

GCC will do this by implementing the following policy proposals:

- Ensure a co-ordinated approach to road safety with partners that include proactive highway design guidance, delivery of reactive engineering solutions to highway issues, delivery of educational or campaign materials and support to assist in the monitoring and enforcement of traffic regulations.
- Reduce the rate of pedestrian and cycle casualties within Gloucestershire by providing an environment that reduces both actual and perceived risk to personal safety and enable more people to walk, cycle and be mobile everyday. The choice to walk and cycle is strongly influenced by the urban setting, for example in terms of available inclusive infrastructure, aesthetics and perceived safety.
- Deliver cycle path maintenance works outlined in the Transport Asset Management Framework.
- Developers identify, protect and exploit opportunities for cycle mode use through applying design principles including ‘invisible infrastructure’ whereby the spatial grain and layout invites slow speeds and direct route priority for active travel over other modes.
- Recommend the use of designated cycle routes where they provide attractive and safe alternatives to routes carrying high volumes of motorised traffic.
- Ensure children, young people and adults are equipped with knowledge, skills and training to become more confident cyclists.
- Work collaboratively with Gloucestershire Police, agencies and campaign groups to target young drivers, motorcyclists, distraction and alcohol and drug related driving in education programmes.
- Support communities to deliver local speed campaigns through the Safer Community Teams.
Introduce speed limits in accordance with the current national guidelines and prioritise them based on available evidence, including 20mph zones.

Investigate community based vehicle restriction zones that will benefit communities and protect vulnerable highway users from a safety and health perspective, during peak congestion periods.

Consider all overarching and mode policies need to taken into account alongside this policy.

### 5.3 Expected Policy Outcomes

5.3.1 The outcome of this policy will be to identify and address the factors that improve cycle safety, ranging from the design of hard infrastructure to marketing active travel modes. The use of training, promotions, and information will encourage people to improve their cycling (and driving) skills whilst making an informed choice about risk.

5.3.2 The main opportunities to improve cycle safety include:
- Bikeability in schools
- Workplace Travel Plans
- Station Travel Plans
- Personalised Travel Plans for new developments
- Thinktravel branded safety campaigns
- Reduced speed limits
- Joint safety campaigns with Gloucestershire Police
The policies set out in this document will be delivered through the implementation of the associated proposals and, subject to funding, the schemes identified in the Connecting Places Strategies. The scheme priorities are also set out in a separate Delivery chapter addressing funding, monitoring, governance and review.

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Local Transport Plan
Policy Document 3 – Freight

Version Draft Document
Last Revised NOVEMBER 2019
Review Date
Category Transport Planning
Owner Gloucestershire County Council
Target Audience Anyone wanting to find out about how the county council will manage public and community transport within Gloucestershire. This document specifically includes policies on:
  - Gloucestershire’s Freight Network
  - Journey Routing Information
  - Driver Facilities
  - Driving Better Practice
  - Managing deliveries in urban or other sensitive locations
  - Rail and Water Freight

This strategy acts as guidance for anybody requiring information on how the county council will manage freight transport in Gloucestershire up to 2041.
### Contents Amendment Record

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<th>Revision</th>
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1.0 Introduction

1.1 Introduction

1.1 The traditional view of freight is of heavy goods vehicles (HGVs) making large deliveries or carrying equipment and plant. However, in the context of the LTP freight is considered across a much wider family of movement, from mail deliveries on foot, through to a retail home delivery van, or from ‘white van’ courier and trade services by light goods vehicles (LGVs) through to the heavy goods which are traditionally thought about.

1.2 This spectrum of freight is expressed in Figure A. It provides examples of the full range of movement types needed to support Gloucestershire’s economy and to help it to grow sustainably.

1.3 Journey time reliability and freight routing are seen as being key issues. There will always be a primary freight network in place whose main function will be to get traffic from A to B in the most effective and efficient manner. However, this must be balanced to mitigate and effectively manage the impact of demand against community needs and the environmental impacts of freight transport. In line with Government and County ambitions, it is the aim of this plan is to decarbonising road and rail freight by 2050.

1.4 Gloucestershire’s road, rail and water-based assets are largely ‘fixed’ and making physical changes to the transport network can be very expensive. Whilst the LTP recognises critical strategic schemes to help Gloucestershire’s transport network, such as the A417 Missing Link, for the freight sector there is much that can be gained from smarter use of the existing network, including the use of technology-based and operational solutions.

1.5 Table A outlines the expected outcomes the Freight Policy Document and linkages to the overarching LTP objectives.
Figure A – Gloucestershire’s spectrum of freight demands

Table A – Expected outcomes from Freight Policy Document

<table>
<thead>
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<th>Objective</th>
<th>Expected Outcomes</th>
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<tr>
<td>Protect and enhance the natural and built environment</td>
<td>• Reduced transport-derived carbon emissions</td>
</tr>
</tbody>
</table>
| Support sustainable economic growth | • Gloucestershire is a place to do business and attract investment  
• The transport network is reliable, fit for purpose and demonstrates value for money  
• Increased journey time reliability  
• Greater economic activity  
• A transport network resilient to extreme weather events  
• Heavy Goods Vehicle movements are balanced between the needs of business and local communities |
| Enable safe and affordable community connectivity | • A business community which benefits from connectivity with local, national and international markets  
• Individuals benefit from economic prosperity and social benefits |
| Improve community health and well being and promote equality of opportunity | • Improved air quality  
• Better safety, security and health by reducing the risk of death, injury, noise or illness arising from transport |
2.0 Summary of Evidence Base

2.1 HGV average daily traffic flows in Gloucestershire between 2000 and 2017 have decreased by 7%, whilst LGVs have increased by 72% over the same period, illustrated in Figure B¹. The Freight Transport Association, Road Haulage Association, Federation of Small Businesses and other business networks advise that future logistics and servicing demand will arise from heavy freight movement but more significantly from independent traders and further “white van” expansion. In parallel, economic growth, particularly within the M5 and to a lesser extent the M4 and M40 corridors, means that demand for cross county and in-out county movements will continue to increase.

2.2 In 2018, 78% of adults bought goods or services online (Office of National Statistics). Online grocery sales accounted for 6.4% of the market. In the last year alone spending online in the UK increased by 15.3% and the latest road traffic estimates indicate van traffic increased by 4.7% to 49.5 billion vehicle miles in 2016². Given the national trend in the use of smaller delivery vehicles and the onset of home delivery services, this change in the mix of freight is to be expected and is likely to continue, demonstrated in Figure B.

Figure B - Gloucestershire Annual Average Daily Traffic Flow Profile 2017

¹ https://roadtraffic.dft.gov.uk/local-authorities/70
Gloucestershire’s Local Transport Plan (2015-2041) - Policy Document 3 – Freight

Gloucestershire - Traffic dataset

Other includes: *Pedal Cycles, Motorcycles, Buses /Coaches

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Figure C – Gloucestershire Annual Average Daily HGV Traffic flows by corridor (2012-2018)
2.3 The highway network in Gloucestershire acts as a crossroads for routes in the West of England and into South Wales. Gloucestershire is surrounded by eight other local transport authorities and bisected by the M5 and other strategic trunk routes. Many of Gloucestershire’s challenges arise from HGV movements originating from outside the county, particularly where drivers may not be aware of the optimum routing or local restrictions.

2.4 From the classified HGV traffic flows shown in Figure C, a number of strategic freight corridors across the county can be seen. Typically, freight vehicles account for between 1% and 9% of all vehicle movements. However, some communities experience higher proportions.

2.5 Vehicle flows only provide part of the story, as for some communities it is the proportion of freight vehicles that impacts upon daily lives. Nationally, lorries make up 5% of all traffic, motorways and A roads remain the largest carrier of lorry miles travelled (93%). In 2018 rural A roads carried 37%, an increase of 11.3% from 5 years ago, compared to rural minor roads which decreased by 10.5% in the same period. Longer term lorry trend relate to vehicles sizes, traffic for lorries with four or more axles was 87% higher in 2018 than 25 years ago. As a result more goods are moved by heavier HGV vehicles travelling fewer road miles.

2.6 Freight transport not only impacts on local communities, it also significantly contributes to transport derived carbon emissions. Better land use planning for freight is a core recommendation in the National Infrastructure Commission (NIC) report ‘Better delivery - the challenge for freight’ which calls on the government to decarbonise road and rail freight by 2050 and tackle the industry’s contribution towards congestion.

2.7 Government must provide long term clarity to the freight industry and commit to a common objective for road and rail freight to be zero emissions by 2050. Decarbonising road freight will make a difference, as HGVs and vans together contributed to 32% of the UK’s greenhouse gas emissions for transport in 2017. For HGVs, both battery electric and hydrogen are emerging as the most viable potential alternatives to diesel, with models expected to become commercially available from the early 2020s. Electric vans are emerging as a viable zero emissions alternative, but uptake has lagged significantly behind electric cars, with only 02% of the UK’s vans and 0.3% of new van sales being electrically powered in 2017.

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3 Road Traffic Estimates: Great Britain 2018
4 Road Traffic Estimates: Great Britain 2018

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2.8 While most technologies look likely to have marginal impacts on the freight system, robotics and automation, connected and autonomous vehicles (CAVs) could fundamentally alter the operation of freight in the UK. Such a major change in the structure of costs could mean significant change in the geography of the freight system, including the main ports of entry and exit.

2.9 Future freight demand will need to be accommodated by a transmodal model to include road, rail and port infrastructure along with demand for passenger transport in order to accommodate growth. Location of freight distribution centres on rail and water connected routes, not only on the strategic road network would encourage non-road freight and help reduce road congestion. Land use planning will play a key role in facilitating the greater use of rail, inland waterways and shipping up to 2050 and the encouraging the greater use of non-road modes to relieve pressure on the strategic road network.

2.10 Typically, once local routes off the primary network are used (which may be ‘B’ or ‘C’ roads inappropriate for freight use or ‘A’ roads with height and weight restrictions), there is reliance on satellite navigation systems and other technology which anecdotally has caused routeing problems for lorry drivers lacking local knowledge. This is one of the reasons why improved technological and operational management solutions form a key part of our ‘menu’ of measures.

2.11 Given the network constraints and pinch points beyond the county boundary, it is vital that journey time predictability and reliability is maintained across the strategic and primary road networks. This needs to be reinforced by information through appropriate information channels. Preservation of these routes will also be vital for other users, including express coach and bus operators, other public transport providers and the tourism sector.

2.12 To achieve sustainable growth, our freight network cannot be ‘fixed’ and needs to be able to respond dynamically to changes in development, traffic, spatial growth policies and changes in the way supply chains operate at a local and sub-regional level.

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3.0 Gloucestershire’s Freight Network

3.1 Summary

3.1.1 Goods need to get where they need to be, on time and at the lowest possible cost, but managed in a ‘place-sensitive’ manner. Journey time reliability and predictability is a key factor in ‘just in time’ logistics planning and will equally affect a business waiting for a delivery of specialist part through to a supermarket needing to replenish its shelves. Prioritising investment in maintaining journey time reliability on primary route corridors will facilitate this demand ensuring the focus is on those areas of spend which will give the most effective return, and which will support Gloucestershire’s businesses and overall economic growth. Equally, supporting transmodal freight facilities will allow for freight growth and a move towards carbon neutral target for transport by 2050.

3.1.2 There are a number of freight movements that have historically used lower specification “A” and “B” roads as opposed to use of the strategic road network. For this reason, the LTP has identified key routes whose primary purpose will always be the movement of high traffic volumes. When considering the identification of these routes consideration has been given to routes which are under pressure, particularly where this impacts on the quality of place, air quality and accessibility for vulnerable road users.

3.1.3 From previous consultations, there are certain routes that are seen as critical for community wellbeing and which HGVs should avoid. Our primary route corridor map for heavy goods vehicles takes account of this feedback and, in particular, recognises the communities of Gorsley, Dymock, Fairford, Lechlade-on-Thames and the impact of Oxfordshire County Council’s Freight Strategy for proposed weight restrictions in Burford and Chipping Norton. The routes also align with the Cotswold Lorry Management Zone, which includes a number of Traffic Regulation Orders to reduce the number of HGVs using unsuitable roads for their journey.

3.1.4 The primary route corridor map provided in Figure D supports the Link & Place Spectrum (Overarching Strategy). It should be noted that these routes are, for the most part, only advisory and form the Advisory Freight Route Map, set in policy and periodically reviewed to mirror the HGV traffic flows.

3.1.5 It is also important to recognise that a high percentage of freight traffic passes through the county and will not necessarily directly contribute to the economic wellbeing of Gloucestershire.
3.1.6 The main pinch points impacting on freight movements include:

- Congestion on the A40 at Over and Longford in Gloucester
- Congestion on the A417 Missing Link between the M4 and M5
- Congestion on the A46 at Ashchurch
- Congestion on the A429 at Stow-on-the-Wold
Figure D – Advisory Freight Route Map (primary route corridors by weighting)
3.2 Policy LTP PD 3.1 - Gloucestershire’s Freight Network

LTP PD3.1 – Gloucestershire’s Freight Network

GCC in its role as Local Highway Authority will work with its partners; Highways England, Network Rail, neighbouring highway authorities, District, Parish and Town Councils and the Police to maintain a functioning freight network by ensuring the safe and expeditious movement of freight, whilst working towards decarbonising road and rail freight by 2050.

GCC will achieve this through the following policy proposals:

- Work with partners to attract investment to mitigate vehicle delay pinch points and explore opportunities for transmodal freight facilities.
- Work with freight companies and our partners to promote an increase in freight being transported by sustainable modes and encourage the update of ultra low emission vehicles.
- Continue to work with neighbouring authorities to ensure that weight restrictions proposed by another authority do not adversely affect sensitive routes in Gloucestershire.
- Identify the most vulnerable parts of the transport network and develop contingency plans to ensure a functioning network during unplanned events.
- Continue to deliver highway and flood alleviation schemes to reduce the risk of highway closures on primary route corridors.
- Work in partnership with Highways England and neighbouring highway authorities to manage cross boundary advisory freight routes including the management of abnormal loads. This partnership will be on the basis of an informal working relationship rather than a formal Quality Partnership arrangement.
- Work with Highways England and neighbouring highway authorities to ensure that freight routes are clearly identified on signs and maps and ensure updated or temporary route updates are shared with information portals accessed by the freight industry.
- Ensure freight companies transporting abnormal loads greater than 4.95 metres high or 4.1 metres wide for non-motorway use and 4.6 metres for motorway use, contact Gloucestershire County Council and Gloucestershire Constabulary providing at least two days’ notice before any planned travel.
- Continue working with Gloucestershire Police in the management and enforcement of the Cotswold Lorry Management Zone.
• Continue to observe the Lorries in the Vale of Evesham policy adopted by Cotswold District Council.
• Apply the Link and Place highway spectrum when prioritising investment decisions and during discussions with local communities when producing their Neighbourhood Plans.
• Introduce speed limits in accordance with the current national guidelines and prioritise them based on available evidence, including 20mph zones.
• Lobby government to pursue opportunities for the decriminalisation of the enforcement of moving traffic offences, regulated under the Traffic Management Act.
• Consider all overarching and mode policies need to taken into account alongside this policy.

3.3 Expected policy outcomes

3.3.1 The implementation of this policy will result in an advisory freight network, where the function of the highway network is understood by its users and the communities it impacts. The environmental impacts of freight transport will be reduced by exploring opportunities for trans modal freight facilities and ensuring the uptake of ultra low emission vehicles by the freight industry.

3.3.2 The primary route corridors for HGVs and the Link and Place Spectrum will inform future investment decisions by recognising those links which are essential to securing conditions for sustainable economic growth and demonstrating Gloucestershire is a place to do business and attract investment. The use of advisory routes will also balance the needs of business and local communities.

3.3.3 The priorities for maintaining this network, to alleviate congestion and improve safety include:
  • Targeted investment to improve junctions and network pinch points
  • Support opportunities for transmodal freight facilities and opportunities for more sustainable freight transport
  • On-going maintenance of highways and highway structures to ensure they remain fit for purpose
  • Ensuring freight routes are clearly identified on signs and mapped to support digital mapping and GIS systems
  • Ensure adequate HGV parking and waiting facilities are available
  • Promote ultra low emission vehicles
4.0 Journey Routing Information for Freight

4.1 Summary

4.1.1 Reliable travel information on route restrictions and an awareness of any live travel issues impacting a planned journey is essential for freight companies and freight drivers. Historically, GCC has relied solely on its Advisory Freight Map to disseminate this information, either through the GCC website, or at strategic lay-bys where the map can be viewed.

4.1.2 GCC will increase the role of technology to assist in the dissemination of freight journey routing information. There are online tools available to support this and as funding becomes available GCC will aim to upgrade its journey routing offer.  

4.1.3 Enforcing the use of advisory routes by HGVs can be difficult. Currently, GCC relies on the goodwill of HGV drivers to observe good-practice and take account of the advisory freight network and weight or height restrictions when planning routes. To minimise the cost of freight travel, freight companies and drivers often use ‘route planners’ or satellite navigation systems to optimise their journeys. This can result in the use of inappropriate roads, which can impact the journey time reliability and safety of other road users and local communities. Technology is increasingly useful for planning and managing freight journeys and in providing information, including details of unplanned events, road closures and traffic incidents. GCC will investigate more opportunities to make appropriate GCC data available as open source data in the future.

4.1.4 For a period Freight Gateway provided free to use freight route compliant journey planning to the freight industry, to help reduce the use of inappropriate freight routes. This gateway system has been replaced by an alternative compliant payable freight journey routing service for the freight industry which is both a web-based system and a mobile application. Local authorities can host Lorry Route, the compliant gateway on their websites. The significant advantage of using a compliant freight journey planning system, is that it supports a dynamic journey routing function.

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which can be updated to reflect planned incidents on the highway network such as road closures or temporary highway restrictions impacted by major events which aims to rival the drivers’ use of satellite navigation systems.

4.1.5 GCC supports an alternative compliant freight journey planning system, which can provide a ‘lorry watch’ facility, and allows complaints concerning non-compliance of freight restrictions from the public to be documented, processed and monitored frequently.

4.1.6 To support a gateway system, GCC will continue to support Highways England and neighbouring authorities to develop a common VMS information strategy for the strategic road network. Figure E illustrates the future progression to driver information technology which will replace fixed asset messaging on the local network, developing mobile applications.

4.1.7 A detailed assessment of all the lay-bys and lorry waiting areas in the county has been undertaken. This aids understanding of which locations are useful for providing information to lorry drivers in the form of smart information points. At lorry waiting areas and lay-bys, GCC will provide at a minimum a traditional mapping and ‘poster’ information and a QR Code to link to live information.

4.1.8 Whenever viable, smart information points will provide gateway system intelligence and live streaming of open source data. GCC will prepare for an open data future to be ready for funding opportunities, ahead of DfT standardisation of moving traffic regulation orders.
4.1.9 As part of this information offer it will be important to work with surrounding highway authorities to identify further ‘lorry stop’ locations that function as key decision points for drivers, such as on the A38 just north of M50 Junction 1 and on the A46 near Evesham.
4.2 Policy LTP PD 3.2 – Freight Journey Routing Information

LTP PD 3.2 – Freight Journey Routing Information

GCC will work in partnership with Highways England, neighbouring highway authorities and the Police to maximise the role of technology for the dissemination of freight journey routing information.

GCC will do this by implementing the following policy proposals:

- Work with national freight mapping companies to inform freight operating route planning systems and ensure the primary route corridors map is reviewed periodically.
- Investigate an alternative freight route planning platform.
- Work in partnership with Highways England and neighbouring highway authorities to manage cross boundary advisory freight routes, including the management of abnormal loads. This partnership will be on the basis of an informal working relationship, rather than a formal Quality Partnership arrangement.
- Continue to work with neighbouring authorities on cross-boundary weight restrictions that could adversely affect sensitive routes in Gloucestershire.
- Increase the use of technology and social media to increase awareness of any delays on the highway network to ensure highway users are informed in advance or during their journey.
- Disseminate journey routing information during times of extreme weather so people are informed about the most appropriate routing options.
- Develop a network of smart information posts at lorry waiting areas that provide including access to the advisory freight map.
- Update the advisory freight map with QR Code at lorry waiting areas and lay-bys.
- Investigate opportunities for funding to make relevant GCC data available to open source.
- Encourage parish and town councils to identify and monitor perceived freight issues through a ‘Lorry Watch’ system.
- Consider all overarching and mode policies need to taken into account alongside this policy.
4.3 Expected policy outcomes

4.3.1 The implementation of this policy will result in a more reliable transport network that reduces business overheads and reduces the impact of Freight transport on local communities.

4.3.2 The priorities for disseminating journey routing information include:
- Updating the advisory freight map information provided at lay-bys and the long-term introduction of smart information point at strategic lay-bys.
- Using the freight journey planning platform including the Lorry Watch portal.
- Increased partnership working with Highways England and neighbouring authorities to develop a common vehicle messaging information strategy.
- Investigate making relevant council data available as open source data.

5.0 Driver Facilities

5.1 Summary

5.1.1 There has been a significant growth in use of lorry parking – 58% utilised in 2010 rising to 76% in 2017\(^9\). For the South West, the level of utilisation was considered ‘serious’ and if it continues to grow at this rate, will be ‘critical’ by 2024. Nationally, 14% of all HGV overnight parking is on industrial estates or retail parks, whilst 25% of parking is in lay-bys, of which only 1% has toilets, 2% a café, and 6% are lit.

\(^9\) DfT’s National Survey of Lorry Parking (2018)
5.1.2 Lay-bys are an important asset for freight vehicles. They provide the opportunity for drivers to stop for short breaks, plan routes and take advantage of facilities. These are also used for overnight parking by vehicles on longer distance journeys. These facilities are particularly important for logistics movements where the drivers are unfamiliar with the county and the ‘last mile’ delivery restrictions and road constraints.

5.1.3 There are 163 lay-bys in Gloucestershire, as previously shown in Figure D. There are three broad categories of lay-bys in Gloucestershire:
- Lay-bys on an advisory freight route with lorry route information.
- Lay-bys on an advisory freight route with no lorry route information.
- Lay-bys which are not on the advisory freight route.

5.1.4 There are also privately-operated lorry stops, which can be accessed for a fee and provide a range of facilities for drivers. The facilities available at lay-bys vary and can include lighting, toilets and roadside cafes.
5.2 Policy LTP PD 3.3 Driver Facilities

LTP PD 3.3 Driver Facilities

GCC will provide facilities for drivers to rest. These will be provided at suitable locations on or near the primary route corridors used by HGV traffic.

GCC will do this by implementing the following policy proposals:

- Work with district councils, Highways England and Parish / Town councils to encourage the designation and provision of off-road freight parking facilities, in line with paragraph 107 of the NPPF.
- Ensure lay-bys are maintained to provide suitable facilities, including a maintained road surface, removal of low hanging vegetation and street lighting.
- Ensure the availability of up-to-date journey routing information for drivers.
- Consider all overarching and mode policies need to taken into account alongside this policy.

5.3 Expected policy outcomes

5.2.1 The expected outcome of this policy is a fit for purpose transport network which provides facilities which offer journey routing information, improve road safety and the local environment, and can support safe driving. There are 17 lay-bys on primary routes, previously shown in Figure D, that have freight information signs. These need to be periodically reviewed to assess their condition and the availability of information provision.

5.2.2 The priorities for maintaining driver facilities include:

- Update or replace the information signs at each of the 17 lay-bys
- Maintain the number and capacity of lay-bys
6.0 Driving Better Practice

6.1 Summary

6.1.1 It is important to consider how the development management process and network management can influence improving codes of practice for construction traffic and logistics industry, in terms of its timing, routing, number of vehicle movements, and the overall impact on surrounding communities.

6.1.2 Best practice promotes the use of Construction Management Plans (CMP), to ensure developers, planning and highway authorities and local community organisations work together to agree and monitor mutually beneficial arrangements for construction traffic that work for all parties.

6.1.3 Building on good practice and guidance, GCC will look at ways to ensure that the quality and context of CMPs are benchmarked and meet local needs.

6.1.4 New codes of practice are being advanced across the construction and logistics industry which aim to improve driving standards, road safety and conserving fuel. FORS\(^\text{10}\) (Fleet Operator Recognition Scheme and CLOCS\(^\text{11}\) (Construction Logistics and Community Safety) are an important component of several local authority procurement processes. The FORS scheme is a voluntary accreditation scheme for fleet operators that aim to raise the level of quality within fleet operations, and to demonstrate which operators are achieving exemplary levels of best practice in safety, efficiency, and environmental protection. Driving for Better Business is a Highways England programme to raise awareness of the dramatic benefits that employers in both the private and public sectors can achieve from managing work-related driving more effectively\(^\text{12}\).

\(^{10}\) [https://www.fors-online.org.uk/cms/](https://www.fors-online.org.uk/cms/)

\(^{11}\) [www.clocs.org.uk/page/about](http://www.clocs.org.uk/page/about)

\(^{12}\) [www.drivingforbetterbusiness.com](http://www.drivingforbetterbusiness.com)
6.1.5 GCC will also use best practice in relation to events planning and to mitigate the temporary impacts caused by road works and other pre-planned activities.

6.2 Policy LTP PD 3.4 Driving Better Practice

LTP PD3.4 – Driving Better Practice

GCC as part of the development management process and network management, will support improved codes of practice across the construction and logistics industry and require the production of Construction Management Plans (CMP) for strategic development sites and planned events, in order to minimise the impact on the surrounding community.

GCC will do this by implementing the following policy proposals:

- Work with district councils to ensure that new development is appropriately connected to the existing transport network.
- Support and work in partnership with communities in identifying local transport needs and solutions through Neighbourhood Plans.
- Ensure any additional freight movements associated with development and planned events are identified and managed through the Highways Development Management process and Network Management. This may include restricting construction / delivery vehicle access to specific times where an employment development is likely to generate significant freight movements.
- Provide specific advisory guidance on CMPs within Gloucestershire.
- Support uptake of new codes of practice and promote schemes such as FORS, CLOCs and Driving for Better Business.
- Consider all overarching and mode policies need to taken into account alongside this policy.
6.3 Expected policy outcomes

6.3.1 The expected outcome of this policy is a safer transport network that balances the needs of business and the local community.

6.3.2 The development of Gloucestershire specific advisory guidance on CMPs and supply chain management will be important to facilitate major growth sites as it forms part of pre-application discussions to ensure issues of concern are raised early in the planning process, supporting the uptake of new codes of practice.

7.0 Managing deliveries in urban or other sensitive locations

7.1 Summary

7.1.1 In common with UK trends, the growth in online shopping and home delivery is significant and has significant implications for Gloucestershire in relation to growth in delivery traffic, as well as wasted ‘delivery miles’ due to failed deliveries.

7.1.2 For urban areas, additional delivery traffic at peak times has implications for network efficiency, as well as carbon and other emission levels. For rural areas, the cost and time factors associated with failed deliveries is significant, because of the distances involved.
7.1.3 It is important to consider the use of appropriate ‘last mile’ delivery methods in urban or other sensitive locations. Using ‘Quiet Deliveries’ best practice including the retiming of last mile deliveries as a positive tool to manage travel demand in town centres and locations where there are residential properties close by. Through using the ‘shoulders’ of the day (Figure F) it is possible to make more effective use of the existing network whilst minimising distance and environmental impact.
Failed UK deliveries cost the industry, but the volume and demand has increased. This brings challenges, as the culture of home delivery in the UK remains at 80% preferred, however the industry research IMRG (UK’s industry association for online retail), are recommending incentivising greater use of ‘click and collect’, improvements in in-transit data among other options to reduce failed deliveries and make last mile deliveries more efficient.

Heriot-Watt University carried out some key logistics research into the impact of failed non-food deliveries, including the additional carbon produced when a failed parcel requires re-delivery by the carrier, with the knock-on effect of a customer travelling to the local depot to collect an undelivered order. On average a single successful first-time delivery generates around 180g of carbon, whereas a 50% fail rate will generates just over 270g of carbon in making that re-delivery. On top of this there are addition carbon emissions when the customer has to drive to collect their parcel from a sorting office or other collections centre.

For Gloucestershire, this means that there is a key target area to focus on to reduce unnecessary travel across the network, particularly on more rural parts of the network where greater distances are travelled. Localised domestic delivery solutions are growing; supermarkets, railway stations, post offices, newsagents and local ‘8 till late’ or community shops as ‘drop points’, given that 40% of home shoppers would use this type of solution.

GCC will encourage local communities through the neighbourhood planning process to consider innovative techniques such as secure boxes. There are versions available which can be placed at communal locations, but also individual units suitable for home use. GCC will encourage the use of these types of solutions and consider how they can be integrated into business and residential travel planning, and included within new housing schemes as part of the planning process.

These secure facilities allow access by multiple couriers using a security number per drop. These are currently available for non-food deliveries and under development for perishables. Similarly, a model is being developed whereby rail commuters can have deliveries made to secure deposit boxes at their chosen railway station, so they can collect their delivery on the way home from work.

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14 https://lrc.hw.ac.uk/
The government has announced £2 million to support the uptake of e-cargo bikes, driving UK companies towards a greener future\textsuperscript{15}. The funding will help pave the way for electric delivery vehicles to replace older, polluting vans - helping to improve the environment and reduce congestion. Such schemes may be important in areas with vehicle restrictions or high density employment centres where there is an increasing trend for people to receive personal deliveries at work. It also builds on previous government-funded UK trials for e-cargo bikes in the spring 2017. The Department for Transport’s Innovation Challenge Fund grant enabled London-based e-cargo Bikes to set up their first Micro Hub on an industrial estate in Islington from which grocery delivery trials with Sainsbury’s were conducted. The trials exceeded expectations in its potential commercial viability and efficiency, which showed that 96.7% of orders could be fulfilled in a single e-cargo bike drop.

Last mile deliveries by low carbon alternatives such as e-cargo bikes and electric vehicles from rail parcel freight hubs could serve the main centres of Cheltenham and Gloucester, where opportunities for railway sidings or land availability next to the railway network is present. Thereby, helping to reduce carbon emissions and air pollution in town centres.

7.2 Policy LTP PD 3.5 Managing deliveries in urban or other sensitive locations

LTP PD 3.5 Managing domestic deliveries in urban or other sensitive locations

GCC will encourage local communities, Chamber of Commerce, Town and Parish Councils to consider the role of freight within their Neighbourhood or Town Centre Plans in order to minimise the impact of domestic deliveries in urban or other sensitive locations and of wasted delivery miles due to failed deliveries.

GCC will do this by implementing the following policy proposals:

- Provide specific advisory guidance for local communities to consider the development of Last Mile Delivery Policy and route identification as part of the Neighbourhood/Local Plans process.
- Provide specific advisory guidance for the development of voluntary Quiet Delivery Service scheme as part of the Neighbourhood/Local Plans process.
- Promote and encourage low carbon bike delivery in urban centres, particularly where vehicle delivery restrictions are in force.
- Support ultra-low emission vehicles for last mile deliveries.
- Consider all overarching and mode policies need to taken into account alongside this policy.

7.3 Expected policy outcomes

7.3.1 The expected outcome of this policy is compliance with national best practice through the promotion of a safe transport network that balances the needs of business with the local community in an environmental sensitive way. It also reduces the number of vehicle miles travelled by removing wasted delivery miles. Contributes towards improving air quality, reducing congestion and carbon emissions.
8.0 Rail and Water Freight

8.1 Summary

8.1.1 There is a national priority to improve connectivity to ports and airports, with ports at Poole, Bristol and Newport and connections to Bristol Airport being particularly important. The Government’s Rail Freight Strategy highlighted that each tonne of freight carried by rail reduces carbon emissions by 76% compared to rail. It therefore set out actions to encourage more freight to go by rail.

8.1.2 Whilst there are no commercial rail freight terminals in Gloucestershire infrastructure such as sidings exist which could be used as small scale terminals for specific types of freight. These include Gloucester Yard and Lydney. A number of freight facilities exist in neighbouring areas such as at Westerleigh petroleum terminal, Tytherington quarry and Long Marston and generate freight movements through Gloucestershire.

8.1.3 The Ministry of Defence (MOD) currently operate trains to its base in Ashchurch. An earlier LTP identified the aspiration for a commercial freight interchange facility at this location. A technical study considered the commercial potential for the site and concluded that delivery of an intermodal facility would rely on a number of technical constraints being overcome including its ability to accommodate 750m long trains and turning restrictions. The report concluded that the facility would be commercially unviable. The conclusions of this technical study, alongside the aspirations for redeveloping the MOD site for housing and employment, have resulted in GCC no longer supporting a commercial rail interchange facility at Ashchurch.

8.1.4 Small amounts of low level nuclear waste are transferred by rail from the storage facility at Berkeley to Cumbria on a spur that links it to the Bristol to Birmingham mainline.

8.1.5 There is also potential for light parcel rail traffic hubs at Cheltenham and Gloucester rail stations where low carbon alternatives such as e-cargo bikes or electric vehicles could be used for the last mile deliveries. Consideration should be given to the safeguarding of land to facilitate this development in the future.

16 DfT (2016): Rail Freight Strategy
8.1.6 Gloucestershire has a strong shipping heritage, as demonstrated by the extensive Gloucester Docks complex and the Gloucester and Sharpness Canal linking to the Severn estuary. Commercial shipping in the county is limited to small scale operations at Sharpness Docks. Now Gloucester is primarily a leisure port, along with the harbour at Lydney.

8.1.7 Sharpness Docks manages bulk trade (mainly aggregates, scrap metal and other bulk products) with routes to France, Spain and Portugal. Entrance to the port is restricted by the tide and the site is accessed by road only. There have been aspirations to reinstate a rail connection to the docks to provide for the transfer of freight, but this would be dependent on a viable business case being agreed by Network Rail and financed through the private sector. Sharpness Docks has potential for onward connectivity to major ports at Southampton, Poole, Newport for example.
8.2 Policy LTP PD 3.6 Rail and Water Freight

LTP PD 3.6 Rail and Water Freight

While recognising the limitations for existing and potential transmodal freight facilities within the county, GCC encourages the transfer of goods to non-highway means of transit for freight travelling through the county.

GCC will do this by implementing the following policy proposals.

- Supporting suitable third party promoted schemes for increased use of rail or water (sea or canal) to transfer freight, where a valid business case and funding proposal can be provided.
- Consider all overarching and mode policies need to taken into account alongside this policy.

8.3 Expected policy outcomes

8.3.1 The expected outcome of this policy is reduced number of HGV trips within the county reducing the impact of freight movements on the natural, built and historic environment.

8.3.2 Encourage the greater use of non-road modes for the transportation of freight to relieve pressure on the strategic road network.
The policies set out in this document will be delivered through the implementation of the associated proposals and, subject to funding, the schemes identified in the Connecting Places Strategies. These scheme priorities are also set out in a separate Delivery chapter addressing funding, monitoring, governance and review.
Local Transport Plan
Policy Document 4 – Highways

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Target Audience
Anyone wanting to find out about how the county council will manage public and community transport within Gloucestershire. This document specifically includes policies on:
• Gloucestershire’s Highways Network
• Highway Network Resilience
• Transport Asset Management Plan
• Road Safety
• Car Parking

This strategy acts as guidance for anybody requiring information on how the county council will manage the highway network in Gloucestershire up to 2041
# Contents Amendment Record

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1.0 Introduction

1.1 Businesses, their supply chains, workers and consumers collectively depend upon a good quality highway network in Gloucestershire to move goods, deliver services and travel to work and other service facilities. The time taken to undertake a journey affects productivity, in that time spent travelling reduces time available to produce goods or provide services. Increased connectivity, quicker journey times and better access to new locations allows businesses to expand their labour pools and access bigger markets. For commuters, better network connectivity further results in greater employment and key service choices.

1.2 Gloucestershire aims to provide the right connections to facilitate economic growth, ensuring the highways network serves all modes, communities, commuters and travellers, linking them to job opportunities, services and other areas. This has to be balanced against pressures to reduce car dependency and reduce highway transport’s contributions to CO2 emissions and other adverse environmental impacts.

1.3 Increased use of new data sources will help us plan and operate networks more efficiently and provide more useful and comprehensive information to travellers. As vehicles become more connected, intelligent and autonomous, the use of data will become of greater importance and will have implications for our transport network the implications of which we do not fully understand yet, but may include less requirement for external roadside infrastructure and car parking in central areas. Vehicles will automatically adhere to speed limits, improving road safety.

1.4 New technologies will make information available in vehicle, rather than needing visible signage. Apps will facilitate vehicle sharing, lift giving and car clubs. All in all, this offers huge opportunities to redesign streetscapes change how we make journeys and improve our connectivity. An example of this is ‘SMART’; Self-Monitoring Analysis and Reporting Technology, a term that can be applied to any asset. For example, a SMART bridge or building has the ability to alert us of its changing condition by using standard technologies. This is becoming possible because the physical and digital worlds are converging, bringing greater efficiency and new opportunities. It will be important to embrace the opportunities presented by new technology, as they may transform the way we travel and allow more efficient ways of managing and maintaining facilities and infrastructure.

1 Planning SMART Places, unlocking growth and place-making through innovations (ADEPT Nov 2017)
Table A outlines the expected outcomes of the Highways Policy Document and linkages to the overarching LTP objectives.

Table A – Expected outcomes from Highways Policy Document

<table>
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<th>Objective</th>
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| Protect and enhance the natural and built environment                     | • Reduced transport derived carbon emission  
• Transport scheme are designed to reduce the adverse impact of transport on Gloucestershire’s high quality natural, built and historic environments |
| Support sustainable economic growth                                       | • Gloucestershire is a place to do business and attract investment  
• The transport network is reliable, fit for purpose and demonstrates value for money  
• Increased journey time reliability  
• Greater economic activity  
• Increased footfall in retail areas  
• A transport network resilient to extreme weather events  
• A thriving tourist industry which benefits from ease of access to the county’s natural, built and historic environmental assets |
| Enable safe and affordable community connectivity                         | • A business community which benefits from connectivity with local, national and international markets  
• Individuals benefit from economic prosperity and social benefits such as being able to access employment, education and training |
| Improve community health and well being and promote equality of opportunity | • Improved air quality  
• Better safety, security and health by reducing the risk of death, injury or illness arising from transport  
• Access to services, employment, education, training, amenities and a social network |
2.0 Summary of Evidence Base

2.1 In general terms, Gloucestershire benefits from a relatively well connected and efficient highway network, though with a number of challenges due to increased traffic flow growth of 17% between 2000–2017 (Figure A) and an increasing awareness of the environmental impacts of transport. Congestion increases transport emissions and journey time reliability is also strategically critical for the local economy. It is therefore measured in LTP indicator PI-1 Journey time reliability on strategic important routes during the AM peak showing overall a speeding up of minutes travelled per kilometre, but congestion at peak times remains prevalent between Cheltenham and Gloucester where progress is slowest. LTP Indicator PI-2 Number of peak hour vehicle journeys show that in Gloucestershire, journeys are increasing at an average of 1.5% and 1.6% in the AM and PM peaks respectively (Figure B). Although this exceeds the target set in the LTP, it is less than the national trend of 2.2%\(^2\). This is likely to worsen in the future as new housing and employment sites are built in these growth areas, but can be mitigated through development funding and other factors. Significant growth will require a continued commitment to providing a range of travel choices that ensure the network remains efficient as journeys continue to increase.

2.2 Data on travel to work self-containment is high within the county, illustrating the importance of maintaining good internal and external connectivity with neighbouring areas, so that Gloucestershire residents can benefit from local growth and businesses can benefit from retaining a high local skills base.

Figure A - Gloucestershire Annual Average Daily Flow Profile 2000 - 2017
2.3 The population and travel profiles for the county highlight where there is current and future demand for travel on our highways. Gloucestershire is a predominantly rural county. Car and van travel is the predominant choice of travel to work in Gloucestershire\(^3\). There is a culture of high car dependency and usage in the county. If unmitigated, this, combined with significant planned growth in the county, will place increasing pressure on transport networks across the county and on strategic links to neighbouring areas. This will result in increased journey times by car and bus. Equally, network saturation will have a detrimental impact on local business activity in the county, undermining its capacity to secure growth.

2.4 Nationally, greenhouse gas emissions from road passenger cars account for 55%, HGVs 16.4%, LGVs 15.4% and buses 2.6\(^4\) (Figure C). GCC recognises the impact of emissions on health and is working together with Public Health, Environmental Protection and our partners through the Air Quality and Health Partnership to support the development of an emerging Air Quality & Health Strategy for Gloucestershire. Health, active travel, and electric vehicle sub-groups feed in to strategy development, bringing cross-sector expertise to the table.

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\(^3\) 2011 Census data (ONS)
2.5 The LTP’s Overarching Strategy sets out GCC’s policy position on environment and health & wellbeing. This plan aligns with the Gloucestershire Sustainable Energy Strategy and the revision of the corporate climate change strategy and action plan. Reducing transport carbon emissions to zero by 2050 is a LTP target (see PI-14 - Reduce per capita transport carbon emissions).
3.0 Gloucestershire’s Highways Network

3.1 Summary

3.1.1 Gloucestershire has about 80 miles of motorway and trunk road and approximately 3,300 miles of local authority managed highway. The network is dominated by the M5 motorway, which runs north-south through the county and provides good connectivity to Birmingham, the Midlands, the North, Bristol and the South West and the M4 corridor (Wales and London).

3.1.2 The Strategic Road Network (SRN) of motorways and other major routes is managed by Highways England and benefits from the Road Investment Strategy. Government announced, as part of the Transport Investment Strategy, that it would take forward proposals to create the Major Road Network (MRN). This middle-tier of local authority ‘A’ roads sit between the nationally-managed Strategic Road Network (SRN) and the rest of the Local Road Network. These roads will benefit from targeted funding available through a share of the National Roads Fund (NRF)\(^5\). The aim is to improve productivity and connectivity in our towns and cities. Figure D illustrates the SRN and MRN for Gloucestershire.

3.1.3 The MRN is a new programme that will see substantial amounts of new investment available for road enhancement schemes on the most important local authority roads from 2020/21. Investment Planning Guidance and Regional Evidence Base will enable regions to plan and prioritise investments in the in a way which makes best use of the targeted funding from the NRF, and sets out a structured approach to investment planning. It is aimed at Sub-national Transport Boards (SNTBs). Gloucestershire County Council is part of the Western Gateway SNTB, and is actively engaged in producing the Regional Evidence Base. Any action by GCC to secure benefits through the MRN programme will be within a wider collaboration.

3.1.4 Maintaining a functioning highway network is the foundation for an integrated transport system. All transport modes in some way interact with the highway network. Therefore, providing a safe and reliable highway network is fundamental to the delivery of the LTP objectives.

3.1.5 Gloucestershire is a rural county, with the River Severn as a barrier to movement, which depends on its highway network for the movement of people and goods. A highway network that does not provide for this need will develop a negative reputation which over time may impact the desirability of Gloucestershire as a place to live, work or invest, decisions which assist in securing sustainable economic growth. The challenge for the LTP is to ensure that a reliable transport network is provided to meet existing and future needs.
3.1.6 Nationally, the range of traffic growth by vehicle miles forecast is 17% to 51% between 2015 and 2050. High GDP, low fuel and low GDP, high fuel forecasts show a wider range of uncertainty compared to the population based scenarios. The impact on road traffic demand in these scenarios is dominated by the impact of fuel costs, which impact trip distances and the total cost of driving causing switching to or from other modes.

3.1.7 A functioning highways network for all transport modes must be provided to maintain a reliable transport network. To deliver this, it is essential to work in partnership with transport operators to identify and minimise vehicle delay pinch points to improve journey time reliability. Equally, it may be necessary to seek ways of better managing, or reducing, motorised traffic, to ease pressures on the system. It is not feasible to depend only on highway construction to minimise vehicle delays. It will also depend on a package of physical and behavioural change initiatives, branded as Thinktravel, designed to raise awareness of travel options. Technology will play an increasing role in alerting individuals to travel conditions, informing travel choices and allowing journeys to be diverted to avoid vehicle delay pinch points.

3.1.8 To aid the prioritisation of highway investments, the role of individual highway links (roads) has been considered at a strategic level. Gloucestershire’s Link and Place Spectrum, set out in the Overarching Strategy, builds on the approach outlined in the DfT’s Manual for Streets. Where identified, each link has been designated a role in terms of its function in connecting different places. This designation has not been assigned simply in relation to the type of road but how the road is used and how the road is perceived when being used.

3.1.9 The designations have no impact in terms of highways maintenance or the consideration of future development. Primarily they inform local investment priorities and help local communities think about the role of the highway where they live. This could be a consideration when producing Neighbourhood Development Plans.

3.1.10 Managing the traffic flow on certain roads helps conserve the local environment. For some communities, their existence stems from the access provided by the road. The function of the road (link) may not have changed over time and it may continue to remain as critical now as it did in the past. Where this is the case, this role must be maintained. The Link and Place Spectrum illustrates how this approach has been applied in Gloucestershire (Overarching Strategy, Table A, Figure B).
3.2 **Policy LTP PD 4.1 Gloucestershire’s Highway Network**

**LTP PD 4.1 – Gloucestershire’s Highway Network**

GCC will maintain a functioning highway network that supports Gloucestershire’s transport network by ensuring the safe, accessible and expeditious movement of highway users.

GCC will do this by implementing the following policy proposals:

- Work in partnership with Highways England to maintain the safe and expeditious movement of traffic when using the Strategic Road Network, by seeking value for money improvements to network pinch points to enhance network efficiency.
- Develop MRN routes in line with guidelines, available funding and neighbouring authorities, to ensure the objectives for the network are achieved.
- Maintain and, where feasible, improve the highway network for all non-motorised highway users prioritising the integration of transport modes.
- Reduce the risk of conflict for all highway users by complying with national Government guidance and legislation, including the use of mobility scooters on the footpath.
- Increase the use of technology and social media (Intelligent Transport Systems) to increase awareness of delays on the highway network, ensuring highway users are informed in advance or during their journey.
- Reduce pressure on the local road network by promoting alternative sustainable travel choices through the Thinktravel programme.
- Apply the Link and Place highway spectrum when prioritising investment decisions and during discussions with local communities when producing their Neighbourhood Plans.
- Lobby Government to pursue opportunities for the decriminalisation of the enforcement for moving traffic offences, regulated under the Traffic Management Act.
- Ensure pedestrian and cycle routes are safe and form a continuous accessible network accessing town centres, residential areas, employment areas, and routes to schools.
- Follow green infrastructure principles in the design, maintenance and operation of highway asset as set out in the green infrastructure pledge.
- Preserve and enhance the geodiversity of the highway asset wherever practicable.
- Consider all overarching and mode policies need to taken into account alongside this policy.
3.3  Expected policy outcomes

3.3.1  The implementation of this policy will result in a fit for purpose, reliable and efficient transport network that reduces carbon emissions and air pollution connects communities, employment and services, with minimal congestion and competitive journey times.

3.3.2  The Link and Place Spectrum will inform future investment decisions by recognising those links which are essential to securing conditions for sustainable economic growth as well as the place function of our streets. As evidence from the local plan process emerges, this will inform the need for other network pinch points to be addressed.

4.0  Highway Network Resilience

4.1  Summary

4.1.1  Due regard for the strategic risk of climate change in line with the Corporate Risk Management Strategy and Gloucestershire Climate Change Strategy is of key importance to Gloucestershire’s highway network resilience. Severe Weather Impacts Monitoring (SWIM) and the UK Climate Impacts Programme (UKCIP) helps to monitor, evaluate and bring resource knowledge to the council to better manage highway resilience in the face of climate change.

4.1.2  Delivering a resilient highway network is vital because Gloucestershire is a rural county that depends on its highway network for the movement of people and goods. When parts of the network are compromised by weather events, unplanned network repairs or major events, the impacts can be significant. Therefore, National and Primary Links must be resilient to abnormal events, such as flooding, road closures or accidents, to help maintain journey reliability. This in turn will support confidence in the network and inward investment in the region.

4.1.3  In 2007, Gloucestershire experienced an extreme flooding event, in which 5,000 homes and businesses were flooded and 10,000 motorists stranded on the county’s highway network. Since then, the county has been hit by further adverse weather conditions. GCC continues to work with specialist bodies, such as the Environment Agency and Highways England, our partners at parish and district level and communities, to try and ensure that the
highway network and the communities, trade and commerce that it serves, are better protected in terms of flood risk resilience including green and blue infrastructure in line with Biodiversity Diversity Guidance for Gloucestershire, to help reduce flood risk in communities. Partnership with district councils, the Environment Agency, GFirst LEP, Homes England, Highways England, Department for Transport (DfT) and any other necessary government bodies, seeks to secure investment in the county’s transport network as funding opportunities arise to address highway network flood risk and build in long-term resilience.

4.1.4 High winds also present a challenge. The M48 Severn Bridge currently operates under a High Winds Protocol, which dictates that once wind speeds reach a certain level, the bridge is closed to all traffic. The impact on road users is increased journey times, congestion on the M4 and increased use of the A48 and A40 for vehicles seeking alternative routes.

4.1.5 There are a number of challenges to providing a resilient highway network as highlighted by the M48 Severn Bridge crossing. There are parts of the network where, under abnormal events, there can be significant impacts on the performance of the highway network as a whole due to limited route alternatives. Other examples include the limited crossing of the River Severn (A40) and Wye and routes through the Stroud Valleys.

4.1.6 There are various pinch points outside of the county that can impact on travel for people travelling to or from Gloucestershire. As well as the Severn Bridges (M4 and M48), there can be issues arising on the M5 at the Almondsbury Interchange and Avonmouth Bridge.

4.1.7 A further challenge is that sections of the highway network, under normal conditions, are currently operating near, or beyond, capacity. Also, poor quality roads can lead to emergency unplanned network repairs which, in turn, can result in severe disruption. The backlog of required maintenance costs is calculated at approximately £80 million, and reductions in the future budget for road maintenance, pose a real threat to the network. We will aim to seek investment in the county’s transport network as funding opportunities arise to address highway network flood risk and build in long-term resilience.

4.1.8 In the face of these challenges, there are opportunities to strengthen the network and minimise disruption. Communication, for example, is vital to achieving a resilient highway network and new technologies. Variable Message Signs on the Strategic Road Network and social media play important roles in disseminating critical journey planning information to manage traffic demand. Exploring opportunities for data and intelligence sharing needs to be maintained to ensure road users are prepared and informed and resources are pooled.
4.1.9 Advanced planning is also critical. Identifying vulnerable location using HIRAM, developing severe weather plans, having incident de-brief processes and research and development can all help mitigate against situations where the resilience of the highway network is under threat.
4.2 Policy LTP PD 4.2 – Highway Network Resilience

LTP PD 4.2 – Highway Network Resilience

GCC will provide a resilient highway network that can withstand unforeseen events, including extreme weather events and long term changes to the climate.

GCC will do this by implementing the following policy proposals:

- Take due regard for the strategic risk of climate change in line with Corporate Risk Management Strategy, Gloucestershire Climate Change Strategy, Local Adaptation Advisory Panel (LAAP) England, Severe Weather Impacts Monitoring (SWIM) and UK Climate Impacts Programme (UKCIP) to better manage highway network resilience.
- Identify the most vulnerable parts of the transport network and develop contingency plans to ensure a functioning network during unplanned events.
- Disseminate network information during times of extreme weather so people are informed and aware about the travel choices they make.
- Regularly review winter maintenance and vegetation clearance procedures and policies and in line with the Highways Biodiversity Guidance for Gloucestershire (or subsequent guidance).
- Continue to deliver highway and flood alleviation schemes which reduce the risk of highway closures on class one and two routes.
- Continue to work with specialist bodies, such as the Environment Agency and Highways England, our partners and communities, to try and ensure that the highway network and the communities, trade and commerce that it serves, are better protected in terms of flood risk resilience including green and blue infrastructure measures to change impermeable surfaces connected with the highways and verges to help reduce (primarily surface water) flood risk in communities.
- Work in partnership with district councils, the Environment Agency, GFirst LEP, Homes England, Highways England, DfT and any other necessary government bodies, to seek investment in the county’s transport network as funding opportunities arise to address highway network flood risk and build in long-term resilience.
- Continue working jointly with the Environment Agency to build evidence of the effects of flood risk and climate change on highway network.
infrastructure in order to develop a pipeline of schemes.

- Explore opportunities for sharing data and intelligence to build an Integrated Environment Mapping Tool or similar, to draw together evidence of environmental constraints and opportunities to help target resources.
- Continue to work with partner organisations at a sub-national level to resolve issues that arise on the network outside of the county
- Continue to seek funding for larger scale improvements to provide an alternative where routes resilience is compromised by the lack of any suitable adjoining network.
- Promote energy saving, water conservation, improvements in surface water run-off and provision of Sustainable Drainage Systems (SuDS), in both new highway schemes and retrofitting of existing schemes (where opportunities arise), recycling and use of sustainable materials in the construction and operation of transport projects.
- Consider all overarching and mode policies need to taken into account alongside this policy.

4.3 **Expected Policy Outcomes**

4.3.1 The implementation of this policy will result in a highway network which is more robust during unplanned events and a communications system which better informs highway users before and during these events to minimise network disruption.

4.3.2 GCC will work to identify the most vulnerable parts of the transport network, making the most of shared intelligence and evidence and ensure due regard is paid to flood risk in the creation of policies and plans for Gloucestershire, whilst recognising that it is not economically viable to eliminate flooding altogether, but will look to pool resources to secure funding and provide sustainable highway flood resilience.
5.0 Highway Maintenance

5.1 Summary

5.1.1 The 3,300 miles of local highway network in Gloucestershire comprises a range of assets, including carriageways, footways, bridges, traffic signals and street lighting. GCC as local highway authority is responsible for the management of this network. Maintenance of the network is delivered by a GCC appointed highway maintenance supplier.

5.1.2 How this service is delivered is informed by GCC’s Transport Asset Management Plan (TAMP), which is the county’s strategy for managing highway assets in Gloucestershire and forms part of the Highways Asset Management Framework.

5.1.3 It is essential that long-term investment decisions are prioritised over short-term demands, to minimise long-term costs and deliver improved value for money. Historically, GCC has given a greater priority to worst-first highways investment, which results in delivering an immediate impact for road users. However, over time, this approach has resulted in deterioration of a much greater proportion of the road network. Our forward programme development covers all our major assets, we have identified that the next stage to improve our programming is to develop a cross asset programme, in line with the Code of Practice for Well Managed Highway Infrastructure.

5.1.4 The TAMP aims is to move away from reactive maintenance towards a preventative approach to the maintenance of highway assets and to prioritise roads that have not yet fallen into the failure threshold. Whilst to a general onlooker carrying out maintenance on a road that doesn’t look in need of repair may seem unnecessary when other roads are in worse condition, this will often be the right choice and ultimately deliver the best value for the county in the long term. Where appropriate opportunities arise, improvements in surface water run-off and provision of Sustainable Drainage Systems (SuDS), including retrofitting of existing highway scheme can also add value for money.

5.1.5 It is not possible to maintain every road to a high standard. The backlog of deterioration and limited available funding makes this impossible. Users should expect to find a condition that is safe and consistent with the type and location of that particular road or footway.

7 [www.gloucestershire.gov.uk/transport/transport-asset-management-plan-tamp]
5.1.6 The key risks which threaten the sustained delivery of the road transport asset are:

- Maintenance backlog
- Funding cuts
- Climate change
- Future demand
- Network resilience

5.1.7 Through the life cycle planning of maintenance set out in the TAMP, routine carriageway maintenance has concentrated on safety defect repairs (potholes). Meanwhile, capital spending on structural maintenance has been used to increase patching work and surface dressing programmes.

5.1.8 The percentage of the road network in need of maintenance has reduced for all classes of road between 2013 and 2017, as shown in Figure E. Starting in 2018/19 the Council is investing additional capital funding in Structural Maintenance which will result in over £150m of investment in the road network between 2018/19 and 2021/22. This investment will double the amount of resurfacing done on the network and reduce the maintenance backlog.

5.1.9 In recent years, there has been a programme of street lighting upgrades, with the implementation of LED, coupled with dimming technology has helped to reduce energy consumption and manage costs.
Figure E - TAMP Performance History

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5.2 Policy LTP PD 4.3 – Highway Maintenance

LTP PD 4.3 – Highway Maintenance

GCC will manage the local highway asset management in line with the Highways Asset Management Framework and other guidance or policies such as the Code of Practice for Well Managed Highway Infrastructure.

GCC will do this by implementing the following policy proposals:

- Deliver a fit for purpose highway asset.
- Deliver over £150m of investment in highways including additional investment in structural maintenance to reduce the maintenance backlog.
- Work with GCC’s Highways Maintenance supplier to deliver the works and services outlined in the Highways Asset Management Framework.
- Inspect and repair the highway network in line with the county’s Highway Safety Inspection Policy, in order to ensure it is in a safe condition.
- Ensure that street works undertaken on the local network by third parties are completed to a high standard minimising congestion and ensuring safety for pedestrians, cyclists and people with limited mobility, and that the quality of such works is monitored, with the third parties being required to take corrective action as necessary.
- Promote alternative sustainable travel choices through the Thinktravel programme during highway maintenance works.
- Manage the street lighting network to minimise environmental impact without compromising on road safety and personal security.
- Manage the traffic signal network to minimise congestion and to prioritise the movement of buses and cyclists through phased traffic signals.
- Ensure road signage is maintained within the Highways Asset Management Framework. To review the provision of street furniture and signing and manage the local highway asset in line with the Highways Asset Management Framework, ensuring that street clutter is minimised.
- Minimise the impact of highway work on the surrounding landscape and ensure where new highway structures are required they are sympathetic to their surroundings including bridges, fencing and walling.
- Ensure promoters of new transport schemes comply with the Enhanced Materials & Commuted Sum Policy (MFGS) whereby appropriate materials are specified and the full costs of implementation and future maintenance are factored into the scheme budget.
- Comply with the Highways Biodiversity Guidance for Gloucestershire or subsequent guidance.
- Enhance and restore the wildlife function of highway verges by continuing to work in partnership with Gloucestershire Wildlife Trust (GWT) through
5.3 Expected Policy Outcomes

5.3.1 A strong approach to asset management in Gloucestershire has been developed which, coupled with the implementation of this policy, will provide a level of service which meets our obligations to manage the highway network and contribute to network safety. This will keep the county moving, making Gloucestershire an attractive place to live and do business and that directly protects the public from harm.

5.3.2 The priorities for managing the highways asset include:
- Ensuring highways are fit for purpose.
- Delivering the £150m investment to reduce the highway maintenance backlog.
- Upgrading traffic signals including an increased role of intelligent transport systems to better manage travel demand and increase awareness of vehicle delays and alternative travel options.

5.3.3 Road safety contributes to the, security and health of individuals by reducing the risk of death, injury or illness arising from transport, by working with partners to improve personal safety perceptions and the promotion of transport that contributes to good health and wellbeing. The long term trend in the number of casualties in reported road accidents has been broadly flat from 1979 to 1998, allowing for natural variation in the number of casualties. Since 1998 there has been a downward trend in the number of casualties. Trend data shows the number of reported road casualties in Great Britain in 2017 decreased by 13%, against the 2010-14 average.

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Local reporting remains focused on the actual numbers of KSI casualties rather than introducing rates. This data is collated by the Road Safety Hub. The Road Safety Hub collaborates with officers from Gloucestershire County Council’s Road Safety Team, Fire and Rescue Service, Gloucestershire Constabulary, as well as officers from GCC Highways and reported in the LTP Implementation Plan. A change in the method of reporting injury collisions has resulted in an increase in the number of serious casualties both locally and nationally on the 2010-14 average (LTP PI-11 Reduce the number of highway casualties). Comparison with previous years reporting of all killed and serious injury (KSI) figures should be viewed with caution. The Office for National Statistics (ONS) Methodology Advisory Service have completed analysis to quantify the effect of the introduction of new injury based reporting systems (CRASH and COPA) on the number of slight and serious injuries reported to the police. This is described in detail in the ONS methodology paper.

Whilst there has been a decrease in casualty numbers across all districts, serious and fatal casualties remain an issue in both urban and rural areas, with incidents strongly clustered around the most heavily trafficked corridors and the main urban settlements.

Road safety concerns damage social wellbeing and losses of life or serious injury have economic impacts. In Gloucestershire the value of prevention of collisions was valued at £113m in 2017. In terms of the impact on other transport users, accidents can be the source of unplanned delays which adversely affect route journey times and disrupt business activity, adding to overhead costs through lost time. Safety issues, whether perceived or actual, can also form a barrier to the use of more sustainable modes, including cycling, walking and public transport.

Well designed transport infrastructure and safe service provision can aid in improving safety for all transport modes and thereby reduce the number of injuries occurring in Gloucestershire. Manual for Streets (DfT) sets out the relationship between transport and land use and the methods for delivering well planned communities, including creating safe and secure layouts which minimise conflict between traffic, cyclists and pedestrians.

Road safety is a statutory duty for a local authority and GCC works with partners to reduce road deaths and injuries. Significant funding has been spent on road safety across the county over recent years. For example, a £2.2million summer programme of 100km of new road surface treatment.
that increases a road’s lifespan and enhances skid resistance, making it safer to drive on. Funding has also been invested in road planning, speed management and road safety education campaigns and programmes.

5.3.9 There is still progress to be made to improve Gloucestershire’s road safety record and one of the key challenges is that, as maintenance funding constraints continue, and the county tackles the maintenance backlog, there is a risk (particularly in outlying rural areas) that road conditions may deteriorate, contributing to heightened safety risk to users.
5.2 Policy LTP PD 4.4 – Road Safety

LTP PD 4.4 – Road Safety

GCC will contribute to improved safety, security and health by reducing the risk of death, injury or illness arising from transport, working with partners to improve personal safety perceptions and the promotion of transport that contributes to good health and wellbeing.

GCC will do this by implementing the following policy proposals:

- Ensure all new highway schemes that are delivered by the Local Highway Authority, developers or scheme promoters are designed using the principles of Manual for Streets and the county’s technical specifications for new streets.
- Deliver a co-ordinated approach to road safety with partners that include proactive highway design guidance, delivery of reactive engineering solutions to highway issues, provide evidence to support engineering, education and enforcement activities.
- Targeting of young drivers, motorcyclists, distraction and alcohol and drug related driving in education programmes.
- Support communities to deliver local speed campaigns through the local policing teams.
- Introduce speed limits in accordance with the current national guidelines and prioritise them based on available evidence, including 20mph zones.
- Consider the needs of all road users, including pedestrians and cyclists, when amending highway speeds to ensure safety, functionality and consistency are not compromised.
- Work with developers and transport scheme promoters to consider, when designing new schemes, factors which influence the success of routes and facilities in terms of their safe use and function, such as layout, visibility, gradient, lighting, natural surveillance, integration and signing.
- Consider all overarching and mode policies need to taken into account alongside this policy.
5.3 Expected Policy Outcomes

5.3.1 The implementation of this policy will result in an improved road safety record on the most dangerous roads, saving lives and minimising economic damage through well designed infrastructure and timeliness of safety defect repairs. The delivery of road safety schemes will be informed by the safety scheme priority list.

6.0 On-Street Car Parking

6.1 Summary

6.1.1 The management of parking is one of the most effective means of managing congestion. As Gloucestershire is a two-tier authority, responsibility for parking in the county is shared between the county council and the six district authorities. The control and demand management of on-street parking and Transport Interchange Hubs (previously, traditional park and ride sites) is the responsibility of the county council as the highway authority. The district councils control and manage most public off-street car parks.

6.1.2 Electric vehicle charge points are available on-street in Cheltenham and at a number of off-street car parks managed by the county and privately owned ones throughout the county. Zap Map enables drivers to locate and update EV charge points in the UK. GCC will look to ensure that Gloucestershire provides the infrastructure required for ultra-low emission vehicles in the future, this policy area sits in our Overarching Strategy (LTP PD 0.3 Reducing Carbon Emissions), and may see an increase in electric vehicle charge points at on-street and off-street car parking spaces.

6.1.3 Wherever possible, the county council will seek to influence off-street car park charging regimes, specifically in the urban areas, to influence demand management and balance the needs of commuters or employees (i.e. long stay parking) and the requirements of local businesses and shoppers (i.e. short stay parking). GCC will continue to review parking restrictions and work with the district councils

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11 [www.zap-map.com](http://www.zap-map.com)
6.1.4 During the lifetime of the LTP the county council will encourage the development of strategies for town centre on-street car park charges and other controls that benefit short stay over long stay parking. Not only will this approach encourage shopping and support economic activity, it will also incentivise more sustainable and congestion friendly travel to work. The county council will continue to work with the District Councils, local businesses and employees to encourage the use of long stay car parks, Transport Interchange Hubs, car sharing, public transport, cycling and walking for the work journey.

6.1.5 Any approach also needs to be considered in the context of the rural nature of much of the county, which means that for many people the car remains the most suitable means of transport. It is important, therefore, to ensure that parking tariffs are set appropriately.

6.1.6 In all cases, tariffs and time controls need to be set at a level which is sympathetic to local use and any off-street availability and charging regimes; that is at a level which will ensure the effective management of parking provision and use by prioritising access to the local community and promoting a sustainable and vibrant local economy.

6.1.7 Tariffs and time controls should be set in line with the measured demand for parking in individual urban areas, with the intention of refocusing demand management on areas, both on and off-street, or modes of transport, that provide a more sustainable local option for the management of local access while enhancing the potential tourist attraction.

6.1.8 The main issue concerning designated areas of regulated parking is how controls are managed, charged and enforced. In many parts of the county there will be little or no need for on-street controls apart short lengths of restrictions applied for safety or capacity reasons. More stringent controls are more likely to be required in town centres, commercial areas or around railway stations where competition for spaces will be greater.

6.1.9 Where competition for spaces occurs, priority will normally be given to short stay parking. Longer stay commuter parking will be discouraged in town centres as it will reduce the opportunity for shorter stay parking which is vital to the local economy. Subject to the needs of residents being safeguarded, long stay parking will be directed towards the periphery of town centres. Short stay parking should be conveniently situated for shoppers and visitors.

6.1.10 Parking controls will be applied selectively, in order to address specific problems. Limited waiting pay and display spaces close to neighborhood shopping centres may be introduced in order to provide adequate short stay spaces without the need for more extensive controls. In areas where
conflicts are likely to be more widespread, Controlled Parking Zones (CPZ) or Permit Parking Areas (PPA) are being introduced to manage area-wide parking issues. Additional CPZs or PPAs will be introduced as the need arises.

6.1.11 GCC will continue to work with District Councils to ensure that adequate provision is made for ranks for the standing of licensed taxis. These will be provided for access to town centres in locations where parked vehicles will not hinder normal traffic flows. Additionally, part-time evening and overnight ranks will be considered in locations which serve the night time economy.

6.1.12 The Council will work with District Councils to ensure that details of the location of all public parking facilities, any use restrictions applicable and the current costs of parking are made available.

6.1.13 Details of the current policies on the provision and management of Residents’ Parking can be found on the county council’s website www.gloucestershire.gov.uk/parking.
6.2 Policy LTP PD 4.5 – On-Street Car Parking

LTP PD 4.5 – On-Street Car Parking

GCC will work in partnership with transport operators, neighbouring traffic authorities and district councils to ensure that parking policies in each area support the local economy and maintain the safe and expeditious movement of traffic on the road network.

GCC will do this by implementing the following policy proposals:

- Operate the civil enforcement parking operation as a partnership with affected residents, businesses and visitors.
- Coordinate off-street parking enforcement management to ensure a comprehensive and complementary approach.
- Allocate parking permits or waivers with clear conditions of use, based on transparent and consistent principles, to give priority in accordance with the defined hierarchy of parking enforcement.
- Maximise the potential of information technology systems to support an effective and efficient parking management operation.
- To approach the use of discretion objectively and in accordance with legislation. GCC will publish policies on the ‘exercise of discretion’. For the latest information and guidance refer to the county council website www.gloucestershire.gov.uk/parking.
- Work with district councils in the demand management of vehicle parking and discourage commuter parking in town and city centres. This will be through the application of supply and pricing mechanisms, and the encouragement of the use of public transport, flexible working patterns, Transport Interchange Hubs and active travel modes.
- Establish informal parking board meetings with district councils on a project by project basis.
- Consider all overarching and mode policies need to taken into account alongside this policy.

6.3 Expected Policy Outcomes

6.3.1 The implementation of this policy will result in car parking that is both managed and enforced in a clear way across the county, whilst reducing costs and introducing the potential for flexibility when looking at individual solutions for local parking problems.
6.3.2 The priorities for car parking in Gloucestershire include the ongoing review of supply, demand and charging structure within the main urban areas.
The policies set out in this document will be delivered through the implementation of the associated proposals and, subject to funding, the schemes identified in the Connecting Places Strategies. These scheme priorities are also set out in a separate Delivery chapter addressing funding, monitoring, governance and review.
Local Transport Plan
Policy Document 5 - Rail

Version Draft Document
Last Revised NOVEMBER 2019
Review Date
Category Transport Planning
Owner Gloucestershire County Council
Target Audience Anyone wanting to find out about how the county council will manage public and community transport within Gloucestershire. This document specifically includes policies on:
  • Thinktravel
  • Rail Infrastructure Improvements
  • Rail Service Capacity Improvements
  • Rail Station Improvements

This strategy acts as guidance for anybody requiring information on how the county council will manage rail infrastructure and rail services in Gloucestershire up to 2041

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Contents Amendment Record
This report has been issued and amended as follows:

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<th>Issue</th>
<th>Revision</th>
<th>Description</th>
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<th>Signed</th>
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1.0 Introduction

1.1 Summary

1.1.1 Gloucestershire occupies a pivotal point in the UK rail network. Current levels of rail usage are relatively low (at 1%) compared with other parts of England (around 5%). However, with rail accounting for just 1.59% of transport related greenhouse gas emissions, there is considerable potential for rail to facilitate sustainable economic growth by making best use of its strategic advantages, including:

- The central location of Gloucestershire and its good rail links with Birmingham, Bristol, Swindon, Reading and London
- The availability of housing land within the catchment areas of existing stations such as Kemble, Cam and Dursley, Lydney, Stonehouse and Ashchurch
- The established urban centres of Cheltenham and Gloucester, along with their excellent links to the key centres

1.1.2 Gloucestershire’s long term vision for rail is for more frequent, faster passenger services accessed via modern station facilities that provide gateways to the rest of the country. Rail services will offer people with a choice in the way they travel making local and longer distance trips. The vision will be achieved by delivering a comprehensive local service that complements faster longer distance services with links to the City Regions; together they will offer improved journey choice and connectivity.

1.1.3 Gloucestershire’s ‘Thinktravel’ initiative aims to inform, educate and inspire people to make journeys in a smarter, more sustainable way, including rail. The Overarching Strategy sets out the policy on Influencing Travel Behaviour (PD 0.5).
Different organisations manage the rail network within the UK. Network Rail is a government owned company responsible for managing rail infrastructure including rail lines and level crossings. Train Operating Companies (TOCs) are privately owned businesses that operate train services and manage stations. These are managed through franchises awarded for fixed time periods. TOCs operating in Gloucestershire include: Great Western Railway, Cross Country Trains, and KeolisAmey (Transport for Wales).

GCC has a limited role in future rail investment decisions, although it may make representations about future franchises. As GCC’s role as local transport authority, the use of rail is promoted primarily as an alternative to the car for medium and long distance travel. Rail also has a role in offering some short distance trips, such as between Lydney and Gloucester.

An efficient passenger rail network, with strong internal and external connectivity, is vital for Gloucestershire to be economically competitive. For business, rail services link supply chains, customers and specialist knowledge and are critical to facilitating growth. More specifically, Gloucestershire’s rail network provides connectivity to the major growth centres of the Midlands, London, Bristol, Cardiff and the M4 Corridor. The four rail corridors identified in Figure B need to be considered holistically as individual changes will impact the network further afield.

Table A outlines the main themes of this policy document and the associated issues. For information on Rail Freight refer to policy Rail and Water Freight (LTP PD 3.6) included in the LTP Freight policy document (PD3 Freight).

Table B outlines the expected outcomes the Rail Policy Document and linkages to the overarching LTP objectives.
### Table A – Key themes of Rail Policy Document

<table>
<thead>
<tr>
<th>Theme 1</th>
<th>Theme 2</th>
<th>Theme 3</th>
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<tbody>
<tr>
<td>Infrastructure improvements</td>
<td>Service improvements</td>
<td>Rail station access improvements</td>
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Gloucestershire’s Local Transport Plan (2015-2041) Policy Document 5 - Rail

- Electrification
- Capacity infrastructure
- Great Western mainline
- Bristol to Birmingham main line including Worcester Shrub Hill
- South Cotswold line
- North Cotswold line
- Gloucester to South Wales
- Access by non-car modes
- Access by car
- Access to information
- Station facilities

Table B – Expected outcomes

<table>
<thead>
<tr>
<th>Objective</th>
<th>Expected Outcomes</th>
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<tbody>
<tr>
<td>Protect and enhance the natural and built environment</td>
<td>• Reduced transport-derived carbon emissions</td>
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- Increased uptake of more sustainable transport modes (walking, cycling and public transport), with corresponding reduction in sole car use
- Transport schemes that minimise impact on Gloucestershire’s natural, built and historic environments

**Support sustainable economic growth**
- Gloucestershire is a place to do business and attract investment
- The transport network is accessible, efficient, reliable, fit for purpose and demonstrates value for money
- Increased journey time reliability
- Greater economic activity
- Increased footfall in retail areas
- A thriving tourist industry, which benefits from ease of access to the county’s natural, built and historic environmental assets

**Enable safe and affordable community connectivity**
- A business community which benefits from connectivity with local, national and international markets
- Individuals benefit from economic prosperity and social benefit, such as being able to access employment, education and training
- A viable passenger transport network
- An integrated transport network, which provides attractive travel choices
- A transport network in which individuals can confidently consider all travel choices

**Improve community health and well being and promote equality of opportunity**
- Reduced traffic congestion
- Fewer harmful emissions with improved air quality

### 2.0 Summary of evidence base

2.1 Gloucestershire is well placed on the UK rail network, with good connectivity both locally and further afield. Considering the low greenhouse gas emissions from rail transport, Gloucestershire has an interest in increasing rail passenger and rail freight transport in order to work towards achieving its target for transport carbon emissions to be zero by 2050 (see LTP PI-7 – Increase use of rail LTP PI-14 – Reduce per capita transport...
Table C summarises the main destinations from stations in Gloucestershire. There are service gaps impacting connectivity with Bristol, Cardiff and Birmingham, which need to be addressed for Gloucestershire to benefit from wider economic growth.

2.2 Rail travel in Gloucestershire increased by 12%, between 2014 and 2017, as shown in Table D. Boardings in Cheltenham Spa and Gloucester account for about two thirds of all of the county’s use. Service frequencies, especially to the less-used stations, have generally improved in recent times.

2.3 Despite this level of growth, there are some constraints that affect the desirability of access to rail services as follows:

- Cheltenham Spa station is about 2km from the town centre in a mature residential area. There is limited scope to provide additional facilities, such as car parking.
- Gloucester station is just off the Bristol to Birmingham mainline. Cross Country trains running to/from Bristol mainly do not stop at Gloucester, necessitating an interchange at Cheltenham Spa. Trains from Cheltenham Spa via Gloucester need to reverse, involving a time penalty of 10-12 minutes.
- Ashchurch for Tewkesbury station is located within a business park, close to M5 junction 9, and about 2.5km from Tewkesbury town centre. A limited train service exists and facilities at the station are basic.
- Lydney station is about 1.5km from the town. Whilst access for pedestrians and cyclists is being improved the value of the town’s rail asset is currently limited.
- Kemble station serves the town of Cirencester, which is some 6km distant. GWR have recently built a new 330 space car park.
- Cam and Dursley station car park is usually full from early in the morning, leading to inappropriate parking in the surrounding area.
- Stonehouse station is in a residential area, limiting access and restricting the scope for car parking.

2.4 For reasons of ease of access, availability of car parking and cost of travel, some Gloucestershire residents use railway stations outside of the county. This may indicate that there is potential to grow the use of rail within the county if facilities and service are improved.
Figure A – Gloucestershire Rail Connectivity
### Table C - Summary of Current Rail Destinations

<table>
<thead>
<tr>
<th>Destinations</th>
<th>Stations Served &amp; Frequency</th>
<th>Franchise</th>
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</thead>
</table>
| Swindon, Reading and London           | • Cheltenham Spa (hourly)  
• Gloucester (hourly)  
• Kemble (hourly)  
• Stonehouse (hourly)  
• Stroud (hourly) | • Great Western Railway  
*Runs until April 2020 (possible Direct Award)* |
| Birmingham, Bristol, South-West, North-West and North-East | • Cheltenham Spa (2 per hour)  
• Gloucester (2 per hour) Connections at Cheltenham Spa | • Cross Country  
*Runs to November 2019 (extended due to the Government Rail Review)* |
| South Wales                           | • Cheltenham Spa (2 per hour)  
• Gloucester (2 per hour)  
• Lydney (variable) | • Transport for Wales (KeolisAmey)  
*Runs to October 2033*  
• Cross Country (hourly and on to Birmingham/Derby/ Nottingham) |
| Bristol/Weymouth (stopping service)   | • Cheltenham Spa (2-hourly)  
• Gloucester (2-hourly)  
• Ashchurch (2-hourly)  
• Cam and Dursley (2-hourly) | • Great Western Railway |
| Great Malvern/Worcester (stopping service) | • Cheltenham Spa (2-hourly)  
• Gloucester (2-hourly)  
• Ashchurch (2-hourly)  
• Cam and Dursley (2-hourly) | • Great Western Railway |
| Worcester / Oxford / Reading / London | • Moreton-in-Marsh (hourly) | • Great Western Railway |
### Table D - Station Patronage\(^1\) (entrances and exits)

<table>
<thead>
<tr>
<th>Station</th>
<th>2014/15</th>
<th>2017/18</th>
<th>Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheltenham</td>
<td>2,038,404</td>
<td>2,400,434</td>
<td>18%</td>
</tr>
<tr>
<td>Gloucester</td>
<td>1,364,142</td>
<td>1,477,988</td>
<td>8%</td>
</tr>
<tr>
<td>Stroud</td>
<td>490,546</td>
<td>544,270</td>
<td>11%</td>
</tr>
<tr>
<td>Kemble</td>
<td>356,078</td>
<td>372,686</td>
<td>5%</td>
</tr>
<tr>
<td>Moreton in Marsh</td>
<td>237,198</td>
<td>268,866</td>
<td>13%</td>
</tr>
<tr>
<td>Cam and Dursley</td>
<td>185,504</td>
<td>188,918</td>
<td>2%</td>
</tr>
<tr>
<td>Lydney</td>
<td>192,032</td>
<td>195,532</td>
<td>2%</td>
</tr>
<tr>
<td>Stonehouse</td>
<td>148,380</td>
<td>153,600</td>
<td>4%</td>
</tr>
<tr>
<td>Ashchurch for Tewkesbury</td>
<td>87,384</td>
<td>101,238</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Gloucestershire</strong></td>
<td>5,099,668</td>
<td>5,703,532</td>
<td>12%</td>
</tr>
</tbody>
</table>

\(^1\) Estimates of Station Usage, Office of Rail and Road, Dec 2018
3.0 Rail Infrastructure Improvements

3.1 Summary

3.1.1 Improvements to rail infrastructure will enable train operators to deliver improved service patterns. Network Rail is considering a number of medium to long-term infrastructure improvements that will improve the operation, speed and capacity of rail services to, through and within Gloucestershire. A rail investment strategy for Gloucestershire (GRIS) has been commissioned to provide the economic evidence base needed to prioritise infrastructure and service enhancements investments in the county. Policy will feed into and be informed by the finds of the rail investment strategy, which in turn will provide the long term aims for extending rail connectivity. Figure A shows Gloucestershire’s rail connectivity.

3.1.2 Through the devolved city region programme Gloucestershire needs to engage with the proposals for Bristol, Cardiff and Birmingham to ensure rail infrastructure is in place to maximise connectivity to serve the expected increase in demand from businesses and communities wanting to access these economic centres. Improvements in journey times to London will also strengthen Gloucestershire’s position.
3.1.3 To help manage and ensure that the rail system is planned, funded and operated in a cohesive manner, Network Rail uses a Continuous Modular Strategic Planning (CMSP) process. As well as providing the basis for planning within the rail industry, these processes enable stakeholders, including Local Transport Authorities, to understand the constraints and opportunities affecting the rail sector and how these link to their own plans for development.

3.1.4 It is important for GCC to engage effectively with these exercises, highlighting the links between rail development and local housing and economic development within the county.

3.1.5 Electrification of the Great Western Mainline between London and Bristol Parkway will help improve services times. If electrification was extended from Swindon to Kemble at some point in the future, this could facilitate an additional train per hour from Kemble to London via Swindon easing congestion at Swindon station.

3.1.6 The Bristol to Birmingham main line is a key corridor on the national rail network running parallel with the M5. It runs north – south through the Central Severn Vale where the majority of the county’s existing housing and employment land is located and where considerable development is proposed over the next two decades. Network Rail has previously considered the electrification of the Bristol to Birmingham mainline. This would enable wider plans for additional services, stations and stops at Ashchurch and Cam & Dursley, as well as providing enhanced capacity and speeds and potentially complementing the case for ‘Classic Compatible’ trains running through Birmingham onto HS2. Electrification of the route would also improve air quality particularly through the Gloucester – Cheltenham conurbation and encourage cars off the M5.

3.1.7 The North Cotswold Line Task Force has been created from a range of stakeholders along the route to promote faster and more frequent services through more efficient use of existing infrastructure in the short term and provision of additional infrastructure in the longer term. This will benefit stations in and adjacent to Gloucestershire including Moreton in Marsh, Honeybourne and Kingham

3.1.8 The West of England Councils are seeking capacity improvements to enable the MetroWest proposals to improve services in the greater Bristol area. The County Council is working with the West of England Councils to extend services to Gloucester calling at Cam and Dursley creating an half hourly service between Bristol and Gloucester.
3.1.9 There are complex inter-relationships between the different strands of rail investment and how these could impact on Gloucestershire. Table E summarises key elements stemming from the analysis of the existing commitments and the long-term plan options set out in the Western and Welsh Route Study documents and CSMP process.

3.1.10 Network Rail investments are subject to the eight stage GRIP (Governance for Railway Investment Projects) process which is used to ensure the appropriateness, effectiveness, deliverability and affordability of rail projects. This is effectively a business case process akin to that set out in the Treasury Green Book and in the Transport Business Case guidance. Delivery of infrastructure improvements are managed by Delivery Control Periods, with 5-year planning horizons, they help link investment options with demand models and manage the finance, scheme design and implementation process.

3.1.11 Other long-term infrastructure schemes which will have indirect (though still significant) impacts on services in the Gloucestershire area include HS2 and the arrangements for interchange in Birmingham Crossrail with improvements at Reading and the western access improvements at Heathrow.

3.1.12 Future freight demand will need to be accommodated by a transmodal model to include road, rail and port infrastructure along with demand for passenger transport in order to accommodate growth. Location of freight distribution centres on rail and water connected routes, not only on the strategic road network, would encourage non-road freight and help reduce road congestion. Land use planning will play a key role in facilitating the greater use of rail, inland waterways and shipping up to 2050, and encouraging the greater use of non-road modes to relieve pressure on the strategic road network². PD3 Freight policy document covers the rail and water freight.

3.1.13 Last mile deliveries by low carbon e-bikes or electric vehicles from rail parcel freight hubs could serve the main centres of Cheltenham and Gloucester, where opportunities for railway sidings or land availability next to the railway network is present. Thereby reducing carbon emissions and air pollution in town centres.

## Table E - Key Rail Commitments and policy proposals

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Timescale, Source and Status</th>
<th>Gloucestershire Impacts</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Western Main Line Electrification</td>
<td>Being delivered, but some sections removed from current programme</td>
<td>Improved services and greater capacity</td>
<td>Support case for extension to Cheltenham and Gloucester</td>
</tr>
<tr>
<td>Bristol – Birmingham electrification</td>
<td>Not currently being considered by the DfT</td>
<td>Improved journey times, capacity and environmental benefits. Potentially better HS2 integration (long term)</td>
<td>Work with Bristol &amp; other Councils/LEPs to press for scheme</td>
</tr>
<tr>
<td>MetroWest services Bristol-Yate and beyond</td>
<td>New trains to Yate funded through Local Growth Fund, likely Control Period 6 (2019-2024). Capacity improvements needed</td>
<td>Potential extension to Gloucester.</td>
<td>Work with West of England Councils West of England Combined Authority and LEPs to develop plan for route and build funding case for trains &amp; infrastructure improvements</td>
</tr>
<tr>
<td>Junction capacity improvements</td>
<td>Abotsford Junction (South of Worcester) and Westerleigh Junction (East of Bristol Parkway) under consideration – Control Period 6 (2019-2024) Control Period 7 (2014-2029) &amp; beyond. Raised via the Western Route Study which is</td>
<td>Will help support a range of service improvements by reducing conflicts between services, increase capacity and improve journey times</td>
<td>Work closely with the TOC and Network Rail on the options, what they would enable and how they would link into housing growth/rail growth plans</td>
</tr>
</tbody>
</table>
now being superseded by Network Rail’s Continuous Modular Strategic Planning process. Standish Junction improvements

| Capacity improvements – dynamic/passing loops | Western Route Study - Control Period 6 (2019-2024) Control Period 7 (2014-2029) to meet 2043 Conditional Outputs | Various alternatives for loops, including at Ashchurch & Charfield, enabling more trains generally, and more stopping trains. |
3.2 Policy LTP PD5.1 - Rail Infrastructure Improvements

LTP PD5.1 - Rail Infrastructure Improvements

GCC will engage with the rail industry to ensure that Gloucestershire is well placed to take advantage of the wider rail infrastructure improvements, including route electrification, HS2 at Birmingham, MetroWest, western access to Heathrow Airport and CrossRail at Reading. Potential enhancements will need to be considered through Network Rail’s Continuing Modular Strategic Planning process which has highlighted the Bristol to Birmingham corridor as a potential candidate in conjunction with the Western Gateway Sub National Transport Body’s priorities.

GCC will do this by implementing the following policy proposals:

- Work in partnership with district and borough councils, neighbouring authorities, Local Enterprise Partnership, Highways England, Network Rail, Train Operating Companies and Department for Transport to encourage investment in the county’s transport network, as funding opportunities arise. Furthermore, to work with all interested parties to support transport improvements in line with delivery of the ‘Access for All’, LEP’s Strategic Economic Plan and Local Industrial Strategy
- Support the case for further electrification, including Swindon to Kemble and the Bristol to Birmingham mainline
- Work in partnership with GFirst, West of England authorities, West of England Combined Authority and Great Western Railway to develop and fund, the extension of the enhanced MetroWest Bristol - Yate service to Gloucester and potentially beyond to Worcester
- Work in partnership with Worcestershire and Oxfordshire County Councils, the rail industry and other stakeholders to improve infrastructure in order to increase services and reduce journey times on the North Cotswold line as set out by the North Cotswold Line Task Force
- Work with Train Operating Companies and Network Rail to define and understand the infrastructure requirements needed to meet increased demand across the County network
- Provide appropriate evidence to support the transport and economic case for track (including electrification through Gloucestershire), signal and station capacity enhancements, as part of Network Rail’s Continuous Modular Strategic Planning (CMSP)
- Explore with Great Western Railway and Network Rail the most effective approach to station development and stopping patterns at Cam and Dursley on the Bristol-Gloucester route. Third party proposals for an additional new station south of Gloucester will need to be accompanied by a robust business case
• Only support the re-opening of railway lines where a robust business case can be provided by the scheme promoter
• Support heritage railway lines (Gloucestershire Warwickshire Railway and Dean Forest Railway) and their contributions to tourism
• Protect the freight line at Sharpness for future use
• Support in partnership with local planning authorities, Network Rail, rail freight operators and the private sector opportunities for last mile rail parcel freight hubs to help reduce carbon emissions
• Secure contributions from developers towards priorities and schemes contained within the Local Transport Plan, where those priorities and schemes satisfy the tests of the Community Infrastructure Levy (Amendment) Regulations 2015 (or any subsequent legislation)
• Work with Tewkesbury Borough Council and other stakeholders to deliver the recommendations of the Ashchurch for Tewkesbury Rail Strategy for service enhancements and station improvements
• Work with partners to identify infrastructure enhancements on the Birmingham to Bristol mainline to deliver timetable and connectivity improvements for residents, businesses and visitors to the Gloucestershire. These may include some of the following:
  o Dynamic/passing loops south of Gloucester and at Ashchurch
  o Junction improvements at Abbotswood, Standish and Westerleigh
  o Signalling improvements in the Gloucester area
  o Cheltenham station capacity improvements
  o Electrification between Bristol Parkway and Bromsgrove
  o Gauge enhancements for freight traffic between Birmingham and Bristol to W12 standard
  o Four tracking between Standish Junction and Cheltenham
• Consider all overarching and mode policies need to taken into account alongside this policy.
3.3 Expected policy outcomes

3.3.1 The implementation of this policy will result in improved infrastructure to facilitate the operation of service enhancements. This will make the rail network more attractive, reducing the number of car trips, and therefore carbon emissions and air pollution, and improving connectivity for those without access to a car.

3.3.2 Increased connectivity will improve the desirability of Gloucestershire as a place to live, work or visit. The priorities for rail infrastructure include:
- Junction and capacity improvements (dynamic loops) to facilitate more trains and more stopping services, including possible new stations.
- Electrification of Bristol to Birmingham mainline and other selective electrification as appropriate.
- New transport hub south of Gloucester. The revenue generated may support the overall business case for the extension of MetroWest to Gloucester.

4.0 Rail Service Capacity Improvements

4.1 Summary

4.1.1 Infrastructure improvements undertaken by Network Rail will enable service improvements and enhanced journey speeds. Service improvements are deliverable either through changes made through the Rail Franchise renewal process or through the twice annual timetable renewal. The infrastructure improvements outlined in Section 3 will, if implemented, provide the opportunity for TOCs to improve the service pattern within Gloucestershire, if it is financially viable to do so.

4.1.2 Where no commercial case can be made, a subsidy can be paid by a third party to enable a desired stopping pattern until such time as demand can be demonstrated and the service becomes commercially viable. GCC can request planning obligations (s106 or CIL if adopted) from developers where it is reasonable to do so.
4.1.3 GCC will need to work in partnership with the Local Enterprise Partnership (GFirst) and regional partners to strengthen the evidence base for better rail services in Gloucestershire. This will include the need to contribute to, and influence, the debates surrounding medium to long-term developments set out in Table F.

4.1.4 MetroWest Phase 2 provides an opportunity to improve the links between Gloucester and Bristol, achieving a half-hourly service via Bristol Parkway and Yate. Developing a Business Case for this, in partnership with GFirst, South Gloucestershire Council and West of England Combined Authority is a priority in the short-term. Once these service improvements are established and operating commercially, further improvements could include the provision of a new transport hub south of Gloucester. This would be subject to the preparation of a business case, linked to housing developments in the area.

4.1.5 Transport for West Midlands (TfWM) is responsible for overseeing the current rail franchise covering the West Midlands with trains operated by West Midlands Trains. In the lead up to the award of this franchise, TfWM was able to secure service improvements and investment in new trains. There may be future potential for trains to extend south to Bristol/Cardiff calling at Ashchurch for Tewkesbury.

4.1.6 GCC is part of the Western Gateway Subnational Transport Body (SNTB) with which it will work closely to develop regional rail priorities. This will help to achieve the LTP’s connectivity goals (e.g. improved services on the Bristol to Birmingham line) and will strengthen Gloucestershire’s contribution to the economic development of the South West.

4.1.7 Improvements to passenger services at Ashchurch for Tewkesbury, as set out in its rail strategy, are important to support the proposed developments in the area. A constraint to improving the services is the shortage of rolling stock and capacity for additional services on the route. If this could be resolved and attendant staffing provided, an hourly service to Worcester and additional stops to Birmingham could be offered without the need for rail infrastructure changes. Any further frequency improvements would involve tackling more fundamental timetabling issues that arise from the mix of fast, slow and freight trains on the route. Such frequency enhancements would need to be considered post-2031.

4.1.8 As with Ashchurch for Tewkesbury station the main barrier to the provision of additional services at Lydney is the shortage of rolling stock. In the longer term, it will be important to engage with the wider rail industry in the context of proposals for enhanced Birmingham – Gloucester - Cardiff services.
4.1.9 Opportunities for enhanced connectivity through HS2 will also be pursued. Active engagement is required, setting out the case for enhanced regional services on existing lines, complemented by ‘Classic Compatible’, running through Birmingham onto HS2 towards Leeds and Manchester. Failure to address this may leave the Gloucestershire economy at a significant disadvantage. **Table F** summarises the rail service policy aims for the short and long term.

---

**Table F - Rail Service policy aims**

<table>
<thead>
<tr>
<th>Station and existing services</th>
<th>Short-Term policy aims (2021)</th>
<th>Medium to Long-Term policy aims (2021-2043+)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cheltenham Spa</strong></td>
<td>Excellent connectivity across UK, including London</td>
<td>Hourly direct services to London</td>
</tr>
<tr>
<td>Gloucester</td>
<td>Good connectivity across UK, including London</td>
<td>Hourly direct services to London</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stonehouse</td>
<td>Hourly services to London and to Swindon (from Cheltenham via Gloucester)</td>
<td>Hourly direct services to London</td>
</tr>
<tr>
<td>Stroud</td>
<td>Hourly services to London and to Swindon (from Cheltenham via Gloucester)</td>
<td>Hourly direct services to London</td>
</tr>
</tbody>
</table>
### Station and existing services

<table>
<thead>
<tr>
<th></th>
<th>Short-Term policy aims (2021)</th>
<th>Medium to Long-Term policy aims (2021-2043+)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kemble</strong></td>
<td>Fast hourly service to London (from Cheltenham/Gloucester) – excellent scope for growth</td>
<td>Work within rail long-term planning to advocate London- Swindon additional service runs to Kemble</td>
</tr>
<tr>
<td></td>
<td>Hourly direct services to London</td>
<td>Work within rail long-term planning to advocate London- Swindon additional service runs to Kemble</td>
</tr>
<tr>
<td><strong>Moreton-in-Marsh</strong></td>
<td>Good links to London (from Worcester) via Oxford</td>
<td>Increase in services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work with North Cotswold Line Taskforce, local authorities and other stakeholders to reinstate the rail link between Honeybourne and Stratford on Avon</td>
</tr>
<tr>
<td><strong>Cam &amp; Dursley</strong></td>
<td>Hourly services to Bristol</td>
<td>Half hourly service to Bristol/Gloucester</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work with GFirst, South Gloucestershire Council and West of England Combined Authority to fund &amp; deliver half-hourly Bristol- Gloucester service</td>
</tr>
<tr>
<td><strong>Lydney</strong></td>
<td>Station serves Lydney and wider Forest of Dean Trains stop only 2-hourly (Cheltenham-Maesteg via Cardiff)</td>
<td>Work with GFirst, developers and neighbouring areas to fund rolling stock/staffing for additional stops particularly during the day and on Sundays.</td>
</tr>
<tr>
<td></td>
<td>Availability of rolling stock constrains additional stopping services</td>
<td></td>
</tr>
</tbody>
</table>
| **Ashchurch for Tewkesbury** | Infrequent (2-hourly) service  
Rolling stock/staffing constrains additional stopping services | Work with Tewkesbury Borough Council GFirst and developers to fund hourly service / staffing for additional stops for services to Worcester and Birmingham. Implement the initial | Build on potential to extend Bristol-Gloucester services to Worcester, via Ashchurch Deliver the longer term outcomes of the Ashchurch for Tewkesbury Rail Strategy |

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## Station and existing services

<table>
<thead>
<tr>
<th>Station and existing services</th>
<th>Short-Term policy aims (2021)</th>
<th>Medium to Long-Term policy aims (2021-2043+)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>recommendations of the Ashchurch for Tewkesbury Rail Strategy</td>
<td></td>
</tr>
</tbody>
</table>
4.2 Policy LTP PD5.2 - Rail Service Capacity Improvements

LTP PD5.2 - Rail Service Capacity Improvements

GCC will engage with the rail industry to ensure that Gloucestershire benefits from rail services that facilitate local access and longer distance connectivity to London, Bristol, Birmingham, Cardiff, Oxford and Worcester.

GCC will do this by implementing the following policy proposals:

- Respond to rail franchise and timetable consultations to ensure that Gloucestershire is well connected to the national rail network, with competitively timed local services.
- Contribute to and influence the debates surrounding medium to long-term developments, such as MetroWest and HS2, ensuring that Gloucestershire’s needs and contribution are expressed.
- Work with Transport for West Midlands to explore potential service improvements between Gloucester/Cheltenham, Worcester and Birmingham.
- Work with partners (including developers) to facilitate improvements in service provision for Ashchurch for Tewkesbury as set out in its rail strategy.
- Work with the rail industry, local authorities and other stakeholders to consider the reinstatement of the rail link between Honeybourne and Stratford on Avon.
- Work with partners (including developers) to deliver a more frequent service at Lydney. In parallel, work with G-First, Transport for Wales, Monmouthshire County Council and the rail industry to define and agree long-term options for the provision of enhanced Birmingham-Gloucester-Cardiff services. Also to improve connectivity between Lydney, Chepstow and the wider Bristol area through enhanced timetabling at Severn Tunnel Junction to allow for easier and more frequent interchanges and or a direct service.
- Work with Great Western Railway and Network Rail to identify the most effective approach to station development and stopping patterns on the Bristol - Gloucester route, including the development of the existing Cam and Dursley station and the potential for a new transport hub south of Gloucester.
- Consider all overarching and mode policies need to taken into account alongside this policy.
4.3 Expected policy outcomes

4.3.1 The implementation of this policy will result in improved rail services, which will increase the desirability of using rail for both local and longer distance journeys. This increased level of accessibility will benefit business and individuals as well as reducing greenhouse gas emissions.

4.3.2 The priorities for rail service capacity improvements include:
- An hourly service at Ashchurch for Tewkesbury, linked to proposed development
- An improved service linking Gloucester, Cam and Dursley with Bristol (MetroWest Phase 2)
- Service enhancements for Lydney with better linkages for Birmingham-Gloucester-Cardiff services and to the Bristol area

Improve connectivity @ rail stations

5.0 Rail Station Improvements

5.1 Summary

5.1.1 Rail stations fulfil an important role, not only by providing access to the rail network, but also as interchange hubs between modes.

5.1.2 Railway stations, including their facilities and information provision, are managed by TOCs as part of their franchise arrangements. Stations within Gloucestershire, apart from Lydney, are managed by Great Western Railway. Lydney is managed by Transport for Wales (KeolisAmey).
5.1.3 Car parking at stations is also usually covered by the franchise arrangements. However, GCC own the car parks at Ashchurch for Tewkesbury and Cam and Dursley.

5.1.4 While there are ongoing discussions with TOCs and Network Rail to improve station facilities, improving access to stations is an issue that GCC can directly influence. Each location has its own set of issues.

5.1.5 **Cheltenham Spa** is the county’s busiest station, with over 2 million passengers per year. It is categorised as C1 by Network Rail, the same as Worcester Shrub Hill and Bath Spa. Although located almost 2km from the town centre, the station is an important asset and a gateway to the town and surrounding area.

5.1.6 Following concerns about the lack of investment in the station, progress has been made to improve car parking, bus access on the forecourt and general station facilities with a package of different funding sources. Plans for improved connections to existing walking and cycling networks are also ongoing.

5.1.7 **Gloucester** has significant potential for growth. The centrally-located rail station is an asset and could assist in the provision of valuable development land attractive to high-value businesses. Improved links to London and access to Birmingham, Bristol and Cardiff are fundamental to this. However, the station is not on the Bristol to Birmingham mainline.

5.1.8 Improvements in the area around the station will start to create an improved gateway to the city. The Gloucester Transport Hub has recently opened, which will facilitate public transport interchange. Furthermore, additional car parking has been provided on the north-side of the station, with a new direct access onto the platforms. There has been a successful bid for Growth Deal funding for rail station enhancements, including a separate entrance and exit to the car park, improved pedestrian and cycle routes and refurbishment of the station subway, including wheelchair access.

5.1.9 **Stroud and Stonehouse** stations need upgrading. Both require Disability Discrimination Act (DDA) compliant footbridges. Stroud requires upgrading of station facilities’ increased car parking and improved forecourt arrangements for pedestrians and cyclists. Stonehouse station is surrounded by residential development, making access difficult and scope for car parking constrained.
5.1.10 **Cam and Dursley** is a popular station for travel to and from Bristol. Demand is likely to continue to grow with further development proposed in the area. GCC is looking at expanding the size of the car park and improving cycle links.

5.1.11 **Kemble** station is popular due to its wide catchment area and demand is likely to grow with development in and around Cirencester.

5.1.12 Given Kemble’s rail station’s location as a ‘parkway, and the hourly service to London (including a change at Swindon) demand will only continue to increase at the station. It is therefore important that access improvements, including bus and cycle access, are delivered as part of planned housing growth in the local area. GWR has recently built a new 330 space car park.

5.1.13 **Lydney** station is around 1.5km from the town. It is the only station in the Forest of Dean. Growth Deal funding will improve pedestrian and cycle links between the station and town centre.

5.1.14 Forest of Dean District Council is keen to see improvements to the station, as currently facilities are poor. The train service has improved in recent years, but it would be useful if more trains stopped there. Further proposals are under consideration for redevelopment of the harbour just over 1km to the east of the station.

5.1.15 **Moreton-in-Marsh** station serves communities in the North Cotswold area, providing access to Worcester, Oxford, Reading and London. It also acts as a gateway to the Cotswolds for visitors to the area. The station is located in the town centre and is generally in good repair, requiring only minimal improvements. Pedestrian access over the A429 High Street railway bridge is an issue within the town, with many people choosing to use the station to cross the railway line. This informal arrangement is not being discouraged by Network Rail or Great Western Railway. However, there is a need to formalise access either with an arrangement with Network Rail or changes in the access arrangements for the A429 High Street Railway Bridge. There is an urgent need for an increase in station parking if the station is to benefit from increased services being worked up by the North Cotswold Line Task Force.

5.1.16 **Ashchurch for Tewkesbury** station is only served by a train every two hours to Great Malvern and a couple of services to Birmingham. Increasing the frequency to at least hourly is essential to help serve nearby development. The station has only basic facilities and there is a need for investment. Tewkesbury Borough Council commissioned a strategy for the station, in conjunction with the master plan for the area. It sets out a list of station and service improvements.
5.1.17 In the short term, the priority for Ashchurch for Tewkesbury station is improved passenger facilities, including walk & cycle access, buses along the A46 / A438 corridor and car parking at the station. The recently completed rail strategy sets out a number of priorities for the station primarily improved connectivity to Birmingham, Worcester and enhanced station facilities. Table G summarises the key findings and short-term recommendations for access improvements at each station.

Table G – Station access key finding and recommendations

<table>
<thead>
<tr>
<th>Station</th>
<th>Findings</th>
<th>Short-Term proposals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheltenham Spa</td>
<td>• Key gateway to one of two main urban centres&lt;br&gt;• Distant from town&lt;br&gt;• Poor passenger facilities&lt;br&gt;• Lack of parking</td>
<td>• Investment in facilities&lt;br&gt;• Increase car parking&lt;br&gt;• Improve concourse&lt;br&gt;• Improve bus interchange&lt;br&gt;• Improve cycle access &amp; facilities&lt;br&gt;• Install lifts</td>
</tr>
<tr>
<td>Gloucester</td>
<td>• Key gateway to one of two main urban centres&lt;br&gt;• Central location provides focus for development of city&lt;br&gt;• Poor environment around station&lt;br&gt;• Poor access to town centre</td>
<td>• Improve north-south access (improve subway)&lt;br&gt;• Integrate station with town centre, via Kings Quarter and new bus station&lt;br&gt;• Improve forecourt and station buildings</td>
</tr>
</tbody>
</table>
### Gloucestershire’s Local Transport Plan (2015-2041) Policy Document 5 - Rail

<table>
<thead>
<tr>
<th>Station</th>
<th>Findings</th>
<th>Short-Term proposals</th>
</tr>
</thead>
</table>
| Stroud                   | • Market town station  
• Central location and attractive environment  
• Limited car parking  
• Good cycle access but limited cycle parking  
• Poor access across tracks (old footbridge not Equality Act compliant) | • Install electric vehicle charging points  
• Improve station facilities and access (e.g. footbridge)  
• Increase and improve cycle parking  
• Improve forecourt  
• Install electric vehicle charging points |
| Stonehouse               | • Basic station facilities  
• Very constrained location, making access and parking difficult  
• Cycling to station from surrounding area quite feasible  
• Poor cycle storage (unsuitable location, poor security) | • Improve station facilities, including cycle storage  
• Promote walk and cycle access  
• Install electric vehicle charging points |
| Kemble                   | • Station serves Cirencester and surrounding rural area  
• Station lies 6km from Cirencester  
• Poor highway access (queuing at A433/A429 junction)  
• Poor cycle access from Cirencester  
• Irregular and complex bus links, not timed to trains | • Improve highway, bus and cycle links (developer contributions)  
• Install electric charging points |
| Moreton-in-Marsh         | • Station serves village and surrounding rural area  
• High growth in patronage (2014-2018)  
• Relatively low housing growth planned | • Resolve town centre pedestrian access issue  
• Increase station car parking  
• Install electric vehicle charging points |
| Cam and Dursley          | • Car park full – Car parking always likely to be constraint | • Deliver new car park and plan further provision to meet growth  
• Improve highway, bus and cycle links (developer contributions) |
<table>
<thead>
<tr>
<th>Station</th>
<th>Findings</th>
<th>Short-Term proposals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lydney</td>
<td>• Station serves Lydney and wider Forest of Dean</td>
<td>• Install electric vehicle charging points</td>
</tr>
<tr>
<td></td>
<td>• Distant from town</td>
<td>• Resolve longer term arrangements for the additional car parking.</td>
</tr>
<tr>
<td></td>
<td>• Significant planned housing growth in area, with more possible at harbour.</td>
<td>• Install electric vehicle charging points</td>
</tr>
<tr>
<td></td>
<td>• Very basic station facilities</td>
<td></td>
</tr>
<tr>
<td>Ashchurch for Tewkesbury</td>
<td>• Significant housing growth planned</td>
<td>• Seek funding to improve station facilities, including parking</td>
</tr>
<tr>
<td></td>
<td>• Poor connections to Tewkesbury</td>
<td>• Work with stakeholders on the recommendations from the Ashchurch for Tewkesbury Rail Strategy</td>
</tr>
<tr>
<td></td>
<td>• Very basic station facilities</td>
<td>• Install electric vehicle charging points</td>
</tr>
</tbody>
</table>
5.2 Policy LTP PD 5.3 – Railway Stations Improvements

GCC will engage with delivery partners to maximise the desirability, demand and customer experience of using railway stations within Gloucestershire. Station facilities need to meet existing and forecasted demand by providing safe and secure facilities for pedestrians, cyclists, bus users and car users.

GCC will do this by implementing the following policy proposals:

- Work in partnership with district councils, the Local Enterprise Partnership, Highways England, Transport for Wales and Department for Transport to seek investment in the county’s transport network as funding opportunities arise.
- Ensure each railway station has a clear plan for its development in the short, medium and long term, linked to development proposals in the area and rail service improvements.
- Work with Train Operating Companies and Network Rail to encourage ongoing investment in station facilities to improve the experience of travelling within the county. Improvements include improved passenger waiting facilities, installing electric vehicle charging points, increasing cycle racks, car parking, access improvements, links to walking and cycle networks and providing real time passenger information for onward journeys.
- Promote connectivity to rail stations by active travel modes supported through Thinktravel and where bus services access railway stations ensure that timings complement each other to encourage interchange between transport modes.
- Encourage the use of innovative design to enhance the aesthetic appeal and desirability of using public transport facilities. In addition to operation and safety issues GCC welcomes designs which complement and where possible enhance the natural, built and historic environment.
- Consider all overarching and mode policies need to taken into account alongside this policy.
5.3 Expected policy outcomes

5.3.1 The implementation of this policy will result in the promotion of an accessible rail service which provides safe and convenient transport choices. Facilities must be provided to meet demand and sustainable travel access improvements will increase the desirability of use.

5.3.2 The priorities for railway station access improvements include:

- Investment in the improved integration of Cheltenham Spa and Gloucester stations into their surroundings, including local walking and cycling routes, making them attractive, effective gateways into the county's primary urban centres
- Continue to implement complementary enhancements to existing stations including the developments of travel plans, integration of bus services, improved car and cycle parking and customer facilities to help train stations fulfil their role as interchange hubs
- Work with partners to manage growing demand at Kemble Station. Promote this station as a Cirencester Parkway facility. This would require improvements to station facilities, improved sustainable transport linkages with the town and longer-term work alongside the wider rail industry to improve frequencies to Swindon and London services
- Resolving pedestrian access arrangements in Moreton-in-Marsh and increasing car parking capacity
The policies set out in this document will be delivered through the implementation of the associated proposals and, subject to funding, the schemes identified in the Connecting Places Strategies. These scheme priorities are also set out in a separate Delivery chapter addressing funding, monitoring, governance and review.
Local Transport Plan
Policy Document 6 – Walk

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<td>Transport Planning</td>
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| Owner         | Anyone wanting to find out about how the county council will manage public and community transport within Gloucestershire. This document specifically includes policies on:
- Thinktravel
- Health & Wellbeing
- Pedestrian Infrastructure
- Pedestrian Asset Management
- Rights of Way
- Pedestrian Safety |

This strategy acts as guidance for anybody requiring information on how the county council will manage rail infrastructure and rail services in Gloucestershire up to 2041.
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1.0 Introduction

1.1 Introduction

Walking has benefits and there are many good reasons why GCC and its partners should encourage it. Walking is simple, free and one of the easiest ways for people to become more active and healthier. The more trips people make on foot, the fewer car trips are made, with the benefits of reduced congestion and emissions and improvements in air quality, as well as promoting better health and wellbeing.

Gloucestershire is a largely rural county and it is important that the role of public footpaths and rights of way are considered when planning for walking and access by mobility scooter. These routes may provide important links between villages, linking outlying villages and larger urban areas and to wider public transport networks.

Pedestrians, cyclists and mobility scooter users have much in common and there are important links with cycling policy and cycling infrastructure that can cater for all users.
- Many cyclists make walking journeys (and vice versa and both modes are easily interchangeable.
- Some central public spaces and routes such as towpaths and off road cycle routes cater for all three modes, creating traffic free environments.
- Most journeys are short (under 3 miles).
- All three modes offer similar benefits (non-polluting, healthy journeys) and are available to the majority of the population.

1.4 It is important to recognise that pedestrians should have priority over other modes of transport in many situations, with particular consideration given to pedestrians with disabilities and mobility challenges.

1.5 Nationally and locally there is a growing understanding that, whilst hard (physical) transport infrastructure is necessary for a modern transport system, this needs to be supported by soft (behavioural or operational) measures, sometimes known as Smarter Choices. These consist of a wide range of tools which provide people with the information, incentives and support to travel more sustainably. Gloucestershire’s Thinktravel initiative aims to inform and inspire people to make journeys in a smarter, more sustainable way. The Overarching Strategy sets out the policy on Influencing Travel Behaviour (PD 0.5).

1.6 Pilot studies across the UK and in Gloucestershire show that targeted promotion and marketing has powerful effects on the transport habits of people living or working in areas where it is applied.

The delivery of smarter travel choices benefits the local transport network in terms of reducing the number of car trips on the network as well as supporting wider health and wellbeing and encouraging optimal use of the transport network. Table A outlines the expected outcomes of the Walking Policy Document and linkages to the overarching LTP objectives.

Table A – Expected outcomes from Walking Policy Document

<table>
<thead>
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| Protect and enhance the natural and built environment | • Reduced transport derived carbon emissions  
• A reduction in solo car use, and an increased uptake of sustainable transport modes (walking, cycling, public transport)  
• Transport schemes are designed to reduce the adverse impact of transport on Gloucestershire’s high quality natural, built and historic environments |
| Support sustainable economic growth | • Gloucestershire as a place to do business and attract investment  
• The transport network is accessible, efficient, reliable, fit for purpose and demonstrates value for money  
• A transport network resilient to extreme weather events |
2.0 Summary of Evidence Base

2.1 Walking is the second most common mode for trips, but accounts for a small share of distance as walking trips tend to be shorter than average. Pedestrians make up 22% of all journeys nationally, but cover only 3% of distance. Walking is often an important part of longer public transport journeys. The average walking trip is 18 mins long\(^1\).

Pedestrians make up 22% of all journeys nationally

2.2 In 2017, the average person walked 206 miles and made 343 walking journey stages (journeys which may also form part of longer journeys involving other modes). ‘Just Walk’ is the most common trip purpose (23% of all walking trips) whilst commuting or business was the least common

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\(^1\) Walking Factsheet, National Travel Survey 2014

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2.3 Whilst providing high quality walking, cycling and public transport infrastructure is elemental to enabling travel choice, promotion of those choices are critical. Directing efforts to marketing and promoting of new and existing transport facilities not only helps spread the message and improve their economic viability but, over time, starts to shape new social norms.

2.4 Schemes to encourage travel behaviour change to sustainable transport modes have demonstrated an average benefit to cost ratio (BCR) of 5:1, which represents high value for money, with 90% of benefits attributable to congestion reduction. This highlights the direct link between the promotion of non-car modes delivering local economic benefits, by relieving the pressure on the strategic road network creating efficiency and reliability for passenger and freight journeys.

2.5 Gloucestershire’s aging population will see an increase in the use of mobility scooters and powered mobility vehicles (PUVs), as forecast nationally. Mobility scooters differ from wheelchairs in a number of ways, including build specification, manoeuvrability and speed. The range of transport and road policy areas that could potentially be impacted by a significant growth in numbers of mobility scooter users is significant. “Best estimates” put the number of units sold per year at approximately 80,000 and total number of UK users at approximately 300-350,000. There remains an urgent need for accurate statistics on mobility scooter use for policy makers and those planning public transport, road and pedestrian infrastructure. Legally, mobility scooters are divided into two categories. Class 2 mobility scooters are intended for use on the road only and Class 3 mobility scooters are intended for use on the road or the pavement.

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3 Investing in Cycling and Walking: The Economic Case for Action, DfT, 2015
3.0 Gloucestershire’s Pedestrian Network

3.1 Summary

3.1.1 A large proportion of journeys are local, typically less than five miles in length. Given this, most of our everyday journeys could be walked, travelled by mobility scooter or cycled. But busy roads, poorly-maintained roads and footpath environments create barriers, increase the risk of injury, and ultimately the number of vehicle trips on the highway network by people who might otherwise walk.

3.1.2 The pedestrian route network is the most extensive of all transport networks since it includes the majority of the road network, including any associated footways, cycleways and bridlepaths, public spaces and the network of pedestrian rights of way including public footpaths.
3.1.3 Topography, directness of route, route continuity, the quality of street lighting and extent of natural surveillance are other factors that can have a significant influence on pedestrian movements. Good street design and well managed footpath maintenance are vital to the safe interaction of pedestrians, mobility scooters and other road users and can address safety concerns which can discourage walking and can lead to social exclusion.

3.1.4 Pedestrians’ needs are often considered last. Introducing a hierarchy of road users with pedestrian needs at the top can support pedestrian movements. Existing roads may need to be converted, new routes may be costly to maintain and revised networks may push traffic to adjacent roads. There is also a need to closely consider the needs of ‘protected groups’ such as blind or deaf people, who may sometimes find traditional street layouts easier to navigate.

3.1.5 An important outcome of the LTP is to provide individuals with the confidence to consider all travel choices. This will be achieved on a scheme by scheme basis where a statement of background information on current or potential non-motorised users (NMUs) should be completed on issues relevant to the scheme. The NMU Context Report should ensure that appropriate decisions on scheme design are considered and particular attention is given to disabled people under the Design manual for Road and Bridges (DMRB) standard.

3.1.6 In response to the Government’s Cycle and Walking Investment Strategy (2017), Gloucestershire County Council is developing a series of Local Cycling and Walking Infrastructure Plans (LCWIP). These will consider strategic walking routes and identify investment opportunities for improvements to encourage more walking along specified corridors and in walking hotspots or zones such as urban centres or public transport hubs. The LCWIP will work towards walking network maps, over time these will become available at www.gloucestershire.gov.uk/ltp.

3.1.7 In response to the Government’s Cycle and Walking Investment Strategy (2017), Gloucestershire County Council is developing a series of Local Cycling and Walking Infrastructure Plans. These will consider strategic walking routes and identify investment opportunities for improvements to encourage more walking along specified corridors and in walking hotspots or zones such as urban centres or public transport hubs.

3.1.8 The first LCWIP is being developed for the Central Severn Vale area, which includes Cheltenham and Gloucester. This has considered main trip attractors and desire lines, used the Walking Route Audit Tool (WRAT) to assess the current condition and suitability of the routes. In parallel, an Equalities Assessment Tool (EQAT) assessed routes in terms of their impacts on different groups. The results from these assessments, has provided evidence for our investment priorities.
3.1.9 Development patterns that reduce the need to travel long distances and encourage walking and cycling are an essential element of sustainable development. The location and nature of all new development, commercial and residential, has a major bearing on both the need to travel and how people choose to travel. New development provides an excellent opportunity to create better walking and cycling opportunities, suitable routes for all non-car users and travel practices by overcoming barriers and improving connectivity. Our Overarching Strategy provides further policy detail on integrating with new development (PD0.4)
3.2 **Policy LTP PD 6.1 – Gloucestershire’s Pedestrian Network**

**LTP PD 6.1 – Gloucestershire’s Pedestrian Network**

GCC will work with interested parties to provide an inclusive safe, reliable and efficient highway environment that encourages walking, and provides pedestrian links to connect communities, employment and services.

GCC will do this by implementing the following policy proposals:

- Promote Gloucestershire’s pedestrian network through [Thinktravel](#).
- Improve walking routes between and within settlements by working with delivery partners, other agencies, the community and stakeholders to remove barriers to walking, and consolidate walking networks that provide a continuous safe and accessible network accessing town centres, residential areas, employment areas, and routes to schools.
- Prioritise investment in urban centres, around public transport hubs and new developments in line with LCWIP guidance.
- Support the delivery of Local Cycling and Walking Infrastructure Plan (LCWIP) and the upgrade and improvement of routes where they connect to local footway networks or could offer convenient routes for local trips.
- Recognise the role and function of the existing quiet lane network and seek to expand this where possible to provide inclusive safe walking routes.
- Work in partnership with communities in identifying local transport needs and solutions (such as through Parish and Neighbourhood Plans).
- Work with district and borough councils to ensure that new development is well connected to the existing transport network.
- Ensure developers assess the needs of all pedestrians and mobility users within their development design and any associated improvements.
- All walking infrastructure provided within the county will be designed in accordance with Manual for Streets (MfS) and the counties technical specifications and all schemes on the local highway network will be subject to appropriate context reports and audits (including road safety, non-motorised users, walking, cycling and quality audits) before design approval.
- Encourage developers to consider the inclusion of playable space and informal play opportunities in new development and encourage the engagement of children and the local community in the design process, to ensure inclusive streets are created where children feel safe to play and where walking and cycling is encouraged and supported through inclusive street design and development layout.
- Ensure that where possible development sites connect to LCWIP desire lines.
- Consider all overarching and mode policies need to taken into account alongside this policy.
3.3 Expected Policy Outcomes

3.3.1 This policy will seek to improve walking routes and local networks by:
- Utilising opportunities as they arise
- Responding to safety requirements
- Identifying and addressing barriers to pedestrian and mobility user movement

3.3.2 The implementation of this policy will result in a safe and well-connected pedestrian network that encourages walking, helping to achieve a more physically active population and lower levels of pedestrian related road accidents. It will also support the county’s tourist industry which will benefit from ease of access to the county’s natural, built and historic environmental assets.

3.3.3 The priorities for supporting pedestrians in Gloucestershire are identified in the Delivery chapter.

4.0 Rights of Way

4.1 Summary

4.1.1 Gloucestershire has 3509 miles of public rights of way; one of the longest networks managed by any county. It is used predominantly by walkers, although 15% of it is bridleway - where horse riding and cycling are also lawful uses. The GCC Rights of Way and Countryside Access Improvement Plan acts in tandem with the LTP to provide better connected rural access networks. Both public rights of way and unsurfaced roads available for non-motorised vehicular users are important to walkers, horse riders, carriage drivers and cyclists. They can provide links in the network of other paths to complete coherent routes.

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4.1.2 The Public Rights of Way Improvement Plan (6.2.2/3) states that ‘It is desirable that the pedestrian, cycle and horse riding routes are integrated with the road network. This means, ideally, ensuring that the path network is cohesive and that, where a route has to cross a busy road, a safe crossing point is provided where practicable’. It adds that ‘... this also means ‘provision of well-maintained verges for horse riders and walkers especially where this provides links between sections of the public rights of way network. The danger to pedestrians, cyclists and horse riders from traffic is very real and it is important to reduce the risks. Access needs to be considered in the context of the Local Transport Plan and with local planning processes. Encouraging people away from busy routes, agreeing measures to safeguard quieter routes and improving accessibility to and within green space’.

4.1.3 In some parts of the county increased safety and accessibility for walkers, horse riders and cyclists may enable better community connectivity, support economic prosperity and provide wide social benefits. The county is a visitor destination for walkers and cyclists, and recreational horse riding is recognised as a significant element of the rural tourism economy.

4.1.4 Whilst the large number of tracks and bridleways in Gloucestershire are hugely valued by local people and the wider tourism industry, they are quite fragmented. Bridleway routes may involve cyclists and horse riders having to ride along busy roads in order to get between one stretch of track and another. There is a strong case for linking up some of these existing tracks and bridleways with new stretches of off-road track to create a more connected network of multi-user tracks, where practicable.

4.1.5 Across Gloucestershire, people have highlighted under utilised access opportunities within their communities, including bridleways or footpaths that could be upgraded, or by using disused linear transport infrastructure such as canal and rail corridors. Subject to issues of feasibility and delivery, funding will need to be identified for this purpose.

4.1.6 As a first principle it can be useful to agree what opportunities for walking, cycling and horse riding should be identified and secured through the production of Local and Neighbourhood Development Plans. When the local community, stakeholders and the local authority have agreed this in principle, and the relevant plans are adopted this will enable GCC to support the process of seeking funding opportunities.
4.2 Policy LTP PD 6.2 Rights of Way

LTP PD 6.2 Rights of Way

GCC will support the Rights of Way and Countryside Access Improvement Plan in identifying and seeking to support measures to improve safety, accessibility and the quality of the experience for walkers, horse riders, carriage drivers and cyclists where there is an identified need.

GCC will do this by implementing the following policy proposals:

- Integrate pedestrian, cycle and horse riding routes into the road network to promote a cohesive path network and, where a route has to cross a busy road, provide a safe crossing point.
- Maintain verges for horse riders and walkers, where it is safe to do so to provide links between sections of the public rights of way network.
- Consider the traffic implications on any existing pedestrian, cycle or horse riding paths or road crossing points where new development is planned.
- Encourage people away from busy routes, where traffic flows or speeds cannot reasonably be reduced, by agreeing measures to safeguard quieter route alternatives and improve accessibility to and within green space, rural and inter-urban settlements.
- Encourage the use of the rights-of-way network for utility journeys, particularly in the urban fringe and between some villages.
- Support the exploration and development of the wider network of route opportunities which may successfully dovetail with the rights of way network to provide a coherent safe network.
- Reduce the number of outstanding applications for Definitive Map Modification Orders (DMMOs) ahead of the 2026 Countryside and Rights of Way Act deadline.
- Support the Rights of Way and Countryside Access Improvement Plan.
- Recommend the use of designated walking routes and quietways which provide a safe and an attractive alternative.
- Consider all overarching and mode policies needed to taken into account alongside this policy.
4.3 Expected Outcomes

4.3.1 The implementation of this policy will contribute towards increased numbers of walking and cycling trips while supporting the county’s tourist industry which will benefit from ease of access to the county’s natural, built and historic environmental assets.

4.3.2 Access to the countryside will improve health and wellbeing. Planning for active travel will provide triple wins for the economy, health and the environment. As part of daily activity, environments promoting and supporting people’s physical activity and access for mobility impaired individuals will achieve and sustain better health outcomes.

5.0 Pedestrian Asset Management

5.1 Summary

5.1.1 The maintenance of the carriageway and footways contributes to pedestrian safety and amenity. Pedestrians are disproportionately affected by puddles in the road and loose or uneven flagstones. They will be affected by the maintenance schedule that is applied to the main, secondary and tertiary transport networks.

5.1.2 The maintenance of the pedestrian network is dependent on various factors. As the network consists of highway, footways, shared use footways and bridleways, as well as bespoke cycle routes that act also as pedestrian shared use routes, it needs a co-ordinated approach to maintenance across all these assets.
5.2 Policy LTP PD6.3 - Pedestrian Asset Management

LTP PD 6.3 Pedestrian Asset Management

GCC will manage pedestrian infrastructure in line with the Highways Asset Management Framework and other guidance or policies such as the Code of Practice for Well Managed Highways Infrastructure.

GCC will do this by implementing the following policy proposals:

- Manage the street lighting network to minimise environmental impact without compromising on road safety and personal security
- Review the provision of street furniture and signing as part of the design process for all maintenance and improvement schemes to ensure that street clutter is minimised.
- Continue to deliver the GCC ‘Highways Local Initiative’ where local members (county councillors) can prioritise the delivery of highway services that deliver pedestrian improvement measures for the community.
- Ensure promoters of new transport schemes comply with the Enhanced Materials Policy (MFGS) whereby appropriate materials are specified and the full costs of implementation and future maintenance are factored into the scheme budget.
- Regularly review the winter maintenance and vegetation clearance procedures and policies and in line with the Highways Biodiversity Guidance for Gloucestershire or subsequent guidance.
- Deliver footway maintenance works outlined in the Highways Asset Management Framework.
- All local highway network schemes will be subject to appropriate context reports and audits.
- Work with partners to maximise investment in the county’s pedestrian, cycle and rights of way networks as funding opportunities arise. This will include working in partnership with, the Local Enterprise Partnership, district councils, Parish and Town Councils, developers, land owners, Sustrans, Highways England and Department for Transport.
- Ensure development sites contribute towards the improvement of LCWIP desire lines.
- Consider all overarching and mode policies need to taken into account alongside this policy.
5.3 Expected policy outcomes

5.3.1 The implementation of this policy will result in well maintained infrastructure, which offers significant benefit to pedestrians. The priorities for maintaining a functioning pedestrian network will be prioritised in line GCC’s highway maintenance programme.

6.0 Pedestrian Safety

6.1 Summary

6.1.1 In general terms, road safety is improving: the number of road casualties of all severities in reported road traffic accidents in 2017 was the lowest level on record nationally. There has been an 11% increase in pedestrian fatalities however when compared to the 2010-2014 average and, tragically around 450 pedestrians are killed every year, around a quarter of all traffic related fatalities. There were 23,805 pedestrian casualties in 2017 of which 25% were aged 0-15 years. In Gloucestershire, pedestrian casualties in 2018 made up 12.86% (125), with urban casualties making up over 94% of those.

6.1.2 Mobility scooter user safety training is usually given on purchase through specialist retailers, online retailers do not provide the same user training. One fifth of mobility scooter users surveyed had experienced a safety or training issue. As mobility scooter users increase, incidents from unsafe usage, risks of collisions with pedestrians, cyclists and road users are likely to follow. GCC would encourage local (community based) or national safety training programmes.

6.1.3 It is important to address people’s safety concerns. A poor perception of safety is one of the main reasons why walking may be discouraged, particularly for journeys to school. This can be addressed through pedestrian training in schools, driver awareness, and promotional material which emphasise safer behaviours and actions to promote safety.

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5 Reported road casualties in Great Britain: 2017 annual report, DfT


6.1.4 Children are known to prefer to walk and cycle to school to being driven by their parents. Nationally around half of all journeys to primary school are made on foot but many short journeys to school are still made by car. It is estimated that by 2050 with current trends, 70% of children will be obese\(^8\). Encouraging active travel by walking and cycling to school is one way of tackling this challenge.

6.1.5 Training school children to walk safely will enable them to gain personal mobility and independence, improve physical and mental health and their social skills. It will help to embed cycling as ‘normal’ behaviour in later life.

6.1.6 Pedestrian safety training is available to primary schools via the SkillZONE initiative, a purpose built safety education facility.

6.1.7 Recent cooperation between Gloucestershire Police and GCC road safety team has included speed awareness and enforcement campaigns which can help improve pedestrian safety.

\(^8\) Making Children Healthier Through Walking Mackett, P. 2004
6.2 Policy LTP PD 6.3 Pedestrian Safety

LTP PD 6.4 Pedestrian Safety

GCC will contribute towards improved safety, security and health by reducing the risk of death, injury or illness arising from journeys on foot or by mobility mode. This will be provided by working with partners to improve personal safety perceptions and the promotion of safe transport that contribute to enjoyment and psychological wellbeing.

GCC will do this by implementing the following policy proposals:

- Ensure a co-ordinated approach to Thinktravel and road safety with partners; that include proactive highway design guidance, delivery of reactive engineering solutions to highway issues, delivery of educational or campaign materials and support to assist in the monitoring and enforcement of traffic regulations.
- Deliver a collaborative approach to road safety with partners that include proactive highway design guidance, delivery of reactive engineering solutions to highway issues, and provision of evidence to support engineering, education and enforcement activities.
- Work in collaboration with Gloucestershire Police, agencies and campaign groups to target young drivers, motorcyclists, distraction, alcohol and drug related driving in education programmes.
- Encourage greater availability of local (community based) and national training programmes for mobility scooter users.
- Support communities to deliver local speed campaigns through the local policing teams.
- Introduce speed limits in accordance with the current national guidelines and prioritise them based on available evidence, including 20mph zones.
- Reduce the rate of pedestrian casualties within Gloucestershire by providing an environment that reduces both actual and perceived risk to personal safety. The choice to walk and cycle is strongly influenced by the urban setting, for example in terms of available infrastructure, aesthetics and perceived safety.
- Deliver footway maintenance works outlined in the Highways Asset Management Framework.
- Work with developers and transport scheme promoters to consider, when designing new schemes, factors which influence the success of routes and facilities in terms of their use and function, such as gradient, lighting, natural surveillance, integration and signing.
- Recommend the use of designated walking routes to provide attractive and safe alternatives to routes carrying high volumes of motorised traffic.
- Ensure children, young people and adults are equipped with knowledge, skills and training to become more confident pedestrians.
Support communities to deliver local speed campaigns through the Safer Community Teams.
Investigate community based vehicle restriction zones that will benefit communities and protect vulnerable highway users from a safety and health perspective, during peak congestion periods.
Consider all overarching and mode policies need to taken into account alongside this policy.

6.3 Expected policy outcomes

6.3.1 The outcome of this policy will be to identify and address the factors that improve pedestrian safety, ranging from the design of hard infrastructure to marketing active travel modes.

6.3.2 The main opportunities to improve pedestrian safety include:

- Pedestrian safety training in schools
- Workplace Travel Plans
- Station Travel Plans
- Personalised Travel Plans for new developments
- Thinktravel branding
- Reduced speed limits
The policies set out in this document will be delivered through the implementation of the associated proposals and, subject to funding, the schemes identified in the Connecting Places Strategies. These scheme priorities are also set out in a separate Delivery chapter addressing funding, monitoring, governance and review.

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1.0 Introduction

1.1 Introduction

1.1.1 Gloucestershire is at a crossroads in terms of both its location and the future direction of the transport pressures arising from its spatial development strategies. Its strategic rail and road network is a hinge between major cities, such as Birmingham, Bristol, Cardiff and London. Transport must enable connectivity between these regional and national destinations, so that it remains a place that people travel to as well as through. Gloucestershire will seek to strengthen its regional connectivity through the Western Gateway Sub National Transport Board (SNTB), an alliance of local authorities with a commitment to work together to drive innovation, maximise economic growth and improve industrial productivity by strengthening strategic travel connections to local, national and international markets.¹

1.1.2 On a local level, Gloucestershire’s future transport needs will be determined by its growth ambitions, as set out in the district council local plans. These adopted plans have planning horizons ranging from 2031 to 2036, although many are under review and looking towards 2040-2041. Through six Connecting Places Strategies, the LTP will set out its spatial strategy to managing the transport demand expected from the projected housing development and accelerated economic growth in the adopted Local Plans up to 2031. The strategic direction transport will take beyond the plan horizons of the adopted plans is set out in ‘Shaping the way to 2041’ chapter which discusses the future direction of transport and the transport implications of future spatial development scenarios.

1.1.3 The Connecting Places Strategies structure the LTP around a number of travel corridors, each of which has distinctive transport opportunities and pressures. They provide the spatial context for the delivery of Gloucestershire’s vision for transport: ‘A resilient transport network that enables sustainable economic growth by providing travel choices for all, making Gloucestershire a better place to live, work and visit.’ The Connecting Place Strategies outline how the vision is delivered at a local level with consideration of the differing needs and aspirations across the county.

¹ www.gloucestershire.gov.uk/council-and-democracy/joint-ventures/western-gateway-sub-national-transport-body/
The Connecting Place Strategy (CPS) details each of the six CPS areas (Figure A) and describes the socio-economic make up of the areas as well as highlighting key transport routes, modes and connections. The CPS documents highlight the key issues and challenges for each area and the means and mechanisms needed to achieve its future opportunities.

Annex 2.0 Logic Map details how the LTP meets and achieves the LTP outcome, set against the LTP objectives.
Figure A – Connecting Places Strategy (CPS) – area based strategy

Local Transport Plan
Connecting Places Strategies
September 2019

Growth in new housing/employment land/new jobs based on anticipated projections to 2031

<table>
<thead>
<tr>
<th>Area</th>
<th>Housing</th>
<th>Employment Land</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotswold (including windfall sites)</td>
<td>9,972</td>
<td>12ha employment land (assumed)</td>
<td></td>
</tr>
<tr>
<td>Forest of Dean</td>
<td>4,070</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GCS (Gloucester/Cheltenham/ parts of Tewkesbury)</td>
<td>35,175</td>
<td>35,500 new jobs</td>
<td></td>
</tr>
<tr>
<td>Stroud</td>
<td>12,800</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

KEY:
- Central Severn Vale
- Forest
- North Cotswold
- South Cotswold
- Stroud
- Tewkesbury
2.0 Scheme Priorities

2.1 Introduction

2.1.1 Gloucestershire’s Local Transport Plan must clearly define the county’s transport priorities for the delivery of economic growth and help to realise Gloucestershire’s vision. To address the issues raised during our conversation with local stakeholders and support the outcomes identified in the LTP Overarching Strategy, capital scheme priorities have been identified through a scheme prioritisation process that looks at scheme eligibility and impacts on economic growth, carbon emissions, socio-distributional impacts, the local environment and well-being. Schemes thus identified comply with delivering LTP outcomes but do not reflect a commitment by the county council for funding. The prioritised capital scheme list provides the basis for future funding bids, as opportunities arise through government, and funding partners; including transport operators and developers.

2.2 Categorisation

2.2.1 The appraised schemes are to move towards using Strategic, Major, Local and Countywide categorisation terminology. These have been developed further, by applying a ‘Scale of Impact’ indicator, to provide objective classifications for these categories. More detailed information about the scheme prioritisation process can be found in the Delivery chapter.

**Strategic Schemes**
- Highways: - If located on the Strategic Road Network (SRN) and/or costed above £20m
- Public Transport - Rail: - If the scheme is costed above £20m
- Ped/Cycle: - If linking growth areas along the countywide cycle desire lines (PD2, Figure C)
- Public transport - Bus: - If located on a very high frequency route (better than every 30 min frequency, see PD1, Figure A.

**Major Schemes:**
- Highways: - If located on the Major Road Network or costed between £5m - £20m
- Public Transport - Rail: - If costed between £5m - £20m
- Ped/Cycle: - If linking smaller settlements along the countywide cycle desire lines
- Public Transport - Bus: - If located on a high frequency route (better than every 60 minutes)
Local Schemes:
- Highways: - If on the local links/network or costs between £200k - £5m
- Public Transport - Rail: - If costed between £200k - £5m
- Ped/Cycle: - If not shown on the countywide cycle desire line map
- Public Transport - Bus: - If located on a low frequency route (infrequent or part day services)

Countywide Priorities:
- Non place specific Capital Priority Schemes, e.g.: Initiatives and programmes of high priority, with a county wide impact, often encompassing a number of smaller projects
- Revenue Projects

2.2.2 The priorities will shift as new evidence emerges through the district council led local plan process. Figure B demonstrates the broad spatial spread of the Strategic schemes across the county. A more detailed visualisation of the scheme locations is provided for each CPS area in the individual chapters.

2.2.3 To compliment the maps, a comprehensive list will be provided detailing each scheme with a description as well as listing its primary, secondary and tertiary benefits/purpose and stating whether the scheme is within the existing LTP, a Local Plan or is a new scheme. After reviewing the full list of schemes the following benefits/purposes were determined;
- Local Plan Growth Schemes (LPG).
- Active Travel / Health & Wellbeing schemes (AT/HW).
- Network Capacity Optimisation Schemes (NCO).
- Environmental Schemes (ENV).
- Safety Schemes (S).
- Sustainable Transport schemes (ST).
- CO2 Reduction Scheme (CO2).

The scheme benefits/purposes will be visualised in the scheme tables within each CPS area with the following icons in Table 1 below.
### Table 1: Scheme Benefits and Purposes (visualisation icons)

<table>
<thead>
<tr>
<th>Active Travel / Health &amp; Wellbeing</th>
<th>Local Plan Growth</th>
<th>Network Capacity Optimisation</th>
<th>Environmental</th>
<th>Safety</th>
<th>Sustainable Transport</th>
<th>CO2 Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Active Travel" /> <img src="image" alt="Health &amp; Wellbeing" /></td>
<td><img src="image" alt="Local Plan Growth" /></td>
<td><img src="image" alt="Network Capacity Optimisation" /></td>
<td><img src="image" alt="Environmental" /></td>
<td><img src="image" alt="Safety" /></td>
<td><img src="image" alt="Sustainable Transport" /></td>
<td><img src="image" alt="CO2 Reduction" /></td>
</tr>
</tbody>
</table>

©Gloucestershire County Council 2019
Figure B: Gloucestershire Strategic Schemes

Countywide - Strategic Schemes
- Walking / Cycling
- Highways
- Public Transport

Schematic representation of transport proposals only, not representative of actual routes/locations.

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2.3 Countywide Priorities:

2.3.1 Table 2, below, shows a list of priorities including initiatives and programmes of high priority, with a county wide impact, often encompassing a number of smaller projects. Included in this category are non place specific Capital Priority Schemes and Revenue Projects.

Table 2: List of LTP Countywide Priorities (capital priority schemes / revenue projects: non-place specific)

<table>
<thead>
<tr>
<th>LTP Countywide Priorities (non-place specific)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing bus stop improvements programme</td>
</tr>
<tr>
<td>The development of advisory guidance of voluntary Quiet Delivery Service scheme as part of the NDP/LP process</td>
</tr>
<tr>
<td>Ongoing support for Thinktravel branding</td>
</tr>
<tr>
<td>Local Park and Ride facilities</td>
</tr>
<tr>
<td>Ongoing installation of electric car/bike charging points</td>
</tr>
<tr>
<td>Capital Maintenance Programme</td>
</tr>
<tr>
<td>Travel Plans (incl. workplace/rail stations/key corridors &amp; for new development to encourage mode shift in addition to personalised travel planning)</td>
</tr>
<tr>
<td>Highway Safety improvement programme</td>
</tr>
<tr>
<td>Promote sustainable travel habits for children, (inc. Bikeability training which equips children with skills and confidence to cycle more often)</td>
</tr>
<tr>
<td>20mph Zones</td>
</tr>
<tr>
<td>Freight Gateway Management system</td>
</tr>
<tr>
<td>Completing gaps in existing cycle networks and ensuring linkages into new strategic development sites, including improved cycle parking at key destinations.</td>
</tr>
<tr>
<td>On-street parking Management system</td>
</tr>
<tr>
<td>Deployment of non enforceable average speed cameras (Operated by Gloucestershire Constabulary).</td>
</tr>
<tr>
<td>Civil Parking and Bus Lane Enforcement</td>
</tr>
<tr>
<td>Development of advisory guidance on Construction Management Plans</td>
</tr>
</tbody>
</table>
Deployment of non enforceable average speed cameras (Operated by Gloucestershire Constabulary).

3.0 Connecting Places Strategy CPS1 – Central Severn Vale

3.1 The Place

3.1.1 The Central Severn Vale (CSV) CPS area is bounded by Tewkesbury to the north, Stroud to the south, the Cotswolds to the east and the Forest of Dean and River Severn to the west. Key routes in the CSV are the M5 linking north south and the A40 and A417 linking east west to provide access to the M4 corridor. The M5 and the A40/ A417 corridors are part of the Strategic Road Network (SRN) and have also been identified within the Western Gateway Sub National Transport Body (SNTB) as strategic links. The A38, A417 and the A40 make up a part of the newly formed Major Road Network (MRN)\(^2\) proposal which forms a middle tier of the country’s busiest and most economically important local authority ‘A’ roads. The MRN will sit between the SRN and the rest of the local road network.

3.1.2 The CSV CPS area accommodates almost half of Gloucestershire’s total population and has the highest proportion of working age people when compared to the county average. This is reflected by the high proportion of travel to work journeys that begin and end within the CPS area.

3.1.3 The Joint Core Strategy (JCS) sets out the long term vision and objectives for the area that encompasses Cheltenham, Gloucester and Tewkesbury and is the relevant policy document that covers the CSV CPS area. The JCS provides the higher level or strategic component of the development plan; more detailed locally specific planning policies will be set out in the Gloucester City Plan and Cheltenham Plan. The JCS identified a need for additional housing and employment consisting of 35,175 new homes and 192ha of employment creating 39,500 new jobs\(^3\). However it was adopted with a commitment for immediate review and as such these totals may increase.

3.1.4 Growth proposals identified in the adopted Joint Core Strategy and Local Industrial Strategy will significantly increase the CPS area’s population and range of employment opportunities offered, with even more growth expected through the JCS review. This will result in more trips within CPS 1 and


\(^3\) Joint Core Strategy - [www.jointcorestrategy.org/joint-core-strategy-review](http://www.jointcorestrategy.org/joint-core-strategy-review)
Gloucestershire’s Local Transport Plan (2015-2041) Connecting Places Strategy

will require careful management to reduce congestion and limit environmental impacts. The JCS aims to locate jobs near to the economically active population thus minimising out-commuting and reducing carbon emissions from car use and instead promoting sustainable transport by improving opportunities for public transport, walking and cycling by making routes more convenient, safe and attractive.

3.1.5 To manage the impacts of growth, the JCS is supported by a comprehensive Transport Strategy that details a recommended mitigation package to enable the delivery of the growth. The schemes detailed in the Transport Strategy are echoed in the Local Transport Plan.

3.1.6 In line with the JCS, GFirst LEP’s Strategic Economic Plan (SEP) supports delivery of employment land around Junctions 9, 10 and 11 of the M5 area. A number of transport related proposals for the county will enable the growth to be achieved through release of this employment land.

3.1.7 The publication of the Government’s Industrial Strategy will form the basis of a Gloucestershire Local Industrial Strategy. The Strategy identifies 4 ‘Grand Challenges’: AI & Data Economy, Clean Growth, Future of Mobility and Ageing Society. There are 5 key drivers likely to inform the mechanisms to address these challenges which are; ideas, people, infrastructure, business environment and places.

3.1.8 The Local Industrial Strategy identified the Gloucestershire area as a key location for Cyber resilience alliance – Cyber Security. This will generate high level skilled employment opportunities for which people may be prepared to commute some distance. Gloucestershire will need to support growth in this sector by providing the necessary transport infrastructure to facilitate movement through and within the county.

Cheltenham and surrounding area

3.1.9 Cheltenham is the cultural centre of the county and is well known for its array of varied festivals. The town is in close proximity to the nearby settlements of Bishop’s Cleeve and Woodmancote, Prestbury and Charlton King’s. The vision for Cheltenham is “where all our people and communities they live in thrive, culture and creativity thrives, celebrated and enjoyed throughout the year, businesses and their workforces thrive, everyone thrives.”

4 Department for business, energy & industrial strategy - www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future
5 GFirst LEP: Local Industrial Strategy - www.gfirstlep.com/industrial-strategy/
Gloucestershire's Local Transport Plan (2015-2041) Connecting Places Strategy

3.1.10 It is essential that communities and visitors are offered a choice of travel options in order to support this vision. Connecting Cheltenham Strategy Report, sets as its framework the Place Vision for Cheltenham and develops further the drivers for change to tackle the challenges and bring about positive outcomes to benefit all. The LTP has shared outcomes with this strategy in terms of inclusive streets, cycle, walk and mobility friendly policy and the delivery of infrastructure in line with the Local Cycling and Walking Infrastructure Plan (LCWIP).

3.1.11 Figure C demonstrates that Cheltenham benefits from a large number (40%) of internal work related trips, (approximately 29,462 per day) and a higher number of inbound trips than outbound (24,148 versus 19,782). However, despite the transport advantages of this high level of self containment, the addition of inbound trips means demand upon Cheltenham’s Highway network becomes very high in peak times.

3.1.12 Cheltenham’s urban area is compact with a defined retail centre at its core. A large proportion of its residential areas fall within the recognised comfortable walking distance of 2km and well within comfortable cycle distances. Furthermore, Cheltenham benefits from very high frequency bus routes both internally and externally to Gloucester with the Gold 94x, 94, 97, 98 and 10 routes being the most prominent. An achievement has been the completion of a west bound bus lane between Whittington Road and Arle Court roundabout to improve journey times and to ensure that buses are not delayed by congestion in peak times. Despite this, car mode share is high for both contained (44%) and internal/external (78%) trips. The high car mode share and resultant congestion has negatively impacted bus patronage (6-8% mode share) which is low for an urban area with the network coverage that Cheltenham has.

3.1.13 Cheltenham does have a healthy cycle mode share (11%) and benefits from an established cycle network. A key cycle desire line is the A40 corridor which leads to the town centre. Another is the Honeybourne Line which provides a car free green corridor from the north of the town direct to the railway station. Cycle improvements have been made to the southwest of the town along the Grovefield Way, Cold Pool Lane, Up Hatherley Way corridor which provides a link between the A46 and A40.

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6 https://www.cheltenham.gov.uk/downloads/download/1747/connecting_cheltenham
3.1.14 Cheltenham has excellent scope to improve the cycle network to other key destinations with aspirations for a dedicated link to Bishop’s Cleeve to the north and west to the proposed Cyber Park development, as well as localised improvements as identified in the Local Cycling & Walking Infrastructure Plan (LCWIP). An LCWIP is a strategic approach to identifying long-term cycling and walking improvements as well as providing the basis for funding bids. Figure D demonstrates that the biggest draw of trips to and from Cheltenham, are Tewkesbury and Gloucester areas. This therefore, given the distances between them, gives a realistic opportunity for increased sustainable non car based travel which in turn will create an
active community and improve air quality, especially if inbound trips can be accommodated by suitably located Interchange hubs that encourage onward journeys by foot, cycle or bus. This in turn would improve bus journey time reliability and exploit the network coverage to its full potential.

3.1.15 Cheltenham also benefits from a mainline station with a patronage level in excess of 2m per year, making it the busiest station in the county. The station has undergone improvements to platform length to accommodate the latest generation of inter-city trains and has been awarded £5m in GFirst LEP funding to improve its car park and accessibility particularly for pedestrians and vulnerable users. The station provides good scope for a multi modal interchange hub and, with improvements to pedestrian and cycle access from the north, west and south (A40) will open the station up for more users and create an attractive travel option for commuters and tourists alike.

Figure D: Cheltenham Commuting Breakdown (Census 2011)

Gloucestershire’s Local Transport Plan (2015-2041) Connecting Places Strategy

Gloucester and surrounding area

3.1.16 Gloucester City strives to build on its strengths as one of the country’s most important historic cities by creating a thriving and prosperous city centre. The Gloucester City Council vision states that Gloucester will be “a flourishing, modern and ambitious city, which all residents can enjoy.”

3.1.17 Gloucester City’s layout and recent development pattern has resulted in the city taking on an elongated form, with the perceived ‘centre’ of the city being located towards the north of the urban settlement. Gloucester had an industrial past and recently has been subject to significant regeneration, particularly in the Docks/Quays area and will continue to benefit from a number of regeneration projects moving forward with particular aspirations to revitalise the city centre.

3.1.18 The start of the city centre regeneration is the completion of the Gloucester Transport Hub which provides a key interchange location for sustainable transport users with access to the railway station and city centre.

3.1.19 Churchdown is a key peripheral area located on the cycle NCN route 41 and is also within a key cycling corridor between Gloucester and Cheltenham, which is to be improved by a Highways England funded cycling scheme. Likewise Quedgeley is located in close proximity to the canal towpath which provides a direct link to the city centre. Phase 1 of the canal tow path improvements has been completed with aspirations for further phases. This creates a key sustainable route from Quedgeley to Gloucester and further north to Churchdown and eventually Cheltenham as shown on the GCC countywide cycle way map (see Cycle PD2). Creating key links and providing the necessary infrastructure will actively encourage additional usage and provides a sustainable route for both commuting and leisure purposes with scope for expansion to other key locations in the CSV area. These improvements, along with a positive shift to sustainable modes, will also result in health and wellbeing benefits for individuals and for the city as a whole with improvements to air quality.

3.1.20 Gloucester has a high degree of contained trips; however unlike Cheltenham there is a more even spread of inbound and outbound trips with a smaller net change of 2514 people (See Figure E). The level of movements tests the resilience of the network. Highway improvements at Over Roundabout, with additional entry and circulatory lanes and Elmbridge Court Roundabout with straight through A40 lane has achieved capacity improvements on entry to the city from the east and west.
3.1.21 The Gloucester area also benefits from a number of very high frequency bus routes which accounts for 10% of internal movements as shown by Figure F. There are very high frequency connections to Cheltenham and Stroud for inbound/outbound journeys with the new transport hub facilitating services from the wider county area.
Figure E: Gloucester Commuting Breakdown (Census 2011)

Commuting totals for Gloucester:
- Inflow: 26,131 all persons commute into Gloucester from other local authorities in the UK.
- Outflow: 23,617 all persons commute out of Gloucester to other local authorities in the UK or abroad.
- Net change: Overall, commuting results in a population increase of 2,514 all persons in Gloucester.
3.1.22 Gloucester rail station is not sited on the Bristol – Birmingham mainline, resulting in fewer services as echoed by the lower annual patronage of 1.4m\(^{10}\). There is scope to increase services to Bristol with the extension of the MetroWest service which will result in a half hourly service to Bristol and the creation of a viable sustainable regional travel option. An achievement at the railway station has been the improvements to accessibility.

from Great Western Road with new pedestrian/cycleway and entrance as well as car parking enhancements. Further GFirst LEP funding will help to continue the enhancement of Gloucester station and improve its sustainable links to the Transport Hub and city centre, particularly from the northern side of the railway station.

### 3.2 Issues and Opportunities

#### 3.2.1 A consequence of Gloucester and Cheltenham being the main economic hubs for Gloucestershire is that the CSV becomes a net importer of labour. The ‘Work day’ population rises as a result of in-commuting, which places added pressure on network resilience. The Cheltenham population rises by 3157 whilst Gloucester’s rises by 3018 economically active individuals.

#### 3.2.2 The CSV’s biggest combined issue is that there is little or no additional highway capacity for growth and linked alternative suitable routes which results in delay, queuing and unreliable journey times.

#### 3.2.3 In regards to alternative travel modes away from single occupancy car travel, the CSV has a high bus patronage compared to other CPS areas. Although this is somewhat expected of an urban area, bus journeys account for 6% of journey to work trips in the CSV CPS, which is low when compared to travel by car. The key challenge for bus travel in the Cheltenham and Gloucester areas, despite a broad network of very high frequency routes (see PD1, Figure A), is that most of the core bus service routes use much of the congested parts of the network resulting in similar levels of delay to private cars and slow journey times which harm the ability to encourage modal shift.

#### 3.2.4 Reliable operation of longer routes is especially difficult in the absence of swift and resilient cross-town routings and fast connections linking to the rail station and major existing and planned employment areas. As a result, this encourages intra-urban car use for short journeys up to 3 miles, which compounds the congestion issues.

#### 3.2.5 Despite the travel choices offered, car use continues to dominate. The combination of already heavily trafficked routes and historic street patterns has resulted in Air Quality Management Areas (AQMAs) being declared at several locations. Within Gloucester these include Barton Street, St Oswald’s Road and Painswick Road; an AQMA covers the whole of Cheltenham Borough and the A417 Air Balloon roundabout located on the east of the CPS area is also a declared AQMA.
3.2.7 Congestion is an active threat to public health and wellbeing. 17.5% of Cheltenham’s and 21% of Gloucester’s CO2 emissions are attributed to transport\(^{11}\). Congestion and poor air quality are also barriers to active travel and its additional uptake despite significant potential for growth in active modes in the CSV CPS.

3.2.8 GCC aims to overcome these challenges by committing to measures to improve journey time reliability as well as maximising the opportunity to encourage sustainable transport use by making the most of the potential that the cycle network, high frequency bus routes and railway stations has to offer.

3.2.9 The Local Cycling and Walking Infrastructure Plans (LCWIPs) have also identified key routes, barriers and opportunities for improvements that can be implemented over the LTP plan period when appropriate funding is identified. This will help to achieve the county aim of providing a strategic cycleway network in order to encourage further modal shift. In addition, the LCWIP will work towards local walking networks, over time these networks will become available at www.gloucestershire.gov.uk/ltp.

3.2.10 It is a priority within this plan’s timeframe to complete the strategic cycle route between Bishop’s Cleeve, Cheltenham and Gloucester. The schemes identified in the LTP aim to facilitate improved sustainable travel modes that can be used by all people which will result in Gloucestershire’s vision of making the county a better place to live, work and visit a reality. Furthermore, the 55ha West Cheltenham UK Cyber Business Park project will deliver 5,385 new homes and 55ha of employment enabling scope to provide new and improved sustainable transport links to key residential areas, to the rail station and town centre with additional promotion of bus priority measures on all key bus routes.

3.2.11 There is also support for the opportunities to introduce soft connections between and through the main towns to more dispersed communities. The cumulative effect of these types of investments can both reduce traffic congestion and increase health, access and quality of life.

3.2.12 Cheltenham and Gloucester stations provide regular services to London, Bristol, Cardiff, Birmingham and Swindon, as well as local trips to Stroud, Ashchurch for Tewkesbury, Stonehouse, Kemble, Moreton-In-Marsh and Lydney. Both stations offer the potential to increase service frequency to Bristol from Gloucester via MetroWest and Cheltenham to Birmingham via Midlands Connect.

**Issues**

- Congestion, limited capacity and poor network resilience
- Enable ambitious growth objectives—restricted access at M5 J10
- Congestion at Strategic pinch points
- A417 Missing Link
- A40 West of Gloucester to Cheltenham
- Facilitating new areas of growth including M5 Growth Zone
- Regular occurrence of congestion on many urban corridors
- Problems of parking within Cheltenham
- Lack of on-site employee parking at local businesses
- Bus journey time reliability suffers on key congested routes
- Radial bus network which involves changing buses to reach key destinations. Lack of orbital service
- Lack of coordination between traffic signals
- Limited information regarding ‘live’ journey times
- Rail and bus stations should be gateways to county
- Lack of coordination between bus routes/companies and ticketing scheme/discount cards that can be used across providers
- Lack of defined cycle routes
- Fragmented cycle network linking communities

**Opportunities**

- The canal corridor is strategic for redevelopment, improved connectivity and economic growth, both through Gloucester and north and south of its urban fringes
- Improvements to pedestrian/cycle facilities and connections between the rail station, Transport Hub and city centre. The regeneration of King’s Square has the potential to create or expand on those links with additional pedestrianisation of Northgate Street
- Gloucester has a good opportunity to increase rail services to Bristol with the extension of the MetroWest service
- Cycle improvements in and around the CSV to encourage increased usage on existing network. The £3.6m HE proposed cycle highway improvement between Gloucester and Cheltenham will help to achieve this
- Significant investment in transport infrastructure to support the delivery of a Cyber Business Park in Cheltenham
- M5 J10 bid made by GCC to the Homes England Housing Infrastructure Fund (HIF) for all movement junction
- A417 Missing Link with HE currently developing the scheme
- HE Designated Funds for Cycling and Air Quality improvements
- Close proximity of two urban centres (Cheltenham and Gloucester) and flat terrain make it ideal for increased cycling
- Scope to provide additional and/or improved strategic park & interchange facilities
- Strong transport links by rail and road to London, Birmingham, Bristol, Cardiff, Oxford and Swindon
3.3 Strategic Vision

3.3.1 The CSV CPS1, over the Plan period, will require improvements to M5 Junction 10 and 11 to support the delivery of the North West and West Cheltenham strategic allocation. This will address existing traffic congestion issues on the A40 and A4019 corridors. GCC has bid for Housing Infrastructure Funding for improvements to the M5 Junction 10, for the upgrading of the junction to all-movements and has received Growth Deal 3 funding for improvements to the A40 corridor.

3.3.2 GCC will maximise the opportunity of capturing car-borne traffic at multi-mode interchange hubs, located on the strategic routes within the CSV, in order to provide sustainable links to key residential and employment areas for onward travel by bus, bicycle or on foot. The interchange hubs will reduce congestion along key routes with the added health and well-being benefits of improved air quality and active travel.

3.3.3 GCC will support increased rail service frequencies and improved journey times to support the expansion of the MetroWest network to Gloucester to provide a half hourly service to Bristol. Accessibility to the stations themselves is important in order to allow as many people as possible to access services easily and conveniently. Such accessibility improvements would be for the improvement of Gloucester railway stations subway, to create an attractive and safe space that links the city centre, railway and hospital. For Cheltenham, along with changes to the car park, access improvements from Gloucester Road/Queens Road and the Honeybourne line for walking and cycling users, the strategic vision would be to provide access from the A40 to the south which will allow improved accessibility between rail services and the high frequency Gold 94 as well as the 93 that will link the railway with the Arle Court strategic park and interchange site.

3.3.4 The strategic vision for cycling is to increase mode share and maximise the existing and potential future cycling network. To encourage a wholesale change in the number of people cycling it needs to appeal to all ages and abilities. If the network is attractive, interconnected and perceived as safe for all, it will help to encourage behaviour change with users deciding it is a viable door to door travel choice. Cycle infrastructure on key routes, interchanges at key destinations and supporting the creation of liveable streets, in which non-car users are prioritised, as well as establishing a quiet network for less experienced users are all methods of achieving modal shift. Furthermore, behavioural change events that positively promote, advertise and incentivise cycling are further ways to raise awareness of its benefits and will help towards a step change in travel behaviour. This will in turn have health and wellbeing benefits for individuals and communities as well as support the carbon neutral ambitions of the local authorities.
within the CSV CPS. **Figure G & H** illustrates scheme ambitions to 2031 for the CSV CPS areas and **Tables 3(a), 3(b), 3(c), & 3(d)** lists the scheme priorities in terms of Strategic/Major/Local/Countywide.
Figure G: Cheltenham area scheme Map CPS1 reflecting schemes up 2031

Schematic representation of transport proposals only, not representative of actual routes/locations.
Figure H: Gloucester Area Scheme Map CPS1 reflecting schemes up to 2031

Schematic representation of transport proposals only, not representative of actual routes/locations.
### Table 3 (a): Central Severn Vale CPS1 - Strategic Capital Scheme Priorities

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<tr>
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<td>Strategic Park &amp; Interchange hub scheme for A46 Brockworth / Shurdington</td>
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<td>Strategic Park &amp; Interchange hub scheme at Uckington, Cheltenham</td>
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<td>Strategic Park &amp; Interchange Hub scheme for M5 J11a</td>
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<td>Innsworth Gateway New A40 roundabout - New Junction on A40 and Highway Works at Longford Roundabout</td>
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### Gloucestershire’s Local Transport Plan (2015-2041) Connecting Places Strategy

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### Gloucestershire's Local Transport Plan (2015-2041) Connecting Places Strategy

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### Table 3(b): Central Severn Vale CPS1 - Major Capital Scheme Priorities

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<td>A38 / Walls roundabout – Capacity improvement on 2014 pinch point scheme by providing 3 lane circulatory on the roundabout between Barnwood Rd/A38 Eastern Ave Approach</td>
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<td>Upgrade traffic signals in Cheltenham and Gloucester including expansion of SCOOT and MOVA signals where required</td>
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Table 3(c): Central Severn Vale CPS1 - Local Scheme Priorities

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<td>Foot/Cycleway bridge infrastructure north of Pirton Fields, Churchdown and link connection to existing highway</td>
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<td>66</td>
<td>HIGHWAYS</td>
<td>Cheltenham</td>
<td>Highway improvement - A4019 Honeybourne Railway bridge, Cheltenham increased height clearance</td>
<td>🏡</td>
<td>📈</td>
<td>🏃️</td>
</tr>
<tr>
<td>67</td>
<td>HIGHWAYS</td>
<td>Gloucester</td>
<td>Junction Improvement - A430/A417 Castlemeads Upgrade signals to MOVA or SCOOT to optimise signal timings</td>
<td>🏡</td>
<td>📈</td>
<td>🏃️</td>
</tr>
<tr>
<td>68</td>
<td>HIGHWAYS</td>
<td>A4019 Uckington</td>
<td>Close Withybridge lane access to A4019</td>
<td>🏡</td>
<td>📈</td>
<td>🏃️</td>
</tr>
<tr>
<td>69</td>
<td>Ped/Cycle</td>
<td>Churchdown - Brockworth</td>
<td>Cycle access improvements to the Churchdown - Brockworth (Gloucester Business Park) Corridor</td>
<td>🏡</td>
<td>📈</td>
<td>🏃️</td>
</tr>
<tr>
<td>70</td>
<td>Ped/Cycle</td>
<td>Bishop’s Cleeve – Swindon Village</td>
<td>Cycle access improvements to the Bishop's Cleeve, Swindon Village, North West Cheltenham Corridor</td>
<td>🏡</td>
<td>📈</td>
<td>🏃️</td>
</tr>
<tr>
<td>71</td>
<td>Ped/Cycle</td>
<td>Tewkesbury - Gloucester</td>
<td>Cycle access improvements to the Gloucester - Tewkesbury Corridor including access to developments at Twigworth and Longford</td>
<td>🏡</td>
<td>📈</td>
<td>🏃️</td>
</tr>
</tbody>
</table>
### Table 3(d): Central Severn Vale CPS1 - Specific Revenue Projects

To be funded by revenue, either through GCC officer support time, or through the commissioning by GCC of consultants:

- Working with West of England partnership to develop a business case for the MetroWest rail extension (Phase 2)
- Railway station travel plans and Investment strategies
- Providing an improved service linking Gloucester, Cam & Durlsey with Bristol (MetroWest)
- Working with Cheltenham Development Task Force
- Part of the A46 Partnership
- WG SNTB
- Working with the JCS authorities on the JCS review
4.0 Connecting Places Strategy CPS2 – Forest of Dean

4.1 The Place

4.1.1 CPS2 is located in the west of the county and is bounded by the M50 to the north, River Severn to the south, the City of Gloucester to the east and the River Wye to the west. Key routes converge at Highnam where the A40 and A48 meet to provide access across the River Severn.

4.1.2 CPS2 is also served by the A4136, linking Coleford and Cinderford to the A40 and the A4151 linking the forest with the A48. The A417 connects the very eastern part of the area with Gloucester and Ledbury. Lydney Railway station serves this CPS catchment, although some trips are better met by Gloucester or, from the north of the CPS area, Ledbury. Chepstow Railway station is also a key transport hub for residents in the CPS2 area and is an alternative to Lydney for Gloucester/Cardiff bound services.

4.1.3 The Forest Place Strategy encompasses the Forest of Dean District Council administrative area, which includes the market towns of Lydney, Coleford, Cinderford and Newent which equates to approximately 15% of Gloucestershire’s total population. The area has a higher proportion of over 65s, compared to the county average.12

4.1.4 The Forest of Dean District Council adopted its Core Strategy in 2012, setting the vision, spatial strategy and policies for development in the District for the period up to 2026. The Core Strategy is supplemented by the Allocations Plan that sets out the distribution of development in the Forest District. The main focus of development during the plan period is at Lydney, Cinderford, Coleford and Newent. Lydney and Cinderford in particular have been subject to strategic development over the plan period with notable development at Lydney East and the Cinderford Northern Quarter Regeneration which has seen the first phases completed. This also sets the context for the districts Local Plan review up to 2041.

4.1.5 Despite the Forests Core Strategy (2026) and LTP plan period (2031) not aligning, housing and employment growth in CPS2 is anticipated to be 4070 new homes from 2020 up to 2031 with 25-30ha of new employment land creating between 2,500 and 12,000+ jobs.

12 Census Data, KS102UK – Age Structure. www.nomis.co.uk

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4.1.6 The vision for the Forest of Dean is one of supporting a thriving sustainable community within a high quality environment providing a range of employment opportunities to reduce commuting and other journeys.

4.1.7 Cinderford Northern Quarter was a GFirst LEP funded regeneration project which completed phase 1 in 2018. This delivered a new Gloucestershire College campus, medical facility and the first phase of a spine road. The construction of the spine road and college campus is a vital part of the drive to regenerate the area and opens up the possibility of delivering up to 1000 new jobs\textsuperscript{13}, bringing investment and business to the Forest of Dean of up to £100m\textsuperscript{14} and helps to unlock land for further growth. The college and employment can be accessed sustainably and the enabling of jobs will allow skilled young people to live and work in the area with additional health and wellbeing benefits resulting from the ability to opt for Active Travel modes and reduce the need to use the private motorcar for commuting.

4.1.8 The Forest of Dean communities are spread across a large topographically diverse area including one of the last surviving ancient woodlands in the country. As with any predominantly rural area, travel patterns are dominated by the private vehicle. However, the high quality woodland environment serves a strong cycling culture with the economic benefits recognised and the opportunities to strengthen local cycling links identified. The Neighbourhood Development Plans are supportive of measures to strengthen local transport links through modes such as walking and cycling where this can be made practicable and safe.

4.1.9 Many residents of the district are drawn to other competing retail destinations outside of the Forest of Dean including; Ross-On-Wye, Cribbs Causeway, Cheltenham, Gloucester and Cardiff.

4.1.10 In December 2018 the Severn Bridge tolls were removed which is a significant event in the CPS 2 areas recent history. A Highways England (HE) and Welsh Government commissioned study in October 2018 concluded that, initially, the removal of the toll would increase traffic flows over the Severn crossings by around 23%. By 2024, this increases to 31%. Early signs from Highways England surveys undertaken after the toll removal have shown during January 2019 a 12.2% increase in westbound traffic entering Wales via both bridges, compared to the previous January\textsuperscript{15}. Combining the two-way flow, the observed increase in traffic is in-line with initial HE predictions.

\textsuperscript{13} GFirst LEP Gloucestershire Collage Cinderford Campus - https://www.gfirstlep.com/case-studies/gloucestershire-college-cinderford/
\textsuperscript{14} GFirst LEP Cinderford Northern Quarter Spine Road -https://www.gfirstlep.com/projects/cinderford-northern-quarter/
\textsuperscript{15} Highways England & Welsh Government: Severn crossing tolls model build and options assessment impact assessments. 26 October 2018
4.1.11 In the longer term the removal of the tolls has the potential to open up CPS 2 for significant growth as it may be seen as a desirable place to live within easy commuting distance of Bristol and the significant employment opportunities it has to offer. The removal of the tolls may also improve connectivity to other CPS areas such as Stroud and the Cotswolds and help to remove the barrier to movement that the Severn has been previously.

4.1.12 Figure I shows that 40% of the total work trips in the CPS are to destinations beyond it, with 75% of these travelling to other parts of the county via the A40 at Highnam to access Gloucester, which is the biggest trip attractor, and the remainder to Herefordshire, Wales or Bristol. The CPS only attracts 16% of its work trips from outside its CPS area while the majority of trips are contained. Figure I shows that there is high containment (15,379) and outbound (14,637) trips which are more than double the trips attracted to the CPS 2 area (6,015). Figure J demonstrates that the in and outbound trips are heavily car dominate, which is expected of a rural area. The CPS 2 area also has the lowest percentage of contained walking trips of all 6 CPS (16%). The topography of the CPS area is challenging with limited pedestrian facilities away from the more urban areas, in combination with limited local employment opportunities which results in fewer walking trips.
**Figure I: Forest of Dean Commuting Breakdown (Census 2011)**

- **Inflow:** 6,015 all persons commute into Forest of Dean from other local authorities in the UK.
- **Outflow:** 14,627 all persons commute out of Forest of Dean to other local authorities in the UK or abroad.
- **Net change:** Overall, commuting results in a population decrease of 8,612 all persons in Forest of Dean.
Figure J: Commuting Flows – FoD (Census 2011)
4.2 Issues and Opportunities

4.2.1 There are significant constraints at Chepstow which creates a pinch point on the A48 as it passes through the town. This needs to be better understood and addressed. Monmouthshire County Council and the Welsh Assembly are seeking funding for a means to address congestion in Chepstow. Any scheme to improve journey time reliability and accessibility to CPS2 is to be encouraged.

4.2.2 GCC will liaise closely with the Welsh Assembly and Monmouthshire Council to support proposals for the development of a scheme to resolve the congestion issue in Chepstow.

4.2.3 Congestion within Lydney has resulted in an Air Quality Management Zone (AQMA) being declared within the town centre. Measures to improve air quality have proven difficult to implement, largely due to the constraints of the Bream Road junction. However, there have been no exceedances in 2017 or 2018. A possible reason could be in response to the 20mph speed limit implemented in the town centre. Monitoring of air quality will be continual.

4.2.4 An hourly bus service provides access between the market towns within the Forest of Dean and the new Gloucester Transport Hub. There are no very high frequency bus services in CPS 2 with limited high frequency services serving the key growth areas to Gloucester hourly. This level of network coverage is indicative of the rural nature of the CPS with existing service timetables not able to provide flexible access to employment or educational facilities. Community transport or Demand Responsive Transit (DRT) may benefit rural settlements in the CPS where commercial public transport services are not economically viable. Such provision gives opportunity for more flexible and accessible community-led travel solutions that can be specifically tailored to specific local needs. If the potential can be maximized in the CPS and county as a whole, community transport has good scope for providing social and economic benefits and help to combat social and spatial isolation. Community transport is available for all people despite some misconceptions, although on some services a membership is required. CPS2 has established community transport and DRT with the creation of the Forest of Dean Community Transport Partnership’s ‘Forest Routes’ service but the coverage is limited. Community transport/DRT has the scope to expand across CPS 2 if there is demand for it in an area that is not viably served by Public Transport.
There is one rail station in the Forest CPS, located in the town of Lydney. Direct trains access Cardiff and Newport in the west and Gloucester and Cheltenham in the east. The station’s patronage was 196,000 in the year 17/18 according to the latest available statistics. The railway station is located between the town centre and Lydney harbour with growth giving the opportunity to improve pedestrian and cycling access between them. Chepstow, although located outside the CPS2 area, is also a key rail station for Forest residents although the A48 pinch point constrains access somewhat. Furthermore, rail services are impacted by a lack of available rolling stock to accommodate current and potential demand.

£1m has been awarded towards improving access between the town centre and harbour by the Local Growth Fund. The outcome would promote active travel, increase station patronage, improve air quality and create a sustainable interchange hub. The creation of an interchange hub may help to support further increases in rail services and maximise linkages to Bristol with direct services, reducing the pressure on the A48 pinch point at Chepstow.

Almost half of work trips in the area are less than 2km, highlighting the opportunities to increase active travel and reduce the pressure from short car-borne trips. However, the rural character of the strategy area means there are limited opportunities to provide dedicated cycle routes beyond the main urban settlements. The countywide cycleway (see PD2, Figure C) identifies the following desire lines that link key CPS 2 areas;

- Lydney – Cinderford via Parkend.
- Cinderford – Highnam via Westbury-on-Severn
- Lydney – Highnam along the A48

Figure K provides the journey to work data for Forest of Dean CPS

There is also significant potential to provide leisure routes in association with tourist trails such as the Gloucestershire Way, Wye Valley Walk and those within the Forest of Dean. Where opportunities exist to improve walking and cycling opportunities within settlements and for local trips, the Neighbourhood Development Plans are highly supportive.

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4.2.9 Tutshill and Sedbury have been subject to growth over recent years with new residential developments, most notably adjacent to Gloucester Road. As a result, these two settlements offer strong southern linkages to Monmouthshire and the proximity of Chepstow railway station offers attractive access to South Wales and Gloucester.

4.2.10 Local Cycling and Walking Infrastructure Plans (LCWIP) will work towards the identification of local cycling and walking networks, over time these will come to form a strategy for walking and cycling. This information will become available at www.gloucestershire.gov.uk/ltp.
Figure K: Journey to Work data – FoD (Census 2011)
Issues

- River Severn is a barrier to access.
- A40 heavily congested during peak periods, particularly the east approach to Highnam roundabout.
- Enforcement of highway speed limits and A48/ A4136/ A40 road safety concerns.
- Condition of highway network
- The need for joined up freight routing strategy with neighbouring authorities.
- Vulnerability of the railway and A40/A417 to River Severn flooding.
- Location of the rail station with poor accessibility for all users and station facilities.
- Lack of direct rail link to Bristol.
- Availability of rolling stock.
- Many of the roads lack footpaths
- Limited public transport access into Gloucester/Cheltenham.
- Off peak bus services are very limited.
- Future Impact of toll removal, in particular on the A48.
- Broadband connectivity remains poor for some preventing home working.
- Poor sustainable travel options for young people to access work and/or educational facilities.

Opportunities

- Building on the successes of the first phase of the Cinderford Northern Quarter regeneration project
- CPS 2 southwest growth potential resulting from Severn Bridge toll removal.
- Creation of Hub and Spoke broadband facilities to improve home working/community capability reducing workplace travel need.
- Potential to regenerate Lydney Harbour and improve walking/cycle links to station and town centre.
- Future growth potential at the Beachley MOD site.
- Potential to expand public transport links to South Wales/Gloucester from Lydney station.
- Expansion of community transport/DRT to reduce social isolation and provide better access for all to employment, medical and educational facilities.
- Maximise CPS2’s northern M50/M5 accessibility to Ross-on-Wye/Hereford and Worcester/Birmingham to provide socio-economic benefits.
- Tutshill and Sedbury strong southern connections with Monmouthshire
4.3 Strategic Vision

4.3.1 The strategic priority for the Forest CPS up to the end of the plan period is to undertake cross boundary engagement with Monmouthshire council in order to resolve the A48 capacity constraint in Chepstow. The removal of the Severn bridge tolls may encourage growth along the A48 corridor, exacerbating the demand on it towards Cardiff and Bristol.

4.3.2 Lydney is one of the key growths areas in the Forest CPS and improvements to the pedestrian and cycle network within the Town Centre and between it and the railway station and beyond to the harbour will provide a sustainable active travel link that will help to remove short distance car journeys. The wider vision will see improvements made to the corridors identified on the Countywide Cycleway Map (see PD2, Figure C) in order to encourage increased wider area sustainable travel for both commuting and leisure purposes.

4.3.3 Rail provides a good opportunity to overcome the A48 pinch point constraint in Chepstow; however it is not without its own issues as identified in 4.2.5. Therefore GCC aims to work with the GFirst LEP, developers and neighbouring authorities to increase rolling stock capacity to accommodate current and future demand. In addition the strategic vision for CPS2 will aim to engage with key stakeholders to improve sustainable multi-modal connectivity to the rail stations and a future ambition to increase directness and services to Bristol, either via Lydney or Severn Tunnel Junction, as set out in the future’s chapter, ‘Shaping the Way to 2041’. Figure L illustrates scheme ambitions to 2031 for the FoD CPS area and Tables 4(a), 4(b), 4(c), & 4(d) lists the scheme priorities in terms of Strategic/Major/Local/Countywide.
Figure L: Forest CPS2 area scheme Map

Schematic representation of transport proposals only, not representative of actual routes/locations.
Gloucestershire’s Local Transport Plan (2015-2041) Connecting Places Strategy

Table 4(a): Forest of Dean CPS2 - Strategic Scheme Priorities

<table>
<thead>
<tr>
<th>Ref FOD</th>
<th>Mode</th>
<th>Location</th>
<th>Description</th>
<th>Primary Benefit</th>
<th>Secondary Benefit</th>
<th>Tertiary Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Highways</td>
<td>A48 - Chepstow</td>
<td>Chepstow A48 congestion relief scheme</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4(b): Forest of Dean CPS2- Major Scheme Priorities

<table>
<thead>
<tr>
<th>Ref FOD</th>
<th>Mode</th>
<th>Location</th>
<th>Description</th>
<th>Primary Benefit</th>
<th>Secondary Benefit</th>
<th>Tertiary Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Highways</td>
<td>Cinderford</td>
<td>Junction Improvements - B4226/B4227 Bridge Junction (Including new highway) - Cinderford Bridge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Highways</td>
<td>Lydney</td>
<td>Bream Road Junction Improvement - Lydney</td>
<td></td>
<td></td>
<td>Road Safety</td>
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<tr>
<td>4</td>
<td>Highways</td>
<td>A4136 Huntley – Staunton</td>
<td>A4136 Corridor highway capacity improvements</td>
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<td></td>
<td>Road Safety</td>
</tr>
<tr>
<td>5</td>
<td>Ped/Cycle</td>
<td>Gloucester – Churcham - Newent</td>
<td>Cycle improvements linking Gloucester – Huntley, Churcham, Maisemore, Hartpury, Highnam and Newent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Highway</td>
<td>Lydney</td>
<td>Junction improvements, A48 Highfield Rd / Lydney Bypass</td>
<td></td>
<td></td>
<td>Road Safety</td>
</tr>
</tbody>
</table>

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### Ref FOD | Mode | Location | Description | Primary Benefit | Secondary Benefit | Tertiary Benefit
--- | --- | --- | --- | --- | --- | ---
8 | Ped/Cycle | Lydney - Parkend | Cycle access improvements between Lydney and Parkend | 🚴‍♂️ | 💼 | 🌱
9 | Ped/Cycle | Lydney - Cinderford | Cycle access improvements Lydney - Cinderford corridor | 🚴‍♂️ | 💼 | 🌱
10 | Ped/Cycle | Cinderford - Highnam | Cycle access improvements Cinderford - Highnam corridor | 🚴‍♂️ | 💼 | 🌱
11 | Ped/Cycle | Lydney – Westbury-on-Severn | Cycle access improvements to A48 Lydney - Westbury-on-Severn corridor | 🚴‍♂️ | 💼 | 🌱
12 | Highway | A417 Over Roundabout - Maisemore | Replacement of existing A417 highway with elevated section, Maisemore | 🌳 | 💼 | 🌱
13 | Public Transport - Bus | A40/A48 | West of Severn Transport Interchange Hub | 🚌 | 💼 | 🌱
### Table 4(c): Forest of Dean CPS2 - Local Scheme Priorities

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<th>Ref</th>
<th>Mode</th>
<th>Location</th>
<th>Description</th>
<th>Primary Benefit</th>
<th>Secondary Benefit</th>
<th>Tertiary Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Ped/Cycle</td>
<td>Lydney</td>
<td>Cycling and Walking access improvements to Lydney Station and Lydney Harbour</td>
<td>![Pedestrian]</td>
<td>![Bicycle]</td>
<td>Road Safety</td>
</tr>
<tr>
<td>15</td>
<td>Ped/Cycle</td>
<td>Lydney</td>
<td>Cycling and Walking access improvements – Lydney Town Centre</td>
<td>![Pedestrian]</td>
<td>![Bicycle]</td>
<td>Road Safety</td>
</tr>
<tr>
<td>16</td>
<td>Public Transport - Rail</td>
<td>Lydney</td>
<td>Lydney Railway Station Enhancements</td>
<td>![Bus]</td>
<td>![Bicycle]</td>
<td>Road Safety</td>
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<tr>
<td>17</td>
<td>Highway</td>
<td>Cinderford</td>
<td>Cinderford Northern Quarter Spine Road</td>
<td>![Map]</td>
<td>![Bicycle]</td>
<td>Road Safety</td>
</tr>
<tr>
<td>18</td>
<td>Highway</td>
<td>Lydney</td>
<td>Highway improvement - Newerne Link Road, Lydney</td>
<td>![Map]</td>
<td>![Bicycle]</td>
<td>Road Safety</td>
</tr>
<tr>
<td>19</td>
<td>Highway</td>
<td>Lydney</td>
<td>Junction improvements - Highfield Hill including Traffic Calming, Lydney</td>
<td>![Road]</td>
<td>![Bicycle]</td>
<td>Road Safety</td>
</tr>
</tbody>
</table>
Table 4 (d): Forest of Dean CPS2 - Specific Revenue Projects

To be funded by revenue, either through GCC officer support time, or through the commissioning by GCC of consultants:

- Feasibility study to consider the re-designation of the existing eastbound bus lane on the A40 between Highnam and Over to multi-occupancy (2 + people) Lane
- Working with Monmouthshire County Council to resolve Chepstow congestion issues
5.0 Connecting Places Strategy CPS3 – North Cotswold

5.1 The Place

5.1.1 The North Cotswolds Connecting Places Strategy (CPS 3) is located in the north-east of the county and is bounded by Worcestershire and Warwickshire to the north, the South Cotswold CPS 4 area to the south, West Oxfordshire to the east and the Central Severn Vale CPS 1 area to the west. The CPS3 encompasses the market towns of Stow-on-the-Wold, Moreton-in-Marsh, Chipping Campden and Bourton-on-the-Water.

5.1.2 Situated in an Area of Outstanding Natural Beauty (AONB), the area has a low population density and a higher proportion of over 65s compared to the county as a whole, with the exception of Moreton in Marsh. This is as a result of housing growth in the area which has provided new homes for those of working age with the added benefit and attractor being the railway station and its links to employment located in the Oxford – London corridor.

5.1.3 The Cotswold District Local Plan (2011 – 2031) adopted in 2018, outlines the spatial strategy for the district. During the plan period, provision will be made to meet the need for approximately 8,400 new homes minimum and land to support 24ha of B-Class employment. The North Cotswold CPS area has been allocated approximately 3321 new homes with potential for a further 548 windfall homes. Of the new homes over 60% has either been built or have extant planning permissions according to the latest housing trajectory figures. The focus of development is in Bourton-on-the-Water (419 dwellings), Moreton-in-Marsh (1103 dwellings) and Upper Rissington (401 dwellings).

5.1.4 The vision for the Cotswolds is one of “enabling a strong, competitive and innovative local economy which capitalises on the district’s high quality historic and natural environment whilst creating healthy, sustainable and mixed communities”. Development within the North Cotswolds will occur in the most sustainable towns and larger villages so the majority of services and facilities will be met from within those settlements, reducing the need to travel longer distances.

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17 Census Data, KS102UK – Age Structure. [www.nomis.co.uk](http://www.nomis.co.uk)
18 Cotswold District Council – Housing Land supply report June 2018. Windfall and homes outside principal areas have been split 50/50 between CPS3 and CPS4 due to their final locations being unknown. Actual number of houses built may vary.
5.1.5 Tourism is critical for the socio economic wellbeing of the Cotswolds. It provides an essential source of income for businesses and communities both within and around the AONB. Due to the rural nature of the CPS area, car access will remain the dominant mode of choice when visiting the area and it is important that vehicle delays at pinch points are managed to not deter people from visiting.

5.1.6 Key highway routes include the A429, known as the Fosse Way, A417 and the A40 which connect the North Cotswolds to the West Midlands, Swindon, Cheltenham and Oxford. This data has been considered for the whole Cotswolds District due to the way the census data has been gathered. However, Figure M clearly demonstrates that the Cotswolds is car dominant for inbound (85%) and outbound (84%) trips with the exception of contained trips which demonstrates a high walking percentage. The contained trips, as shown by Figure N, demonstrates a high percentage of walking trips (25%) which may reflect people living and working in the same settlements. Rail travel accounted for 4% of the mode share with destinations such as West Oxfordshire accounting for a large proportion of outbound flow. This reflects the accessibility offered by Moreton in Marsh railway station, which also allows sustainable travel to London and Wychavon for Evesham and Worcester.

5.1.7 Moreton railway station provides an hourly service to Oxford and London and has seen year on year increases in patronage with 268,866 passengers using the station in the year 17/18. With improvements to express services due in the near future, Moreton-in-Marsh railway station has the potential to become a key stop in the North Cotswolds. Combined with bus services and walking/cycling routes, there is potential to create a sustainable Integrated Transport Hub to benefit the wider North Cotswolds area. Kingham station, although located in Oxfordshire, is also an important rail station for the North Cotswold residents. The North Cotswold Line Task Force has been formed from a number of stakeholders and neighbouring authorities to promote improved journey times and service frequency, as well as identify future infrastructure requirements which will be of benefit to Moreton in Marsh railway station and other neighbouring stops.

Figure M: Cotswold Commuting Breakdown (Census 2011)

Commuting totals for Cotswold:
- **Inflow**: 15,709 all persons commute into Cotswold from other local authorities in the UK.
- **Outflow**: 13,820 all persons commute out of Cotswold to other local authorities in the UK or abroad.
- **Net change**: Overall, commuting results in a population increase of 1,889 all persons in Cotswold.
Figure N: Commuting Flows — Cotswold (Census 2011)
5.2 **Issues and Opportunities**

5.2.1 The A429 links the key CPS3 settlements and serves a primary function to accommodate local and regional passenger and freight needs as well as tourist traffic. However, the A429 has a number of pinch points such as Unicorn Junction at Stow-on-the-Wold, the double mini-roundabouts and railway over-bridge in Moreton-in-Marsh. These pinch points result in congestion and delay with emissions from slow moving vehicles affecting health and well-being.

5.2.2 Cycle links are poor, with infrastructure limited to town centres, and existing facilities along key corridors such as the A429 are perceived as unpleasant and unsafe. The issues were recognised in the A429/A433 corridor study which recommended exploring the potential to provide improvements to alternative routes such as NCN route 48 that runs parallel to the A429 between Stow on the Wold and Moreton in Marsh. This provides a quieter route of approximately 5 – 6 miles for the benefit of commuting and leisure purposes. 80% of all short distance cycle trips are 5 miles or less, this alternative route is slightly longer than that but does provide a safer and more attractive route to that of the A429.

5.2.3 There may be increased desire for cross border travel particularly to the east into Oxfordshire in order to benefit from anticipated future growth associated with the Growth ‘Knowledge’ Arc. However, connectivity to Oxfordshire is limited in the number of direct principal routes available. Cross border growth in Worcestershire, which is also seeing significant future growth within proximity to Gloucestershire’s border, may put additional pressure upon the local highway network, particularly the A429. Addressing the pinch point issues on the A429 allows the opportunity for improved access to external growth areas as well as unlocking potential development land for new mixed housing and employment. This will provide a range of jobs within sustainable travel distance and maximise the potential regional and national links that Moreton Railway station will also provide creating the opportunity for an economic centre in CPS 3.

5.2.4 There are no very high frequency bus services in the CPS 3 area with limited high frequency hourly services to Chipping Camden and Moreton in Marsh only with the remainder of CPS 3 poorly served by public transport. Like the other rural areas in Gloucestershire, the CPS 3 may benefit from expanded community transport or Demand Responsive Transit (DRT). This will help to resolve social isolation for a large proportion of the population, particularly the elderly who will be provided with a flexible means of accessing goods, services and healthcare facilities. Furthermore it

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will also provide access to educational facilities for young people. Community transport is available on a very limited scale in the Moreton-in-Marsh area and does provide an excellent service for those most in need. However, there is scope to further expand community transport and DRT so that residents are better connected to key growth areas and sustainable interchange hubs such as Moreton in Marsh railway station. Community transport and DRT may also be of great benefit in the tourist sector whereby groups of individuals could join together to travel to the more rural tourist spots, relieving pressures on inadequate local roads as well as reducing parking demand and associated issues. Such collaboration may be facilitated or supported by Total Transport / Thinktravel web-based initiatives that inform individuals of the best means of accessing a destination with the ability to book and/or arrange travel all in one place.

5.2.5 Improvements in broadband technology or provision of a hub and spoke community facility will change the way services are delivered and for some individuals this may reduce the need to travel. This would have particular benefit at the key pinch points within the CPS such as Stow’s Unicorn Junction and the double mini-roundabouts on the A44/A429 in Moreton in Marsh.

5.2.6 A consequence of the rural nature of the area, coupled with the standard of many of the roads, results in the disproportionate impact of HGVs on many local communities. This is sometimes due to the reliance on Satnavs’ directing freight to use the shortest route rather than the most appropriate one. This includes trips bisecting this area from neighbouring authorities accessing the Vale of Evesham in Worcestershire. Open source and/or real time data technology may be able to provide HGV operators with up to date information that could better inform their drivers of recommended routes or routes more suited to their specific delivery needs. This has the potential to re-route HGV traffic away from key pinch points or settlement centres. This will benefit the deliverability of goods and services and have health and wellbeing benefits for local residents who will no longer be subject to the emissions generated by the largest road traffic. Stow-on-the-Wold’s Unicorn Junction and Moreton-in-Marsh’s double mini-roundabouts and northern railway over bridge are pinch points subject to regular congestion exacerbated by the largest road traffic. Any scheme to improve journey time reliability and accessibility to CPS 3 is to be encouraged.

5.2.7 Local Cycling and Walking Infrastructure Plans (LCWIP) will work towards the identification of local cycling and walking networks, over time these will come to form a strategy for walking and cycling. This information will become available at www.gloucestershire.gov.uk/ltp.
Gloucestershire’s Local Transport Plan (2015-2041) Connecting Places Strategy

Issues

- A417 Missing Link causes congestion and road safety concerns,
- A417 / A419 noise concerns caused by concrete highway surface
- Vehicles rat running to avoid delays on A417 / A419
- Capacity issues on the Cirencester Ring road
- Freight Routing especially for HGV’s using A417 through Fairford, Lechlade-on-Thames and in Cirencester town centre
- Lack of lay-bys and resting points for HGVs and for buses when stopping to pick up / drop off passengers
- Excessive vehicle speeds on some roads
- Limited car parking / EV charging infrastructure in Cirencester
- Lack of pedestrian access within Cirencester town centre
- Inadequate access by sustainable modes to Kemble Station from Cirencester
- Limited bus services and inappropriate size of buses in some villages. Lack of incentive for commercial operators
- Lack of connectivity between Tetbury, Fairford and South Cerney in relation to Cirencester
- Inadequate cycle facilities & busy roads acting as barriers to cycling
- Mobility and accessibility constraints for an ageing population
- The traffic created by tourist movements within the Cotswold area has different characteristics than commuter traffic and affects the area during the weekends, holidays, and particularly during the summer months,
- Cross border connectivity

Opportunities

- The Cotswold district may benefit from employees of high end jobs within the surrounding CPS areas living within the district
- All future developments designed to enable EV/ULEV charging.
- Improved pedestrian and cycle accessibility between settlements to accord with the Gloucestershire Countywide Cycleway.
- Improvements to rural digital connectivity and/or Hub and Spoke facilities to increase home working.
- Very good rail connectivity to Cheltenham, Gloucester, Swindon and London.
- A417 missing link to improve congestion and safety.
- Gloucestershire’s recognition as a key cyber security alliance location creates growth potential.
- Potential to create local interchange hubs at key transport locations such as Moreton in Marsh.
- Improvements to leisure walking/cycling network to encourage sustainable tourism.
- Reducing congestion by using technology to inform, prepare and make people aware of travel conditions.
- Using technology to make public transport travel planning easier.
- Public Transport improvements to enable accessibility to cross-border growth areas
5.3 **Strategic Vision**

5.3.1 The strategic vision for the North Cotswold CPS is to resolve the capacity and accessibility constraints on the A429, particularly the A429 Over-bridge, Moreton in Marsh double mini-roundabouts and Unicorn Junction in Stow-on-the-Wold. Once the constraints on the A429 have been resolved, a wider vision of connecting CPS 3 to the Oxford – Cambridge Growth ‘Knowledge’ Arc, and Cheltenham Cyber Hub can be realized, as well as maximise local employment opportunities such as those offered by the Fire Services College which will benefit from improved accessibility and the delivery of goods and service.

5.3.2 The potential that the railway station in Moreton-in-Marsh offers for onward sustainable travel is to be maximised as well as multi-modal car-free connections to it. This is particularly important for those living in the more remote rural areas in order to reduce social isolation. Moreton-in-Marsh has the scope to become a key North Cotswold interchange hub and the establishment of a parking strategy will help this function efficiently. As stated in 5.1.7, the North Cotswold Line Task Force has been set up to improve journey times and increase service frequency with a wider vision to work with key stakeholders and authorities to explore the potential to reinstate line, such as the route towards Honeybourne Junction and Stratford upon Avon as stated in Table F of GCC’s Rail Policy Document. This would also improve rail resilience as well as encourage additional commuting and tourism related trips.

5.3.3 **Figure O** illustrates scheme ambitions to 2031 for the North Cotswold CPS areas and **Tables 5(c), & 5(d)** lists the scheme priorities in terms of Local/Countywide.

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22 [Insert link to Rail Policy Table F]
Figure O: North Cotswold CPS3 area scheme Map

Schematic representation of transport proposals only, not representative of actual routes/locations.
### Table 5(c): North Cotswold CPS3 - Local Scheme Priorities

<table>
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<tr>
<th>Ref</th>
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<th>Secondary Benefit</th>
<th>Tertiary Benefit</th>
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<td>Junction improvement A429 - Unicorn Junction (A436/B4068) - Stow-On-The-Wold</td>
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<td>Road Safety</td>
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<td>2</td>
<td>Ped/Cycle</td>
<td>Moreton in Marsh</td>
<td>Resolve pedestrian access arrangements in Moreton in Marsh</td>
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<td>Road Safety</td>
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<tr>
<td>3</td>
<td>Public Transport - Rail</td>
<td>Moreton in Marsh</td>
<td>Moreton in Marsh Railway Station car park enhancements</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Highway</td>
<td>Moreton in Marsh</td>
<td>Highway capacity improvement - A429 Fosseway, Moreton in Marsh</td>
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<td>Road Safety</td>
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<tr>
<td>5</td>
<td>Highway</td>
<td>Moreton in Marsh</td>
<td>Highway improvement, A44/A429 mini-roundabouts</td>
<td></td>
<td></td>
<td>Road Safety</td>
</tr>
</tbody>
</table>

### Table 5 (d): North Cotswold CPS4 - Specific Revenue Projects

To be funded by revenue, either through GCC officer support time, or through the commissioning by GCC of consultants:

- Fosse Way Highway Improvement feasibility Study (A429/A433)
- Resolve pedestrian access arrangements in Moreton-in-Marsh
- Moreton in Marsh Global Transport Issues study

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6.0 Connecting Places Strategy CPS4 – South Cotswold

6.1 The Place

6.1.1 CPS 4 is located in the south-east of the county. With a population of 50,000, the area is characterised as semi-rural with the majority of the CPS area designated as part of the Cotswold Area of Outstanding Natural Beauty (AONB).

6.1.2 CPS 4 is bounded by the North Cotswold CPS 3 to the north, Wiltshire to the South, Oxfordshire to the east and the Stroud and Central Severn Vale CPS areas to the west and encompasses the affluent market towns of Cirencester, Tetbury, Fairford and Lechlade-on-Thames. In addition CPS4 accommodates a large part of the Cotswold Water Park between Cirencester, South Cerney and Fairford and is a key tourism draw to the CPS. Due to its sustainable location and good transport links there are significant growth proposals in the current Cotswold Local Plan for Cirencester. There are also notable future developments coming forward in Swindon which are likely to have an impact on transport demand in this area.

6.1.3 The Cotswold Local Plan (2011 – 2031), adopted in 2018, outlines the spatial strategy for the district. During the plan period, provision will be made to meet the need for approximately 8,400 new homes minimum and land to support 24ha of B-Class employment. CPS 4 has a housing allocation of 5555 new homes with potential for a further 548 windfall homes. Of the new homes over 40% have either been built or has extant planning permissions with an additional 1019 windfall homes and homes allocated outside of the principal settlements.23

6.1.4 Chesterton is CPS 4’s strategic development, located south of Cirencester, with planning consent for 2,350 dwellings. It is anticipated that approximately 1,800 new homes will be constructed within the Local Plan Period up to 2031. In addition sites which have already been built or have extant planning permission includes: South Cerney (270 dwellings), Fairford (530 dwellings) and Tetbury (916 dwellings).

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23 Cotswold District Council – Housing Land supply report June 2018. Windfall and homes outside principal areas have been split 50/50 between CPS 3 and CPS 4 due to their final locations being unknown. Actual number of houses built may vary.
6.1.5 The vision for the Cotswolds is one of “enabling a strong, competitive and innovative local economy which capitalises on the districts high quality historic and natural environment whilst creating healthy, sustainable and mixed communities. Development within the South Cotswolds will occur in the most sustainable towns and larger villages so the majority of services and facilities will be met from within those settlements reducing the need to travel longer distances.

6.1.6 Cirencester is the most dominant centre, not just for CPS 4 but the Cotswolds as a whole, accommodating 25% of the districts population and 30% of the total jobs. Cirencester is also home to the Royal Agricultural University (RAU) which is an important asset to the town with the graduation of skilled individuals. Growth in the vicinity of the RAU has resulted in the creation of FARM491, a LEP funded project, as well as a new business park at the College Triangle. These provide high end job opportunities which have the potential to aid retention of skilled young people in the area as well as develop potential sustainable travel modes within Cirencester.

6.1.7 There is existing strong cross border travel towards Wiltshire and, in particular, Swindon, given its convenient access to employment areas via the A419. Cross border travel desire may also increase to the east towards Oxfordshire to benefit from the anticipated future Growth ‘Knowledge’ Arc growth. A constraint of such movements is the lack of high quality connectivity to Oxfordshire from CPS 4 as there are no direct principal routes from the major settlement areas without the need to travel north or south east first, or take lesser A and B Roads.

6.1.8 Cross border growth in Oxfordshire and Wiltshire, which is also seeing significant future growth within proximity to Gloucestershire’s border, may put additional pressure upon the local highway network, however, there is potential for improved local and cross border public transport, via bus and/or rail from Cirencester and Kemble. Kemble Station is a key commuter hub for CPS 4, with 372,686 passengers using the station in the year 17/18. Recent re-doubling of the line provides the possibility of improved rail service frequency and significant potential for the station to grow in line with the expected increased demand.

6.1.9 Key routes in the area converge in Cirencester where the A417/A419, A429 and A433 meet. Travel to work data indicates that the Cotswolds as a whole has more inbound trips than outbound. This data has been considered for the whole Cotswolds District due to the way the census data has been gathered. However, it clearly demonstrates that the Cotswolds is car dominant for inbound (85%) and outbound (84%) trips with the

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exception of contained trips which demonstrates a high walking percentage. The contained trips demonstrate a high percentage of walking trips (25%) which may reflect people living and working in the same settlements. The biggest draw for outbound trips was towards Swindon, which is facilitated by good rail links from Kemble. Figure P illustrates the commuting flows for the Cotswold.
Figure P: Commuting Flows – Cotswold (Census 2011)
6.2 Issues and Opportunities

6.2.1 A consequence of the semi-rural nature of the area is the limited availability of connected cycle routes between market towns. Busy roads are a safety concern and are barriers to active travel (cycling and walking). Improvement initiatives include personalised travel planning in new developments, low cost schemes to fill gaps in the cycle network and an ambition for a dedicated cycle link between Cirencester and Kemble railway station, with future scope to provide additional cycle links between Cirencester and South Cerney, Lechlade, and Tetbury via Kemble and a cross CPS route from Cirencester to Stroud as shown on the Gloucestershire County Cycleway map, (PD2, Figure C). These will be known as ‘Active Travel Routes’ (Formerly Greenways) with the aim of encouraging a range of sustainable travel modes as well as encouraging health and wellbeing and, over time, will form part of the county’s strategic cycle network.

6.2.2 Public Transport provision is poor with only Cirencester benefiting from a high frequency hourly service to Cheltenham and a cross boundary hourly service to Swindon. The remainder of CPS 4 is served by low frequency services, often not accessible in peak commuting or educational travel times. The development at Chesterton provides scope for improved bus infrastructure and services with an added benefit to services towards Kemble.

6.2.3 Public transport provision to the smaller settlements in CPS 4 is unlikely to change in the future however; community transport and Demand Responsive Transit (DRT) will play its part in resolving social isolation. There is an established community transport network with routes serving Tetbury, Fairford and Cirencester. Community transport and DRT will help to resolve social isolation for a large proportion of the population, particularly the elderly who will be provided with a flexible means of accessing goods, services and healthcare facilities. It will also provide access to educational facilities for young people. However, there is scope to further expand community transport and DRT so that residents are better connected to key growth areas such as Cirencester, Stroud and the CSV as well as sustainable interchange hubs in Cirencester and Kemble. Community transport and DRT may also greatly benefit the tourist sector whereby groups of individuals could join together to travel to the more rural tourist spots, relieving pressures on inadequate local roads as well as reducing parking demand and associated issues. Such collaboration may be facilitated or supported by Total Transport / Thinktravel web-based initiatives that inform individuals of the best means of accessing a destination with the ability to book and/or arrange travel all in one place.

6.2.4 Local Cycling and Walking Infrastructure Plans (LCWIP) will work towards the identification of local cycling and walking networks, over time these will come to form a strategy for walking and cycling. This information will become available at www.gloucestershire.gov.uk/ltp.
Issues
- A417 Missing Link causes congestion and road safety concerns,
- A417 / A419 noise concerns caused by concrete highway surface
- Vehicles rat running to avoid delays on A417 / A419
- Capacity issues on the Cirencester Ring road
- Freight Routing especially for HGV’s using A417 through Fairford, Lechlade-on-Thames and in Cirencester town centre
- Lack of lay-bys and resting points for HGVs and for buses when stopping to pick up / drop off passengers
- Excessive vehicle speeds on some roads
- Limited car parking / EV charging infrastructure in Cirencester
- Lack of pedestrian access within Cirencester town centre
- Inadequate access by sustainable modes to Kemble Station from Cirencester
- Limited bus services and inappropriate size of buses in some villages. Lack of incentive for commercial operators
- Lack of connectivity between Tetbury, Fairford and South Cerney in relation to Cirencester
- Inadequate cycle facilities & busy roads acting as barriers to cycling
- Mobility and accessibility constraints for an ageing population
- The traffic created by tourist movements within the Cotswold area has different characteristics than commuter traffic and affects the area during the weekends, holidays, and particularly during the summer months,
- Cross border connectivity

Opportunities
- The Cotswold district may benefit from employees of high end jobs within the surrounding CPS areas living within the district
- All future developments designed to enable EV/ULEV charging.
- Improved pedestrian and cycle accessibility between settlements to accord with the Gloucestershire Countywide Cycleway.
- Improvements to rural digital connectivity and/or Hub and Spoke facilities to increase home working.
- Very good rail connectivity to Cheltenham, Gloucester, Swindon and London.
- A417 missing link to improve congestion and safety.
- Gloucestershire’s recognition as a key cyber security alliance location creates growth potential.
- Potential to create local interchange hubs at key transport locations such as Kemble
- Improvements to leisure walking/cycling network to encourage sustainable tourism.
- Reducing congestion by using technology to inform, prepare and make people aware of travel conditions.
- Using technology to make public transport travel planning easier.
- Public Transport improvements to enable accessibility to cross-border growth areas.
6.3 Strategic Vision

6.3.1 The A417 Missing Link remains the key strategic vision for the South Cotswold CPS and its implementation will resolve a key congestion and safety constraint. The South Cotswold CPS will be better connected to the core urban areas in Cheltenham and Gloucester as well as the M5 for travel to Birmingham and Bristol. Likewise, Cirencester and surrounding areas will be better accessed themselves from the wider area to the west, which may encourage further inward investment, improved accessibility to employment and improved delivery of goods and services efficiency.

6.3.2 Kemble station is a key sustainable rail connection for CPS4 for services to major regional and national destinations such as London. Its proximity to Cirencester and, to a lesser extent, Tetbury means it is within accessible range to sustainable travel modes such as the bicycle. Accessibility to the station is less attractive by many sustainable modes, however the strategic vision would see active travel routes provided from Cirencester to Kemble and Kemble to Tetbury. Public and/or community transport services offer additional sustainable travel opportunities which may help to relieve car parking capacity constraints.

6.3.3 The Cotswold Waterpark is a major tourist attraction in CPS 4 and the strategic vision will aim to open it up for sustainable travel methods along routes identified on the Countywide cycleway map. This will allow the formation of sustainable leisure and tourism routes between the water park, South Cerney, Fairford and Cirencester which in turn provides the opportunity to reduce reliance on car use which tests the local road network resilience in the busy summer months.

6.3.4 Figure Q illustrates scheme ambitions to 2031 for the South Cotswold CPS areas and Tables 6(a), 6(b), 6(c), & 6(d) lists the scheme priorities in terms of Strategic/Major/Local/Countywide.
Figure Q: South Cotswold CPS4 area scheme Map

- Schematic representation of transport proposals only, not representative of actual routes/locations.

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### Table 6(a) - South Cotswold CPS4 - Strategic Scheme Priorities

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<th>Ref SC#</th>
<th>Mode</th>
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### Table 6(b) – South Cotswold CPS4 - Major Scheme Priorities

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<td>Ped/Cycle</td>
<td>Fairford - Lechlade</td>
<td>Access improvements 'Active Travel Route' - A417 corridor between Fairford and Lechlade</td>
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<td>4</td>
<td>Ped/Cycle</td>
<td>Tetbury - Kemble</td>
<td>Cycle access improvement, reuse of old railway line between Tetbury and Kemble</td>
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<td>South Cerney - Cirencester</td>
<td>Cycle access improvements between South Cerney and Cirencester</td>
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<td>7</td>
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<td>Access improvements for Tetbury Road and London Road</td>
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Gloucestershire’s Local Transport Plan (2015-2041) Connecting Places Strategy

Table 6(c) – South Cotswold CPS4 - Local Scheme Priorities

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<td>Junction safety improvement - A429/A433 - Kemble</td>
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<td>9</td>
<td>Public Transport - Rail</td>
<td>Kemble</td>
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## Table 6(d): South Cotswold CPS4 - Specific Revenue Projects

To be funded by revenue, either through GCC officer support time, or through the commissioning by GCC of consultants:

- Working with Highways England to progress A417 Missing Link
- Fosse Way highway improvement feasibility study
- Cirencester transport study
- Provide rail service enhancements from Kemble to Swindon and London
7.0 Connecting Places Strategy CPS5 – Stroud

7.1 The Place

7.1.1 CPS 5 is located in the south-west of the county. The area is bordered to the north by the Central Severn Vale (CSV) CPS 1, to the east by the South Cotswold CPS4, to the south by South Gloucestershire Unitary Authority and to the west by the River Severn. Stroud is a key service centre for surrounding communities, where education, health care and retail outlets are accessed. The town is a central transport hub for rail and bus travel to surrounding towns and villages.

7.1.2 The M5 is located almost centrally in the CPS and provides good access to the CSV to the north and Bristol to the south. There are three rail stations within CPS5 on separate lines which provide connectivity between Cheltenham/Gloucester to Bristol via Cam and Dursley and London via Stroud and Stonehouse.

7.1.3 Stroud District Local Plan was adopted in 2015. It is currently undergoing review and sets out the need to provide an additional 12,800 new homes and sufficient employment to meet development needs over the next 20 years. This is an additional 5,700 new homes over and above the total stated in the Local Plan when adopted. The ‘Stroud Local Plan Review Emerging Strategy Document’ proposes to concentrate housing growth to the main towns of Cam & Dursley, Stonehouse and Stroud with the addition of new or expanded Garden Village settlements at Slimbridge (Wisloe) and Sharpness.

7.1.4 The adopted Local Plan and Local Plan review emerging strategy identifies significant development opportunities in the area, with large scale employment and residential along the major transport corridors. Concentrating new housing and employment along the A38/M5 corridor ensures that potential links to rail, bus and other forms of public transport, as well as the strategic road network, are all maximised. However, the Neighbourhood Development Plans within this corridor area report experiences of the impacts of traffic and new development which places additional pressure on strategic travel corridors. Measures to manage speeds, flows and parking coupled with capitalising on the good potential mode shift opportunities are supported.

7.1.5 Economic growth in Gloucestershire is underpinned by its connectivity for attracting business and staff into the county and by showing that it is a great place to live, work and visit. This results in the notion that the county is becoming a strong trip attractor. However, CPS5 exhibits the effects of its proximity to the SRN and Bristol with high commute distances and working out of the county. Figure R demonstrates journey to work data that shows more outbound (20,256) than inbound (13,287) commuting trips. The effects on community cohesiveness and levels of traffic rat running need to be factored into managing transport demand in this area. The benefits of sustainable connectivity to the economic growth in and around Bristol as well as towards Swindon should be maximized.

**Figure R: Commuting Flows – Stroud (Census 2011)**
7.1.6 **Figure S** shows that approximately 41.5% of travel to work journeys start and end in the strategy area, 35.5% travel to other parts of the county and 22.9% travel into the CPS area. The trips are primarily car-dominant with 83% of the inbound/outbound trips occurring by private motorcar.

7.1.7 9% of journey to work trips are made by bus in the A419 corridor, this is the highest concentration of work related bus travel in the county. Conversely, away from this corridor, public transport use is very limited due to the sparsely populated rural communities with just a 3% mode share. Evening bus service access to Cheltenham and Gloucester is also limited.

7.1.8 There is strong ambition to increase cycle use among local communities along with the promotion of leisure cycle routes for tourists. Stroud district has good scope to identify and create new foot/cycle routes to key locations and services. These ‘Active Travel Routes’ have the ability to encourage modal shift to sustainable means of travel, as well as promote health and wellbeing. On review of journey-to-work data, cycle usage for all trips (inbound, outbound, and contained) averaged at 3% of total mode share, which is slightly below the county average of 5.3% but above the national average of 2.8%28. The Stroud Valleys, particularly along the canal network, and Cam and Dursley have potential to provide high quality cycle infrastructure that will link to the strategic cycle desire line as shown on the Countywide Cycleway Map (PD2, Figure C) to the west in order to encourage greater mode share.

7.1.9 Community transport or Demand Responsive Transit (DRT) may benefit rural settlements in the CPS where commercial public transport services are not economically viable. Such provision gives opportunity for more flexible and accessible community-led travel solutions that can be specifically tailored to local needs. If the potential can be maximized in the CPS (and county as a whole) community transport has good scope for providing social and economic benefits and combating social and spatial isolation. Community transport is available for all, although on some services a membership is required.

7.1.10 The creation of a Growth Zone, as promoted in the Strategic Economic Plan (SEP), is to ensure the availability of quality employment land in proximity to the M5 motorway, attracts businesses by ensuring excellent connectivity throughout Gloucestershire and the rest of the UK.

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28 PD2 - Cycle Policy Document 2 - 2.0 Summary of Evidence
7.1.11 The SEP plans for delivery of this employment land around Junctions of the M5 are supported by a number of transport related proposals across the county which may enable the growth to be achieved through release of this employment land and with external public funding bids.

7.1.12 Businesses, their supply chains, workers and consumers collectively depend upon a good quality highway network to move goods, deliver services and travel to work and other service facilities. The time taken to undertake a journey affects productivity, in that time spent travelling reduces time available to produce goods or provide services.

**Figure S: Stroud Commuting Breakdown (Census 2011)**

- **Inflow:** 13,287 all persons commute into Stroud from other local authorities in the UK.
- **Outflow:** 20,526 all persons commute out of Stroud to other local authorities in the UK or abroad.
- **Net change:** Overall, commuting results in a population decrease of 7,239 all persons in Stroud.
7.2 Issues and Opportunities

7.2.1 The M5 motorway junctions in the CPS are subject to significant demand which results in congestion, delay and at times safety constraints as a result of mainline queuing. M5 Junction 12 and 13 would require upgrading in future in order to accommodate the growth ambitions required to achieve Gloucestershire’s housing supply targets. Likewise M5 Junction 14, although in South Gloucestershire, is likely to be subject to significant increases in traffic as a result of strategic housing and employment allocation sites being located in its vicinity. This will also impact the Local Highway Network within CPS 5 and as such Gloucestershire County Council will seek to engage with discussions around improvements to Junction 14 with key stakeholders and neighbouring authorities.

7.2.2 The emerging allocation proposals at Cam, Slimbridge (Wisloe), and potentially Sharpness, can benefit from the station at Cam & Dursley which, by linking bus and rail and as providing suitable dedicated pedestrian and cycle infrastructure, will present opportunity to create an attractive sustainable transport hub using existing and enhanced public transport, walking and cycling initiatives associated with any development.

7.2.3 There are ambitions to improve rail access and service frequency through the Greater Bristol MetroWest project\(^2\) which, during phase 2, could see a service extension to Gloucester via Cam and Dursley. Although passenger numbers are modest, there has been year on year increases in patronage, with the exception of the year 2017-18 which saw a decline in passenger numbers to 189,000 (-12,000 on the previous year) according to the Office of Road and Rail\(^3\). However, it is believed that this isolated reduction was due to engineering works occurring in the Greater Bristol area. Cam and Dursley station can therefore become a key focal point for sustainable travel for the emerging allocation sites allowing their residents access to regional economic growth areas and the employment opportunities they bring as well as encouraging inward investment along the railway, M5 and A38 corridors. Cam & Dursley station has the potential to accommodate additional MetroWest rail services which would provide a half hourly service to Bristol and potentially onwards to Gloucester which is an improvement on the current hourly service which is often very busy at peak times.

\(^2\)MetroWest [https://travelwest.info/projects/metrowest](https://travelwest.info/projects/metrowest)

7.2.4 The canals and their towpaths are a special feature of the Stroud Valleys. The restoration of the Cotswold Canals has the potential to provide for leisure and commuter cycle routes as do the use of disused railway lines. Stroudwater navigation has received heritage lottery funding for detailed design work to provide a 4 mile section of canal to Saul Junction which will provide access to and from the Gloucester and Sharpness canal. Highways England has provided an additional £4million to fund the ‘Missing Mile’ which was lost during the construction of the M5. A second stage bid for heritage lottery funding is to be submitted to seek funds to implement the restoration.

7.2.5 The settlements of Wotton-under-Edge and Kingswood are located towards the south of the CPS. There is a cross border initiative to provide an ‘Active Travel Route’ or greenway linking the two settlements to Charfield and a potential new station with MetroWest connectivity to Gloucester and Bristol. This will provide an attractive and sustainable alternative to single occupancy car journeys. The identified routes, as well as providing accessibility to the local plan allocation site, allows for good scope to increase cycle mode share for both employment and leisure trips as well as trips for schooling, health and retail purposes. This may have the potential to alter the dynamic of travel in the south of the CPS 5 area and in combination with the potential reopening of Charfield rail station will allow further opportunity for viable sustainable travel. Currently there are few or no viable sustainable travel options from this area of CPS5 that saves journey times over the private car, yet Charfield and other strategic transport offerings that may arise from the emerging West of England Joint Spatial Plan have the potential for genuine journey time saving over the private car, particularly for journeys to Bristol.

7.2.6 Local Cycling and Walking Infrastructure Plans (LCWIP) will work towards the identification of local cycling and walking networks, over time these will come to form a strategy for walking and cycling. This information will become available at [www.gloucestershire.gov.uk/lt](http://www.gloucestershire.gov.uk/lt).
### Issues

- Proposed scale of growth will impact the transport network, including M5 J12, J13 and J14 in terms of capacity
- Existing traffic congestion on the A419 corridor set to deteriorate with additional growth on the corridor. Delays and congestion at the A417 Missing Link increases use of roads through strategy area
- The role and function of B4066 and Alkington Lane in supporting growth
- The lack of long-term parking to support business and leisure activity
- Merrywalks is a barrier to pedestrian and cycle movements
- Narrow and restrictive access to vehicular traffic street pattern in Stroud town centre results in transport conflicts. Narrow street alignment in Silver Street, Dursley in combination with volume and proximity to traffic impacts on the retail area.
- Network resilience during adverse weather events or when M5 is closed
- Inadequate bus and rail services to Bristol, Gloucester and London
- Limited transport links with Wotton-under-Edge, plus traffic and parking issues in the Wotton-under-Edge
- Lack of bus timetable information and timing/reliability of connections with rail services
- Limited active travel routes linking communities
- Significance of Oldbury new nuclear power station
- Consider east west movements. Access across the River Severn
- A38 Cole Avenue – St Barnabas highway capacity issues may impact on the ability to meet housing supply targets
- Proximity to South Gloucestershire and major City of Bristol and the impacts of their growth and the importance of cross boundary working

### Opportunities

- Collaborative Working with South Gloucestershire and Highways England to improve J14
- Working with Highways England to improve J12 & J13
- Opportunities to increase the number of trips made by active modes such as walking and cycling as well as by public transport to key public transport interchanges
- Maximising the Canal network to create direct cycle routes North/South and East/West between the major urban centres in the district and to Gloucester as well as making the most of the National Cycle Network Routes
- Maximise Public Transport along the A38 Corridor linking the district to the North (Gloucester) and South (Bristol), MetroBus expansion may facilitate this opportunity
- Lobby for increased frequencies on the Cheltenham/Gloucester to Bristol and Cheltenham/Gloucester to London lines
- Create circular walks around the urban areas and Stroud Valleys to minimise the impacts of tourism in the Commons and help to reduce environmental damage. This has the potential to boost tourism in the nearby urban centres
- Stroud District is to maximise its walking and cycle corridors to boost health and wellbeing.
- Investigate a new station north of Stonehouse without prejudicing intercity services
- Expansion of the LCWIP to aid the planning of a network of walking and cycling routes within the Stroud District
7.3 Strategic Vision

7.3.1 The strategic vision for the Stroud CPS is to work with key stakeholders and Highways England in order to resolve the capacity and safety constraints at Junction 12 and Junction 13 of the M5 thus enabling growth in the CPS. GCC will also engage cross boundary discussion to ensure Junction 14 of the M5 is sufficiently improved to accommodate growth in Gloucestershire and South Gloucestershire.

7.3.2 In combination with the improvements to the Strategic Road Network (SRN) junctions, GCC’s vision is to provide interchange hubs in order to capture inbound traffic direct from the SRN. In addition, improvements to the cycling network in the CPS, particularly maximising the potential of the canal tow paths and existing NCN routes will provide infrastructure for sustainable onward travel, reducing the demand upon the network from single occupancy vehicles.

7.3.3 The rail stations in the district provide a good opportunity for sustainable travel to key urban areas within the county and on a regional and national level. The strategic vision for CPS5 will aim to maximise the potential of these railway stations but engaging with appropriate stakeholders to increase service frequency and rolling stock capacity, particularly on the Birmingham – Bristol mainline. MetroWest provides a strong opportunity to provide a half hourly service to Bristol and potentially Gloucester and engagement will be made to ensure this opportunity is maximised.

7.3.4 Figure T illustrates scheme ambitions to 2031 for the Stroud CPS areas and Tables 7(a), 7(b), 7(c), & 7(d) lists the scheme priorities in terms of Strategic/Major/Local/Countywide.
Figure T: Stroud CPS5 area scheme Map
Table 7(a): Stroud CPS5 - Strategic Scheme Priorities

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<tr>
<th>Ref SD#</th>
<th>Mode</th>
<th>Location</th>
<th>Description</th>
<th>Primary Benefit</th>
<th>Secondary Benefit</th>
<th>Tertiary Benefit</th>
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<td>M5 J13</td>
<td>Strategic Park &amp; Interchange hub scheme for M5 J13 / A419</td>
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<td>🍃</td>
<td>🏃ميناءسنجنائبية</td>
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<tr>
<td>2</td>
<td>Ped/Cycle</td>
<td>Cam &amp; Dursley</td>
<td>Access improvements for Cam &amp; Dursley Greenway ‘Active Travel Route’ to Railway Station.</td>
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<td>🚌🚌</td>
<td>🍃</td>
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<td>3</td>
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<td>Stroudwater</td>
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<td>🍃</td>
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<td>4</td>
<td>Public Transport - Rail</td>
<td>Cam &amp; Dursley</td>
<td>Rail junction and capacity improvements (Dynamic Loops) to rail lines between Cam &amp; Dursley and Charfield to enable more trains to operate and more stopping services, including possible new stations</td>
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<td>🍃</td>
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<tr>
<td>5</td>
<td>Public Transport - Bus</td>
<td>Stroud-Gloucester</td>
<td>Bus stop and bus advantage improvements for Stroud – Gloucester Corridor</td>
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<td>🍃</td>
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<td>6</td>
<td>Ped/Cycle</td>
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<td>7</td>
<td>Ped/Cycle</td>
<td>NCN 45</td>
<td>Cycle access improvements to National Cycle Network, Route 45 Stroud</td>
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### Table 7(b): Stroud CPS5 - Major Scheme Priorities

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<td>Cycle access improvements Stroud and Chalford corridor</td>
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<td>Berkeley</td>
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<td>Highway</td>
<td>Stroud</td>
<td>Access improvements for Cainscross roundabout, Stroud</td>
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- **Primary Benefit**
- **Secondary Benefit**
- **Tertiary Benefit**

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### Table 7(c): Stroud CPS5 - Local Scheme Priorities

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<td>Junction improvement - A419 / A46 Dudbridge Road roundabout, Stroud</td>
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<td>Stonehouse</td>
<td>Stonehouse Railway Station improvements</td>
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### Table 7(d): Stroud CPS5 Specific Revenue Projects

To be funded by revenue, either through GCC officer support time, or through the commissioning by GCC of consultants:

- Berkeley and Sharpness route access study
- Working with West of England Partnership to develop a business case for the MetroWest Rail extension Phase 2
- Providing an improved service linking Gloucester, Cam and Dursley with Bristol (MetroWest)
- Provide rail service enhancement from Kemble to Swindon and London
- Working with Highways England to resolve capacity issues at M5 Junction 12 and 13
- Collaborative working with South Gloucestershire, Highways England and Stakeholders to resolve M5 Junction 14 capacity issues
8.0 Connecting Places Strategy CPS6 – Tewkesbury

8.1 The Place

8.1.1 CPS6 is located in the north of the county and focused on the A438 / A46/ M5 travel corridor. The CPS area is bounded by Worcestershire to the north, the urban Central Severn Vale to the south and the rural CPS areas of the Forest of Dean to the west and North Cotswolds to the east.

8.1.2 Tewkesbury Borough accommodates approximately 14% of Gloucestershire’s population with 85,800 residents within the 160 square mile area. Although the Tewkesbury Borough administrative area is large, CPS6 narrows the focus upon Tewkesbury Town, the M5 J9 and A46 corridor to the east, the A38 corridor to the north and south, and finally the rural area towards Winchcombe. 5% of the total population of Gloucestershire resides within the Tewkesbury Town area which is the largest urban settlement in the CPS area according to Census data. 3% of the total population of Gloucestershire resides along the A38 corridor with Winchcombe, the largest of the more rural settlements in CPS6, accounting for approximately 1% of Gloucestershire’s total population.

8.1.3 The adopted Joint Core Strategy outlines the spatial strategy for Gloucester, Cheltenham and Tewkesbury consisting of 35,175 new homes and 39,500 new jobs over 192ha of allocated employment land. The JCS is subject to immediate review so these figures may increase.

8.1.4 The strategy is to be delivered by development within existing urban areas through district plans, existing commitments, and urban extensions. The MOD site at Ashchurch was earmarked for approximately 2500 dwellings in the JCS, however after an MOD review the site was retained for another 10 years. This resulted in a significant housing shortfall. This shortfall is to be addressed as part of the JCS review as well as a Tewkesbury Borough Council led proposal for approximately 10,000 houses and significant levels of employment in the wider Ashchurch area which has achieved Garden Town status.

8.1.5 The Tewkesbury Local Plan, currently undergoing review, with an expected submission for examination by late 2019, will meet the local need in Tewkesbury town in accordance with its role as a market town, and at rural service centres and service villages within the Borough.

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31 Ashchurch Garden Town [https://www.jointcorestrategy.org/ashchurch-development-project](https://www.jointcorestrategy.org/ashchurch-development-project)
8.1.6 Key highway routes converge on the A46/A438 corridor providing access to the M5 at junction 9. The A46 is an important strategic link providing access between the M5 and M69 near Coventry. The M5 provides good North/South links for internal and external trips meaning people are well placed for travelling between Cheltenham and Gloucester, Worcester, Birmingham and Bristol ensuring connectivity throughout Gloucestershire and the UK. Businesses, their supply chains, workers and consumers collectively depend upon a good quality highway network to move goods, deliver services and travel to work and other service facilities, which makes the M5 corridor area of the CPS attractive employment land and a magnet for growth. The Creation of a Growth Zone as promoted in the Strategic Economic Plan (SEP) by the GFirst LEP, ensures the availability of quality employment land in proximity to the M5 motorway.

8.1.7 Travel to work data indicates that approximately 85% of trips are to destinations outside of the CPS area towards Cheltenham, Gloucester, Worcester and the West Midlands.

8.1.8 There is a number of cycle routes in and around the Tewkesbury area such as the Newtown cycleway which is one of the most well used routes in Gloucestershire. 9% of contained trips are undertaken by bicycle, which is the second highest of all CPS areas, however there are few utility routes across the wider area and the M5 Motorway and railway line cause severance.

8.1.9 CPS6 Tewkesbury borough exhibits the effects of its proximity to the SRN and Bristol with high commute distances and working out of the county. Figure U demonstrates journey to work data that shows more outbound (20,566) than inbound (25,211) commuting trips. The effects of vehicle delay within the A438/A46 corridor and around M5 Junction 9, including queuing on the M5. And congestion impacting businesses located around M5 Junction 9 and the A46 corridor. The benefits of sustainable connectivity with a central Transport Hub around Ashchurch for Tewkesbury Station could result in Ashchurch growth.
8.2 Issues and Opportunities

8.2.1 M5 Junction 9 and the A46 corridor suffers from congestion in peak hours and is recognised as a pinch point by Highways England and GCC. In its current form, the M5 junction 9 / A46 will become a blocker to future growth, particularly to the Ashchurch Garden Town proposals. There are also
notable development proposals across the county boundary to the north in Evesham. These will have an impact on transport demand across CPS 6 and infrastructure improvements are needed in order to meet growth proposals.

8.2.2 The corridor has been subject to much study and debate by Highways England, Midlands Connect, GCC, GFirst LEP and Tewkesbury Borough Council, which has resulted in the formation of The A46 Partnership\(^3\) with the aim to seek Government support for the upgrading of critical points along the extent of the A46 corridor.

8.2.3 The M5 Junction 9 and A46 corridor has been recognised as one of Gloucestershire’s primary highway infrastructure priorities by the Western Gateway SNTB which will lobby government for Large Local Majors funding. This will give the A46 corridor much needed relief from congestion as well as improve network resilience. The realignment of the A46 will also improve safety and accessibility to the Trans Midland Trade Corridor, of which the A46 forms a key part of in the Midlands area, contributing significantly to the UK economy. The corridor supports a range of high tech manufacturing, warehousing, distribution, logistics, and agri-tech industries as well as 40% of the aviation sector. The realignment will significantly improve the delivery of goods and services and provide a cross country port to port connection between Bristol and Humberside which has potential to encourage inward investment into the CPS6 area.

8.2.4 The M5/A46 creates severance for those living and travelling between Historic Tewkesbury and Ashchurch with an intimidating environment for pedestrians and cyclists resulting in divided communities and social isolation. Improvements to the M5 Junction 9/A46 provides the opportunity of removing these physical barriers and using the existing A46 alignment as an enhanced multi-modal corridor.

8.2.5 Hourly bus services provide access between Gloucester, Cheltenham and Winchcombe with better than half hourly frequencies within the town itself. Rail access is provided at Ashchurch for Tewkesbury rail station, located on the Bristol-Birmingham main line. The frequency of rail services is poor when compared with the rest of the county, although the significant growth proposals in the area may enable additional services from Ashchurch in the future.

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\(^3\) A46 Partnership [https://www.gloucestershire.gov.uk/council-and-democracy/joint-ventures/a46-partnership/]
8.2.6 The Garden Town presents opportunity to focus on Ashchurch for Tewkesbury rail station and the creation of a multi-modal transport interchange. The greenfield proposal will allow for sustainable linkages to be provided to the interchange as well as improve existing links to ‘Historic’ Tewkesbury and reconnect it with Ashchurch which experiences severance as a result of the mainline railway and M5.

8.2.7 The creation of a multi-modal hub also allows opportunity for wider cycling infrastructure improvements particularly along the A438/A46 corridors in order to create links, between Tewkesbury, Bishop’s Cleeve and Cheltenham, which are within reasonable cycling distances. This is important as this would meet the County Council’s desire for a strategic cycleway as shown on the Countywide Cycleway Map.

8.2.8 Local Cycling and Walking Infrastructure Plans (LCWIP) will work towards the identification of local cycling and walking networks, over time these will come to form a strategy for walking and cycling. This information will become available at www.gloucestershire.gov.uk/ltp.
### The Issues

- Congestion and vehicle delay within the A438 / A46 corridor and around M5 Junction 9, including queuing on the M5
- Congestion impacting businesses located around M5 Junction 9 and the A46 corridor
- Industrial/Business units do not have enough parking,
- A46 Railway overbridge is a pinchpoint limiting road width to single lanes in either direction
- Many rural roads used as rat runs to avoid issues on A438 / A38 corridor including HGV’s using inappropriate routes
- New development identified for A46 corridor needs to be fully mitigated or travel condition will continue to decline,
- Network resilience during adverse weather events
- Parking and accompanying signage through Tewkesbury is inadequate
- M5 and railway line acts as barriers to walking and cycling along the A46/A438 corridor
- Public transport access outside Tewkesbury is very poor especially from Winchcombe
- Rail service and station facilities are inadequate

### The Opportunities

- Good rail connectivity to Bristol and Birmingham via Cheltenham/Gloucester with potential for increased services as a result of Midlands Connect
- Strong partnerships re: A46 & Midlands Connect
- Old railway cycle way potential,
- Ashchurch Garden Town proposal allows for sustainable travel principles to be developed
- Opportunity to create a central Transport Hub around Ashchurch for Tewkesbury Station as a result of Ashchurch growth.
- Active Travel routes to encourage sustainable travel and promote health and wellbeing, (Tewkesbury – Bishop’s Cleeve)
- Western Gateway SNTB supporting GCC with promotion of Off-line A46 improvement and improved M5 Junction 9.
- Highways England support and promotion, through Road Investment Strategy 2 (RIS2), for improvements to M5 J9 and A46 through Ashchurch
8.3 Strategic Vision

8.3.1 CPS6’s strategic Vision is to resolve the severe capacity and congestion constraints along the A46 corridor and improve the safety of M5 Junction 9 by eliminating mainline queuing. This will create an expressway for through traffic to the M5 leaving the existing A46 alignment for local traffic and multi modal enhancements. These improvements will allow access to external economic growth areas and attract inward growth to create social prosperity. The improvements will also support the delivery of the Garden Town proposal which will help to meet Gloucestershire’s housing supply targets as well as overcome severance issues to reconnect the communities of Tewkesbury and Ashchurch. Please note scheme ref 1, as shown on Figure W, is an indicative alignment and subject to change.

8.3.2 The railway station will feature as an important focal point in CPS6’s strategic vision with the creation of a multi-modal hub and increased service frequencies to regional and national destinations. Gloucestershire County Council will work in collaboration with Midlands Connect in order to lobby for these service improvements.

8.3.3 CPS 6 has a key cycle vision to connect Tewkesbury to Bishop’s Cleeve within the plan period to provide a sustainable link as identified on the Countywide Cycleway Map (PD2, Figure C). Over the plan period this will provide a strategic cycleway between Tewkesbury and Sharpness, linking all key growth areas in order to provide for sustainable car free movements.

8.3.4 Figure W illustrates scheme ambitions to 2031 for the Tewkesbury CPS areas and Tables 8(a), 8(b), 8(c), & 8(d) lists the scheme priorities in terms of Strategic/Major/Local/Countywide.
Figure W: Tewkesbury CPS6 area scheme Map

Schematic representation of transport proposals only, not representative of actual routes/locations.
### Table 8(a) Tewkesbury CPS6- Strategic Scheme Priorities

<table>
<thead>
<tr>
<th>Ref TKS#</th>
<th>Mode</th>
<th>Location</th>
<th>Description</th>
<th>Primary Benefit</th>
<th>Secondary Benefit</th>
<th>Tertiary Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Highway</td>
<td>A46 - Ashchurch</td>
<td>‘New Offline A46 Dual Carriageway / Expressway and M5 J9 improvements</td>
<td>🏡</td>
<td>🎈</td>
<td>🚗</td>
</tr>
<tr>
<td>2</td>
<td>Ped/Cycle</td>
<td>Tewkesbury – Bishop’s Cleeve</td>
<td>Tewkesbury to Bishop’s Cleeve ‘Active Travel’ / Cycle Route</td>
<td>⛵️</td>
<td>🎈</td>
<td>🚗</td>
</tr>
<tr>
<td>3</td>
<td>Ped/Cycle</td>
<td>Tewkesbury</td>
<td>Cycle / Walking access improvements for Ashchurch Road Corridor including M5 J9 to link Tewkesbury</td>
<td>🚷</td>
<td>🎈</td>
<td>🚗</td>
</tr>
<tr>
<td>4</td>
<td>Public Transport - Rail</td>
<td>Ashchurch</td>
<td>Rail junction and capacity improvements (Dynamic Loops) to Birmingham - Bristol Mainline near Ashchurch to enable more trains to operate and more stopping services, including possible new stations</td>
<td>🚗</td>
<td>🎈</td>
<td>🚗</td>
</tr>
<tr>
<td>5</td>
<td>Highway</td>
<td>A46 - Ashchurch</td>
<td>Junction Improvements - Northway Lane / A46 – Upgrade signals to MOVA/SCOOT</td>
<td>🎈</td>
<td>🚗</td>
<td>🚗</td>
</tr>
<tr>
<td>6</td>
<td>Highway</td>
<td>A46 - Ashchurch</td>
<td>Junction Improvements - Alexandra Way / A46 – Upgrade signals to MOVA/SCOOT</td>
<td>🎈</td>
<td>🚗</td>
<td>🚗</td>
</tr>
<tr>
<td>7</td>
<td>Highway</td>
<td>A46 - Ashchurch</td>
<td>Junction Improvements - Fiddington Lane / A46 – Upgrade signals to MOVA/SCOOT</td>
<td>🎈</td>
<td>🚗</td>
<td>🚗</td>
</tr>
<tr>
<td>8</td>
<td>Public Transport - Bus</td>
<td>M5 J9/A46 Ashchurch</td>
<td>Strategic Park and Interchange hub for Tewkesbury/Ashchurch near M5 J9 with links to Ashchurch for Tewkesbury Railway Station</td>
<td>🚗</td>
<td>🎈</td>
<td>🚗</td>
</tr>
</tbody>
</table>
### Table 8(b): Tewkesbury CPS6 - Major Scheme Priorities

<table>
<thead>
<tr>
<th>Ref TKS#</th>
<th>Mode</th>
<th>Location</th>
<th>Description</th>
<th>Primary Benefit</th>
<th>Secondary Benefit</th>
<th>Tertiary Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Highway</td>
<td>Tewkesbury</td>
<td>Junction Improvement to the Shannon Way / A438 traffic signal junction to provide an additional East bound exit lane from the junction to M5 J9, separate left turn from A438 (West) to Shannon Way with two straight ahead lanes East bound, upgrades to MOVA or SCOOT - Tewkesbury</td>
<td><img src="home_icon.png" alt="Home" /></td>
<td><img src="car_icon.png" alt="Car" /></td>
<td><img src="traffic_icon.png" alt="Traffic" /></td>
</tr>
<tr>
<td>10</td>
<td>Public Transport - Rail</td>
<td>Ashchurch</td>
<td>Ashchurch for Tewkesbury Station improvements</td>
<td><img src="home_icon.png" alt="Home" /></td>
<td><img src="train_icon.png" alt="Train" /></td>
<td><img src="co2_icon.png" alt="CO2" /></td>
</tr>
<tr>
<td>11</td>
<td>Highway</td>
<td>Tewkesbury</td>
<td>Highway improvement - Tewkesbury Northern Relief Road</td>
<td><img src="home_icon.png" alt="Home" /></td>
<td><img src="car_icon.png" alt="Car" /></td>
<td><img src="traffic_icon.png" alt="Traffic" /></td>
</tr>
</tbody>
</table>

### Table 8(c): Tewkesbury CPS6- Local Scheme Priorities

<table>
<thead>
<tr>
<th>Ref TKS#</th>
<th>Mode</th>
<th>Location</th>
<th>Description</th>
<th>Primary Benefit</th>
<th>Secondary Benefit</th>
<th>Tertiary Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Highway</td>
<td>Tewkesbury</td>
<td>Closure of Grange Rd/Aston Fields Railway level crossing and replace with new bridge linking Grange Rd with Hardwicke Bank Road</td>
<td><img src="home_icon.png" alt="Home" /></td>
<td><img src="car_icon.png" alt="Car" /></td>
<td><img src="traffic_icon.png" alt="Traffic" /></td>
</tr>
<tr>
<td>13</td>
<td>Ped/Cycle</td>
<td>Northway</td>
<td>Pedestrian and cycle access improvements using disused railway bridge over Northway Lane, Ashchurch</td>
<td><img src="person_icon.png" alt="Person" /> <img src="bike_icon.png" alt="Bike" /></td>
<td><img src="co2_icon.png" alt="CO2" /></td>
<td><img src="bus_icon.png" alt="Bus" /></td>
</tr>
<tr>
<td>14</td>
<td>Highway</td>
<td>Tewkesbury</td>
<td>A438 / A38 Tewkesbury bypass signal upgrade to MOVA</td>
<td><img src="home_icon.png" alt="Home" /></td>
<td><img src="car_icon.png" alt="Car" /></td>
<td><img src="traffic_icon.png" alt="Traffic" /></td>
</tr>
</tbody>
</table>
Table 8(d): Tewkesbury CPS6 - Specific Revenue projects

To be funded by revenue, either through GCC officer support time, or through the commissioning by GCC of consultants:

- Providing for hourly service at Ashchurch for Tewkesbury, linked to the proposed development at Ashchurch
- GCC Rail Strategy
- A46 Partnership
- Midlands Connect A46 Study
- Pre-SOBC and SOBC for M5 J9 and A46 scheme
- M5 J9 and A46 scheme OBC preparation for December 2021
- JCS transport strategy working group for the JCS Review
- Tewkesbury Garden Town officer input
- Ashchurch railway bridge HIF bid officer input.

These scheme priorities are also set out in a separate Delivery chapter addressing funding, monitoring, governance and review.
Local Transport Plan
Delivery chapter

This strategy acts as guidance for anybody requiring information on how the delivery of Gloucestershire’s Local Transport Plan up to 2041.

Anyone wanting to find out about how the county council will address the challenges of sustainable growth whilst reducing carbon emissions and improving the health and well being of people in Gloucestershire. This document specifically includes policies on:
Contents Amendment Record
This report has been issued and amended as follows:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Revision</th>
<th>Description</th>
<th>Date</th>
<th>Signed</th>
</tr>
</thead>
</table>

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1.0 Introduction

1.1 Gloucestershire’s vision for transport is to deliver:
‘A resilient transport network that enables sustainable economic growth, by providing travel choices for all, making Gloucestershire a better place to live, work and visit’

1.2 To support the delivery of this vision as well as the objectives and outcomes identified in the LTP, a range of scheme priorities have been identified. The scheme prioritisation process is outlined in Section 2.0 and illustrated in Figure A in this chapter.

1.3 Schemes will provide the basis for future funding bids, as opportunities arise, and discussions with third parties where funding may be provided such as by government, statutory bodies, transport operators, private sector or developers. Potential funding sources are discussed under Section 3.0 in this chapter.

1.4 Scheme identified in Tables 1-4 will be updated during the lifetime of the LTP as new evidence emerges and funding opportunities arise. The schemes identified should therefore not be considered a definitive list as it will be subject to periodic reviews.

1.5 It is intended that the LTP will be a living document, and will therefore be updated and amended as necessary to reflect changes in policy, funding opportunities or deliverability at a local and national level.

1.6 Updates to this policy document will be agreed through discussions with the Lead Cabinet Member with responsibility for Transport Policy. Where significant changes are required approval will be sought from the county council’s Cabinet.

1.7 At officer level, the LTP will be overseen by the LTP Management Board, comprising those managers responsible for the delivery of the individual strands of Local Transport Plan.
1.8 An annual Implementation Report is produced including performance against indicator and any changes in policies and details of scheme delivery.
Figure A – LTP Schemes Delivery Process

Schemes suggested for inclusion in the LTP from a variety of sources
- Scheme listed in a Local Plan or committed in the LTP
- Public Acceptability
- Deliverability of the Scheme
- Long Term Scheme
- Value for Money

Stage 1

Initial short list of scheme considered for inclusion
- Strategic
- Economic
- Carbon Emissions
- Socio-Distributional impacts
- Local Environment:
  - Well-being

Stage 2

Schemes to be included in the LTP

- Funded schemes (short term delivery, 2025 horizon)
- Schemes in CPS strategies (Medium delivery, 2031 horizon)
- Schemes in LTP futures chapter (Long term delivery, 2041 horizon)

Further, proportionate scheme appraisal at design/funding stage

Weights in stage 2 assessment can be adjusted to find schemes best suitable for specific funding sources

High level mapping against ISA Objectives

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2.0 Scheme Priorities

2.1 Transport schemes included in the LTP have been selected from a variety of sources, including the transport mitigations developed and agreed as part of the District lead Local Plan development, local studies and other sources of evidence. Schemes were prioritised against their impact on economic growth, carbon emissions, socio-distributional impacts, the local environment and well-being. Every scheme identified has been included on the basis of need and compliance with delivering the LTP outcomes. The schemes listed in this LTP do not represent a commitment by county council for funding but they do reflect the county’s transport priorities.

2.2 In addition, countywide priorities have been identified, which include initiatives and programmes of high priority, with a countywide impact, often encompassing a number of smaller projects.

2.3 A detailed list of all scheme priorities identified in the LTP can be found in Annex 4.0 and the Connecting Places Strategy. The priorities identified should not be considered a definitive list as it will be subject to periodic reviews as new evidence emerges through the district led local planning process. Annex 4.0 sets out the tracked updates to LTP schemes reviewed, including those schemes for removal.

2.4 The scheme prioritisation process has been undertaken using a two stage assessment, illustrated in Figure A.

Stage 1 Assessment consists of 5 categories
1. Scheme listed in a Local Plan or committed in the LTP
2. Public acceptability
3. Deliverability of the scheme
4. Long-term scheme
5. Value for money

2.5 Schemes that scored highly were short-listed and progressed to Stage 2. Schemes listed in local plans or listed within the LTP were immediately advanced to stage 2 has they have already been determined to have a specific need or have been subject to examination.
2.6 **Stage 2** assessment consists of 6 core categories, with a number of sub-categories within them; 
1. Strategic Case: Considers the scale of impact, whether a scheme provides access to employment or housing as well as key issues such as reducing congestion or promoting active travel.
2. Economic Case: Considers the estimated Value for Money of a scheme, as well as key issues such as reduced journey times, impacts to network resilience, operating costs and access to key locations.
4. Socio-Distributonal Impacts: Considers the accessibility, affordability, acceptability of a scheme to vulnerable users and whether it targets a known regeneration scheme.
5. Local Environmental Protection: Considers air pollution, noise and impact on natural/urban environments.
6. Health & Wellbeing: Considers severance, impact on physical activity, public safety and crime.

2.7 In addition to these priorities, there will be many other initiatives that will emerge through the planning process, in conjunction with new development, as set out in the District Councils’ Local Plans.

2.8 Schemes in the current LTP Review have moved away from categorisation by short, medium and long-term, as this is largely determined by funding. Instead GCC is applying a ‘scale of impact’ indicator to provide objective classifications for the schemes; Strategic, Major and Local. Further detail is set out in [Figure B](#).

**Figure B - Strategic, Major and Local by applying a ‘Scale of Impact’ indicator**

<table>
<thead>
<tr>
<th>Strategic</th>
<th>Major</th>
<th>Local</th>
</tr>
</thead>
</table>

©Gloucestershire County Council 2019
### Highways
- Schemes on the SRN and/or costed >£20m
- Schemes on the MRN and/or costed £5m - £20m
- Schemes costed at less than £5, on the local Highway Network

### Rail
- Costed at >£20m
- Costed at £5m - £20m
- Costed at <£5M

### Bus
- Schemes on very high frequency routes
- Schemes on high frequency routes
- Schemes on low frequency routes

### Ped/Cycle
- Schemes linking growth areas
- Schemes linking smaller settlements
- Schemes not shown on the County Cycleway

## 3.0 LTP Scheme Appraisal

### 3.1
At the scheme prioritisation process described in 2.0 above prioritises would be check against the degree of alignment with the LTP policies and outcomes, assessment criteria mapped against the Integrated Sustainability Assessment (ISA) objectives, illustrated in Figure C, as well as any other relevant considerations at the time. The LTP prioritisation process will consider the schemes impact on environmental and social sustainability.

### 3.2
While the scheme prioritisation process prioritises schemes to determine which are to be included in the LTP, a more detailed appraisal process may be required before final funding approval can be given for any scheme. The extend of the appraisal will depend on the size of the scheme and alongside technical and financial considerations it should look at how to minimise the impact of transport schemes on the built and natural environment and the health and wellbeing of residents and visitors to Gloucestershire.

### 3.3
Depending on the size and impact of the scheme, a second stage may require a more detailed, enhanced approach undertaken prior to seeking final approval for funding. The scope of this second stage will need to be proportionate to the stage at which a scheme is in development. Depending on scheme size and impact, this may be assured through potential WebTAG appraisals and the planning application process, which involves statutory Environmental Impact Assessment (including Health Impact Assessment), Equality Impact Assessment and may also involve Habitats Regulations Assessment for certain schemes.
3.5 Delivery of the LTP schemes will be subject to the availability of funding opportunities, as they arise. A further assessment stage is envisaged at this point, but will need to be proportionate to the scale of the scheme. The extent and focus of the additional appraisal will also depend on the specific funding source. In recent years funding sources have been:

- GCC Capital Programme: Schemes in the capital programme (under £500k), go through the GCC screening assessment process to prioritise capital highway improvements funded by GCC, this is based on various criteria, predominantly on accident data and safety metrics as a screening exercise.
- Government funding: Schemes that receive funding from the Department for Transport, or Homes England will usually follow a 3 stage process; Strategic Outline Case (SOC), Outline Business Case (OBC) and Full Business Case (FBC) and require assessment against the 5 case model including economic case, strategic case, commercial case, financial case and management case to demonstrate the benefits of delivering the project.
- Single Local Growth Deal: Similarly, schemes that receive funding from the LEP Local growth deal will be required to produce Business Cases structured against the 5 cases listed above, in line with the GFirst LEP Local Assurance Framework.
### Figure C - Stage 1 - LTP Scheme Appraisal

<table>
<thead>
<tr>
<th>ISA Objective to meet Scheme</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Air Quality</td>
<td>1</td>
</tr>
<tr>
<td>Reduce carbon dioxide (CO2) emissions from transport</td>
<td>2</td>
</tr>
<tr>
<td>Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality</td>
<td>3</td>
</tr>
<tr>
<td>Protect, enhance and promote geodiversity</td>
<td>4</td>
</tr>
<tr>
<td>Protect and enhance the character and quality of landscapes and townscapes and visual amenity</td>
<td>5</td>
</tr>
<tr>
<td>Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings.</td>
<td>6</td>
</tr>
<tr>
<td>Protect and enhance the water environment</td>
<td>7</td>
</tr>
<tr>
<td>Conserve soil and agricultural resources and seek to remediate / avoid land contamination</td>
<td>8</td>
</tr>
<tr>
<td>Reduce risk of flooding and increase resilience of the transport network to the effects of a changing climate</td>
<td>9</td>
</tr>
<tr>
<td>Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated</td>
<td>10</td>
</tr>
<tr>
<td>Reduce the need to travel, particularly by car or move goods by road, and promote sustainable modes of transport and patterns of movement</td>
<td>11</td>
</tr>
<tr>
<td>Promote economic growth and job creation, and improve access to jobs for all</td>
<td>12</td>
</tr>
<tr>
<td>Coordinate land use and transport planning across Gloucestershire</td>
<td>13</td>
</tr>
<tr>
<td>Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society (EqIA specific objective)</td>
<td>14</td>
</tr>
<tr>
<td>Improve health and well-being for all citizens and reduce inequalities in health (HIA specific objective)</td>
<td>15</td>
</tr>
<tr>
<td>Promote community safety and reduce crime and fear of crime for all citizens (CSA specific objective)</td>
<td>16</td>
</tr>
</tbody>
</table>
4.0 Funding

4.1 The LTP’s role is to set out the long-term strategy for transport within the county, agreed by the county council as local highway and transport authority. Initiatives/schemes are included on the basis of compliance with delivering the LTP outcomes, and do not reflect a funding commitment by the county council, instead delivery of the schemes will be subject to the availability of funding opportunities. A range of funding sources will be required to deliver the priorities identified and the county council will actively seek such funding opportunities to deliver transport schemes identified within the LTP.

4.2 “Capital” and “revenue” funding is used to deliver highway maintenance improvements, deliver transport improvements (pedestrian crossings, cycle paths and new roads), support public transport services or promote behavioural change initiatives. This is allocated by the Department for Transport (DfT) to the county council using a needs based formula.

4.3 In the past, a large proportion of the capital fund awarded to Gloucestershire by government, which includes road improvement and larger transport schemes, was allocated through the Local Growth Fund (LGF) which the Local Enterprise Partnership (LEP) has the devolved authority to administer. The GFirst LEP funding decisions are informed by the Gloucestershire Infrastructure Investment Pipeline (GIIP), a register of proposed future infrastructure across the county, which is overseen by the Gloucestershire Economic Growth Joint Committee (GEGJC). GEGJC, includes the six district councils, the county council and the GFirst Local Enterprise Partnership (LEP).

4.4 Ad-hoc bidding opportunities may also arise. GCC will exploit all opportunities where the fund supports the delivery of LTP outcomes.

4.5 Funding for schemes to mitigate the impact of development is provided through individual planning obligation agreements inline with the policies outlined in the National Planning Policy Framework. The Community Infrastructure Levy (CIL) will also contribute funding towards infrastructure requirements. However, it should be noted that CIL covers a wide range of infrastructure and service provisions and is cannot be expected to pay for all for the infrastructure required.

4.6 Central Government also allocates funding to the Strategic Road Network (SRN), which is the network of motorways and trunk roads within the county. The SRN is managed by Highways England, on behalf of government. Highways England bids for capital funding to improve these roads as
part of the Road Investment Strategy (RIS) process. RIS 1 has been allocated for the period up to March 2021. Highways England will be allocating capital for the RIS 2 period April 2021 to March 2026 over the next year or two.

4.7 The emergence of the Major Road Network (MRN), which includes key local authority routes and acts as a middle tier between the local highway network and strategic road network, allows for further funding opportunities through the Major Road Network Fund for improvements up to £50m. The Large Local Major Fund (LLM) provides bidding opportunities for exceptionally large transformational schemes over £50m. The initial round of MRN/LLM funding is being facilitated by the Sub-National Transport Bodies.

4.8 There are a range of funds that become available from time to time mainly from DfT/Network Rail to improve rail infrastructure and lever in funding from third parties such as local authorities. These include Access for All, National Station Improvement Plan and the National Rail Discretionary Fund (NRDF). Great Western Railway has introduced the Customer and Communities Improvement Fund for small scale improvements which total £750K each year for three years. GCC seeks to work with the rail industry to attract funding as funds become available.

4.9 Tables 1–3 detail the schemes based on their strategic, major or local categorisation. The tables also contain information about funding sources, approximate cost banding and the status of the scheme. Table 4 contains a list of Countywide schemes, initiatives and programmes of high priority, with a county wide impact, often encompassing a number of smaller projects. Included in this category are non place specific Capital Priority Schemes and Revenue Projects.

- Indicative funding source: If a scheme has received funding or part funding towards the final cost, this information will be provided here. Furthermore, if there is an identified funding stream that the scheme is more than likely to be bid against that will also be stated. This column therefore gives an indication as to which schemes may be closer to delivery than others and/or which schemes may give districts greater opportunity to unlock housing or unemployment land.

- Scheme Status: Some schemes have progressed further than others in terms of creating detailed plans, or producing business cases and may be at delivery sooner than others. This again may provide details that may influence the siting of housing and employment or which scheme should be carefully monitored so that a bid for funding can be submitted when appropriate.

- Cost Band: This gives a very high level indication as to the likely cost of delivering the scheme. This will help to determine which funding streams may be more appropriate to submit a bid for such as Pinch Point Fund, Housing Infrastructure Fund or Large Local Major Fund, all of which have
differing requirements and cost thresholds. This will help to ensure that funding bids are submitted to the most appropriate funding stream and where there is a better chance of success.

**Table 1 - Strategic Schemes:**

<table>
<thead>
<tr>
<th>Ref</th>
<th>CPS</th>
<th>MODE</th>
<th>SCHEME</th>
<th>Indicative Funding Source</th>
<th>Scheme Status</th>
<th>Cost Band</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CSV</td>
<td>Highways</td>
<td>M5 Junction 10 'All Movements' access and Link Road to West Cheltenham</td>
<td>Housing Infrastructure Fund (HIF)</td>
<td>Pre-design stage</td>
<td>&gt;£20m</td>
</tr>
<tr>
<td>2</td>
<td>CSV</td>
<td>Highways</td>
<td>Improvements to M5 J11 and the A40 Corridor in West Cheltenham</td>
<td>Growth Deal 3 (GD3)</td>
<td>Design Stage</td>
<td>&gt;£20m</td>
</tr>
<tr>
<td>3</td>
<td>CSV</td>
<td>Public Transport - Bus</td>
<td>Elmbridge Strategic Scheme Interchange hub</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>4</td>
<td>CSV</td>
<td>Public Transport - Bus</td>
<td>Strategic Park &amp; Interchange hub scheme for A46 Brockworth/Shurdington</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>5</td>
<td>CSV</td>
<td>Public Transport - Bus</td>
<td>Strategic Park &amp; Interchange hub scheme at Uckington, Cheltenham</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
</tbody>
</table>
## Gloucsershire’s Local Transport Plan (2015-2041) Delivery

<table>
<thead>
<tr>
<th>Ref</th>
<th>CPS</th>
<th>MODE</th>
<th>SCHEME</th>
<th>Indicative Funding Source</th>
<th>Scheme Status</th>
<th>Cost Band</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S Cots</td>
<td>Highways</td>
<td>A417 Missing Link</td>
<td>Ad Hoc Funding Opportunities</td>
<td>Scoping stage</td>
<td>&gt;£20m</td>
</tr>
<tr>
<td>1</td>
<td>TKS</td>
<td>Highways</td>
<td>‘New Offline A46 Dual Carriageway and M5 Junction 9 improvements, Tewkesbury’</td>
<td>MRN/LLM, RIS, HIF</td>
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<td>Innsworth Gateway New A40 roundabout - New Junction on A40 and Highway Works at Longford Roundabout</td>
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<td>A40 Viaduct widening to increase capacity between Longford and Over Roundabouts A40 Viaduct between Longford and Over Roundabouts</td>
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<td>Junction improvement, A40 Over roundabout. Enhancement for outbound traffic with alternative river crossing</td>
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<td>Cycle/Walking access improvements for Ashchurch Road Corridor including M5J9 to link Tewkesbury</td>
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<td>18</td>
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<td>Highways</td>
<td>C&amp;G Roundabout Upgrade Capacity improvement on 2014 pinch point scheme, provision of a ‘free left turn lane’ from the A40 Barnwood Link approach arm to A417 Barnwood Bypass, and from A417 Corinium Av approach arm to A40 barnwood Link.</td>
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<td>Gloucester - Cheltenham via Churchdown bus corridor improvements</td>
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<td>Cycle access improvements for Outer Ring Road corridor, Gloucester</td>
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<td>Gloucester - Sharpness walking &amp; cycle Improvements Walking &amp; Cycling improvements to Gloucester &amp; Sharpness Canal Tow Path, Gloucester</td>
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<td>Innsworth Lane and Oxtalls Lane, Gloucester Bus advantage at signals to provide bus advantage at Innsworth Lane and Oxtalls Lane,</td>
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<td>Public Transport - Rail</td>
<td>Rail junction and capacity improvements (Dynamic Loops) to rail lines between Cam &amp; Dursley and Charfield to enable more trains to operate and more stopping services, incl possible new stations.</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
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<td>Public Transport - Rail</td>
<td>Rail junction and capacity improvements (Dynamic Loops) to Birmingham - Bristol Mainline near Ashchurch to enable more trains to operate and more stopping services, incl possible new stations.</td>
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<td>Bus stop and bus advantage improvements for Stroud - Gloucester corridor</td>
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<td>Access improvements 'Active Travel Route' - B4008 between little Haresfield (M5 J12) and Stonehouse Corridor</td>
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<td>Cycle access improvements to National Cycle Network, Route 45, Stroud</td>
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<td>Junction improvement - Priory Rd providing bus advantage, Glos</td>
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**Table 2 - Major Schemes**

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<td>Shannon Way - Junction Improvement to the - Shannon Way / A438 traffic signal junction to provide an additional EB exit lane from the junction to M5 J9, separate left turn from A438 (West) to Shannon Way with two straight ahead lanes EB, upgrades to MOVE or SCOOT</td>
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<td>Highways</td>
<td>New Urban Traffic Control Centre - including Signal Upgrades through CSV</td>
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<td>Bus advantage improvements for A435 Tewkesbury - Cheltenham Corridor</td>
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<td>Access improvements 'Active Travel Route' - A417 between Fairford and Lechlade</td>
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<td>46</td>
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<td>Highway Improvements A46 (Shurdington Road) Corridor</td>
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<td>Bream Road Junction Improvement - Lydney</td>
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<td>Cycle access improvement, reuse of old railway line between Tetbury and Kemble</td>
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<td>Cycle access improvements between South Cerney and Cirencester</td>
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<td>Cycle access improvements for Cotswold Water Park, Fairford</td>
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<td>Access improvements for Tetbury Rd and London Rd corridors, Cirencester</td>
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<td>47</td>
<td>CSV</td>
<td>Highways</td>
<td>Junction Improvement - A4019/A4013 A4019/A4013 - Replacing existing roundabout with traffic signals, or feasible alternative</td>
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<td>5</td>
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<td>Ped/Cycle</td>
<td>Cycle improvements linking Gloucester – Huntley, Churcham, Maisemore, Hartpury, Highnam and Newent</td>
<td>Ad Hoc funding opportunities / Developer Contributions</td>
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### Gloucestershire’s Local Transport Plan (2015-2041) Delivery

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<td>49</td>
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<td><strong>A38 Crosskeys</strong> Upgrade <strong>Signal Upgrades</strong> to MOVA or SCOOT to optimise signal timings (Phase 3)**</td>
<td>Ad Hoc Funding Opportunities</td>
<td>Scoping stage</td>
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<td>6</td>
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<td>Junction improvements, A48 Highfield Rd/Lydney Bypass</td>
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<td>Public Transport - Bus</td>
<td>Bus stop and bus advantage improvements for Gloucester - Lydney / Coleford / Cinderford corridors</td>
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<td>Highway improvements, A38 Outer Ring Road corridor, Gloucester</td>
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<td>Cycle access improvements to Lydney - Cinderford corridor</td>
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<td>Cycle access improvements to Cinderford - Highnam corridor</td>
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<td>Ped/Cycle</td>
<td>Cycle access improvements to A48 - Lydney - Westbury-on-Severn corridor</td>
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<td>Ped/Cycle</td>
<td>Cycle access improvements to A40 - Cheltenham - Andoversford corridor</td>
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<td>52</td>
<td>CSV</td>
<td>Highways</td>
<td>Highway improvement - Westgate Gyratory, Gloucester</td>
<td>Ad Hoc funding opportunities / Developer Contributions</td>
<td>Scoping stage</td>
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<tr>
<td>14</td>
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<td>Highways</td>
<td>Replacement of existing A417 highway with elevated section, Maisemore</td>
<td>Ad Hoc Funding Opportunities</td>
<td>Scoping stage</td>
<td>£5m - £20m</td>
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<td>15</td>
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<td>Highways</td>
<td>Access improvements for Cainscross roundabout, Stroud</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
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<td>53</td>
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<td>A4019/ B4634 Old Gloucester Rd/Gallagher Retail Park Junction Revised A4019 traffic signals at site access junction at B4643 Old Gloucester Rd/Gallagher Retail Park</td>
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<td>Highways</td>
<td>Highway improvement - Tewkesbury Northern Relief Road</td>
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<td>Public Transport - Bus</td>
<td>West of Severn Transport Interchange Hub</td>
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### Table 3 - Local Schemes

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<td>1</td>
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<td>Junction improvement A429 - Unicorn Junction (A436/B4068) - Stow-On-The-Wold</td>
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<td>Resolve pedestrian access arrangements in Moreton-in-Marsh</td>
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<td>Public Transport - Rail</td>
<td>Gloucester Railway Station Enhancement</td>
<td>DFT Cycle Rail Fund, GWR and Developer Contributions</td>
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<tr>
<td>56</td>
<td>CSV</td>
<td>Ped/Cycle</td>
<td>Alterations to Horton Rd level crossing and provision of ped/cycle crossing improvements to facilitate increased rail services</td>
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<td>Scoping stage</td>
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<td>Close Closure of Grange Rd/Aston Fields Railway level crossing and replace with new bridge linking Grange Rd with Hardwicke Bank Road</td>
<td>Growth Deal 3</td>
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<td>Ped/Cycle</td>
<td>Cycling and Walking access improvements to Lydney Station and Lydney Harbour</td>
<td>Gfirst LEP / Ad Hoc Funding Opportunities / Developer</td>
<td>Pre-design stage (except harbour)</td>
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<td><strong>Cycling and Walking</strong> access improvements – Lydney Town Centre</td>
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<td>Foot/cycleway bridge infrastructure north of Pirton Fields and link connection to existing highway</td>
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<td>Pedestrian and cycle access improvements using disused railway bridge over Northway Ln, Ashchurch</td>
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<td>Highways</td>
<td>Highway improvement London Road/Denmark Road junction, Gloucester</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
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<td>9</td>
<td>S Cots</td>
<td>Public Transport - Rail</td>
<td>Kemble Railway station enhancements</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>4</td>
<td>N Cots</td>
<td>Highways</td>
<td>Highway improvement - A429 Fosseway, Moreton in Marsh</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£5m - £20m</td>
</tr>
<tr>
<td>5</td>
<td>N Cots</td>
<td>Highways</td>
<td>Highway improvement, A44/A429 mini-roundabouts</td>
<td>Local Growth Fund / Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
</tbody>
</table>
### Gloucestershire’s Local Transport Plan (2015-2041) Delivery

<table>
<thead>
<tr>
<th>Ref</th>
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<th>MODE</th>
<th>SCHEME</th>
<th>Indicative Funding Source</th>
<th>Scheme Status</th>
<th>Cost Band</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>S Cots</td>
<td>Highways</td>
<td>Junction improvement - creation of a new roundabout or feasible alternative Tetbury A433 London Rd</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>11</td>
<td>S Cots</td>
<td>Highways</td>
<td>Highway improvement - Thames St - High St, Lechlade</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>12</td>
<td>S Cots</td>
<td>Highways</td>
<td>Junction improvement - Five Ways junction, including crossing facilities, Cirencester</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>13</td>
<td>S Cots</td>
<td>Highways</td>
<td>Junction improvement - Allotment Corner, Kempsford</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
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<tr>
<td>14</td>
<td>S Cots</td>
<td>Highways</td>
<td>Highway Junction improvements - Tetbury Town Centre</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
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<tr>
<td>15</td>
<td>S Cots</td>
<td>Highways</td>
<td>Junction improvement - A417/Whelford Rd Junction, Fairford</td>
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<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>16</td>
<td>S Cots</td>
<td>Highways</td>
<td>Junction improvement - A429, Cherry Tree Junction, Cirencester</td>
<td>Develop</td>
<td>Pre-design</td>
<td>£200k -</td>
</tr>
<tr>
<td>Ref</td>
<td>CPS</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(Chesterton?)</td>
<td>Contributions</td>
<td>stage</td>
<td>£5m</td>
</tr>
<tr>
<td>28</td>
<td>SD</td>
<td>Highways</td>
<td>Junction improvement - A38/Alkington Lane</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>60</td>
<td>CSV</td>
<td>Highways</td>
<td>Highway improvement - B4063 Corridor, Churchdown?</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>61</td>
<td>CSV</td>
<td>Highways</td>
<td>Highway Improvements, Down Hatherley Lane Corridor, Gloucester*</td>
<td>Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>62</td>
<td>CSV</td>
<td>Highways</td>
<td>Highway Capacity improvements A435 – by approach arm widening</td>
<td>Developer Contributions</td>
<td>Pre-design stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Stoke Road and Finlay Road Roundabouts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>CSV</td>
<td>Highways</td>
<td>Highway Capacity improvements A435 - Racecourse roundabout by approach arm widening</td>
<td>Developer Contributions</td>
<td>Pre-design stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>64</td>
<td>CSV</td>
<td>Highways</td>
<td>Junction Improvement Upgrade A38/Down Hatherley Ln Junction Upgrade to include a dedicated right turn from A38 south, or feasible alternative</td>
<td>Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>65</td>
<td>CSV</td>
<td>Highways</td>
<td>Highway capacity improvements at A435 / GE roundabout by increasing the no. of circulatory lanes to 2 and the A435 SB exit to two lanes</td>
<td>Developer Contributions</td>
<td>Pre-design stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>18</td>
<td>FOD</td>
<td>Highways</td>
<td>Highway improvement - Newerne Link Road, Lydney</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>66</td>
<td>CSV</td>
<td>Highways</td>
<td>Highway improvement - A4019 Honeybourne Railway bridge increased</td>
<td>Ad Hoc Funding</td>
<td>Scoping</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>Ref</td>
<td>CPS</td>
<td>MODE</td>
<td>SCHEME</td>
<td>Indicative Funding Source</td>
<td>Scheme Status</td>
<td>Cost Band</td>
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</tr>
<tr>
<td>67</td>
<td>CSV</td>
<td>Highways</td>
<td>height clearance, Cheltenham</td>
<td>Opportunities / Developer Contributions</td>
<td>stage</td>
<td>£5m</td>
</tr>
<tr>
<td>19</td>
<td>FOD</td>
<td>Highways</td>
<td>Junction Improvement - A430/A417 Castlemeads Upgrade signals to MOVA or SCOOT to optimise signal timings</td>
<td>Ad Hoc Funding Opportunities</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>68</td>
<td>CSV</td>
<td>Highways</td>
<td>Junction improvements - Highfield Hill including Traffic Calming, Lydney</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>29</td>
<td>SD</td>
<td>Ped/Cycle</td>
<td>Cycle access improvements to Stroud Road, Gloucester - Stroud Corridor</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>69</td>
<td>CSV</td>
<td>Ped/Cycle</td>
<td>Cycle access improvements to the Churchdown - Brockworth (Gloucester Business Park) Corridor</td>
<td>Ad Hoc Funding Opportunities</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>70</td>
<td>CSV</td>
<td>Ped/Cycle</td>
<td>Cycle access improvements to the Bishop's Cleeve, Swindon Village, North West Cheltenham Corridor</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>71</td>
<td>CSV</td>
<td>Ped/Cycle</td>
<td>Cycle access improvements to the Gloucester - Tewkesbury Corridor including access to developments at Twigworth and Longford</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
</tbody>
</table>
### Gloucestershire’s Local Transport Plan (2015-2041) Delivery

**Table 4 - Countywide Schemes:**

<table>
<thead>
<tr>
<th>Ref</th>
<th>CPS</th>
<th>MODE</th>
<th>SCHEME</th>
<th>Indicative Funding Source</th>
<th>Scheme Status</th>
<th>Cost Band</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>TKS</td>
<td>Ped/Cycle</td>
<td><strong>Cycle access improvements to the Walton Cardiff, Newtown, Ashchurch corridor</strong></td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>30</td>
<td>SD</td>
<td>Ped/Cycle</td>
<td>Creation of a Cross-Border (Glos / South Glos) greenway ‘Active Travel Route’ connecting Wotton-Under-Edge, Kingswood and to Charfield</td>
<td>Ad Hoc Funding Opportunities / Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
<tr>
<td>31</td>
<td>SD</td>
<td>Public Transport - Rail</td>
<td>Stonehouse Railway Station improvements</td>
<td>DfT, GWR, GCC and Developer Contributions</td>
<td>Scoping stage</td>
<td>£200k - £5m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LTP scheme</th>
<th>LTP scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing bus stop improvements programme</td>
<td>The development of advisory guidance of voluntary Quiet Delivery Service scheme as part of the NDP/LP process</td>
</tr>
<tr>
<td>Ongoing support for thinktravel branding</td>
<td>Local Park and Ride facilities</td>
</tr>
<tr>
<td>Ongoing installation of electric car/bike charging points</td>
<td>Capital Maintenance Programme</td>
</tr>
<tr>
<td>Travel Plans (incl. workplace/rail stations/key corridors &amp; for new development to encourage mode shift in addition to personalised travel planning)</td>
<td>Highway Safety improvement programme</td>
</tr>
<tr>
<td>Promote sustainable travel habits for children, (inc. Bikeability training which equips children with skills and confidence to cycle more often)</td>
<td>20mph Zones</td>
</tr>
</tbody>
</table>
Gloucestershire’s Local Transport Plan (2015-2041) Delivery

<table>
<thead>
<tr>
<th>Lorry management gateway system</th>
<th>Completing gaps in existing cycle networks and ensuring linkages into new strategic development sites, including improved cycle parking at key destinations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-street parking Management system</td>
<td>Deployment of non enforceable average speed cameras (Operated by Gloucestershire Constabulary).</td>
</tr>
<tr>
<td>Civil Parking and Bus Lane Enforcement</td>
<td>Development of advisory guidance on Construction Management Plans</td>
</tr>
<tr>
<td>Deployment of non enforceable average speed cameras (Operated by Gloucestershire Constabulary).</td>
<td></td>
</tr>
</tbody>
</table>

5.0 Monitoring, Outcomes and Targets

5.1 LTP Implementation Reports are produced annually to document scheme delivery, changes in policies and performance against monitoring indicators. All documents will be published on the GCC website and a document management system used. Table 5 outlines the LTP monitoring indicators used to assess the impacts.

5.2 LTP Outcomes are measured against our policies and set out in Annex 2.0 Logic Map. The specific expected outcomes for each policy are set out in detail within our Overarching Strategy and six mode policy documents (PD1-PD6), following each policy.

5.3 Highways Asset Management Plan (TAMP) monitors the delivery of the major asset through the Forward Programme as an in-year delivery plan, with subsequent years, second and third, a draft programme allowing for planning and coordinating of works. Works in the third year and beyond allow us to schedule longer term programmes of work and give confidence to stakeholders.

5.4 LTP Targets measure performance against our policies and are monitored annually and published in the LTP Implementation Plan. Detailed description of the target outputs are listed in the following paragraphs.
5.5 **LTP PI-1 – Journey time reliability on strategic important routes during the AM peak.** Outputs from this indicator will assist in understanding the impacts of LTP Policy Documents PD3 – Freight and PD4 – Highways. Gloucestershire’s Link and Place spectrum (Figure B of Overarching Strategy) characterises the highway network within county depending on its role and function. National and primary links are strategically critical for the local economy and therefore journey time reliability is an important factor. The target is to maintain annual average AM peak hour journey time variance to + or – 1%.

5.6 **LTP PI-2 - Number of peak hour vehicle journeys.** Between 2015 and 2031 Gloucestershire will see significant change in terms of population growth, housing development, its economy and technological advancement. This will result in an increase in travel demand, which will impact the operation of the highway network. The target is to restrict annual growth in the number peak demand vehicle journeys to 1% per annum.

5.7 **LTP PI-3 - Reduction in inappropriate freight travel.** Monitoring of HGV traffic will take place on and off the advisory freight map to assess if the advisory freight network is understood by its users. If it is not, it will be necessary to review the approach used to manage freight travel. The target is to maintain the % of HGV traffic on inappropriate roads to less than 5%.

5.8 **LTP PI-4 - Principal road network condition.** The principal road network (PRN) is designated as ‘A roads’ and provides regional and district distributor routes. There are currently 582 km of principal road network in Gloucestershire. The PRN is very important economically, and its condition impacts on network resilience and safety. The target is to maintain the percentage of principal road network requiring maintenance at or below 4%.

5.9 **LTP PI-5 – Non-Principal road network condition.** Non-principal roads are designated as B and C roads. In Gloucestershire there are 1966 km of classified non-principal road - B roads account for 407 km and 1559 km are C roads. These are main and secondary distributor routes, linking urban centres, larger villages and HGV generators to the strategic network. Preserving the condition of these routes ensures access and journey times are maintained into key service areas for health, education, retail and employment. The target is to maintain the percentage of non-principal classified road network where maintenance should be considered at or below 9%.

5.10 **LTP PI-6 –Unclassified road network condition.** Outputs from this indicator will assist in understanding the impacts of LTP Policy Documents 3 – Freight and 4 – Highways. The majority of the adopted highway network is comprised of unclassified roads. In Gloucestershire this amounts to 2935 km of network. This indicator will monitor the condition of these roads which, in rural areas, can link smaller villages to the distributor roads, serve...
small settlements and provide access to individual properties and land. In urban areas they are residential or industrial interconnecting roads, residential loop roads or cul-de-sacs. These are fundamental to any business or resident accessing the transport network for any means. The target is to maintain the percentage of unclassified road network where maintenance should be considered at or below 18% (BVPI 224B Ref M7).

5.11 **LTP PI-7 - Increase use of rail.** Outputs from this indicator will assist in understanding the impacts of LTP Policy Documents 5 – Rail. This indicator shows rail station usage across the county. Rail use is important to economic sustainability by ensuring connectivity and reliable travel times to access employment and services. Rail is also a low emission active travel alternative to car use. The target is to increase rail use within the county by 30% from 2015 to 2031.

5.12 **LTP PI-8 - Increase use of cycling.** Outputs from this indicator will assist in understanding the impacts of LTP Policy Documents 2 Cycle. Cycling levels are important indicators of active and sustainable travel which benefit the environment, health and the economy. The target is to increase cycle use within the county by 50% from 2015 to 2031.

5.13 **LTP PI-9 - Increase use of bus.** Outputs from this indicator will assist in understanding the impacts of LTP Policy Document 1 Public & Community Transport. This indicator shows the actual number of journeys made on bus services running throughout the county. It covers both commercially provided and subsidised bus services and is therefore vulnerable to both economic trading conditions and council policy towards accessibility when considering whether or not to provide financial support for transport services that bus companies can no longer afford to run. The target is to maintain the number of bus passenger journeys in line with bus passenger reviews.

5.14 **LTP PI-10 - Maintain bus passenger access.** Outputs from this indicator will assist in understanding the impacts of LTP Policy Documents 1 Public & Community Transport. This indicator reports access by public transport within 45 minutes to GP surgeries it provides a good proxy for network coverage as GP surgeries tend to be located close to other local services. The target is to maintain level of access to GP services and facilities by public transport within 45 minutes.

5.15 **LTP PI-11 - Reduce the number of highway casualties.** Outputs from this indicator will assist in understanding the impacts of LTP Policy Documents 4 Highways. Gloucestershire has adopted the national aspiration for a 40% reduction (from the 2005-2009 average) in the number of Killed or Serious injuries (KSI) on the highway by 2020.
LTP PI-12a - Reduce the number of child highway casualties. Outputs from this indicator will assist in understanding the impacts of LTP Policy Documents 4 Highways. Gloucestershire has adopted the national aspiration for a 40% reduction (from the 2005-2009 average) in the number of child KSI on the highway by 2020.

LTP PI-12b - Reduce the number of older highway casualties. Outputs from this indicator will assist in understanding the impacts of LTP Policy Documents 4 Highways. Gloucestershire has adopted the national aspiration for a 40% reduction (from the 2005-2009 average) in the number of older KSI on the highway by 2020.

LTP PI-13 – Reduce levels of traffic derived Nitrogen Dioxide. Outputs from this indicator will assist in understanding the impacts of policies outlined across all policy documents. Air quality in Gloucestershire is good. However, currently the county has seven areas declared under Section 83 of the Environment Act 1995 by district councils as Air Quality Management Areas (AQMAs). The eight declared AQMAs in Gloucestershire test above the target objective levels for nitrogen dioxide (NO2) for relevant exposure to Gloucestershire residents. In each case traffic is the main source of air pollution. Under The Air Quality (England) Regulations 2002 the highway authority has a duty to work in partnership with the district with the aim of reducing AQMAs. The target to reduce the annual mean concentration level of transport derived NO2 at each of the county’s AQMAs.

LTP PI-14 – Reduce per capita transport carbon emissions. Outputs from this indicator will assist in understanding the impacts of policies outlined across all policy documents. On the 12th December 2015 a historic new global climate agreement was struck at the United Nations conference on climate change in Paris. The deal sets out a clear long-term goal of net zero emissions by the end of the century. The target is to reduce per capita transport carbon emissions, in order to contribute to achieving the government’s climate change commitments as part of United Nations COP21 Agreement (COP21) resulting in zero transport based carbon emissions; an amended date of by 2050 has resulted in a strengthening of this target following a review.

This target is in line with the UK Climate Change Act revision. This revision will be in line with the Government commitment to end the sale of all new conventional petrol and diesel cars and vans by 2040.

Table 5 – LTP Monitoring Indicators

<table>
<thead>
<tr>
<th>Reference</th>
<th>Indicator name</th>
<th>Target</th>
</tr>
</thead>
</table>

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LTP PI-1 | Journey time reliability on strategic important routes during the AM peak | Maintain annual average variance to + or – 1%
LTP PI-2 | Number of peak hour vehicle journeys | Restrict annual growth to 1% per annum
LTP PI-3 | Reduction in the inappropriate freight travel | To maintain the % of HGV traffic on inappropriate roads use to less than 5%
LTP PI-4 | Principal road network condition | Maintain at or below 3%
LTP PI-5 | Non-Principal road network condition | Maintain at or below 6%
LTP PI-6 | Unclassified road network condition | Maintain at or below 14%
LTP PI-7 | Increase use of rail | Increase by 30% from 2015 to 2031
LTP PI-8 | Increase use of cycling | Increase by 50% from 2015 to 2031
LTP PI-9 | Increase use of bus | Maintain bus passenger numbers in line with bus service reviews
LTP PI-10 | Maintain bus passenger access | Maintain access within 45 minutes
LTP PI-11 | Reduce the number of highway casualties | 40% reduction (from the 2005-2009 average) by 2020
LTP PI-12a | Reduce the number of child highway casualties | 40% reduction (from the 2005-2009 average) by 2020
LTP PI-12b | Reduce the number of older highway casualties | 40% reduction (from the 2005-2009 average) by 2020
LTP PI-13 | Reduce levels of traffic derived Nitrogen Dioxide | To reduce transport derived NO2 at each Air Quality Management Areas
LTP PI-14 | Reduce per capita transport carbon emissions | 0 tonnes per capita by 2050

### 6.0 Governance and Review

6.1 The LTP will be a living document, and will be updated and amended to reflect the adoption of local plans or national guidance. The Living Document process outlines how the LTP will be updated and the role it may have informing the plan making process. It is published separately on the LTP webpage.

6.2 As a strategic policy document the LTP is adopted at a full county council meeting.
6.3 Updates to the LTP will be agreed through discussions with the Lead Cabinet Member. Where these are deemed to be significant, approval will be sought from Gloucestershire County Council’s Cabinet. Where the decision to amend the strategy is considered to have a significant impact on a local community, local stakeholders will have an opportunity to comment through a targeted local consultation process.

6.4 Major reviews of LTP will be undertaken periodically and linked to changes in local and national transport policy.

6.5 At officer level, delivery of the LTP will be overseen by the LTP Management Board, comprising those managers responsible for the delivery of the individual elements of LTP strategy. This Board will be overseen by the Commissioning Director responsible for Highways and Transportation.
This strategy acts as guidance for anybody requiring information on how the county council will manage rail infrastructure and rail services in Gloucestershire up to 2041.
# Glossary of Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active Travel</strong></td>
<td>The terms ‘active travel’ and ‘walking and cycling’ are used in this document to encompass a range of methods of active mobility, including trips made by wheelchair, mobility scooters, adapted cycles and e-bikes.</td>
</tr>
<tr>
<td><strong>AONB</strong></td>
<td><strong>Area of Outstanding Natural Beauty</strong>&lt;br&gt;A national designation for conservation due to the significance of the landscape.</td>
</tr>
<tr>
<td><strong>AQMA</strong></td>
<td><strong>Air Quality Management Area</strong>&lt;br&gt;An area where air quality does not meet nationally set thresholds, and is positively managed to bring it within thresholds.</td>
</tr>
<tr>
<td><strong>Bikeability</strong></td>
<td>Modern cycle training programme delivered across 3 levels to children and adults.</td>
</tr>
<tr>
<td><strong>Bus Advantage</strong></td>
<td>Infrastructure or traffic management which prioritises bus movement over that of other traffic.</td>
</tr>
<tr>
<td><strong>Car Clubs</strong></td>
<td>Car clubs (sometimes known as car sharing) use electronic systems to provide customers unattended access to cars for short-term rental. Business models can be categorised into round trips, where the vehicle must be returned to its home station, and flexible, which allows one-way trips. Vehicles may be owned by individuals and lent out or form part of a fleet owned by a single organisation.</td>
</tr>
<tr>
<td><strong>Census</strong></td>
<td>Every ten years the government census gives a snapshot of the nation helping plan and provide infrastructure and services.</td>
</tr>
<tr>
<td><strong>Chamber of Commerce</strong></td>
<td>A local association to promote and protect the interests of the business community in a particular place.</td>
</tr>
<tr>
<td><strong>City Region</strong></td>
<td>Existing and emerging areas in England which use the ‘City Region’ brand to capture a geographical area with common purpose, often including market towns and significant rural areas.</td>
</tr>
<tr>
<td><strong>CIL</strong></td>
<td><strong>Community Infrastructure Levy</strong></td>
</tr>
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</tr>
<tr>
<td>A planning charge, introduced by the Planning Act 2008, as a tool for local authorities in England and Wales to help deliver infrastructure to support the development of their area.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CMP</strong></th>
<th><strong>Construction Management Plans</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A legal requirement, which must address issues such as health, safety, traffic management, environmental and amenity issues relating to the construction of a site and the adjoining community.</td>
<td></td>
</tr>
</tbody>
</table>

| **COP21 Agreement** | National commitments made in Paris December 2015 as part of the COP21 Agreement (The 2015 United Nations Climate Change Conference. Conference of the Parties (COP)). |

<table>
<thead>
<tr>
<th><strong>CPS</strong></th>
<th><strong>Connecting Places Strategy</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Areas within Gloucestershire identified within LTP3 through their distinctive transport characteristics; opportunities and constraints.</td>
<td></td>
</tr>
</tbody>
</table>

| **Crossrail** | Crossrail refers to a major infrastructure (stations, tunnels and track) project to improve rail travel to and across London. |

| **Cycle Facility Guidelines (2012)** | Gloucestershire County Council’s in-house guidance on infrastructure provision for cyclists. |

<table>
<thead>
<tr>
<th><strong>DRT</strong></th>
<th><strong>Demand-responsive transport</strong></th>
</tr>
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<tbody>
<tr>
<td>Also known as demand-responsive transit (DRT). Dial-a-Ride transit (DART)or flexible transport service are forms of transport where vehicles alter their routes based on particular transport demand rather than using a fixed route or timetable. These vehicles typically pick-up and drop-off passengers in locations according to passengers needs and can include taxis, buses or other vehicles.</td>
<td></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th><strong>DfT</strong></th>
<th><strong>Department for Transport</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Department for Transport is the government department responsible for the English transport network. The department is run by the Secretary of State for Transport.</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
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</tr>
<tr>
<td>Dynamic demand responsive transport</td>
<td>Demand responsive transport that can adjust routes in real time to accommodate new pickup requests often made minutes in advance.</td>
</tr>
<tr>
<td>Dynamic loop</td>
<td>Track mechanism allowing two trains to pass each other without stopping</td>
</tr>
<tr>
<td>Environment Agency</td>
<td>A non-departmental public body sponsored by the Department for Environment, Food and Rural Affairs, with responsibilities relating to the protection and enhancement of the environment in England</td>
</tr>
<tr>
<td>Fastershire Broadband Strategy</td>
<td>A programme to deliver faster broadband across Gloucestershire and Herefordshire by 2018.</td>
</tr>
<tr>
<td>Fractional Ownership</td>
<td>An ownership model that involves a group of people purchasing or leasing a good (vehicle) and splitting the costs</td>
</tr>
<tr>
<td>Freight Gateway management</td>
<td>On-line mapping portal to ensure HGVs are guided to the safest most appropriate routes and facilities.</td>
</tr>
<tr>
<td>Freight Route</td>
<td>Advisory routes for Heavy Goods Vehicles.</td>
</tr>
<tr>
<td>GFirst LEP</td>
<td>GFirst (Gloucestershire First) Local Economic Partnership. Drives sustainable economic growth in the county to create jobs and business opportunities.</td>
</tr>
<tr>
<td>Gloucester Central Transport Hub</td>
<td>One of the approved transport schemes comprising a new state of the art bus station which will integrate various modes of transport including bus, rail, walking and cycling in a city centre location.</td>
</tr>
<tr>
<td>Gloucestershire Air Quality and Health Strategy (draft)</td>
<td>In development to improve air quality and mitigate its impact on health as it relates to nitrogen oxides and particular matter.</td>
</tr>
<tr>
<td>Gloucestershire Climate Change Strategy</td>
<td><strong>Gloucestershire Climate Change Strategy (2019)</strong> will form a 5 year action plan to tackle climate change and is an update on the previous 2008 strategy. Gloucestershire County Council declared a climate change emergency in May 2019.</td>
</tr>
<tr>
<td>Gloucestershire Highways Biodiversity</td>
<td>Advice to help the county council implement its statutory duty to conserve biodiversity (Natural Environment &amp; Rural Communities</td>
</tr>
<tr>
<td><strong>Guidance</strong></td>
<td>Act 2006) whilst carrying out its highways functions.</td>
</tr>
<tr>
<td><strong>Gloucestershire Sustainable Energy Strategy (Jan 2019)</strong></td>
<td>The Government’s Clean Growth Strategy identifies the need to reduce carbon emissions nationally, and Gloucestershire has implemented its commitment to change, with the development of this strategy.</td>
</tr>
<tr>
<td><strong>Great Western Cities</strong></td>
<td>Initiative launched jointly in February 2015 by the cities of Bristol, Cardiff and Newport to improve cooperation across the area as a city region, and to develop economic and environmental partnerships.</td>
</tr>
<tr>
<td><strong>Green Infrastructure</strong></td>
<td>A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities (NPPF 2019). Examples of green (and blue) infrastructure in Gloucestershire include rivers; cemeteries; canals; sports pitches; orchards; green roofs; parks; open fields and woodland.</td>
</tr>
</tbody>
</table>
| **GRIP** | **Governance for Railway Investment Projects**  
This advises how Network Rail manages and controls projects that enhance or renew the national rail network. It covers the project process from inception through to the post-implementation realisation of benefits. |
| **GRIS** | **Gloucestershire Rail Investment Strategy**  
Commission to provide the economic evidence base needed to prioritise rail infrastructure and service enhancements investments in the county. |
<p>| <strong>Growth Deal</strong> | Agreement between GFirst (LEP) and Government to secure the Growth Fund. |
| <strong>Growth Fund</strong> | Growth Fund £78.5 million awarded to Gloucestershire in July 2014 by the Department for Business, Innovation and Skills (BIS) for economic development. |
| <strong>Growth Zones</strong> | Identified areas which will receive lighter-touch planning regulations on brownfield sites to encourage the building of new housing in Gloucester and new employment opportunities on the M5 corridor (J.9 and 10). |</p>
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>GVA</td>
<td>Gross Value Added&lt;br&gt;A measurement of the contribution to the economy of each individual producer, industry or sector in the United Kingdom.</td>
</tr>
<tr>
<td>Ha</td>
<td>Hectares is an accepted metric system unit of area equal to a square with 100 meter sides, or 10,000 m², and is primarily used in the measurement of land</td>
</tr>
<tr>
<td>Hard Measures</td>
<td>Hard measures most commonly involve physical changes, such as improvements to infrastructure.</td>
</tr>
<tr>
<td>Headline Indicators</td>
<td>Transport headline indicators provide simple and clear information to decision-makers and the general public about progress in transport policy and the key factors determining its delivery.</td>
</tr>
<tr>
<td>Health Impact Assessment (HIA)</td>
<td>Combination of procedures, methods, and tools by which a [transport] policy, program, or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population</td>
</tr>
<tr>
<td>HGV</td>
<td>Heavy Goods Vehicle&lt;br&gt;A road vehicle primarily suited for the carriage of goods or burden of any kind and designed/adapted to have a maximum weight exceeding 3,500 kilograms when in normal laden use.</td>
</tr>
<tr>
<td>Highways</td>
<td>Within the LTP the term ‘Highways’ refers to the following assets:&lt;br&gt;&lt;strong&gt;Carriageways&lt;/strong&gt; - Principal, Classified, Unclassified&lt;br&gt;&lt;strong&gt;Footways / Cycle tracks&lt;/strong&gt; - Footways, Pedestrian Areas, Footpaths, Cycle tracks&lt;br&gt;&lt;strong&gt;Structures&lt;/strong&gt; - Bridges, Culverts, Footbridges, Retaining Walls&lt;br&gt;&lt;strong&gt;Highway lighting&lt;/strong&gt; - lighting Columns/Units, Heritage Columns, Illuminated Bollards, Illuminated Traffic&lt;br&gt;&lt;strong&gt;Street Furniture&lt;/strong&gt; - Non-illuminated Traffic Signs, Safety Fences, Non-Illuminated Bollards, Pedestrian Barriers, Other Fencing/Barriers, Bus Shelters, Grit Bins, Cattle Grids, Trees, Verge Marker Posts&lt;br&gt;&lt;strong&gt;Traffic Management Systems&lt;/strong&gt; - Traffic Signals, Pedestrian Signals, Zebra Crossings, Vehicle Activated Signs, Information Systems</td>
</tr>
<tr>
<td><strong>Glossary of Terms</strong></td>
<td><strong>Definition</strong></td>
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<tr>
<td>----------------------</td>
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</tr>
<tr>
<td><strong>Safety Cameras, CCTV Cameras, ANPR Cameras, Real Time Passenger Information</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Drainage Systems</strong> - Gullies, Balancing Ponds, Catchpits, Counterfort Drains, Culverts, Filter Drains, Grips, Manholes, Piped Grips, Pumping Stations</td>
<td></td>
</tr>
<tr>
<td><strong>Ancillary Assets</strong> - Public Rights of Way &amp; Bridges, Verges, Laybys, Car Parks (Park &amp; Ride Sites), Automatic Traffic Counter Sites</td>
<td></td>
</tr>
<tr>
<td><strong>Highways England</strong></td>
<td>The government company charged with driving forward our motorways and major A roads. This includes modernising and maintaining the highways, as well as running the network and keeping traffic moving.</td>
</tr>
<tr>
<td><strong>Historic England</strong></td>
<td>The Historic Buildings and Monuments Commission for England, more commonly known as Historic England, is the Government’s adviser on the historic environment in England</td>
</tr>
<tr>
<td><strong>Homes England</strong></td>
<td>An executive non-departmental public body, sponsored by the Ministry of Housing, Communities &amp; Local Government which seeks to accelerate the provision of housing in England</td>
</tr>
<tr>
<td><strong>Housing Zones</strong></td>
<td>Government recognised brownfield sites located across the country. The Housing Zones programme offers the chance to unlock brownfield land that has the potential to deliver viable housing schemes through a combination of long term investment funding, planning simplification, local authority leadership, dedicated brokerage support and ATLAS planning support.</td>
</tr>
</tbody>
</table>
| **HRA** | Health Research Authority  
An executive non-departmental public body of the Department of Health. The HRA exists to provide a unified national system for the governance of health research. |
<p>| <strong>Hub &amp; Spoke</strong> | In a Hub-and-spoke Site-to-Site Wide Area Network (WAN) network topology, one physical site acts as Hub (e.g. Main Office), while other physical sites act as spokes. Spoke sites are connected to each other via Hub site. In Hub-and-spoke Wide Area Network (WAN) topology, the network communication between two spokes always travel through the hub. |</p>
<table>
<thead>
<tr>
<th>Term</th>
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</tr>
</thead>
</table>
| HS2  | High Speed 2  
A planned high-speed railway to link the cities of London and Birmingham, and then to extend to North West England and Yorkshire. |
| Inform Gloucestershire | **Inform Gloucestershire** provides county statistics and overview in relation to population, growth, economy, deprivation, young people. |
| Intelligent Transport Systems | Intelligent transport systems vary in technologies applied, from basic management systems such as car navigation; traffic signal control systems; variable message signs; automatic number plate recognition or speed cameras to monitor applications, such as security CCTV systems; and to more advanced applications that integrate live data and feedback from a number of other sources, such as parking guidance and information systems and weather information. |
| JCS | **Joint Core Strategy**  
A partnership between Gloucester City, Cheltenham Borough, and Tewkesbury Borough Council, supported by Gloucestershire County Council. It was formed to produce a co-ordinated strategic development plan to show how this area will develop during the period up to 2031. |
| LCWIP | **Local Cycling & Walking Action Plan**  
In response to a DfT initiative to underpin and provide evidence for prioritised investment in walking and cycling infrastructure at a local level. GCC has elected to develop an LCWIP. |
<p>| Local Adaption Advisory Panel (LAAP) | <strong>Local Adaption Advisory Panel (LAAP)</strong> – in response to Department for Food and Rural Affairs’ (Defra) consultation on the Government’s proposed strategy for the third round of the Climate Change Adaptation Reporting Power, from the Chairs of the Local Adaptation Advisory Panel, England and the Association of Directors of Environment, Economy, Planning &amp; Transport’s Environment Board. |</p>
<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Industrial Strategy (LIS)</td>
<td>As part of its modern Industrial Strategy, the government aims to agree <strong>Local Industrial Strategies (LISs)</strong> with all parts of England by March 2020. LISs will guide future action and investment, locally and nationally, to improve productivity. They are not bidding documents or project pipelines.</td>
</tr>
<tr>
<td>Local Interchange Hubs</td>
<td>A place where passengers and cargo are exchanged between vehicles or/and between transport modes. Public transport hubs include train stations, rapid transit stations, park &amp; ride, bus stops, tram stops, airports and ferry slips. The quality and availability of these helps determine the ‘seamless’ trip quality.</td>
</tr>
<tr>
<td>LNP</td>
<td><strong>Local Nature Partnership.</strong> LNP are partnerships of influential organisations, businesses and people, from a range of sectors, charged by government with the bringing about improvements to the local natural environment in England.</td>
</tr>
<tr>
<td>Local Plans</td>
<td>Development plan prepared by the district authorities in Gloucestershire.</td>
</tr>
<tr>
<td>Local Transport Act (2008)</td>
<td>An Act which makes provisions in terms of the responsibilities of local transport authorities – such as Gloucestershire County Council.</td>
</tr>
<tr>
<td>Lorry Route</td>
<td><strong>Lorry Route</strong> – freight journey planning platform and application for use by freight drivers and the freight industry. It supports Local Authorities that host it on their websites, by updating compliant restrictions for freight on the highway network and supporting a Lorry Watch facility. There are several freight journey planning platforms available, not all are compliant.</td>
</tr>
<tr>
<td>Lorry Watch</td>
<td><strong>Lorry Watch</strong> – is a community led approach to monitoring freight movements in local areas, such as parishes. Monitoring can include breaches of weight restrictions in place on the highway.</td>
</tr>
<tr>
<td>LSTF</td>
<td><strong>Local Sustainable Transport Fund</strong> The Local Sustainable Transport Fund (LSTF) is a DfT funded initiative that aims to encourage a modal shift towards sustainable travel options and to encourage economic growth.</td>
</tr>
</tbody>
</table>
### Glossary of Terms

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>LTA</strong></td>
<td><strong>Local Transport Authority</strong>&lt;br&gt;In Gloucestershire the county council is the Local Transport Authority. It owns and manages the highway asset and is required to meet the needs of the transport network as defined in the Transport Act (2008).</td>
</tr>
<tr>
<td><strong>LTP</strong></td>
<td><strong>Local Transport Plan</strong>&lt;br&gt;A statutory document setting out a LTAs long-term transport strategy.</td>
</tr>
<tr>
<td><strong>LTP Management Board</strong></td>
<td>The Board consists of county council Officers, and is responsible for delivering the LTP and reporting to the Council management and the Lead Cabinet Member.</td>
</tr>
<tr>
<td><strong>MaaS</strong></td>
<td><strong>Mobility as a Service</strong>&lt;br&gt;The integration of various modes of transport along with information and payment functions into a single mobility service.</td>
</tr>
<tr>
<td><strong>MetroWest</strong></td>
<td>A proposal to improve rail services in Bristol. When fully implemented, the MetroWest project will provide half-hourly train services on all routes within the main Bristol commuting area.</td>
</tr>
<tr>
<td><strong>MfGS</strong></td>
<td><strong>Manual for Gloucestershire Streets</strong>&lt;br&gt;Manual for Gloucestershire Streets sets out the principles that GCC will apply to the design and construction of transport infrastructure associated with new development.</td>
</tr>
<tr>
<td><strong>Micromobility</strong></td>
<td><strong>Micromobility</strong>&lt;br&gt;The use of small mobility devices, designed to carry people or goods e.g., e-scooters, e-bikes, e-cargobikes.</td>
</tr>
<tr>
<td><strong>Mobility Scooter</strong></td>
<td>An electrically powered scooter designed for people with restricted mobility, typically those who are elderly or disabled.</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>Any form of vehicle or system to transport people or goods.</td>
</tr>
<tr>
<td><strong>NCN</strong></td>
<td><strong>National Cycle Network</strong>&lt;br&gt;A national cycling route network of the United Kingdom, which was established to encourage cycling throughout Britain.</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
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<tr>
<td>NDP</td>
<td>Neighbourhood Development Plan&lt;br&gt;Parish and town councils and neighbourhood forums can write an NDP for their area. The Plan can set out policies and plans, like a Development Plan Document, but on a very local scale.</td>
</tr>
<tr>
<td>Network Rail</td>
<td>The authority responsible for the United Kingdom’s railway network.</td>
</tr>
<tr>
<td>NMU</td>
<td>Non-motorised User&lt;br&gt;Road users who are pedestrians, cyclists and equestrians with attention to the needs of disabled people.</td>
</tr>
<tr>
<td>NPPF</td>
<td>National Planning Policy Framework&lt;br&gt;The National Planning Policy Framework is a key part of the government’s reforms to make the planning system less complex and more accessible. It vastly simplifies the number of policy pages about planning.</td>
</tr>
<tr>
<td>ONS</td>
<td>Office of National Statistics</td>
</tr>
<tr>
<td>Peak Hour</td>
<td>A rush hour or peak hour is a part of the day during which traffic congestion on roads and crowding on public transport is at its highest. Normally, this happens twice every weekday—once in the morning and once in the evening. It may last more than an hour.</td>
</tr>
<tr>
<td>PMV</td>
<td>Powered Mobility Vehicles&lt;br&gt;Are vehicles within the following 2 classes:&lt;br&gt;Class 2 (powered wheelchairs and mobility scooters) – intended for footpath or pavement use only with a maximum speed limit of 4 mph;&lt;br&gt;Class 3 (powered wheelchairs and mobility scooters) – for use on the road, with a maximum speed limit of 8 mph but with the facility to travel at 4 mph on a footpath or pavement.</td>
</tr>
<tr>
<td>PRoW</td>
<td>Public Rights of Way&lt;br&gt;Paths on which the public have a legally protected right to pass and re-pass.</td>
</tr>
</tbody>
</table>
| PTP | **Personal Travel Planning**  
A method to encourage people to make more sustainable travel choices. It seeks to overcome the habitual use of the car, enabling more journeys to be made on foot, bike, bus, train or in shared cars. This is through the provision of information, incentives and motivation directly to individuals to help them voluntarily make more informed travel choices. |
<table>
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<tbody>
<tr>
<td>Ride Hailing</td>
<td><strong>Ride Hailing services</strong> use smartphone apps to connect paying passengers with licensed taxi drivers or private hire vehicle operators who provide rides for profit.</td>
</tr>
</tbody>
</table>
| RTPI | **Real Time Passenger Information**  
Assists the flow of people and traffic, lessens customer frustration and reduces journey times. It refers to a range of digitally and immediately available information updates to support bus users, motorists avoiding congestion, parking management etc. |
| Route Electrification | Electrification of rail routes allows for faster trains with greater acceleration to be used thus increasing capacity on busy routes. |
| S106 Agreement | Mechanism which makes a development proposal acceptable in planning terms that would not otherwise be acceptable. They are focused on site specific mitigation of the impact of development. |
| SEA | **Strategic Environmental Assessment**  
The Strategic Environmental Assessment Directive is a European Union requirement that seeks to provide a high level of protection of the environment by integrating environmental considerations into the process of preparing certain plans and programmes. |
| SEP | **Strategic Economic Plan**  
In 2013, Government asked the Local Economic Partnership (LEP) to negotiate a ‘Growth Deal’ to drive forward economic growth in Gloucestershire. To guide these negotiations Government asked LEPs to express their offer through a Strategic Economic Plan. |
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition/Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared Mobility</td>
<td>Transport services or resources that are shared among users, either concurrently or one after another. Public transport or mass transit, as well as newer models such as car-sharing, bike-sharing and ride-sharing, are all types of shared mobility.</td>
</tr>
<tr>
<td>SME</td>
<td><strong>Small to Medium Business</strong> (UK definition 10-50 – small, 50-250 medium)</td>
</tr>
<tr>
<td>Smart Card</td>
<td>A plastic card with a built-in microprocessor, used to perform financial transactions.</td>
</tr>
<tr>
<td>Smarter Choices</td>
<td>The terminology often used by the DfT to refer to soft measures which include ‘techniques for influencing people’s travel behaviour towards more sustainable options’, including travel planning, improving public transport, marketing such as awareness campaigns and websites, and encouraging teleworking.</td>
</tr>
<tr>
<td>Soft Measures</td>
<td>Soft measures induce psychological changes through methods such as information and Travel Planning, which seek to change attitudes towards travel modes and encourage sustainable behaviours.</td>
</tr>
<tr>
<td>SNTB</td>
<td><strong>Sub National Transport Board</strong> DfT requirement for Transport Authorities to work in partnership across sub-regional boundaries to deliver large-scale or significant transport projects</td>
</tr>
<tr>
<td>Sustrans</td>
<td><strong>Sustrans</strong> is a national UK charity that supports cycling and walking.</td>
</tr>
<tr>
<td>SuDS</td>
<td><strong>Sustainable Urban Drainage Systems</strong> Hard surfaces, such as roads, reduce/ remove the capacity of the ground to filtrate water. SuDS alleviate this problem by storing or re-using surface water at source, decreasing flow rates to watercourses and improving water quality.</td>
</tr>
<tr>
<td>Severe Weather Impacts Monitoring</td>
<td><strong>Severe Weather Impacts Monitoring (SWIM)</strong> – decision support tool and ongoing central data collection point for public sector services to log on and record the impacts of severe weather events and the resulting financial cost.</td>
</tr>
</tbody>
</table>
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<tbody>
<tr>
<td>TAMP</td>
<td><strong>Transport Asset Management Plan</strong>&lt;br&gt;The Transport Asset Management Plan outlines the strategic approach to the optimal allocation of resources for the management, operation, preservation and enhancement of the highway infrastructure to meet the needs of current and future customers.</td>
</tr>
<tr>
<td>TOCs</td>
<td><strong>Train Operating Companies</strong>&lt;br&gt;Train Operation Companies are businesses which hold franchises operating passenger trains on the UK railway system. TOCs have existed since the privatisation of the network under the Railways Act 1993.</td>
</tr>
<tr>
<td>Transport Interchange Hub</td>
<td>See Local Interchange Hubs</td>
</tr>
<tr>
<td>Travel Plan</td>
<td>A package of measures designed to reduce travel problems and car dependency</td>
</tr>
<tr>
<td>UK Climate Impacts Programme</td>
<td><strong>UK Climate Impacts Programme (UKCIP)</strong> – supports organisations, sectors and governments adapt to the changing climate through the generation, exchange and application of knowledge.</td>
</tr>
<tr>
<td>ULEV</td>
<td><strong>An Ultra-Low Emission Vehicle (ULEV)</strong> is a low emission car or van that emits 75g/km CO2 or less, based on the NEDC test. ULEVs include pure electric vehicles, electric range-extender vehicles, and plug-in hybrids (PHEVs).</td>
</tr>
<tr>
<td>VMS</td>
<td><strong>Variable Message Signs</strong>&lt;br&gt;Electronic traffic sign used on roadways to give information about transport matters or events.</td>
</tr>
<tr>
<td>WCHAR</td>
<td><strong>Walking, Cycling &amp; Horse Riding Assessment &amp; Review (2017)</strong> - Supersedes NMU Audit Standard</td>
</tr>
<tr>
<td>WECA</td>
<td><strong>West of England Combined Authority</strong></td>
</tr>
<tr>
<td>West of England</td>
<td><strong>West of England Local Enterprise Partnership</strong>&lt;br&gt;The West of England Local Enterprise Partnership supports business growth and is working to attract new jobs to Bristol, Bath and Weston-super-Mare – and the surrounding countryside.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>LTP Objective</th>
<th>Challenges</th>
<th>Policies</th>
<th>Expected Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect and enhance the natural and built environment</td>
<td>Climate Change agenda</td>
<td>PD 0.1 Reducing Transport Carbon Emissions and Adapting to Climate Change</td>
<td>Reduced transport derived carbon emissions</td>
</tr>
<tr>
<td></td>
<td>Increasing sustainable transport behaviours by improve and encouraging travel choice</td>
<td>PD 0.2 Local Environmental Impacts Protection</td>
<td>A reduction in solo car use, and an increased uptake of sustainable transport modes (walking, cycling and public transport)</td>
</tr>
<tr>
<td></td>
<td>Supporting development in locations where access to existing sustainable transport facilities can be provided</td>
<td>PD 0.3 Maximising Investment in a Sustainable Transport Network</td>
<td>Transport schemes are designed to reduce any impacts on Gloucestershire’s high quality natural, built and historic environments</td>
</tr>
<tr>
<td></td>
<td>Ensuring new transport infrastructure is designed to limit the adverse impacts of transport on the natural, built and historic environments (such as visual, congestion, noise and air quality)</td>
<td>PD 0.4 Integration with land use planning and new development</td>
<td></td>
</tr>
<tr>
<td>Support sustainable economic growth</td>
<td>Greater economic activity with a clear role of transport to support existing and new economic growth</td>
<td>PD 0.5 Community Health &amp; Wellbeing</td>
<td>Gloucestershire is a place to do business and attract investment</td>
</tr>
<tr>
<td></td>
<td>Securing sufficient resources to deliver the transport scheme priorities</td>
<td>PD 0.6 Transport Travel – Influencing Travel Behaviour</td>
<td>The transport network is accessible, efficient, reliable, fit for purpose and demonstrable value for money</td>
</tr>
<tr>
<td></td>
<td>Balancing the need to maintain existing infrastructure while investing in new infrastructure</td>
<td>PD 0.7 Gloucestershire’s Bus Network</td>
<td>Increased journey time reliability</td>
</tr>
<tr>
<td></td>
<td>Providing a modern reliable transport network that meets travel demand</td>
<td>PD 0.8 Improving the quality of Highway-based Public Transport Network</td>
<td>Greater economic activity</td>
</tr>
<tr>
<td></td>
<td>Promoting affordable transport solutions which enable development</td>
<td>PD 0.9 Gloucestershire’s Cycle Network</td>
<td>Increased footfall in retail areas</td>
</tr>
<tr>
<td></td>
<td>Ensuring sustainable travel choices are promoted in the planning process</td>
<td>PD 0.10 Gloucestershire’s Freight Network</td>
<td>A transport network resilient to extreme weather events</td>
</tr>
<tr>
<td></td>
<td>Maintaining communities that well connected to services and opportunities</td>
<td>PD 0.11 Gloucestershire’s Freight Network</td>
<td>Heavy Goods Vehicle movements are balanced between the needs of business and local communities</td>
</tr>
<tr>
<td></td>
<td>Ensuring transport networks are resilient to extreme weather events</td>
<td>PD 0.12 Gloucestershire’s Pedestrian Network</td>
<td>A thriving tourist industry which benefits from ease of access to the county’s natural, built and historic environmental assets</td>
</tr>
<tr>
<td></td>
<td>Managing freight movements to reduce the impacts on local communities</td>
<td>PD 0.13 Gloucestershire’s Pedestrian Network</td>
<td></td>
</tr>
<tr>
<td>Enable safe and affordable community connectivity</td>
<td>Ensuring individuals can access employment, education, leisure, sport, recreational and training opportunities</td>
<td>PD 0.4 Integration with land use planning and new development</td>
<td>Individuals benefit from economic prosperity and social benefits, such as access employment, education and training;</td>
</tr>
<tr>
<td></td>
<td>Ensuring those most at risk can access healthcare and other key services</td>
<td>PD 0.5 Community Health &amp; Wellbeing</td>
<td>A business community which benefits from connectivity with local, national and international markets</td>
</tr>
<tr>
<td></td>
<td>Enabling housing growth in sustainable locations adjacent to facilities and services and promote good quality residential environments</td>
<td>PD 0.6 Transport Travel – Influencing Travel Behaviour</td>
<td>Individuals benefit from economic prosperity and social benefits</td>
</tr>
<tr>
<td></td>
<td>Actively engaging with local communities to enable locally appropriate transport solutions for which there is a demand</td>
<td>PD 0.7 Gloucestershire’s Bus Network</td>
<td>A financially sustainable passenger transport network</td>
</tr>
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<td></td>
<td>Reduced risk of social isolation</td>
<td>PD 0.8 Improving the quality of Highway-based Public Transport Network</td>
<td>Reduced risk of social isolation</td>
</tr>
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<td></td>
<td>A transport network which provides individuals with the confidence to consider all travel choices</td>
<td>PD 0.9 Gloucestershire’s Cycle Network</td>
<td>An integrated transport network which provides genuine transport choices</td>
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<tr>
<td></td>
<td>Corporate &amp; National Policy</td>
<td>PD 0.10 Gloucestershire’s Freight Network</td>
<td>A transport network which provides individuals with the confidence to consider all travel choices</td>
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<td>Home to School Transport Policy</td>
<td>PD 0.11 Gloucestershire’s Pedestrian Network</td>
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<td>Concessionary Bus Travel</td>
<td>PD 0.12 Gloucestershire’s Pedestrian Network</td>
<td></td>
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<tr>
<td>Improve community health and wellbeing promote equality of opportunity</td>
<td>Reducing the risk of collisions and incidents of crime on the transport network</td>
<td>PD 0.1 Local Environmental Impacts Protection</td>
<td>Less car trips resulting in fewer journey delays</td>
</tr>
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<td></td>
<td>Communicating the benefits to health and reduced obesity, of active travel modes</td>
<td>PD 0.2 Local Environmental Impacts Protection</td>
<td>Increased number of walking and cycling trips</td>
</tr>
<tr>
<td></td>
<td>Delivering a transport network that enable walking and cycling for short trips</td>
<td>PD 0.3 Maximising Investment in a Sustainable Transport Network</td>
<td>Improved air quality</td>
</tr>
<tr>
<td></td>
<td>Promote increased levels of physical and activity through walking and cycling</td>
<td>PD 0.4 Integration with land use planning and new development</td>
<td>A healthy more active population (addressing obesity and associated conditions)</td>
</tr>
<tr>
<td></td>
<td>Providing the opportunity for all to receive cycle training</td>
<td>PD 0.5 Community Health &amp; Wellbeing</td>
<td>Better safety, security and health by reducing the risk of death, injury or illness arising from transport</td>
</tr>
<tr>
<td></td>
<td>Increasing the economic benefits of cycle tourism where feasible</td>
<td>PD 0.6 Transport Travel – Influencing Travel Behaviour</td>
<td>Access to services, employment, education, training, amenities and a social network</td>
</tr>
</tbody>
</table>