CONNECTING OXFORDSHIRE

Public consultation on a new Local Transport Plan

OXFORDSHIRE
COUNTY COUNCIL

You can respond to this consultation online at **www.oxfordshire.gov.uk/connectingoxfordshire** You can download a printable consultation form; or request a form by post by telephoning **01865 815882**. The closing date for responses is 1 August 2014.

Alternative formats of this document may be made available on request. These include other languages, large print, Braille, computer disk or email.

Foreword

Oxfordshire is a prosperous and vibrant county, combining a successful, thriving economy with a high quality environment. It is the second most rural county in southeast England, and yet is nonetheless a world leader in areas including scientific and energy research, international publishing, bio-technology, car manufacture and motor sport industries. However, we need to be ambitious in our plans for growth so Oxfordshire remains at the forefront of these industries whilst maintaining a high quality of life for the people that live here.

Current forecasts are for over 80,000 new jobs in the county by 2031, with forecast population growth of 90,000 by 2026 and up to 100,000 new homes built by 2031. Major development areas identified across the county include Oxford, Bicester and Science Vale. This will have a significant impact on our transport network, with an ever increasing number of people and goods needing to use it.

Given the existing pressures on the network and the scale of growth we are anticipating, we cannot rely on small, short-term solutions – we need to think of larger, more radical solutions to transform transport in Oxfordshire for its people and growing economy over the next twenty years and beyond.

To address this challenge, we are developing a new Local Transport Plan (LTP4) for Oxfordshire to replace the current one, LTP3. The LTP is a statutory plan that sets out high level policy and strategy for transport in Oxfordshire to meet existing and future transport demand.

As the first stage of developing the new LTP, we need to ensure we are setting out in the right direction, by agreeing what challenges we are going to tackle, and establishing high level goals and objectives. The purpose of

this consultation is to ask for your help in this process, by providing your views on the challenges, our proposed objectives, and some ideas for ways in which they could be achieved. We will use your responses to help us put the LTP together, and will consult you again on the draft LTP documents when they are drawn up.

As the transport authority for Oxfordshire, the county council already works closely with public and private sector partners to improve transport connections. £800m of public and private sector investment is going into transport in Oxfordshire over the next 20-30 years, including: an A40/A44 link road and improvement to junction 9 on the M40; better access to the science parks near Didcot; improvements to the rail network, including a new station in North Oxford with fast trains to London Marylebone.

If Oxfordshire is to continue to prosper, we need to think creatively and consider ambitious options. Any solution will require strong public and private partnership working together. Connecting Oxfordshire starts the debate about creating a 21st century transport system. I hope you will join in by responding to this consultation.

**Councillor Ian Hudspeth,
Leader, Oxfordshire County Council**

1 New Bicester Park and Ride

9 Kennington and Hinksey roundabout improvements

7 Milton and Chilton interchange improvements and link roads at Science Vale Oxford

ALREADY PLANNED TRANSPORT IMPROVEMENTS TO 2020

- ● Improved junction
- ▬ New or improved road link
- ■ New or improved station/interchange
- ▦ New or improved rail link
- ▦ Existing railway

8 Electrification of main Oxfordshire rail network

2 East West Rail including new Oxford Parkway station for North Oxford

10 Frideswide Square improvements

3 Northern Gateway roundabout improvements and new A40/A44 link road

11 Ducklington Lane and Downs Road improvements

4 London Road cycle and bus lane scheme

5 Making The Plain roundabout, Oxford safer for cyclists

12 M40 Junction 9 improvements

14 M40 Junction 10 improvements

6 13 Oxford and Didcot station improvements

To Birmingham and Coventry

To Stratford upon Avon

BANBURY

To Evesham

To Northampton

BICESTER

Bicester Town

To Milton Keynes, Bedford and North of England

To London Marylebone

To Cheltenham

WITNEY

OXFORD

ABINGDON

A34

SHRIVENHAM

To Swindon

WANTAGE

DIDCOT

To Newbury

To Reading & London Paddington

HENLEY

M40

To London

Oxfordshire today

Oxfordshire is home to over 650,000 people, a figure that has grown by over 10% in the past decade. Nearly a quarter of the population live in Oxford, but over 30% live in towns and villages of less than 10,000 people.

The make-up of Oxfordshire's population has changed significantly in the past ten years, with the number of people aged 65 and over increasing by 18%, while the number of people aged 85 and over increased by 30%.

Oxfordshire is home to nearly 30,000 businesses, providing over 380,000 jobs including a high proportion in research, science and technology, engineering, and high-tech manufacturing. The county's economy is recognised as one of the best performing in the UK and its contribution to the national economy is well above average.

Oxford is at the heart of Oxfordshire's economy - 35 per cent of the county's jobs are located within the city. However, Oxford is the least affordable city to live in across the UK, with average house prices more than eleven times local salaries - twice the national average. Many people are forced to move away from their jobs in order to find housing they can afford, as demand (and prices) soar for existing housing. Over half of all jobs based in Oxford are held by people living outside the city.

Many Oxfordshire residents work even further afield - one in six people work in places outside Oxfordshire, predominantly in employment centres such as London, Reading, Swindon, Milton Keynes, Aylesbury and Birmingham.

Car ownership and car usage is high outside Oxford, with 87% of households owning a car – compared with only 67% in Oxford. This is reflected in the high proportion of journeys made by car across the county – 65% of residents outside Oxford travel by car to work each day. Although 50% of journeys to central Oxford are by bus, many of the City's jobs are on the edge of the city, which is less accessible by public transport.

Oxfordshire enjoys a location within easy reach of major cities including London, Birmingham, and international gateways such as Heathrow Airport and Southampton. However, this also means that there is a high volume of through traffic which can result in long delays for local traffic which needs to use these roads.

The M40 carries the highest number of vehicles each day, particularly between J10 and J9 (over 100,000 vehicles), with the A34 carrying up to 70,000 vehicles per day. Traffic on the A34 is particularly vulnerable to disruption due to incidents because of the lack of alternative north-south routes.

Other major routes include the A40, the A420 and the A44 which form part of the Oxford Ring Road or link to it. The large numbers of people travelling to work in Oxford from outside the city means that these routes are heavily congested at peak times.

Oxfordshire is very well connected by rail, with frequent services to London Paddington and Reading from Oxford and Didcot Parkway, and between Banbury and Bicester and London Marylebone. Oxford station benefits from a number of other connections to the Cotswolds, Birmingham, Manchester, Newcastle, Basingstoke and Southampton, with Didcot providing frequent services to South Wales and the West of England.

Rail services are subject to congestion and overcrowding particularly on trains into London, and between Oxford and Banbury - two services from stations in Oxfordshire are included in the top ten most overcrowded rail services in the country. Work is underway on the Oxford to Marylebone rail link, the first new rail connection to London in decades. It includes the new Oxford Parkway station at Water Eaton, which will open in 2015.

Oxford is a key hub for the national coach network. There are over 150 coach services each day between Oxford and London (the highest frequency coach service in the country), as well as a frequent service to both Heathrow and Gatwick airports. A number of National Express coach services serve the city, connecting the county to Birmingham, Liverpool, Manchester and the south coast, as well as Luton and Stansted Airport.

The local bus network across the county is well used, with high frequency routes connecting Oxford city centre with other parts of the city (e.g. Blackbird Leys, Cowley, Headington), and

other major towns (Witney, Carterton to the west, Bicester, Chipping Norton and Kidlington to the north, Thame to the east, and Abingdon, Didcot and Wantage to the south). Oxfordshire has one of the highest levels of bus patronage outside London and a number of services into Oxford are operating at or beyond capacity each day.

There is a good walking and cycling network across Oxford, and over a third of workers living in the city of Oxford either walk or cycle to work. Whilst there are similar opportunities for walking and cycling in other towns, it is a less popular activity outside of Oxford.

Environment, health & safety

As the second most rural county in the South East, Oxfordshire values its natural environment, which includes areas of national importance designated for nature and landscape conservation. Around a quarter of the county is covered by three designated Areas of Outstanding Natural Beauty (AONB),

including parts of the Chilterns, the Cotswolds and the North Wessex Downs. Blenheim Palace and Park is a UNESCO World Heritage Site, large areas around Oxford are designated Green Belt, and there are a number of Special Areas for Conservation across the county.

Transport can harm the environment in a number of ways. In particular, high volumes of traffic contribute to poor air quality, which affects health. The main pollutants of concern in Oxfordshire are oxides of nitrogen (NO_x), and are for the most part localised. A number of areas in the county, including the whole of Oxford City, and parts of Abingdon, Banbury, Botley, Chipping Norton, Henley, Wallingford, Watlington and Witney, are currently designated as Air Quality Management Areas (AQMAs).

Air quality issues in the centre of Oxford are largely due to bus and coach emissions, particularly where there is congestion. To help address this, a Low Emission Zone has been established.

The health of Oxfordshire's population is under threat as a result of increasing obesity, which is partly a result of declining levels of activity. The popularity of car travel (and the corresponding decline in walking and cycling) in the past thirty years has played an important part in this decline. 20% of Oxfordshire residents are classified as obese, putting them at high risk for heart disease and many other health problems.

Road safety remains a concern across the county. Whilst the number of road accident casualties in Oxfordshire fell by a third between 2002 and 2012, it is still slightly worse than average compared with similar local authority areas nearby and nationally.

Strategic Environmental Assessment (SEA)

To properly consider consider the environmental impacts of our Local Transport Plan, we are carrying out a Strategic Environmental Assessment (SEA). This will consider a broad range of impacts including those on health, noise, air quality, climate, biodiversity, water, soil, landscape and the historic environment.

Changing Oxfordshire

Oxfordshire in 15 to 20 years' time will look very different from the Oxfordshire we know today. The number of people living here is expected to grow by over 90,000 (14%) by 2026. Oxford will remain the county's main population centre, with significant growth in Bicester and the Science Vale area (which includes Didcot, Harwell and Grove/Wantage).

Population growth in rural areas will continue – and the population will continue to age, with a forecast 46% increase in the number of people aged 65 and over, and a 69% increase in the number of people aged 85 and over.

Oxfordshire's economy will look very different in the future. While it is already thriving across a number of different sectors, it is having to compete globally, and so continued prosperity can only be achieved through substantial growth.

The Strategic Economic Plan for Oxfordshire (SEP) has been developed by the Oxfordshire Local Enterprise Partnership (LEP), together with the county council, and sets out the ambition for Oxfordshire to 2030. It focuses on continued high growth in the science and technology based industries that make Oxfordshire's economy unique. These sectors will create the majority of the 85,000 new jobs anticipated in the county.

Much of the growth will be concentrated on the "Knowledge Economy Spine" linking Oxford, Science Vale and Bicester. This is where existing science and technology industries are concentrated and where the greatest development potential for both employment and housing growth lies.

Population growth will require a significant amount of new housing stock, particularly given the downturn in house building in recent times. The Oxfordshire Strategic Housing Market Assessment (SHMA) was carried out in early 2014 based on these forecasts for population and the economy, to assess the level of housing need in the county. The SHMA predicts around 100,000 new houses will be needed in Oxfordshire, between now and 2031 – more than double what was previously thought.

These changes present two main challenges for the transport network: How can it support the growth, and at the same time, how can we avoid transport damaging the environment and ensure that Oxfordshire remains a great place to live?

Supporting Growth

Without a transport network that supports the economic strategy for Oxfordshire (as set out in the Strategic Economic Plan), the growth that it seeks will not be achieved.

The scale of growth of jobs, people, and houses being forecast needs to be matched by improvements to the transport network. Tens of thousands more people and jobs will mean substantially more travel, which the existing road network will not be able to cope with, given that many routes are already operating at or beyond capacity.

A number of road schemes are already underway (for example junction improvements at Junctions 9 and 10 of the M40 and the Milton and Chilton interchanges on the A34, as well as improvements at Oxford's Northern Gateway). However, these will not be sufficient to cater for future traffic growth.

Better transport connections will be vital to allow Oxfordshire's economy to reach its full potential. This is particularly true of high tech industries, which rely on close connections to allow them to share and develop ideas and research. Some of the places in Oxfordshire that are home to these industries suffer from poor transport connections, both within the county and to important business locations in the UK and internationally.

While there are proposals already in place to improve rail connections (the Oxford to Marylebone rail link will open in 2015, Crossrail services will now run as far as Reading, and plans for East West Rail and Western Rail Access to Heathrow are well underway), the success of these and any future schemes will rely on good integration with the existing transport network.

Maintaining Quality of Life

Oxfordshire owes part of its economic success and prosperity to the high quality of life of its residents – in spite of the high cost of housing, it is rated as one of the best places to live in the UK. Therefore, while it must support economic growth, the transport network must help ensure that Oxfordshire remains a great place to live.

As the proportion of older people in Oxfordshire increases over the next 15-20 years, it is important that their needs are fully considered, to ensure that they can still access the services they need and play an active part in society and the economy.

It is also important not to focus entirely on urban areas or locations of major development – over a third of Oxfordshire's population live in rural areas. Any future transport policies and strategies will need to consider these rural areas as well as major growth areas.

As the population grows, alongside the increasing demand for travel, there will be a need to transport more goods. On top of this, economic success is likely to mean car ownership per person will continue to rise in most parts of the county. This will lead to more pressure on transport networks and the environment.

Question 1

Do you feel we have correctly identified the most important transport challenges that need to be addressed?

If NO, please say what you think are the most important challenges.

Goals and Objectives

It is important that the goals and objectives of the Local Transport Plan are agreed upon from the outset, as they will be the foundations upon which to develop the rest of the Plan.

Our goals are the outcomes we want to achieve and must support nationally set priorities for transport as well as the council's overall aims which are: building a world-class economy, having healthy, thriving communities, looking after the environment and addressing the needs of disadvantaged communities. We are proposing four goals for transport:

- **To support economic and housing growth in the county, and encourage inward investment through transport improvement and innovation.**
- **To facilitate inclusive and sustainable access to jobs and services.**
- **To manage the impacts of transport on human health and the environment, including reducing carbon emissions.**
- **To encourage and facilitate physical activity through travel.**

To set out how transport can achieve these goals, we have developed a set of eight objectives for transport.

1. **Minimise the need to travel.**
2. **Make more efficient use of available transport capacity through more innovative management of the network and encouraging the use of public transport, walking and cycling.**
3. **Improve transport connections to support economic growth: between housing and jobs/ education/ services, and in networks of businesses and their supply chains.**
4. **Influence the location of development to maximise the use and value of existing and planned strategic transport investment.**
5. **Minimise overall journey times and increase journey time reliability on strategically important routes.**
6. **Develop a high quality, resilient integrated transport system that is attractive to customers and generates inward investment.**
7. **Manage the impacts of transport on human health and safety, and the environment, including reducing carbon emissions.**
8. **Encourage and facilitate physically active travel to support health.**

Once we have agreed our objectives, our task will be to develop suitable policies and strategies for how to achieve them. On the following pages, we explain why we are proposing each of the objectives. The case study section at the end of the document includes examples from around the world which could be used to help develop solutions to meet the objectives.

Objective 1

Minimise the need to travel.

Reducing the need to travel will help to reduce pressure on transport networks.

To achieve this objective the county council will need to work closely with the district councils, who are the planning authorities within Oxfordshire and ultimately make the decisions about the location of development. We will need to coordinate land-use and transport planning with the aim of ensuring housing is located close to employment or good public transport links where possible, and that new developments have good transport links, and are laid out in a way that enables people to get around easily on foot or by bike, or by public transport.

Of course land may not always be available in the right places, and people may not always be able to work close to where they live, but working towards this objective will help to reduce demands on the transport network and improve quality of life, by reducing the proportion of people who have to commute over long distances.

- Extensive roll-out of super-fast broadband will ensure that people can rely on their internet connections, making working from home a more viable consideration for Oxfordshire businesses. The county council is working in partnership with government and BT to bring fibre broadband to 90% of homes and businesses by the end of 2015.

- Establishing community workplace facilities in public buildings as an alternative to working from home could allow people the opportunity for flexible working in an office environment close to home.

Question 2

What do you think is the best way to reduce the need to travel?

Objective 2

Make more efficient use of available transport capacity through more innovative management of the network and encouraging the use of public transport, walking and cycling.

High growth forecast for Oxfordshire will place even greater pressures on the transport network, particularly on routes that already operate at full capacity. It makes sense to make the best possible use of existing transport capacity, although there will be a need for new infrastructure as well, especially where the main road and rail networks are already congested.

As highways authority, the county council needs to be ready to take advantage of new technology as it develops, to help manage the way vehicles travel around the road network. However, traffic forecasts suggest that road capacity will be so stretched in the future that unless a much smaller proportion of total journeys are made by car, our road network will not be able to cope. So in the future, a much higher proportion of journeys will need to be made in other ways.

The main challenge to achieving this is making sure that the other ways – public transport, walking and cycling - are available and sufficiently attractive to encourage people to use them.

Some potential solutions

One approach to meeting this objective is to provide people with more information about the options available to them when they travel. The county council is developing an online journey planner which will provide the user with real-time information about their travel options, supporting awareness of alternatives to the car.

Another approach is to look at the priority given to different road users, giving greater priority to modes of travel that use less road space per person than the car. Incentives or charging systems could be used to influence the way people travel.

Objective 3

Improve transport connections to support economic growth: between housing and jobs/education/services, and in networks of businesses and their supply chains.

Having better transport connections is fundamental to being able to achieve economic and housing growth. The science and high-tech industries need to be well connected to achieve the economic benefits that come from sharing knowledge and ideas – this is an important aspect of the Oxfordshire Strategic Economic Plan (see page 8).

There are relatively poor transport links between some of our main economic centres, both within Oxfordshire and outside the county, and between important business and innovation sites and transport interchanges.

Without improvement, this will limit the potential overall economic benefits to be realised through connected local businesses sharing knowledge and innovation.

Fundamental to achieving this objective are the 'Oxford Science Transit' proposals outlined in the Strategic Economic Plan. The ambition is to develop a fully integrated 'multi-modal' transport system, which incorporates both upgrades to existing services, including:

- Increased frequency of rail services and upgraded interchanges at core rail stations (Bicester, Oxford Parkway, Oxford, Culham and Didcot); and

- High-quality, high-frequency bus connections between stations and main employment sites, e.g. business parks and universities.

We will also work with operators to improve how bus and rail connect together, and improve infrastructure to make it physically easier and more convenient to change from one to the other. Making it easier to access public transport by bike or on foot is also important, as is improving access for disabled people.

We could also investigate the potential for additional Park and Ride sites further away from Oxford (in addition to the one due to be built near Bicester), to support other growth areas, and intercept car trips to Oxford before they reach the edge of the city.

Improving transport connections where there is insufficient demand to make public transport commercially viable, especially in some rural areas, will be a challenge because of limited public funding. We can take steps to boost voluntary sector community transport, and in some cases improvements to walking or cycling routes, or cycle hire schemes might offer a solution. We also need to look at how access to jobs and services can be improved for people with disabilities. It is important that we are open to new ideas and ready to take advantage of new technologies which help meet our transport objectives.
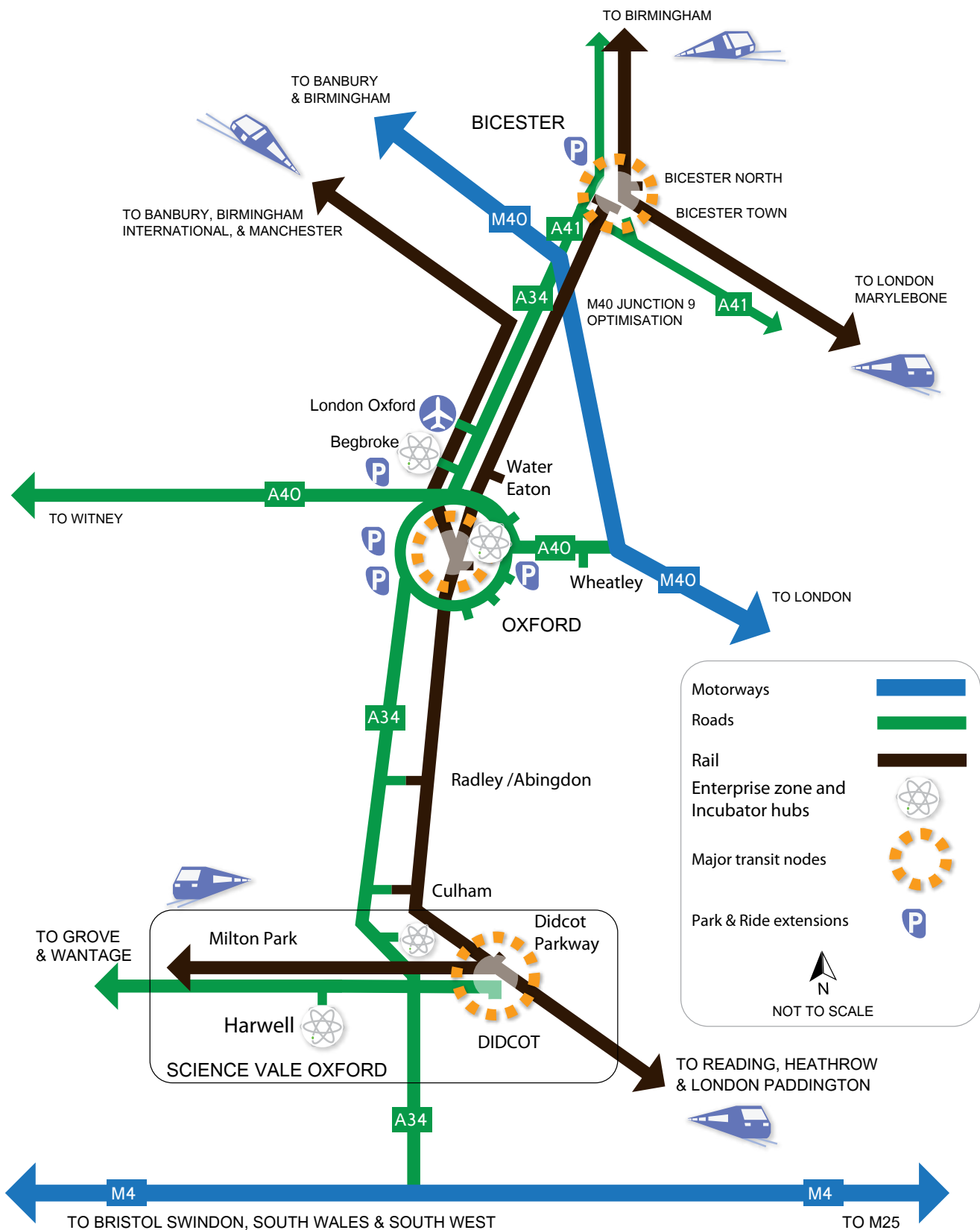
Question 4

How could travel around Oxfordshire be made easier for you?

Question 5

What do you think are the best ways to meet the travel needs of people who do not have access to a car, for example younger, older and disabled people?

'OXFORD SCIENCE TRANSIT'

TO BIRMINGHAM

TO BANBURY
& BIRMINGHAM

BICESTER

BICESTER NORTH

BICESTER TOWN

M40

A41

TO BANBURY, BIRMINGHAM
INTERNATIONAL, & MANCHESTER

A34

M40 JUNCTION 9
OPTIMISATION

A41

TO LONDON
MARYLEBONE

London Oxford

Begbroke

Water
Eaton

A40

TO WITNEY

A40

Wheatley

M40

TO LONDON

OXFORD

A34

Radley /Abingdon

Culham

TO GROVE
& WANTAGE

Milton Park

Didcot
Parkway

Harwell

DIDCOT

SCIENCE VALE OXFORD

TO READING, HEATHROW
& LONDON PADDINGTON

A34

M4

M4

TO BRISTOL SWINDON, SOUTH WALES & SOUTH WEST

TO M25

Legend	
Motorways	
Roads	
Rail	
Enterprise zone and Incubator hubs	
Major transit nodes	
Park & Ride extensions	

N

NOT TO SCALE

Objective 4

Influence the location of development to maximise the use and value of existing and planned strategic transport investment.

This is important in creating the demand needed to make the case for rail and other major infrastructure projects. While the growth forecast for Oxfordshire supports the case for new infrastructure, we must plan that growth in places that will make best use of any new infrastructure.

To meet this objective we need to make sure housing and employment developments and investment in the transport network are progressed together. This can be supported by good planning of development, both in terms of where it is located (for example within easy reach of main public transport corridors), how it is designed, and incentives offered to travel in ways other than by car.

We must not think solely within the county, but consider the impact of proposals in neighbouring areas. Working with neighbouring authorities to review new developments and growth proposals likely to impact on Oxfordshire (and vice versa), to agree on suitable mitigation transport measures, will help manage the impact on our network.

Question 6

Where in Oxfordshire do you think future development would best be located to help reduce transport problems?

Objective 5

Minimise overall journey times and improve journey time reliability on strategically important routes.

People not only want to get from A to B: they want to know how long it will take them, and that they can get there in a reasonable time. A reliable journey time is particularly important for businesses, who need to receive goods and component parts at the right time, without having to build in costly hours of contingency.

Building new roads (or increasing the capacity of existing roads) is one way of reducing congestion, but will come at significant cost. A number of current and proposed schemes will help tackle congestion, but as the population grows (and with it the demand for travel), different solutions will be needed.

However it will simply not be possible to reduce congestion for all journeys, and we will need to look at prioritising some routes over others, or some modes of travel over others, for example acknowledging that buses make more efficient use of road capacity and encouraging people to use them by allowing them to get ahead of queuing traffic.

For many people, having a more reliable journey is more important than reducing their journey time, especially for shorter journeys. Cycling and walking are more reliable than any other mode of travel, so especially in urban centres, it might be appropriate to prioritise them.

Solutions to help meet this objective might include:

- Dedicated bus lanes or rapid bus corridors along major routes, with bus priority at key junctions, to prioritise bus movements ahead of other traffic.

- High Occupancy Vehicle (HOV) lanes along major routes, which give priority to car sharing.

- Dedicated freight corridors to take HGVs and vans out of general traffic.

- Co-ordinating public transport timetables to reduce waiting time between different stages of the journey, which will improve the attractiveness of public transport.

- Improving transport interchanges, to reduce the time spent changing onto another form of transport.

Question 7

When trying to reduce journey times and improve journey time reliability, what (if any) types of journey should be prioritised?

Objective 6

Develop a high quality, resilient integrated transport system that is attractive to customers and generates inward investment.

An attractive, high-quality transport system which matches Oxfordshire's ambition will help encourage even greater numbers of companies to consider investing here and boost tourism. State-of-the-art public transport will provide a genuine alternative to people who currently place a high value on the comfort, convenience, and even the status, of travelling in their own car – an important incentive to help achieve the necessary reduction in the proportion of journeys made by car.

On some routes, the demand for public transport in the future could outstrip the capacity of buses, and there may be a need for different systems that can carry more people – including 'mass transit' schemes.

An integrated public transport system needs a ticketing system to match, in order to attract potential customers by making payment quick and easy, and to reduce delays. A single, contactless, smart payment system could broaden its appeal and improve its perception as a convenient alternative to car travel.

In order to be reliable, the road and public transport networks also need to be resilient, to be able to cope with incidents such as traffic accidents and flooding, as well as daily wear and tear. Better and more easily available live travel information, such as the travel planner mentioned earlier, as well as opportunities to travel in different ways, would help people to avoid delays caused by incidents on the network.

Managing our highway assets

Good maintenance supports several of our high level objectives. The Highways Asset Management Plan will set out our approach to maintenance, including solutions to address the impact of climate change and adverse weather conditions.

Question 8

What do you think would make public transport more attractive to people who don't normally use it?

Objective 7

Manage impacts of transport on human health and safety, and the environment, including reducing carbon emissions.

Quality of life in Oxfordshire is one of its great selling points, and is part of the reason why many people and businesses choose to locate here. The county's heritage and landscape are a huge asset, drawing in tourism worth £1.75bn to the economy each year.

The growing population, and resulting rise in the demand for travel will increase the potential for transport to adversely affect human health, road safety and the historic and natural environment, and to increase carbon emissions. It will increase the pressure on open spaces, recreational land and natural habitats. This objective is needed in order to minimise these pressures, and ensure that we aim for transport to improve quality of life.

Our transport policies will need to address the challenges of health, by helping to increase people's physical activity, improving air quality, and reducing isolation, in support of the county's Health and Wellbeing Strategy. We will also need to address particular localised road safety issues, and our policies will need to take account of how fears about safety affect people's travel behaviour.

Tackling the pollution which affects human health (in Oxfordshire this is mainly oxides of nitrogen) often has the additional benefit of reducing carbon emissions, thereby contributing to national targets for carbon.

During the next 20 years low emission vehicle technology will advance significantly, and our policies could encourage the uptake of these types of vehicle, providing facilities for charging and refuelling them, and incentivising people to use them, for example through favourable parking charges.

Transport of goods is vital to the economy, but lorries contribute to air pollution and affect the environment in other ways, as well as contributing to people's fears about road safety. We will investigate ways to reduce their impact, for example through freight consolidation centres and accreditation schemes, as well as providing operators with better information about the most suitable routes.

Question 9

The need for of goods and materials to be transported will increase as the population grows – how should our transport strategy address the negative impacts of increased freight transport (lorries and vans) on people's lives and the environment?

Question 10

What do you think are the best ways to reduce carbon emissions from transport in Oxfordshire?

Objective 8

Encourage and facilitate physically active travel to support health.

Tackling the obesity crisis and reversing the trend of declining physical activity will be one of the county's top priorities in the coming years. Transport can play a pivotal role in helping to solve this problem by encouraging active travel. More walking and cycling also means fewer short distance car journeys, relieving pressure on the road network and reducing emissions.

Active travel (walking and cycling) is a popular option for travel in and around Oxford, but is less so elsewhere in the county. For many people, safety is the reason why they are reluctant to consider making journeys by bike. Providing safe, well connected routes will help people feel more comfortable and confident about walking and cycling, and reduce the number of short journeys made by car, particularly in urban areas.

Some ideas for how to encourage walking and cycling include:

- Car-free days (closing off areas to general traffic) would encourage people to try cycling. Even if this is for leisure at first, it would help to boost people's confidence so that they consider cycling for other journeys. An occasional event like this makes a big impression and encourages people to think differently about how they travel.

- Allocating greater road space to cyclists and pedestrians, and segregating cycle lanes to protect cyclists from other traffic would do much to address safety concerns about cycling, although there are many places where the historic road layout presents a challenge.

- Promoting incentives for walking and cycling to individuals or to businesses (e.g. cycle to work schemes).

- Greater promotion of walking and cycling as part of public transport journeys (e.g. cycling as part of rail journeys).

Question 11

What are the best ways to encourage more people to walk?

Question 12

What are the best ways to encourage more people to cycle?

Question 13

Overall, do you agree with the draft high level goals and objectives for LTP4 (summarised on p10)? If NO, please say which you disagree with and explain why.

Question 14

Is there anything which the goals and objectives do not adequately cover? If YES please tell us what you think they should cover

Funding

Some of the bigger transport solutions we may want to consider, such as mass transit, are highly unlikely to be paid for through existing funding sources, which include government grants and developer funding. We would need to find alternative sources of funding.

Question 15

Finding the money to install mass transit schemes such as trams may not be possible within the current funding mechanisms (government grants and developer funding). How do you think the money could be raised in other ways?

Thank you for taking the time to respond to this consultation. Your responses are important in helping us to develop LTP 4. For updates please go to **www.oxfordshire.gov.uk/connectingoxfordshire**

Case Studies

The following case studies provide some examples from the UK and around the world, demonstrating ways in which our objectives for transport in Oxfordshire could potentially be met.

Freight consolidation – Bristol & Bath

Bristol city centre has run a freight consolidation scheme since 2004, with Bath incorporated into the scheme in 2011. The scheme is run by a private courier in partnership with the Bristol and Bath and North East Somerset councils.

When a business joins the scheme, some or all of its deliveries are made to an out-of-town depot, eight miles from the city centre, and are then combined with those from other companies, and delivered to the customer at a pre-arranged time. This ensures fewer individual deliveries to each business. The scheme provides the option of storing bulk stock at the depot for businesses whose storage is limited.

Currently over 100 firms are signed up to the scheme across the two cities, with a reduction in delivery vehicle trips of 80%. The scheme has directly saved over 380,000 lorry kilometres and 102 tonnes of CO_2 emissions, and over 37 tonnes of cardboard and plastic packaging has been recycled on behalf of businesses.

Cambridge Science Park

Cambridge Science Park is an excellent example of steps being taken to improve transport links to an important economic hub. It is located on the outskirts of Cambridge and has over 100 companies located on the campus.

The Science Park currently enjoys good road access, but currently offers few alternatives to car travel. A new railway station will be built next to the campus, providing frequent local services to Cambridge, as well as to London and other major cities and airports. To complement this new service, the Cambridgeshire Guided Busway will be extended to the Science Park, along with parking for 450 cars and 1,000 bicycles. The station is due to open in 2015.

Vauban, Freiburg, Germany

The Vauban district in Freiburg is a car-free, parking-free sustainable model district, housing 5,000 residents, and providing employment for 500 people – all homes produce more energy than they use.

There is a dense network of pedestrian and cycle routes which makes it easy to get about without a car, and a new tram route was constructed through the district linking it with the city centre. No parking is allowed in the district, with only pick-up and delivery journeys permitted on the roads in the neighbourhood. To reduce the need to travel, provision for shops and amenities was built into the development, with a large commercial area also adjacent to the district.

These excellent transport connections have attracted a significant number of research and environmental companies to the city.

Other parts of the UK are planning their new development alongside high frequency public transport corridors. For example, Plymouth is planning a new Bus Rapid Transit scheme and park and ride facilities along a corridor linking to the city centre, supporting over 7,000 new homes, as well as employment sites.

Work hubs, Devon

A network of work hubs has been set up in recent years across Devon in order to provide shared, flexible work spaces for home-based/mobile workers and start-up businesses and entrepreneurs. There are a total of ten sites located in towns across the county, set up to allow individuals and businesses to book office space only for the time that they need it, whether it be as a location closer to home to work from, or as a local venue to meet colleagues or clients.

The scheme seeks to support the local economy by keeping local residents working nearby, thus keeping their "spend" local, and by bringing companies together to allow for increased collaboration.

Madrid

A HOV (High Occupancy Vehicle) scheme has been operational in Madrid for nearly twenty years. The N-VI highway in the city has a HOV/bus lane to reduce congestion and promote bus use along one of its busiest transport corridors.

The HOV/bus lane runs for 15km along the highway, with one bus lane and one HOV lane for 12km, and a single bus lane for the final 3.6km section in the city centre. These lanes are separated from general traffic, and are reversible, i.e. they operate in the main direction of traffic at peak times.

Research in 2005 showed that these two lanes carry more passengers (32,000 to 20,000) in the morning peak than the four standard lanes, but fewer vehicles. The HOV lanes carry twice as many people per vehicle than the standard lanes. The success of the scheme prompted the city to propose construction of dedicated bus routes on all of Madrid's radial highways at a cost of over 300m euros.

HOV lane schemes are a rarity in the UK. The A647 in Leeds currently operates a HOV lane for all vehicles with two or more people, which has seen overall average journey time savings of four minutes for those vehicles using the lane. There is a similar scheme on the M606 near Bradford, linked to the managed motorway section of the M62.

Driverless cars

In the future, a more radical solution to connecting some locations could be 'driverless cars'. RobotCar UK is being developed by the Oxford Mobile Robotics Group at the University of Oxford. The car's computer interprets data from sensors like cameras and lasers to know precisely where it is and what is around it.

Optimod'Lyon, Lyon, France

The region of Grand Lyon (incorporating the city of Lyon and its surrounding suburbs) has developed the Optimod'Lyon project to take greater advantage of its multi-modal transport system (Metro, Trams, Buses, Trolleybuses, TGV and regional rail services, as well as a cycle hire scheme). It provides detailed information about travel conditions on roads and public transport. Ultimately, the project will bring together live, real-time data about all modes of transport in one place, allowing people to make more informed decisions about their travel and encouraging people to use their cars less.

The project aims to provide two key applications for transport users:

- One hour traffic prediction (i.e. informing the user about likely traffic conditions for their journey).

- An "urban navigator" mobile phone app, which covers all modes of transport and provides a full list of options from which to plan a journey (including a voice interface).

20 mph speed limits – Oxford

A City-wide 20mph speed limit was introduced in Oxford in 2009, covering all roads except the main radial routes outside the city centre and suburban shopping areas. Over the first four years it has been in place, the reduction in the number of accidents (especially when looking at those resulting in higher severity of injury) has outperformed other towns in Oxfordshire where the speed limits have remained at 30mph. Reducing speed limits from 30mph to 20mph also encourages more walking and cycling, because it makes people feel safer, and can help bring communities together as more people are out and about on foot.

Bogota Car Free Days

One city that has implemented an innovative scheme to encourage more active travel is Bogota in Colombia. The Ciclovia scheme was set up in Bogota to promote walking and cycling in the city, by establishing car-free days across the city centre to allow more freedom for pedestrians and cyclists. On Sundays and public holidays, roads are closed to motorised transport between 7am and 2pm, with these streets patrolled to ensure compliance by road users.

The scheme was designed to form part of Bogota's cycling master plan, which included developing a 376km network of cycle paths across the city, integrated with both public space and the rest of transport network, including the TransMilenio rapid bus transit network.

Currently Ciclovia events attract more than one million people, and have encouraged a 60% increase in the proportion of journeys made by bike between 2005 and 2011. Research has suggested that every peso invested in such schemes generates three pesos in health benefits. The scheme has resulted in significant growth in cycle related businesses (mechanics, people selling cycle accessories).

Bristol has successfully implemented a similar scheme where parts of the city centre have been car-free on selected Sundays each month. Closing roads to motorised traffic could do much to encourage more people to begin cycling in a safe, car-free environment.

Bonn, Germany

Bonn is one of Oxford's twin cities and the city together with its surrounding region is a prime example of how a multi-modal transport network can operate highly effectively. The city currently operates three tram lines, connecting it to surrounding regions and nearby cities such as Cologne. Consequently cars account for less than half (46%) of all trips not only in the city, but for nearly all of the surrounding districts.

Workplace Parking Levy

A Workplace Parking Levy (WPL) scheme was introduced in Nottingham in 2012. The Nottingham WPL is designed to fund the second phase of the city's tram network, refurbishment of Nottingham railway station, and improvements to the city's bus network, and is expected to generate £14m each year to 2023.

However, since its introduction businesses and local communities have expressed concern at the additional costs and local communities have reported a significant increase in parking problems in their areas.

Strategic transport pot

Greater Manchester Transport Fund sees local authorities working together with Transport for Greater Manchester (TfGM), pooling funding from a levy on council tax in Greater Manchester, government grants, Metrolink fares, borrowing and third party contributions. To date, the Fund has committed more than £1.5 billion to new infrastructure enhancements, including Metrolink extensions, as well as major interchange improvements, road enhancements and ambitious bus and park and ride schemes.

Consultation Questions

Question 1:
Do you feel we have correctly identified the most important transport challenges that need to be addressed?
If NO, please say what you think are the most important challenges.

Question 2:
What do you think is the best way to reduce the need to travel?

Question 3
Please tell us your ideas for making the best use of the existing transport network.

Question 4:
How could travel around Oxfordshire be made easier for you?

Question 5:
What do you think are the best ways to meet the travel needs of people who do not have access to a car, for example younger, older and disabled people?

Question 6:
Where in Oxfordshire do you think future development would best be located to help reduce transport problems?

Question 7:
When trying to reduce journey times and improve journey time reliability, what (if any) types of journey should be prioritised?

Question 8:
What do you think would make public transport more attractive to people who don't normally use it?

Question 9:
The need for of goods and materials to be transported will increase as the population grows – how should our transport strategy address the negative impacts of increased freight transport (lorries and vans) on people's lives and the environment?

Question 10:
What do you think are the best ways to reduce carbon emissions from transport in Oxfordshire?

Question 11:
What are the best ways to encourage more people to walk?

Question 12:
What are the best ways to encourage more people to cycle?

Question 13:
Overall, do you agree with the draft high level goals and objectives for LTP4?
If NO, please say which you disagree with and explain why.

Question 14:
Is there anything which the goals and objectives do not adequately cover?
If YES please tell us what you think they should cover.

Question 15:
Finding the money to install mass transit schemes such as trams may not be possible within the current funding mechanisms (government grants and developer funding). How do you think the money could be raised in other ways?

For more information about
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