



DERBY CITY COUNCIL

Derby Local Transport Plan, LTP3

2011-2026

Part 1

Strategy

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Contact details:

**Transport Planning
Neighbourhoods
Derby City Council
Saxon House
Heritage Gate
Friary Street
Derby DE1 1AN**

**tel:
01332 641759**

**minicom:
01332 256064**

**e-mail:
transportplanning@derby.gov.uk**

www.derby.gov.uk

Part 1: Strategy

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1 Introduction

1 Introduction

What is a Local Transport Plan?

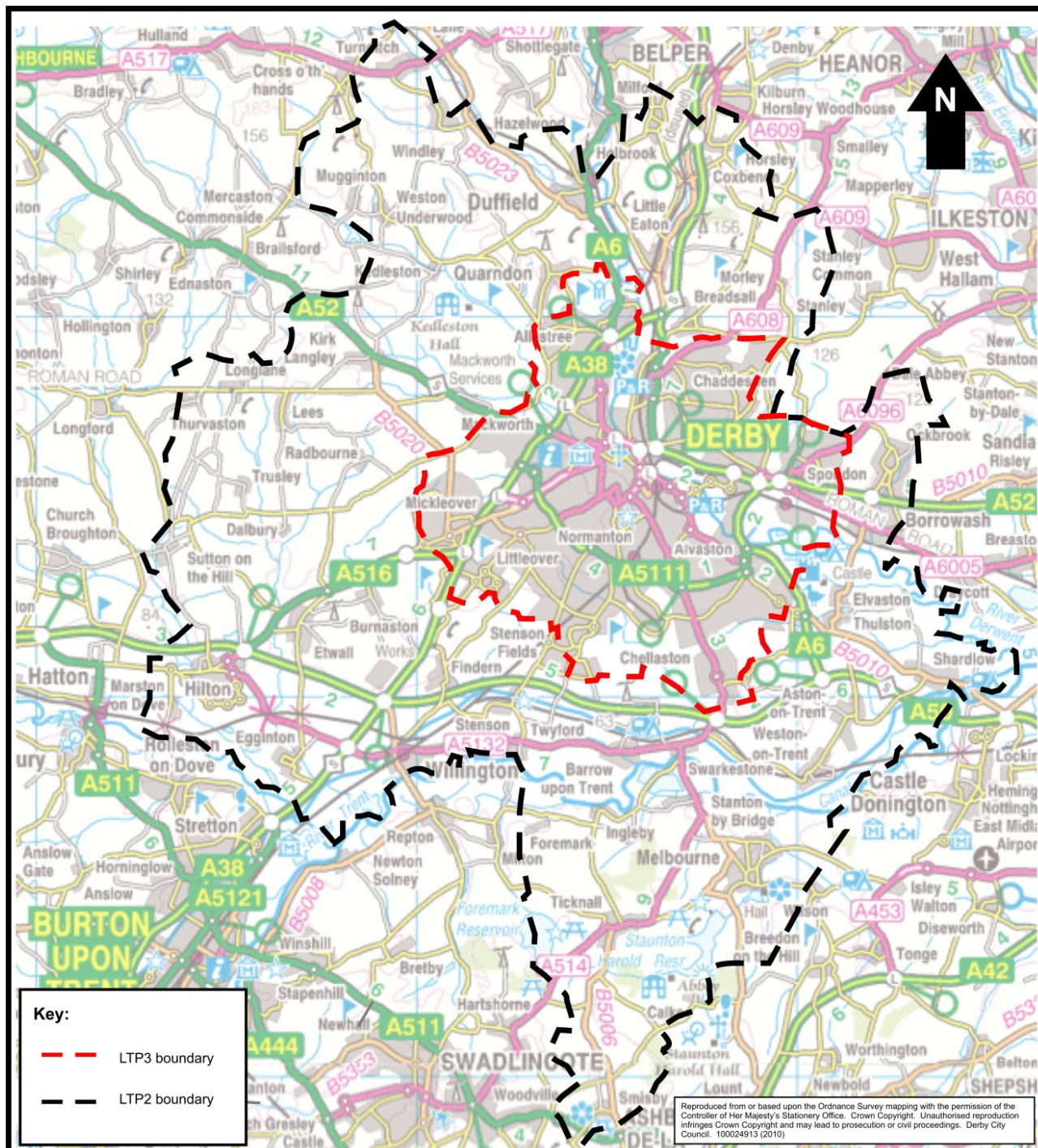
- 1.1** This is the third Local Transport Plan for Derby (LTP3). The LTP is a vital tool to help councils, their partners and their local communities, plan for transport in the way that best meets the needs of the local area. The Transport Act 2008 requires that LTP3 contain a long term transport strategy and a short term implementation plan with proposals for delivering the strategy. We can set our own time scales for the strategy and implementation plan, and we can monitor, review and refresh the plan as needed to meet local needs.
- 1.2** The Act places a number of statutory duties on Derby City Council. These include consulting people, considering the needs of disabled people and considering environmental policies and guidance when preparing LTP3. We have carried out Strategic Environmental, Health Impact and Equality Impact Assessments and we have made sure that LTP3 integrates with other Council plans and duties such as the Network Management Duty (Traffic Management Act 2004) and the Air Quality Action Plan (Environment Act 1995).
- 1.3** This document explains the process we have gone through to develop Derby's proposed long term transport strategy and implementation plan.
- 1.4** LTP3 is a local document. With uncertainties and pressures on funding it is even more important that in the future we continue to work with our local partners to deliver a sustainable transport system for Derby's people and prosperity. We have taken every opportunity to ensure that neighbourhoods and local people have influenced the LTP3 strategy and implementation plan. We will continue to engage with our local communities in the future to ensure that our vision and annual programme of works helps to meet their aspirations.

LTP3 for Derby

- 1.5** LTP3 covers the administrative area of Derby as shown in Figure 1.1. We have previously produced LTPs jointly with Derbyshire County Council. LTP2 covered the area of the city and the travel-to-work area outside. The decision to change the geographical scope of the plan was taken jointly between Derby City Council and Derbyshire County Council in order to make sure the Plans are locally relevant, and to simplify monitoring and reporting. Both Councils are committed to continuing to work closely together and improving planning on transport issues.
- 1.6** This document covers all of Derby's policies and delivery plans relating to transport: those of people and of freight, of all ages and groups of people in Derby, and all areas of the city. It considers the maintenance, operation, management and use of highways and transportation assets in the city in the context of financial constraints and overall national goals for economic development and carbon reduction.

- ## 1.7

Figure 1.1 The LTP2 and LTP3 geographical areas



1 Introduction

Structure of LTP3

1.8 LTP3 is in three parts.

Part 1: Strategy

1.9 Part 1 is concerned with the long term transport strategy to 2026. It sets out the state of Derby's transport network, summarising the key trends, and describes how LTP3 relates to other Council policy documents. It describes the evidence base and the process of developing Derby's proposed long term transport strategy and finally sets out the proposed strategy for Derby.

- **Chapter 1** is the introduction to the document.
- **Chapter 2** describes what Derby is like in 2011, the transport network in and around the city, recent projects delivered and transport-related trends and statistics.
- **Chapter 3** describes the policy context and relationship between LTP3 and other documents the Council produces. It also describes the methodology we have used to develop the long term transport strategy.
- **Chapters 4 and 5** outline the Goals we are working towards, the problems facing Derby today, and Challenges we have set to help us meet these Goals. They explain how we developed and tested several alternative long term strategies, and how we identified the preferred long term transport strategy and key priorities.
- **Chapter 6** describes Derby's long term transport strategy, the potential environmental, health and economic impacts of the strategy, and how these will be mitigated in the future.

Part 2: Implementation plan

1.10 Part 2 contains the proposed two year implementation plan setting out our short term priorities and plans for the delivery of transport schemes. It sets out how we will prioritise funding to deliver schemes and initiatives that will help to achieve the aims of the long term transport strategy. It also includes a monitoring framework to ensure that we are on track to achieve the aims of the strategy.

- **Chapter 1** is the introduction to the implementation plan.
- **Chapter 2** outlines the development of the implementation plan.
- **Chapter 3** explains how transport schemes and projects are managed and delivered in Derby.
- **Chapter 4** presents our proposed implementation plan for the next 2 years.
- **Chapter 5** explains how we propose to monitor and report on delivery of LTP3.

- **Chapter 6** sets out the risks to delivery of transport schemes and how we propose to manage these.

Part 3: Appendices

- 1.11** Part 3 contains appendices, including a summary of consultation feedback, our detailed risk management plan and updates on other strategies linked to LTP3.

Supporting documents

- 1.12** Several documents accompany the Draft LTP3, including:

- technical annexes, for example the Derby Area Transport Model (DATM) Outputs, and the Strategic Environmental Assessment (SEA) Environmental Report and Environmental Statement
- background/evidence papers, such as research on Derby's transport Issues and Problems

- 1.13** The implementation plan is a summary of an indicative work programme. The annual work programme is approved by Council every financial year. It describes exactly which projects will receive funding, how much they will cost, and when they will be delivered. Details of the work programme are stored on Derby Council's Meeting Information System ([CMIS](#)), under the papers for the Council, usually held in March of any given year.

- 1.14** LTP3 will be supported by a number of operational plans and strategies that are planned or in production. We will be preparing and consulting on these documents separately to the LTP3 core documents. This approach will help us to review sections of LTP3 as needed, such as the rolling implementation plan, and make sure that other plans and strategies are consistent with the LTP3 strategy.

2 Context

2 Context

Derby in 2011

- 2.1** This section describes what Derby and its transport system is like today. For a fuller description of the city's historic development, economic, social and environmental characteristics, including neighbourhood overviews see the Local Development Framework Core Strategy pages on the Council's website at www.derby.gov.uk/planning.

Introduction to Derby

- 2.2** Derby is located in the middle of the country approximately 120 miles north of London, 45 miles north east of Birmingham and 13 miles west of Nottingham. Derby is a compact and diverse city.
- 2.3** The Office of National Statistics' population estimate for Derby was 244,100 in 2009 with around 106,000 homes. The diversity of Derby is increasing and it is estimated that there are 182 different nationalities represented in the city. Derby has a young population compared to the national average, but the proportion of older people in Derby is set to increase with the national trend. These changes will have many implications for housing, public services, employers, businesses and transport.
- 2.4** The city's neighbourhoods provide the local focus for communities. In general Derby is a safe place to live where crime is lower than in comparable cities. There is excellent access to open space and the countryside and housing is more affordable than elsewhere in the East Midlands.
- 2.5** The city's early growth was founded on the industrial revolution, which began in the 18th century and a railway heritage that can be traced back to the opening of the North Midland Railway between London and Leeds in 1840. Transport via the River Derwent, canal and rail supported and shaped Derby's early economic and physical growth. The importance of Derby and the Derwent Valley as the birth place of the factory system has led to the designation of the Derwent Valley Mills as a World Heritage Site. Many of Derby's landmark buildings are a reminder of the industrial legacy and provide a strong heritage backdrop, particularly in the city centre.
- 2.6** Derby's manufacturing economy is now one of the UKs strongest and the city is home to some of the country's leading advanced engineering companies including Rolls Royce, Bombardier, and Toyota just outside the city. The fastest recent growth has been in service industries, such as financial services, retail and software development, supported by the development of the University of Derby. Despite recent high rates of job creation, unemployment is slightly above national average levels and is much higher than the average in some areas of the city. The 19th century inner city area around Rosehill and Peartree lies to the south of the city centre and is characterised by higher unemployment and other types of deprivation. This area has benefited from regeneration over the last few decades, but there are still issues that need to be addressed.

- 2.7** The city provides the focus for services, retail, leisure, entertainment, education and employment for a wide area outside its boundaries and has close connections with communities in the adjoining districts of South Derbyshire, Amber Valley and Erewash. Derby is heavily influenced by its neighbours in terms of the demand for travel. Nottingham, Leicester and Burton-upon-Trent provide alternative employment, leisure and retail destinations for Derby residents. The interaction between Derby and the wider surrounding area is two-way with the 'inward' movement of people from surrounding conurbations and 'outward' movement of Derby residents to work, shop and access other services in the neighbouring towns and cities.

Transport and network links

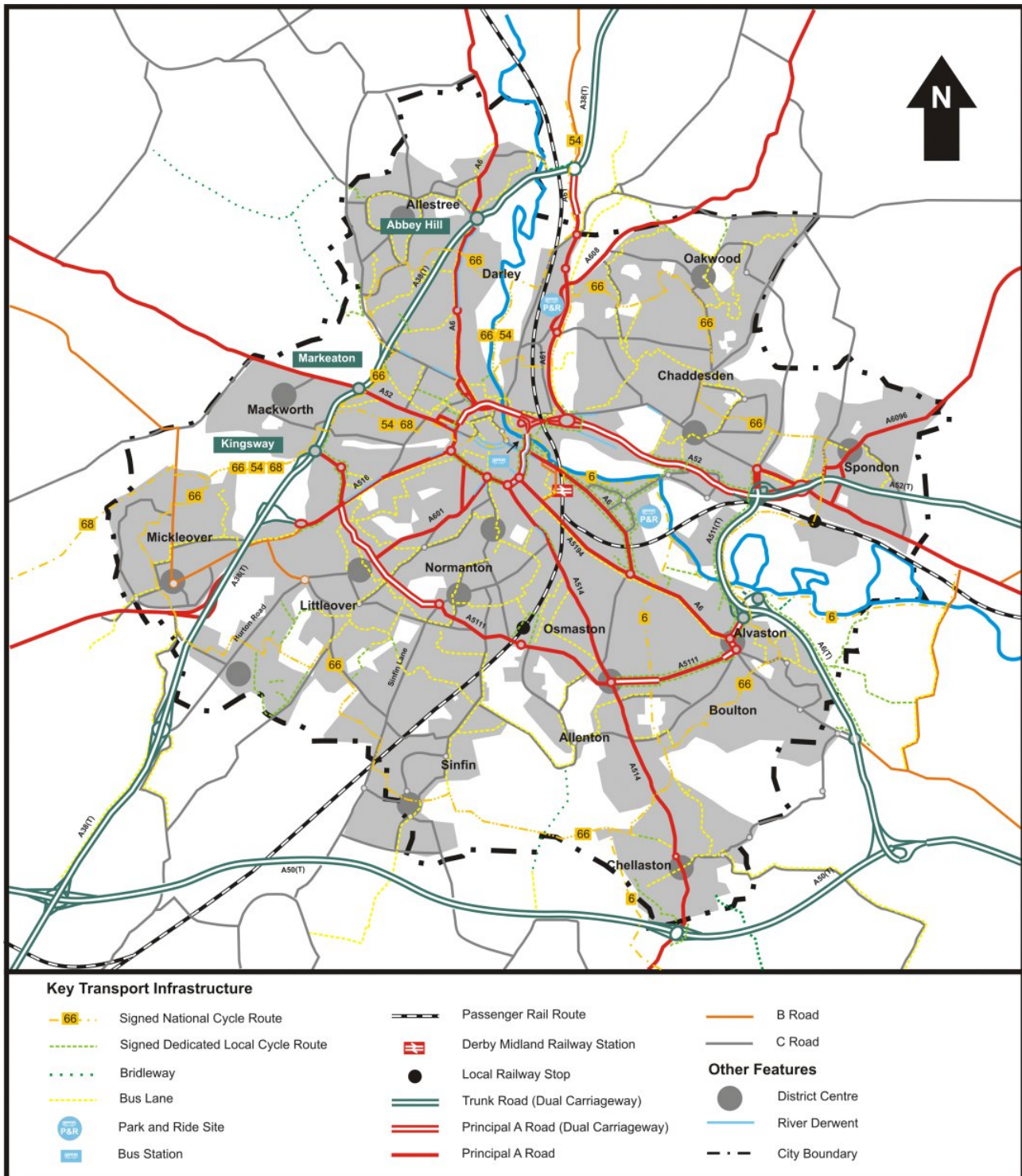
- 2.8** Derby's road network is typical transport network for a small historical city, and is a vital and precious asset on which most activities in and around the city depend. Figure 2.1 shows that it consists of a number of radial roads from the city centre which are connected by inner and outer ring roads. In many places it is a modern and efficient network, while in others it is in need of investment.
- 2.9** In a typical day Derby's transport network carries around:
- 660,000 car trips
 - 55,000 bus passenger trips
 - 110,000 people who travel to work
 - 2,548 bus services on a network of 33 routes
 - 38,000 children travelling to 103 schools
 - 18,000 heavy goods vehicle trips that carry goods to and from Derby.
- 2.10** The Derby highway network is extensive and includes approximately 750 km of roads, 1,600 km of footways and cycleways, hundreds of bridges and other structures, traffic and pedestrian signals, 31,000 street lighting columns and other electronic systems such as Closed Circuit TV equipment, and over 15,000 trees within the highway. These assets represent the result of many years and many millions of pounds worth of investment and their management is undertaken against a backdrop of increasing pressures. The Gross Replacement Cost of the assets is estimated to be in excess of £1.3 billion. As a result of age and use (wear and tear), elements of it are now in a "mature" state and components of the asset are now nearing the end of their expected service lives.
- 2.11** Derby has excellent connections to the rest of the country by road, rail and air as shown in Figure 2.2. The M1, ten miles to the east of Derby, carries national freight traffic and is a key north-south route through the country. The A38 is a regionally important strategic route from Birmingham and the West Midlands to Derby and the M1 at Junction 28. The A50 provides a nationally important east-west link between the M1 near Derby and Stoke and the M6. The A52 provides a regionally important link from Derby to Nottingham in the east.
- 2.12** Many major cities can be accessed from Derby by direct rail links, including London, Birmingham, Leeds, Bristol, Cardiff and Edinburgh. There are also direct local links to Nottingham, Leicester, Matlock, Lincoln and Sheffield. Derby station caters for domestic and freight traffic, and the city's excellent accessibility by rail helps support

2 Context

it's economy and attractiveness to businesses and real estate investors. St Pancras Station, London, re-opened in 2007, improving domestic services between Derby and London, and faster rail links to the continent.

- 2.13** East Midlands Airport is ten miles south east of Derby on the border of South Derbyshire just off Junction 24 of the M1. The airport is an important transport asset for the area providing direct links to over 80 international destinations. It is the eleventh largest passenger airport in the UK and the main UK airport for pure commercial freight, conveying 300,000 tonnes per year. As a result the airport provides employment for 7,000 people. Access to the airport for employment and travel is very important for Derby's economic growth. The airport's masterplan and surface access strategy are due for review in 2011 and Derby will work with the airport to take forward any plans that potentially impact the city or its residents.

Figure 2.1 Derby's transport network



Key:

- Trunk Road
- Primary Route
- Principal A Road
- Rail Network
- East Midlands Airport
- County Boundary
- Amber Valley
- South Derbyshire
- Erewash
- Travel to Work Area

The map shows the Derby Travel to Work Area, which includes parts of Derby, Amber Valley, South Derbyshire, and Erewash. Major roads like the M1, M2, and A6 are shown, along with the rail network and the East Midlands Airport. A scale bar indicates distances up to 10 km, and a north arrow is present.

Achievements over LTP2 period

2.14 Derby has benefited greatly from new infrastructure during a decade of substantial transport investment. We have worked closely with public and private partners to continue development of an integrated transport network that promotes safety and sustainability and contributes to creating a better quality of life for people living, working or visiting the Derby area.

2.15 The generation of wealth in the city and for the nation is sustained by: access by all modes to city centre developments, keeping key freight routes open and providing access to employment. Key achievements for Derby over the period of LTP2 include:

- a number of significant developments that have improved the vitality of the city creating new retail, education, leisure and cultural opportunities. These include, the Joseph Wright Centre (2005), Friar Gate Studios (2006), Westfield Centre (2007), the QUAD (2008), and Derby College Roundhouse (2009)
- delivery of Connecting Derby, a £36 million scheme to improve transport links in and around the city centre for people who live, work or visit the city
- the target for increasing bus passenger numbers by 8.9% in 2010/11 to 17.3 million per year has been exceeded. The total number of bus passengers in 2009/10 was 17.85 million, an increase of 12%. This has been achieved in partnership with trent barton and Arriva
- a brand new bus station has been built in partnership with the developers of the Riverlights scheme
- delivery of the Inner Ring Road Integrated Maintenance Scheme (IRRIMS), a £13.2 million programme of improvements and maintenance to bridge and structural elements along the inner ring road. The scheme also improved drainage systems, traffic signing and pedestrian facilities to improve reliability and safety, and reduce the potential for future incidents as a result of flooding
- as a part of IRRIMS, the replacement of St Alkmund's Bridge with a new £1.6 million bridge for pedestrians and cyclists, with built in public art, creating a new gateway to the city centre
- in partnership with Derbyshire County Council, Derby has delivered the English National Concessionary Travel Scheme (ENCTS) to the city. Locally called the Gold Card, this had enabled Derby people over the age of 60 and certain groups of disabled people to travel free, off-peak, on local buses throughout the whole of England
- successful delivery of safety schemes including initiatives through the Derby and Derbyshire Road Safety Partnership contributing to a huge reduction in numbers of children killed or seriously injured over the last 10 years

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- Derby was one of the first six Cycle Demonstration Towns in England, receiving £2.5 million in funding. As a consequence of this and other funding, cycling in Derby seems to be bucking the declining national trend with a mode share of 15% compared to the national average of 13%
- £14.5 million has been invested on public realm improvements to transform the city centre and enhance the city's identity with the best possible public spaces and local transport improvements. This has included schemes such as Cathedral Green, East Street, Morledge, Friar Gate and Wardwick
- in 2008 Derby was selected as one of the 24 stations in a national pilot programme of Rail Station Travel Plans. The national launch was hosted in Derby and was attended by the Secretary of State for Transport.

2.16 Through delivery of the schemes and initiatives implemented during LTP2, we have achieved:

- a **reduction** in inbound traffic flows in the peak period
- **no increase** in number of children travelling to school by car
- a **reduction** in volume of traffic annually
- an **increase** in bus patronage
- an **increase** in cycling
- **reduced** levels of Nitrogen dioxide, Particulate Matter and Carbon dioxide
- **improved** bus reliability
- **improved** accessibility for children with free school meals to primary school.

Future challenges for transport

2.17 Transport is often taken for granted but is fundamental to people's lives. It provides the means to access a wide range of activities, giving people choice, flexibility and opportunities to reach their places of work, education, health-care and other services. If we do not continue to invest in our transport network then we will face major consequences where people are restricted by poor travel opportunities. More specifically:

- our roads and associated infrastructure will deteriorate below the existing current state, they will be less resilient to affects of climate change and some will potentially become unfit for use
- our roads will become more congested, with longer and less reliable travel times for general traffic and public transport
- carbon emissions from transport will continue to rise, contributing to climate change
- people will have fewer travel choices reducing their ability to access employment and essential services
- walking and cycling will decline contributing to greater health inequalities and lowered life expectancy
- more people will be affected by transport related poor air quality
- people's safety and security will be reduced
- people's overall quality of life will decline.

2.18 Major improvements to the transport network have been delivered over the period of LTP2, however there are still some significant challenges that need to be overcome in order to maintain the vitality of Derby and accommodate growth associated with new housing and employment developments. This needs to be achieved against reduced levels of funding from central government and the very great challenges of carbon reduction and climate change.

National and regional transport schemes

2.19 Investment in transport has a positive impact on the economy. Large infrastructure schemes of national and regional importance can have wide economic benefits by influencing the location and pattern of economic activity, and reducing regional disparities. It is likely that the amount of funding available for regional and national transport schemes will be reduced in the future.

2.20 Following the publication of the High Speed Two report in September 2010, the Government has asked that HS2 Ltd. take forward further development of its recommendations for a new line between London and the West Midlands, so that a

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full public consultation can be held. In October 2010 the government announced its preferred option for further routes, from the West Midlands to Manchester, and to Leeds via the East Midlands and South Yorkshire.

- 2.21** Network Rail have prepared a business case to electrify the Midland Main Line (MML) replacing the diesel trains which currently run on the line from London St Pancras to Derby, Nottingham and Sheffield.
- 2.22** Major rail improvements would be of a wider economic benefit to Derby, but both these schemes are long term aspirations likely to stretch beyond the period covered by LTP3.
- 2.23** The A38 is an important regional route that provides a strategic link between Derby and other major towns and cities. It is important that proposals for a scheme to grade separate junctions along the A38 at Abbey Hill, Markeaton and Kingsway are implemented in the future. The A38 Derby Junctions scheme would separate local and long distance traffic reducing delays and congestion allowing us to better manage our local network and improve linkages across the A38 for public transport, pedestrians and cyclists. If the scheme cannot be funded and delivered it is likely that any future development to the west of the city will be severely restricted.

Key issues for the future

- 2.24** Derby has changed significantly over recent years and has seen significant growth in housing, employment, retail and other land use activities For example:
 - housing has been constructed at an average rate of around 700 dwellings per year since 2006. Land for about 4,200 dwellings is available for development in the short term
 - a review of employment land in the Derby Housing Market Area (HMA) was published in 2008. This concluded that, based on past take-up rates, 145 hectares of land would be needed to meet the employment needs of Derby over the 2006-2026 period. A number of major planning permissions have been granted for new office development in the city centre including Cathedral Plaza, Bold Lane and One Derby
 - the Royal Derby Hospital was completed in 2010 and is one of the largest hospitals in the country serving a population of more than 600,000 people from a new site west of the city centre. The hospital trust has consolidated most of the services that it provides to the Royal Derby reducing its operations at the London Road Community Hospital site, which is now planned for redevelopment
 - the Riverlights site in the city centre is being constructed and when fully completed will provide leisure, retail and office floor space as well as the new bus station that opened in 2010.
- 2.25** It is likely there will continue to be substantial pressure for new development over the life of LTP3.

- 2.26** New development and growth create the demand for travel and new trips. A large proportion of these new trips are by car and add to problems of congestion on Derby's road networks. For example, the 2001 Census Journey to Work data recorded that 61% of people travelling to work in Derby commute by private car, the majority of which travel less than 5 kilometres.
- 2.27** It is anticipated that the long term trend will be for traffic levels to grow in the future, not just because of land use and population growth, but also the increased demand and the relative costs of owning and running a car. The likely outcome will be an increase in car journeys and travel distance which will add to the associated environmental, health and other social impacts of congestion.
- 2.28** Key trends that will have a significant impact on transport in Derby in the next 15 years include:
- an increase in population of 46,000 or 19.5% to 2030 based on the Office of National Statistics 2006 based estimates
 - our land use and transport model predicts an increase in employment in the city of 22% to 2026. This is based on local growth forecasts taken from national statistics and forecast changes in land use development
 - our land use and transport model predicts that the number of vehicle kilometres travelled on our road network on an average day will increase by 58% from 2.9 million to around 4.6 million by 2026. The most significant growth will occur in the period between the morning and evening commuter peaks.
 - our land use and transport model predicts a 5% increase in car ownership for households with 1 car and 70% increase in households owning more than one car from a 2006 baseline to 2026
 - Derby has a younger than average population with 48% of the population under 35. However, the number of older people in the city is expected to grow significantly. According to the Office of National Statistics currently 18.2% or 43,000 of Derby's population is over the retirement age.

3 Background to strategy development process

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Influences on LTP3

- 3.1** Developing LTP3 has been a complex process, influenced by national government guidance and statutory duties. The guidance on LTPs published by DfT in July 2009 provided advice to Local Transport Authorities on the statutory requirements for LTPs and the links LTP3 will have with other plans and policies. It describes the requirements for consultation, and recommends a process for developing an LTP. Derby as a Transport Authority is required to have an LTP in place.
- 3.2** This chapter describes:
- statutory requirements for the production of LTP3
 - international and national influences on transport policy
 - the alignment of LTP3 with wider statutory duties, plans and policies
 - the relationship between Derby's LTP3 and other plans and policies in Derbyshire and the Midlands
 - the process adopted for developing the proposed strategy and implementation plan.

LTP statutory requirements

- 3.3** Strategic Environmental Assessment (SEA) is a requirement of the European Union Directive 2001/42/EC on the assessment of plans, programmes and projects likely to have significant effects on the environment.
- 3.4** SEA has helped us to shape Derby's proposed long term transport strategy and make sure that LTP3 considers measures that promote and support environmentally sustainable development. We have taken into account a range of environmental protection issues including air quality, biodiversity, flora, fauna and soil, climatic factors, cultural heritage, landscape, townscape, population and human health, material assets and the water environment. The Environmental Report accompanying this document provides recommendations for the strategy and plans most preferable for the environment. Publication of LTP3 will be followed by an Environmental Statement on how environmental considerations have been integrated into the Plan, and the reasons for choosing the Plan outlined in LTP3. The Statement will include the arrangements agreed for monitoring the significant environmental effects of the implementation of the Plan.
- 3.5** Under the Habitats Directive 92/43/EEC we have considered whether LTP3 is likely to have a significant effect on sites designated at a European level for environmental significance. There are no sites of international designation in Derby's vicinity, but we have considered the impact of transport schemes on such sites in the Environmental Report.
- 3.6** Consideration of 'Human Health' is a legal requirement in an SEA and a Health Impact Assessment (HIA) is an integral part of the SEA on LTP3. The HIA ensures that, as well as considering the impact of LTP3 plans on the environment, the impact on people's health and wellbeing across the city is considered.

Background to strategy development process 3

- 3.7** The Equalities Act 2010 provides a new cross-cutting legislative framework to protect the rights of individuals and advance equality of opportunity for all; the Act updates, simplifies and strengthens the previous legislation. We carried out an Equality Impact Assessment (EqIA) as an integral part of our LTP, which is available with LTP3.

National and international influences

- 3.8** The global economic recession of 2008-2009 has influenced the economic climate in which LTP3 is being prepared. Following the election of a new UK government in May 2010 there have been changes to political and financial structures in the country.
- 3.9** The Eddington Transport Study, 2006, identified that a well performing transport network is vital to sustaining economic productivity and competitiveness, and warned that congestion causes serious problems not just for the individual traveller but also for business productivity and economic growth. Eddington recommended that the key challenge is to improve the performance of existing networks, with targeted new infrastructure and extra capacity only to be considered where there is a need to meet growing demand and where there would be a high rate of return for each pound invested.
- 3.10** The Stern Review, 2006, highlighted the significant economic price associated with climate change and stressed the importance of strong, early action. The National Atmospheric Emissions Inventory suggests that between 1990 and 2009 greenhouse gas emissions from domestic transport increased by 12% to represent 21% of total UK domestic emissions. Of this, domestic road transport is the biggest contributor at around 92%.
- 3.11** A European level target has been set to reduce greenhouse gases across the EU by 20% below 1990 levels by 2020. The Climate Change Act (2008) requires greenhouse gas emissions across the UK to be reduced by at least 80% on 1990 levels by 2050 and 34% on 1990 levels by 2020. The transport sector was responsible for 26% of UK, and 24% of Derby's CO₂ emissions in 2008. CO₂ emissions have declined across all sectors in the period 2005 - 2008, by 4% nationally, and 5% in Derby.
- 3.12** Action to move towards a low carbon transport system is a key component in meeting our obligations. DfT has encouraged the development of strategies and implementation plans that take significant steps towards mitigating climate change, by encouraging the development of sustainable transport systems, facilitating behaviour change and reducing the need to travel.
- 3.13** A policy review was carried out when writing LTP3 and the SEA. This included looking at a number of relevant papers setting out the national approach to transport planning. These are detailed in the Environmental Report. A considerable amount of information has been made available in relation to climate change and the environment, which have had a significant influence on the development of LTP3.

3 Background to strategy development process

National Policy

- 3.14** Following the advice provided by Eddington and Stern, the national transport policy direction takes full account of transport's wider impact on climate change, health, quality of life and the natural environment. Five key national transport goals underpin the objectives of LTP3, to:
- **support** national **economic** competitiveness and **growth**, by delivering reliable and efficient transport networks
 - reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of **tackling climate change**
 - **contribute to better safety, security and health** and longer life expectancy by reducing the risk of death, injury or illness arising from transport, and by promoting travel modes that are beneficial to health
 - promote greater **equality of opportunity** for all citizens, with the desired outcome of achieving a fairer society
 - improve **quality of life** for transport users and non-transport users, and to promote a **healthy natural environment**.
- 3.15** These national goals were added to in November 2010 by the Department for Transport business plan, which aims to:
- support sustainable local travel and economic growth by making public transport, cycling and walking more attractive and effective, promoting lower carbon transport and tackling local road congestion
 - tackle carbon and congestion on our roads
 - support the early market for electric and other ultra-low emission vehicles, and
 - promote the more effective use of strategic roads by addressing the causes of congestion, and continuing to improve road safety.
- 3.16** National steer from the coalition government emphasises the importance of economic growth and the impact of climate change. We are ensuring that LTP3 supports all the national goals, in particular the goals to support economic growth and competitiveness and tackle climate change.
- 3.17** The government published the Local Transport White Paper in January 2011. The white paper describes policies and funding arrangements for transport in the UK from 2011. The government wants to apply its principles of localism, the Big Society, and encouraging changes in behaviour towards more sustainable travel choices. The paper outlines reductions to the number of grant funding schemes to leave just four funds: The Major schemes programme, Highways maintenance block, integrated transport block and Local Sustainable Transport Fund. Derby's allocation of these funding streams is explained in the Implementation Plan.
- 3.18** Local neighbourhoods and communities are expected to have a greater role in informing future policy and development across the UK. Derby remains committed to understanding local priorities and using these to influence policy formulation, and to including neighbourhood priorities in the programme for transport schemes in the future.

Background to strategy development process 3

- 3.19** Section 5 describes how we have engaged local communities and neighbourhoods in the development of the Plan. More detail on the inclusion of local priorities is described in the implementation plan.

Alignment with other plans and policies

Sustainable Communities Strategy and Council Plan

- 3.20** The Local Government Act 2000 requires the Council to prepare a Sustainable Communities Strategy (SCS) for promoting or improving the wellbeing of its area. Derby has prepared a new SCS, 'The Derby Plan', to cover the vision and delivery plans for the city between now and 2026. The Plan will be delivered through Derby City Partnership; an alliance of organisations from the public, private, voluntary and community sectors.
- 3.21** The Derby Plan aims to improve the quality of life for everyone in Derby both now and for future generations. The Plan sets six aims for the city; that all people in Derby will enjoy:
- Thriving sustainable economy
 - Achieving their learning potential
 - Good health and well being
 - Being safe and feeling safe
 - A strong community, and
 - An active cultural life.
- 3.22** A number of outcomes are identified which are thought to be key to delivering these aims, including 'Less carbon emissions from industry and transport'. Reducing carbon emissions is therefore a key part of Derby's vision for the future. LTP3 supports The Derby Plan by demonstrating our approach to reducing carbon emissions and supporting economic growth in the city up to 2026.
- 3.23** The Council Plan outlines the Council's objectives to support the ambitions of The Derby Plan, and can be found on [Derby's web page](#).

The Local Development Framework and Core Strategy

- 3.24** The Local Development Framework (LDF) is a set of spatial planning documents that relate to different subject areas or different parts of the city and will include Development Plan Documents and Supplementary Planning Documents. Saved policies of the City of Derby Local Plan and various Supplementary Planning Documents are key parts of Derby's current LDF.
- 3.25** The Council is working to prepare a Core Strategy, which will be the most important part of its LDF. This will:
- establish our vision, objectives and proposals for what sort of place we want Derby to be

3 Background to strategy development process

- set out the main locations for new development and how these will be delivered
- set out a monitoring framework so that we can see how well we are delivering our strategy.

3.26 The Core Strategy, like LTP3, will be aligned to the SCS. It will provide the overarching spatial vision and guide key developments that will take place in the city to 2026. An Infrastructure Delivery Plan will be developed to support the Core Strategy and regularly updated. It will include details of the infrastructure needed, including transport schemes, to support the delivery of the Core Strategy.

3.27 Supplementary Planning Documents add more detail to policies set out in Development Plan Documents. They can include design guidance, our approach to planning obligations and securing contributions from developers or the preparation of master plans for an area.

3.28 Between January and May 2010, the three Derby Housing Market Area (HMA) Councils, Derby City Council, Amber Valley District Council and South Derbyshire District Council, consulted on their Core Strategy Options. The housing site options presented were based on the policies of the East Midlands Regional Plan. The government is progressing legislation to revoke regional plans. This will mean that it will soon become the responsibility of the local councils to decide the amount of growth required and the strategy for delivering it. The HMA Councils have decided to consult further with local communities about the future of their areas and are working towards publishing draft Core Strategies early in 2012. It will be important to ensure that the emerging Core Strategies and LTP3 are consistent and mutually supportive.

Network Management Duty

3.29 Under the Traffic Management Act 2004, we have a statutory duty to manage the road network to 'secure the expeditious movement of traffic on the road network'. The LTP3 strategy and implementation plan details how we plan to fulfil these duties by avoiding, reducing or minimising congestion or disruption. Our approach to meeting the Network Management Duty is integral to LTP3.

Highways Asset Management Plan

3.30 As Highway Authority, Derby City Council (DCC) has a duty under Section 41 of the Highways Act 1980 to maintain the highway. If the highway were not to be maintained safe for use and fit for purpose, DCC, as Highway Authority would be vulnerable to litigation and compensation claims. LTP3 explains how DCC is developing the systems to ensure that maintenance practices are followed which will deliver acceptable levels of service for highway users.

3.31 The transport asset is the most valuable asset owned by the Council. A transport network that is safe, serviceable and sustainable is vital to the economic wellbeing of the city. The road network that the city manages has evolved over many years and represents the result of many years and many millions of pounds worth of investment. The gross replacement cost of the highway network assets is estimated to be in excess of £1.3 billion.

Background to strategy development process 3

- 3.32** To deliver good value for money in managing our transport assets and to help deliver efficiency gains and service improvements in maintaining and improving them, we are preparing a Highways Asset Management Plan (HAMP) that will enable us to make best use of resources for the management, operation, preservation and enhancement of our transport assets. As this develops and becomes more robust it will develop into a wider Transport Asset Management Plan (TAMP). Managing our assets in a cost effective and efficient manner is an essential prerequisite of the delivery of a modern and appropriate transport service. The financial processes being undertaken as part of the HAMP development will enable us to develop more cost effective highway maintenance and replacement programmes, and the long term financial planning will deliver efficiency savings and service improvements. In developing the HAMP we have identified a significant funding gap between the amount required to keep the network to a 'steady state', that is, with no deterioration from the current standard, and the amount we currently receive to invest in maintenance. These findings are reflected in our forecasts for increased expenditure on highway maintenance over the coming Plan period.
- 3.33** The HAMP, and future TAMP, will be integrated with our LTP3 strategy and implementation plan. More information on investment in maintenance and other areas of transport is given in Part 2, the implementation plan.

Air Quality Action Plan

- 3.34** The Council has a statutory duty to review and assess local air quality under the UK Air Quality Strategy. Where national air quality standards are expected to be breached there is a requirement to designate an Air Quality Management Area (AQMA) and develop an Air Quality Action Plan (AQAP) that includes measures to improve air quality.
- 3.35** Derby has two AQMAs resulting mainly from transport emissions of nitrogen dioxide (NO₂). In 2006 the extent of the AQMAs was revised linking them together and extending them in some places. Derby's AQAP contains a list of identified measures to address air quality. It is important that LTP3 is effectively coordinated with air quality, climate change and public health priorities – measures to achieve these goals are often complementary. The plan is regularly reviewed to ensure it addresses the air quality issues across the AQMAs and air quality reports are presented to the Department for Environment, Food and Rural Affairs (Defra) on an annual basis

Rights of Way Improvement Plan

- 3.36** The Countryside and Rights of Way Act 2000 introduced a statutory duty for all local highway authorities to prepare a Rights of Way Improvement Plan (RoWIP). Our current RoWIP was approved in November 2007 and provides a plan until 2012 that considers:
- the extent to which local rights of way meet the present and likely future needs of the public

3 Background to strategy development process

- the opportunities provided by local rights of way (and in particular by footpaths, cycle tracks, bridleways and restricted byways) for exercise and other forms of open-air recreation and the enjoyment of their area
- the accessibility of local rights of way to blind or partially sighted persons and others with mobility problems.

3.37 An update on the progress made on the RoWIP since 2007 is included at Appendix D. The detailed RoWIP is a supporting document of LTP3. Relevant actions from the RoWIP will be incorporated within the implementation plan.

Noise Action Plans

3.38 Defra have prepared a first round of draft Noise Action Plans, which have been prepared under European Directive 2002/49/EC, the Environmental Noise Directive which became UK law under the Environmental Noise (England) Regulations 2006 and the Environmental Noise (England) (Amendment) Regulations 2008. The Action Plans focus on the effects of noise arising from road, railway, aviation and industrial sources, on individuals. Once a Plan for Derby is adopted, we are advised to consider the content of these plans and, where appropriate, integrate them with LTP3 to ensure a coordinated and systematic approach to the management of transport noise.

3.39 Defra have mapped all major roads and railways in England. Modelling has identified locations in Derby on the A38 and A52 where noise exceeds acceptable standards set by European legislation. The Highway Authority for roads generating unacceptable noise levels is responsible for mitigating the effects of the noise. Derby City Council is responsible for the A52 and the Highways Agency is responsible for the A38.

3.40 Defra's current programme suggests that an Action Plan for Derby is due to be drafted in 2012. The Action Plan will identify important areas where the relevant authorities must consider what further measures, if any, might be implemented in order to improve the management of noise. The Action Plans also describe the process that will enable local authorities to seek the formal identification and management of an open space as a Quiet Area.

3.41 LTP3 will take account of any actions identified to address transport related noise in line with the regulations as and when they become available.

Bus Information Duty

3.42 Under the Transport Act 2000 we have a duty to work with bus operators to determine what local bus information should be made available to the public, and the way in which it should be made available. Derby has a Bus Information Strategy in place and an update on the progress made since 2006 is presented in Appendix C.

Economic Strategy

3.43 Derby City Council published its *Local Economic Assessment* (LEA) in January 2011. The LEA provides the primary evidence base for the Economic Strategy. The assessment informs a range of council strategies, including LTP3, and should lead to improved economic interventions, including better spatial prioritisation of investment, by the Council and its partners.

Background to strategy development process 3

- 3.44** Derby's Economic Strategy will emerge through the newly created Derby Renaissance Board, and will aim to create a culture where enterprise thrives; align the skills of workforce to business needs, and maximise the quality of life in Derby. The strategy recognises the significant influence that transport infrastructure and provision has on economic prosperity.

Sustainable Modes of Travel Strategy

- 3.45** To meet duties in the Education and Inspections Act 2006, we have developed a Sustainable Modes of Travel Strategy called the Derby Strategy for Sustainable School Travel (SSST) to assess the travel and transport needs of all children and young people in Derby. We are required to maximise the potential to promote and utilise sustainable modes of travel, and plan infrastructure to meet the needs of all pupils.
- 3.46** The SSST, published on the Council's website, is a statement of the Council's overall vision, objectives and action plan for improving accessibility to schools and promoting more sustainable modes of travel. The intention is that the SSST is a central source of information that relates to all aspects of travel to schools for parents and stakeholders. The SSST forms an important part of the admissions to school process as parents consider the travel options available for their children when they express a preference for particular schools.

Accessibility Strategy

- 3.47** Our Accessibility Strategy is being reviewed and updated as part of LTP3 further development. It is a key supplementary document of LTP3 and will be produced to support the strategy in LTP3.

City Regeneration Framework

- 3.48** The City Regeneration Framework will be a combination of the Cityscape Masterplan, Public Art Strategy and Public Realm Strategy.
- 3.49** Well designed civic spaces can offer economic, social, cultural and environmental benefits. A well designed public realm and good connections to and through the city centre will help strengthen investor confidence in Derby in a competing market. The city centre Public Realm Strategy (PRS) was adopted by the Council in March 2007. The main objective of the PRS is to create a consistent and distinct high quality public realm within the city centre to improve the quality of life for residents and visitors. It provides a co-ordinated vision for all streets and public spaces within the city centre in accordance with the City Centre Masterplan.

Cross-boundary partnerships plans and policies

Regional guidance

- 3.50** The East Midlands Regional Plan contains the Regional Transport Plan and targets for housing growth in and around Derby. The government is progressing legislation to revoke regional plans and place the responsibility for housing growth targets on local authorities. Despite the proposal to revoke the plan, relevant data, research and evidence underpinning it has been used to assist in the development of LTP3.

3 Background to strategy development process

3.51 An example of this is the ‘Three Cities – Agglomeration and Accessibility Study’ commissioned by East Midlands Development Agency in 2010 which identified economic relationships between the three cities: Derby, Nottingham and Leicester. All the cities are growing areas where transport policies should aim to maximise inter and intra-urban economic productivity and limit the carbon impacts of additional journeys associated with housing growth. The study aims to help in the prioritisation of transport options to deliver planned population, housing and economic growth in a way that reduces carbon emissions and congestion. The findings of this study form a part of the evidence base for LTP3. Key highlights of the findings applicable to the short term are:

- rail infrastructure and operational improvements are important to support travel both within and outside the sub-region
- highway infrastructure schemes are most effective as a facilitating part of a package of measures that specifically encourage public transport, walking and cycling
- measures to facilitate and encourage walking and cycling are very important in urban areas
- smarter choices have a key role to play but their effectiveness is linked to the intensity of implementation in a given area. Smarter choices initiatives must be supported by adequate funding and commitment to realise the full benefits
- managing demand through a common parking strategy and the reduction of single occupancy vehicles may be effective in the short term.

3.52 The combined effect of the most promising options is the subject of further consideration across the three cities.

Derby Housing Market Area

3.53 Derby City Council, Derbyshire County Council and the district councils of South Derbyshire and Amber Valley are working in partnership across the Derby Housing Market Area (HMA) in order to better integrate spatial planning. Whilst the area is separated by administrative boundaries, they are closely linked in terms of economic activity and share a transport network that is used for local, strategic regional and national journeys across administrative boundaries.

3.54 The Derby HMA will be covered by separate Core Strategies and LTPs, but the Councils are working closely together to develop coordinated and aligned spatial planning and transport strategies.

3.55 We will also be working with Derbyshire County Council and our partners in health, education and those responsible for economic growth to make sure the strategy for Derby is appropriate, and the programme is delivered in a timely manner.

Background to strategy development process 3

Local Enterprise Partnership

- 3.56** Local Enterprise Partnerships (LEPs) are private sector led partnerships, supported by local authorities, with the remit to steer economic prosperity in their area. Proposals for a LEP covering Derby, Derbyshire, Nottingham and Nottinghamshire were accepted by the Department for Communities and Local Government in October 2010. This LEP is known as "D₂N₂".
- 3.57** D₂N₂ is expected to have an influential role in pan-LEP decisions, including involvement with bodies such as the Highways Agency and Environment Agency. The proposal that was endorsed by the Government in Oct 2010 agreed to focus on:
- enterprise, innovation and sector support
 - inward investment and trade
 - promotion and tourism
 - employment and skills
 - infrastructure and planning, including housing
- 3.58** Transport has been identified as an important theme within Infrastructure and Planning. The LEP Board will set the strategic business context for planning, transportation and other major infrastructure provision, although the responsibility for delivery of strategic infrastructure and site development remains with county, city and district councils.

Local Transport Plan Steering Group

- 3.59** The Local Transport Plan Steering Group (LTPSG) was established at the end of 1998 with the broad remit of managing the development of strategies, programmes and reports for the provisional LTP1. The group has developed to become the transport sub-group of Derby City Partnership (DCP), the city's Local Strategic Partnership. The group aims to steer the development and implementation of the long term transport strategy. Its role includes:
- working in partnership to deliver LTP3 and associated implementation plan
 - developing and progressing strategies for inclusion in policy documents
 - guiding the development and preparation of policy documents and progress reports submitted to central government
 - guiding the development of the annual highways and transport programme, in terms of priorities for spend
 - supporting the work of sub-groups
 - participating in the consultation, publicity and delivery of schemes and initiatives
 - sharing best practise with members on organisational activities that can assist in the implementation of the long term transport strategy
 - lobbying local and national bodies, about transport developments in the area around Derby, that relate to the core elements of the long term transport strategy.
- 3.60** The membership ensures an appropriate and fair representation from the public, private and voluntary sectors, alongside representatives from all neighbouring councils. Appendix A includes a list of LTPSG members and all other consultees.

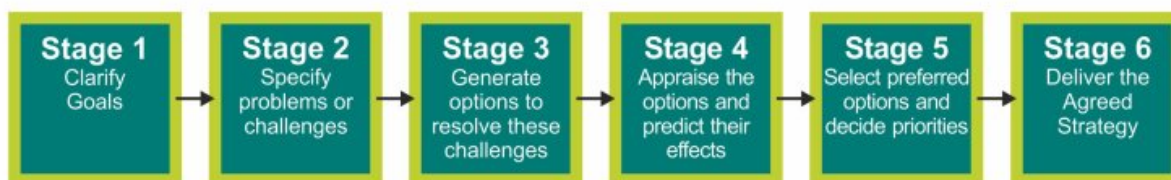
3 Background to strategy development process

Developing the Strategy

The process of developing the strategy

- 3.61** The aim of the strategy development process is to appraise options to improve or solve the identified transport problems in Derby. The outcome of the process is the proposed long term transport strategy to 2026, which focuses on policies and major initiatives that affect significant parts of Derby, rather than on detailed interventions. Derby's proposed long term transport strategy is described in Chapter 6.
- 3.62** The long term transport strategy defines the general direction of Derby's transport priorities to meet government's policy objectives and the local challenges identified for Derby's LTP3 area. It has informed the implementation plan which identifies the delivery of transport schemes and initiatives over the first two year period of the strategy to 2012/2013. Consideration of detailed schemes over a longer period becomes less meaningful because there is less certainty over funding to deliver them. Neither the long term transport strategy nor the implementation plan are fixed and they will be reviewed as policies and challenges change.
- 3.63** In order to develop an effective strategy and decide priorities for implementation, we have followed the process advised by the DfT as shown in Figure 3.1.

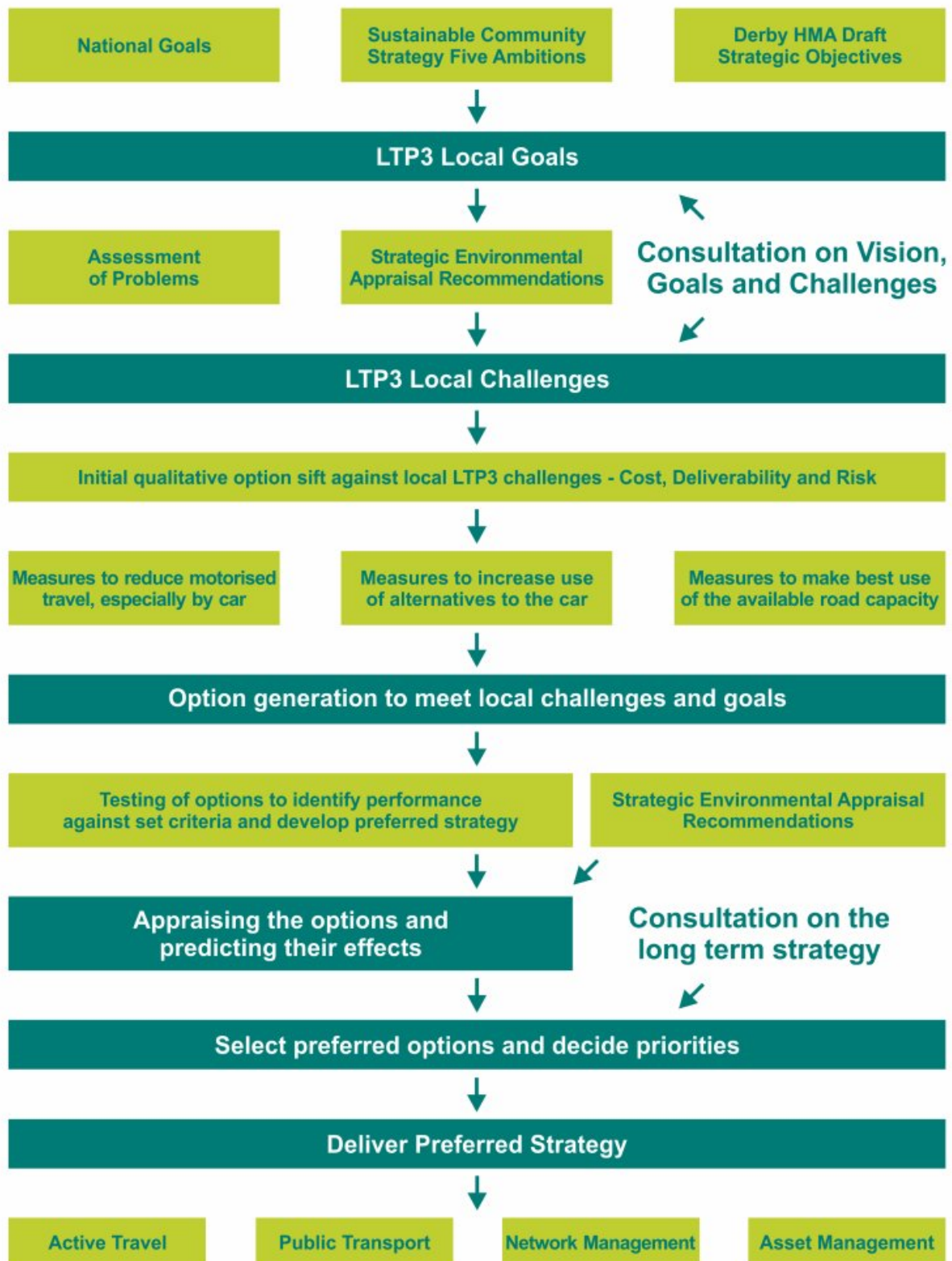
Figure 3.1 The stages of developing the proposed transport strategy



- 3.64** Stages 1 to 5 are detailed in Chapters 4 and 5. Chapter 6 of this document summarises Derby's proposed long term transport strategy. Stage 6, delivering the agreed strategy, is described in Part 2, the proposed implementation plan. The implementation plan outlines the arrangements for funding, delivery and monitoring of the transport measures that are implemented over the next two years.
- 3.65** Figure 3.2 provides a summary of the Derby LTP3 strategy development process including the consultation and other influences on the different stages outlined in Figure 3.1.

Background to strategy development process 3

Figure 3.2 LTP3 development process



3 Background to strategy development process

- 3.66** The development of Derby's long term transport strategy for LTP3 has taken into account:
- feedback from public and stakeholder consultation
 - analysis of problems and opportunities facing Derby now and in the future
 - examination of the output from the preparation of the Highway Asset Management Plan
 - the requirements defined within the Network Management Plan
 - the results obtained from testing within the Derby Area Transport Model
 - the findings of the SEA process, which was developed in parallel to the development of LTP3.
- 3.67** The focus of the long term transport strategy is on policies and major initiatives which could affect significant areas of Derby, rather than detailed measures. Five LTP3 goals and nine challenges were developed following detailed consultation with the LTP Steering Group, other key stakeholder organisations and the public. These goals and challenges have been used to assist with the development of Derby's long term transport strategy for LTP3. Throughout the strategy development process, we have consulted with the public, LTP Steering Group and councillors, who have all had the opportunity to comment upon and influence LTP3.
- 3.68** Both the Highway Asset Management Plan and the Network Management Plans are standalone documents that give details of the needs of the existing highway network in terms of maintenance and management. The Highway Asset Management Plan comprises detailed analysis of all the components of the highway network and provides a critical analysis of current condition with forecasts in terms of short and long term deterioration that can be expected as the elements become older. The current outputs are in the form of financial forecasts, in terms of financial need, that take into account deterioration, levels of service and risks associated with providing different maintenance levels for particular elements of the network.
- 3.69** The Derby Area Transport Model (DATM) is a sophisticated transport model that has been used throughout the production of both LTP2 and the Draft LTP3. DATM consists of several computer software components linked together. Appendix E provides a summary of the model outputs from the development of LTP3. DATM is a multi-modal variable demand transport model, it can model several different types of transport mode and assess how they interact with each other. Unlike many traditional fixed matrix transport models, DATM can model changes in trip demand as a result of spatial destination, time of day, journey purpose and mode of travel. DATM can provide evidence to understand the causes of transport problems now and help predict the situation in the future.
- 3.70** As part of the analysis of the long term transport strategy for LTP3, DATM has been updated to provide 2006 base year, and 2016 and 2026 forecast reference cases to test transport options against. The base year model and the future scenarios are based on the same model that has been developed for the Core Strategy.
- 3.71** We identified a short-list of transport measures which could be tested in DATM. These measures were all tested individually to determine which performed best at addressing the goals and challenges that we have identified.

Background to strategy development process 3

- 3.72** We undertook further work to determine a new set of strategic themes for LTP3. This work helped to identify the relative priority of each of the themes. The best performing measures, as identified by DATM, SEA and other assessments, were grouped under the LTP3 themes in several different 'packages' of options. Consultation and assessment of these alternatives was used as the basis of forming Derby's proposed long term transport strategy.
- 3.73** Chapters 4, 5 and 6 provide a more detailed description of the development of the proposed long term transport strategy including a description of the strategy testing and appraisal work that was undertaken to determine the draft preferred strategy.
- 3.74** Having determined the draft preferred strategy two strategy scenarios were tested based upon different assumptions on the availability of funding over the strategy period. The results of the combined strategy tests determined the framework for the long term strategy for LTP3 and beyond and are described in Appendix E.

4 Derby's Goals and Challenges

4 Derby's Goals and Challenges

Derby's Goals

Review of the long term transport strategy

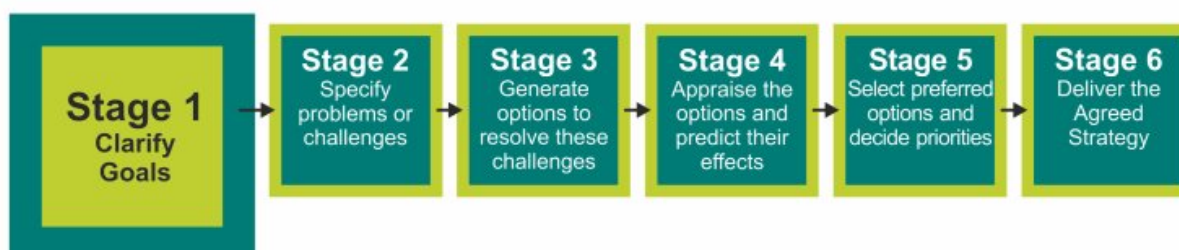
- 4.1** National transport policy has refocused on its economic and environmental impacts, which alongside considerations of safety, quality of life and equality of opportunity, provide an important new context for transport schemes and strategies. In general this approach does not change the general direction of transport policy from LTP2, but it re-emphasises the priorities for transport.
- 4.2** The long term transport strategy developed as part of the Derby Joint LTP2 Area considered a strategy covering the period 2006-2021, with the LTP2 itself covering the period up to 2011. LTP2 focused on different financial delivery options, in particular congestion charging and funding through the Transport Innovation Fund (TIF). No congestion management strategy such as congestion charging was taken forward. At this time detailed work on the Highways Asset Management Plan had not been started. With LTP3, work on the HAMP has confirmed the current condition of the highway network, and the implications, in terms of failing elements, of not carrying out necessary maintenance. The long term transport strategy for Derby has been reviewed and updated in the light of this emerging evidence, and changing economic circumstances. Chapter 2 describes in more detail the progress made and schemes delivered since LTP2 was published in 2006.
- 4.3** We have reviewed the overarching transport vision for Derby in light of the changed circumstances, and in the context of the successes of the LTP2 period. The rest of this chapter, and chapter 5, explain how we arrived at this proposed outcome.

Derby's Transport Vision 2026

Our aim is to provide people living and travelling within Derby with viable travel choices and effective and sustainable transport networks.

- 4.4** The first stage of developing LTP3 was to formulate the Goals and Challenges towards which the Council and its partners will work over the next 15 years. Once we have agreed the direction of the strategy, we can work towards our goals, monitoring our progress to see the extent to which we have met our challenges. This policy framework will also help to show how the things we do meet national policy in the future.

Derby's Goals and Challenges 4



4.5 We are working towards the national Government goals:

- to **support** national **economic** competitiveness and **growth**, by delivering reliable and efficient transport networks
- to reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of **tackling climate change**
- **to contribute to better safety, security and health** and longer life expectancy by reducing the risk of death, injury or illness arising from transport, and by promoting travel modes that are beneficial to health
- **to promote** greater **equality of opportunity** for all citizens, with the desired outcome of achieving a fairer society
- **to improve quality of life** for transport users and non-transport users, and to **promote a healthy natural environment**.

4.6 We have developed goals for Derby to address local issues. We have adapted the emphasis of the national goals as it best applies to Derby, giving each Derby Goal a specific focus which indicates how we feel the goal will be best achieved.

Derby's Transport Goals

Goal 1 To support growth and economic competitiveness, ***by delivering reliable and efficient transport networks***

Goal 2 To contribute to tackling climate change ***by developing and promoting low-carbon travel choices***

Goal 3 To contribute to better safety, security and health for all people in Derby ***by improving road safety, improving security on transport networks and promoting active travel***

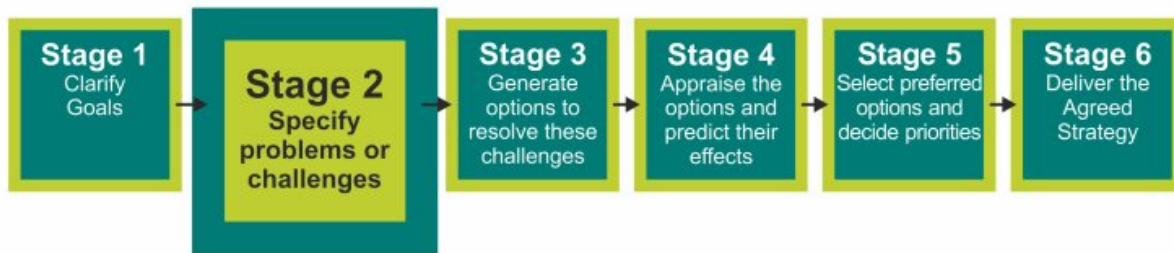
Goal 4 To provide and promote greater choice and equality of opportunity for all ***through the delivery and promotion of accessible walking, cycling and public transport networks, whilst maintaining appropriate access for car users***

Goal 5 To improve the quality of life for all people living, working in or visiting Derby ***by promoting investment in transport that enhances the urban and natural environment and sense of place***

4 Derby's Goals and Challenges

- 4.7** Consultation on the Draft Vision and Goals was carried out in February 2010. One of the aims of the consultation was to prioritise the goals to find out which was the most important to stakeholders and the public in Derby.
- 4.8** Feedback from the consultation indicated that none of the goals was considered to be significantly more important than any of the others, although tackling climate change was given slightly more importance overall. The government has since indicated that supporting economic growth and tackling climate change are its top national priorities and we have taken account of this in developing our strategy.

Problems and Challenges



4.9 This section describes the transport problems and challenges across Derby's transport network as they affect the five local Goals. This is a summary of a much more detailed evidence base contained in the Derby LTP3 Problems and Issues Working Paper and the Strategic Environmental Assessment Scoping Report. These papers include the evidence that has informed the challenges that need to be addressed in order to deliver the five local transport Goals. The following paragraphs discuss the main issues that relate to each of the five Goals.

4.10 Many of the schemes we deliver meet a number of our Goals. For example, research has shown that providing an attractive public realm can promote economic regeneration and attract businesses to an area (Goal 1), increase the ability to walk and cycle through an area (Goal 4), and improve quality of life (Goal 5). Similarly improving road condition benefits all users, the benefits may be considered to be primarily for car drivers but can provide significant improvements for cyclists, pedestrians and public transport users in terms of comfort, convenience and safety and therefore contributes to all five of Derby's transport Goals. In order to provide more focus to our long term strategy and show more specifically how we will achieve our long term vision, it is necessary to define a set of Challenges Derby will have to meet in order to make progress towards the Goals. The Challenges and the process to develop them is explained in detail at the end of this section.

4 Derby's Goals and Challenges

Goal 1 Support growth and competitiveness, by delivering a reliable and efficient transport network

- 4.11** Traffic congestion and the reliability and efficiency of the transport system are the main issues linked to delivering this goal. Congestion is a direct result of increasing traffic and the demand for travel generated by the growth in population and economic land use development such as housing, employment, retail, leisure and other services. Changing travel trends linked to decreasing costs in car ownership and mobility have also increased the amount of traffic on the roads, and traffic is predicted to continue to increase. User demands such as parking and road freight need to be carefully managed so that they do not have a detrimental impact on the network and the economic vitality of Derby. Provision of a reliable and efficient transport network is dependent on ensuring that all elements of the existing transport infrastructure are effectively managed, maintained and replaced where they have reached the end of their lives. This basic need is key to ensuring that economic activity does not move away from the City. Good access by all transport modes will support economic activity. This has to be closely balanced with the investment required to extend and maintain infrastructure to encourage economic growth.

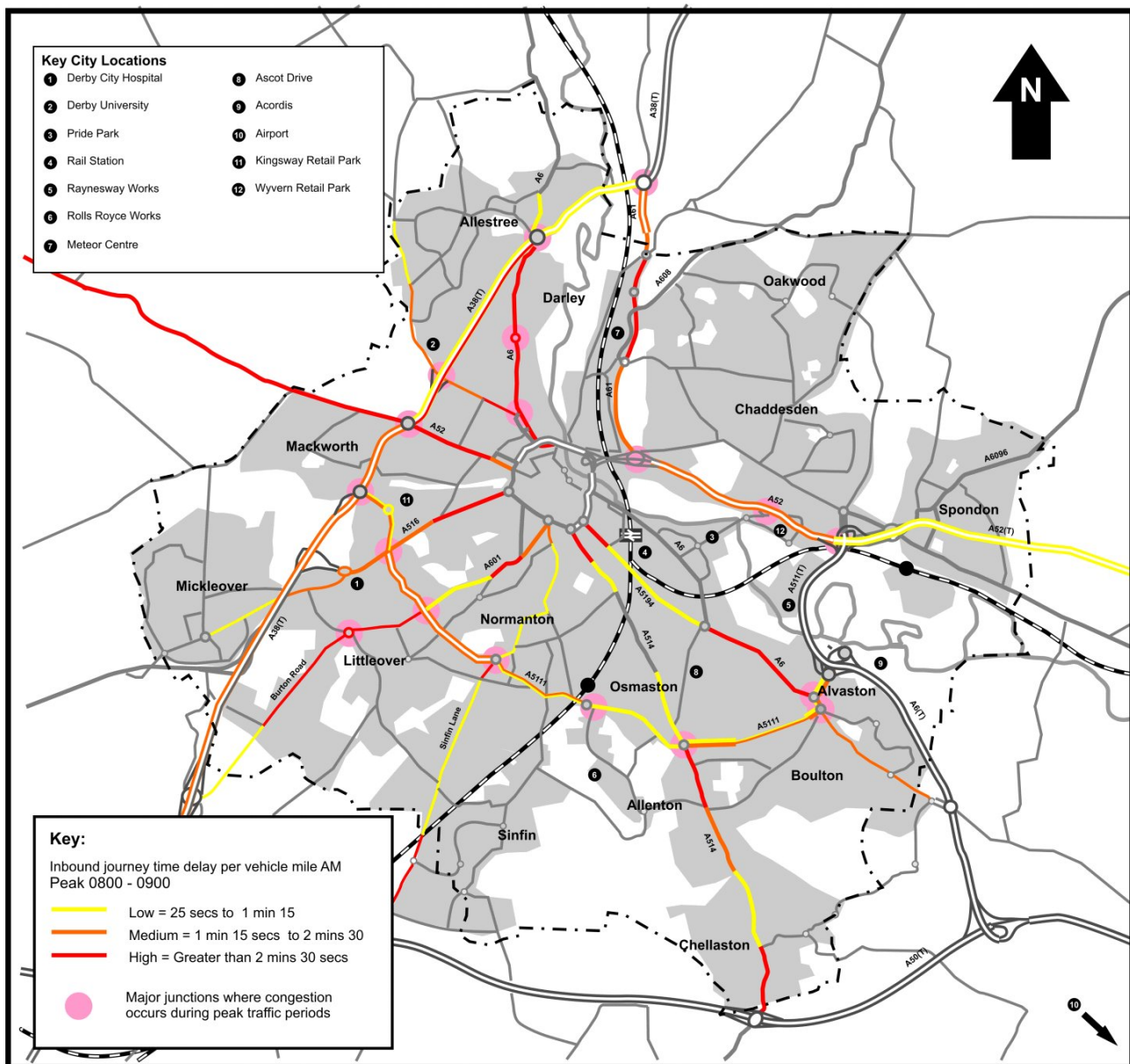
Key themes for Derby

- Economic cost of congestion
- Predicted growth in traffic
- Maintaining a reliable and efficient network
- Managing a reliable and efficient network
- Parking demand and management
- Movement of freight

Economic cost of congestion

- 4.12** We have identified, through consultation and analysis, that congestion is a problem in some areas of Derby. Significant parts of the highway network area are either at or close to capacity during the weekday morning (8am to 9am) and evening (5pm to 6pm) peaks, limiting the amount of traffic growth that could occur during these periods. Traffic growth in the hours adjacent to the traditional peaks leads to the trend called 'peak spreading' causing longer periods of congestion on the network. Figure 4.1 provides a diagram of the major roads and junctions where traffic congestion is currently a problem during the peak traffic periods.
- 4.13** Congestion on the trunk road network in Derby has a significant influence upon local route choice and traffic patterns. For example, the A38 carries around 45,000 vehicles per day between Markeaton Island and the A6 Duffield Road Junction (National Road Traffic Estimates). This traffic converges with the significant volumes of local traffic crossing, joining and leaving the A38. This results in congestion and recurrent delay at three at-grade roundabout junctions to the west and north of Derby city centre, namely the A5111 Kingsway Roundabout, A52 Markeaton Roundabout and A61 Abbey Hill Roundabout.

Figure 4.1 Current levels of delays and major junctions where congestion occurs during the weekday morning peak traffic period



- 4.14** The A52 is amongst the worst roads in the East Midlands in terms of its susceptibility to non-recurrent or random vehicle delays, mainly related to accidents on the stretch between Derby and the M1 at Junction 25. In addition sections of the road near to Spondon have received Air Quality Management Area (AQMA) designation.
- 4.15** The Highways Agency has proposed a scheme to grade separate three A38 Derby Junctions. Grade separation would provide significant congestion relief and road safety benefits as well as improving facilities for pedestrians and cyclists. The scheme is in development but will not be implemented until the period after 2015. Without the grade separation there will be significant constraints on development in the north and west of the city.
- 4.16** Congestion causes delay to all road users including public transport and has a significant effect upon Derby's economy. The Economic Costs of Congestion Study, published by the East Midlands Development Agency in 2007, estimated that the

4 Derby's Goals and Challenges

economic costs of delay for Derby were around £46 million per year. This is mostly the cost of delay in terms of lost time for businesses, commuters and personal travel. For example:

- delays, which may result in late arrival for employment, meetings and education, resulting in lost business or other personal losses
- inability to forecast travel time accurately, leading drivers to allocate more time to travel "just in case", and less time on productive activities
- wasted fuel increasing air pollution and carbon dioxide emissions owing to increased engine idling, acceleration and braking
- wear and tear on vehicles as a result of idling in traffic and frequent acceleration and braking, leading to more frequent repairs and replacements.

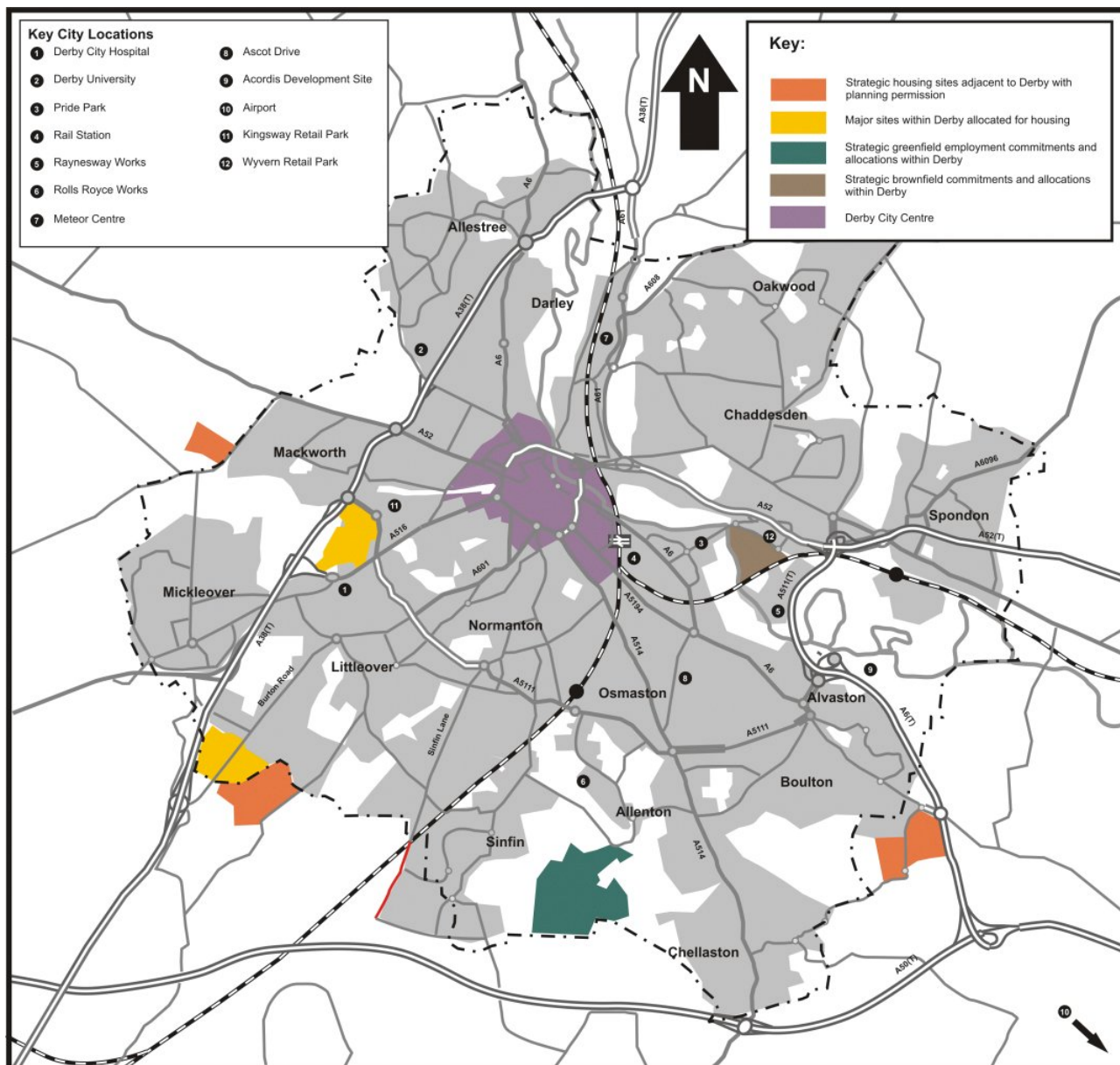
4.17 Annual observed data for Derby recorded a 5% decrease in traffic between 2004/05 and 2007/08. The decrease in traffic could be partly as a result of changes in transport trends that are being reflected across the country. National transport statistics have reported a 0.8% decrease in vehicle kilometres in 2008 and a further 1% fall in 2009. This is the first recorded fall since 1979 and is probably due to a combination of high fuel prices and the economic slowdown that turned into recession during the second half of 2008.

Predicted growth in traffic

4.18 Traffic growth in Derby is partly linked to its population and the strong economic growth that has occurred over the past ten years. Chapter 2 briefly describes housing growth, predicted growth in population and some of the key commercial developments recently completed in Derby. Figure 4.2 illustrates current planning permissions in Derby and those on the boundary in Amber Valley and South Derbyshire. It also identifies strategic greenfield and brownfield sites that are allocated in the 2006 Derby Local Plan Review.

4.19 Land use and population growth have a direct relationship with traffic growth and the overall demand for travel. The Derby Area Transport Model (DATM) shows that population increase and further development results in a significant increase in the number of trips made, particularly by car. A key challenge both now and in the future will be to encourage people and businesses to use sustainable travel options, reducing travel by private car, congestion and its associated environmental, economic and social impacts. One way of achieving this is to manage the demand for travel by placing new development in the right place. Where options are limited then the impacts need to be negated by ensuring that there is good accessibility to the development, particularly by sustainable transport modes.

Figure 4.2 Locations of strategic land use development, within Derby and on the boundary, that are committed or have been allocated



4.20 Another cause of traffic growth is the reduction in the relative costs of car ownership and use. The cost of motoring has fallen by 13.5% since 1997. Conversely whilst motoring costs have been falling, the comparative costs of using public transport have increased significantly. For example rail fares have increased by 7%, and bus fares have risen by 16.5% between 1997 and 2008. This represents an average increase in the cost of rail travel of 0.6% and bus travel of 1.5% per year in real terms. Greater-than inflation public transport price increases are expected to continue in the foreseeable future.

4.21 With no intervention, traffic volumes in Derby are expected to grow leading to more congestion. DATM has identified that there will be a significant increase in the number of trips made by private car to the city centre, by 56% from 2006 to 2026. As a result, delays in the morning commuter peak, 8:00 am to 9:00 am, are estimated to increase

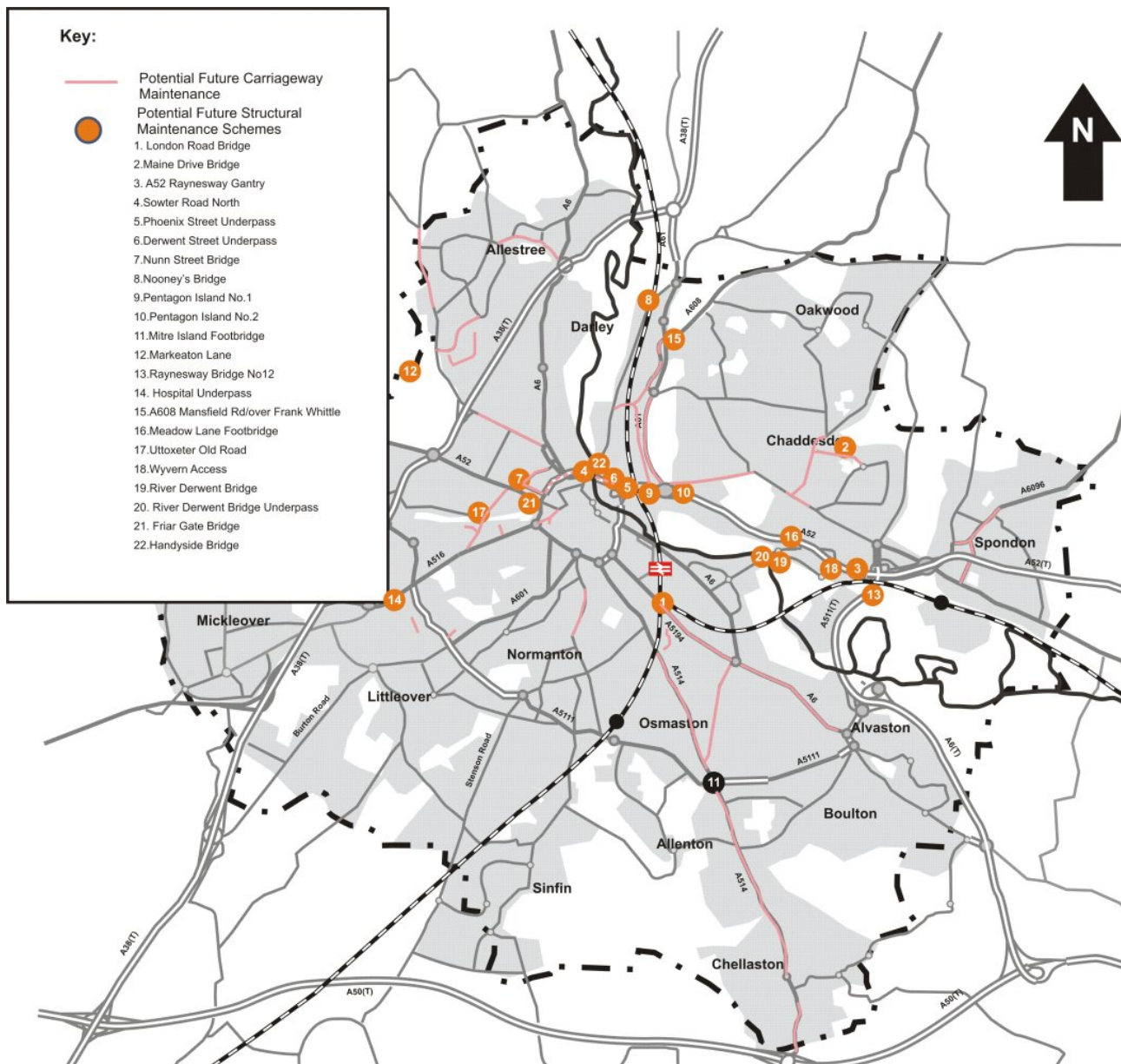
4 Derby's Goals and Challenges

and the average delay per kilometre will grow from 31 seconds to 79 seconds. To place this into context, if it currently takes an average of 14.75 minutes to travel 10 kilometres, in 2026 it will take 19.5 minutes to do the same journey.

Maintaining a reliable and efficient network

- 4.22** The Gross Replacement Cost of Derby's transport asset is estimated to be in excess of £1.3 billion. As a result of age and use (wear and tear) elements of it are now in a "mature" state and components of the asset are now nearing the end of their expected service lives. One of the major issues for the council is a significant funding gap between the money that we are allocated for maintenance and what we need to maintain the network to a 'steady state' that is, in it's current condition. We cannot always afford to carry out the full works needed to fix sub-surface problems. As a result we are spending more money on remedial works to patch the network. The results of this are roads and footways that have a poor travelling surface and that will need ongoing patching work to maintain their serviceability. This not only provides a poor public image and travel experience but does not meet the needs of the network. The emerging Highways Asset Management Plan (HAMP) has identified that, on average, approximately £6.6 million each year will be required to keep carriageways, highway infrastructure and other structures in a steady state. It is likely that this will increase because of factors such as unexpected rises in inflation, adverse weather conditions, a changing climate and oil price changes. In addition, as the city develops and new infrastructure is built the number of transport assets owned by the Council increases, increasing the future maintenance costs.
- 4.23** The cost of reactive temporary maintenance can over time be greater than planned maintenance because you have to keep revisiting the same problem. Planned programmes require significant initial investment and resources to be able to plan and properly fix the problem. Resource limitations mean that funding for the transport asset by necessity competes with other demands for funding, both nationally and locally. Increasing pressure is being placed upon these funds. Furthermore, failure to maintain the highway 'fit for purpose' leaves the highway authority exposed to possible litigation and compensation claims.
- 4.24** Figure 4.3 shows highway schemes and other structures within Derby's highway that are in the maintenance preparation pool. A major priority for the city is the replacement of London Road rail bridge. The bridge carries London Road over the Derby-to-Birmingham railway. It was built around 1900 and its steel elements are severely corroded. A temporary repair to the structure, carried out in 2003, extended the operational life of the bridge, although a weight limit of vehicles to 18 tonnes also had to be applied. If the bridge is not replaced then it is likely that it will have to be closed to traffic within the next ten years. If this happens one of Derby's major arterial routes will be severed reducing access for all modes of transport and having a significant economic impact on the regeneration of the city centre.

Figure 4.3 Potential future carriageway maintenance



4.25 Without adequate investment in maintenance all our highway assets will deteriorate, unless we are able to bridge the funding gap and find more cost effective ways of maintaining them. The development of the Highways Asset Management Plan will enable more cost effective and prioritised highway maintenance and replacement programmes, and long term financial planning will deliver efficiency savings and service improvements. If not resolved, this issue will impact on the transport network, the wider economy and peoples' overall quality of life.

Managing a reliable and efficient network

4.26 As a highway authority we have a statutory duty to "secure the expeditious movement of traffic on the highway" (Traffic Management Act 2004). The duty extends to all road users, including freight, public transport, pedestrians, cyclists and vulnerable

4 Derby's Goals and Challenges

groups. The Council works closely with partners such as the Highways Agency, Derbyshire County Council, utility companies and Police to co-ordinate the management of planned and unplanned events on the transport network.

- 4.27** The day to day management of the network is vital to delivering a reliable and efficient transport system. Increased levels of congestion will make it more difficult for us to meet this Network Management Duty and balance the demands of different users. It is important that we continue to invest in technology and take advantage of new legislation to improve its management. However, this potentially increases both the maintenance liability of the asset and energy costs of running the systems. Managing the network also includes making sure we can respond to extreme events such as flooding. Derby has completed a Strategic Flood Risk Assessment and continues to work with the Environment Agency on appropriate responses to development proposals in Derby's 'Blue Corridor' along the River Derwent. Derby's Surface Water Management Plan will also be considered in light of the need to ensure strategic routes are kept clear in the event of flooding.

Parking demand and management

- 4.28** The choice of transport mode for many people's journey is often decided by the availability and price of parking near their destination. Parking also places demands on the public highway for loading and unloading, parking and access and the accommodation of services and utilities. Managing parking means we can better manage traffic on the highway network and reduce unnecessary delays and improve the economic viability of Derby. We plan how we manage the highway network, including parking, in our Network Management Plan.
- 4.29** Parking provides accessibility for many people and is particularly important for people with reduced mobility who need to park near their destination. It is important that the way we manage parking within Derby balances the provision of accessible parking for shoppers and visitors but doesn't increase congestion and its associated economic and environmental impacts.
- 4.30** There has been significant progress made on delivering parking initiatives and services across the city, but there are still some unresolved parking issues that may impact the future delivery of the long term transport strategy including:
- demand for blue badge holder spaces outweighs supply
 - conflicts may arise in the demand for on street parking in residential areas in particular around the Royal Derby Hospital and Derby County Football Club
 - it has been identified that Chapel Street, Assembly Rooms and Bold Lane multi-storey car park buildings will not be economically viable to maintain after approximately 2030
 - park and ride sites are costly to deliver and require land and funding that the city council does not readily have. In addition, potential sites such as Boulton Moor are linked to the delivery of large scale housing developments
 - there are a number of small private temporary car parks that have appeared in recent years, which provide long stay parking at low cost. These car parks are operated without any form of control and their charges and method of operation are often at odds with our transport strategy.

Movement of freight

- 4.31** Following the preparation of LTP2 we have seen continued high growth in demand for road freight, although this has eased off since the start of the economic recession. There has also been a gradual increase in journey lengths reflecting the ongoing national trend towards centralisation of distribution activity and production and trends in supply chain logistics such as 24 hour per day, 7 days per week operations and Just In Time (JIT) stock holding and ordering processes.
- 4.32** The anticipated increase in congestion will have a significant impact on road freight, in particular in terms of economy and reliability in delivering goods. However, road freight in turn can cause problems:
- contributing to congestion which can result in slow and unpredictable access
 - restricting access along the highway through inconsiderate and illegal parking, made worse by lack of appropriate lorry parking facilities on primary routes
 - environmental, noise and safety impacts as a result of heavy goods vehicles using inappropriate routes and conflicts with heavy goods vehicles passing through residential areas
 - traffic restriction in the city centre can impact on congestion and air pollution problems
 - the size and weight of vehicles and the high volume of movements has implications for highway network infrastructure and maintenance
 - weight restrictions add to cost and environmental impact through inefficient and indirect routing – for example London Road rail bridge which has an 18 tonne weight restriction in force
- 4.33** The completion of the Connecting Derby scheme will provide benefits for freight, particularly improving access to the city centre and making routes around the city more efficient. In addition, the Network Management Plan and HAMP co-ordinate actions to address some of the problems, such as inconsiderate parking.
- 4.34** Derby is a major centre for the rail industry in terms of manufacturing and operation of services, although it is not a major generator or recipient of rail freight. There is a large amount of through freight on the Birmingham North East route, but there are no significant rail freight termini in the Derby LTP3 area. However, rail links in the area are good so could offer some potential for the introduction of freight handling facilities should suitable cargo types and volumes prove logistically and commercially feasible.

4 Derby's Goals and Challenges

Summary and Conclusions

Goal 1: Support growth and competitiveness, by delivering a reliable and efficient transport network

Problems

- deterioration of the existing highway infrastructure
- congestion is already a concern and as population and employment increases so will the level of congestion
- congestion reduces accessibility for all road users deterring people from travelling into the city centre
- there is conflict between traffic using the regionally important Trunk Road Network and local traffic, which will inhibit development in areas of the city
- changes in the availability of funding will affect the extent to which we can address issues in the condition of our transport asset
- the costs associated with the future maintenance of a growing number of highway assets
- London Road rail bridge needs replacing
- there is a fine balance to maintain with parking as a tool for managing the network and supporting the economic vitality of the city
- access and the delivery of goods by road freight is important to the economy of city. However, they also contribute to congestion, damage roads and cause other environmental problems.

Opportunities

- asset management planning will enable more cost effective and prioritised highway maintenance and replacement programmes, and will deliver efficiency savings and service improvements
- there are opportunities to introduce a comprehensive smarter choices package to encourage people and businesses to use sustainable travel options reducing travel by private car
- growth in residential areas in the city centre will reduce the need to travel
- developments in Urban Traffic Management and Control will help us manage the existing road network more effectively and advances in information technology will help people make more informed travel decisions
- the Network Management Plan will actively work to make the most efficient use of our existing road network, particularly in the way that we manage planned and unplanned events
- park and ride provides a more sustainable option to cater for long stay parking demand
- updating the freight strategy and parking strategy

Summary and Conclusions

Goal 1: Support growth and competitiveness, by delivering a reliable and efficient transport network

Conclusions

This section shows that there are many problems to be solved and opportunities to take to help meet this goal. These can be expressed in the following challenges which will need to be addressed by the long term strategy for LTP3.

- provide an efficient transport network and reduce unnecessary delays to facilitate economic activity within the city
- adequately maintain and improve transport infrastructure to address existing and future needs
- minimise the effects of any unpredictable events on the transport network, and enhance adaptation to the effects of climate change
- provide good access to employment opportunities, key facilities and services for all residents and visitors to the Derby.

4 Derby's Goals and Challenges

Goal 2: Contribute to tackling climate change by developing and promoting low carbon travel choices

4.35 Finding ways to effectively manage the carbon emissions from travel and transport is the main issue linked to delivering this goal. Within Derby this goal is set against a background of population growth and an aspiration for economic growth and city prosperity. It is forecast that traffic will continue to grow because of factors like increased car ownership and the reducing relative costs of car travel to public transport. We need to maximise opportunities for developing and promoting lower carbon travel choices that will contribute to tackling climate whilst at the same time show how these should be fully integrated to positively contribute to the aims and objectives of Goal 1.

Key themes for Derby

- Impacts of climate change on the transport network
- Carbon emissions from transport
- Providing for alternatives to the car
- New technology and alternative fuels

Impacts of climate change on the transport network

4.36 It is widely acknowledged that climate change is happening in the UK. The ten hottest years on record globally have occurred since 1990. The south and south east of England are short of water and we have seen increased incidents of flooding. The impact of future climate change on the transport network is that we need to ensure that it is resilient to new conditions in the coming decades. Potential impacts on the transport network could include:

- increased flooding during winter, disrupting traffic movements and damaging road surfaces. For Derby the risks are greater in the Derwent flood plain and where urban drains need maintenance work and become overloaded. Around 37% of the city falls within either Flood Zone 2 or Flood Zone 3
- extremes in weather could also have an impact on structures such as bridges, reducing their lifespan and increasing maintenance costs
- more extreme heat during summer could lead to heat exhaustion amongst vulnerable public transport passengers
- additional costs relating to highways clean ups and diversions required by extreme weather events
- more frequent heat waves in summer increasing road surface deformations e.g. cracking and potholing, potentially shortening the roads' lifespan, by allowing more water to get in to the base of the road and further erode the structure
- delays to scheduled public transport services if disrupted by severe weather events

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- increased legal costs for injury or loss of life, or damage to public property due to extreme weather
- climate change could lead to more extreme winters with implications for winter maintenance regimes and costs (for example the icy weather of the winter of 2009/10 cost the City some £800,000 in repair bills - possibly £500,000 above normally expected costs).

4.37 Climate change predictions for the future are complex. Whatever is done to reduce greenhouse gas emissions in the future, past emissions mean that some climate change is already inevitable. We need to reduce our emissions to prevent further change, and be able to adapt to manage future impacts on the transport network.

Carbon emissions from transport

4.38 Transport and travel account for approximately 24% of Derby's annual greenhouse gas emissions, of which carbon dioxide (CO₂) is the main component. Statistics for Derby compiled by the Department of Energy and Climate Change recorded a 7.1% decrease in CO₂ emissions and a decrease in emissions from transport of 2.1% between 2005 and 2007.

4.39 The central CO₂ forecast suggests that emissions from transport will fall but only just below current levels by 2035. The predicted reduction in emissions is likely to reflect more stringent targets on vehicle fuel efficiency and biofuels, including the EU New Car CO₂ Regulation, and the Renewable Energy Directive on biofuels. Transport's contribution to reducing greenhouse gases in the future falls far short of the targets that have been set by government and relying on improvements to conventional technology is not enough.

4.40 If current transport and travel trends were projected into the future the predicted increase in car use would make it very difficult to achieve any overall reduction in locally generated greenhouse gas emissions. There are a number of ways to reduce transport carbon emissions from private car journeys:

- fewer trips
- shorter trips
- improving driving techniques
- using more sustainable modes of transport
- increasing vehicle efficiency and occupancy.

Alternatives to the car

4.41 We have an opportunity with LTP3 to encourage and enable the use of alternatives to the private car. These can include car share, walking, cycling, using the bus or train, or even not travelling at all by shopping or working online. The DfT's Sustainable Travel Demonstration Towns project has reported that measures that educate, inform and promote the benefits of more sustainable travel modes can have significant impacts in terms of increasing their use. For example, the results from the Travel Demonstration Towns monitoring recorded average reductions in car trips of 9%, whilst bus trips per person increased by 10-22%, and cycle trips per person increased by 26-30%.

4 Derby's Goals and Challenges

- 4.42** Derby's experience as a Cycling Demonstration Town has shown that measures to educate, inform and promote, supported by new or enhanced facilities, have significantly increased the number of people cycling in the city. Cycling rates in Derby are 2% above the national average mode share of 13% for travel across the whole day. Derby has implemented a strategy to improve infrastructure and education. However, there is still investment needed to provide a continuous network of cycle routes and to fund future training programmes.
- 4.43** A coordinated and specifically targeted series of measures to promote and enable the use of more sustainable transport modes such as walking, cycling and public transport within the city may help us meet our carbon challenge during LTP3. We have made significant progress on school travel plans and the implementation of business travel plans through development applications. There are other policy measures that we have not fully explored such as marketing and travel campaigns. There is more that could be done in Derby through an intensive smarter choices strategy such as travel planning, school travel planning, information and marketing, education and training.
- 4.44** Buses remain the main public transport mode in Derby. Public satisfaction with the bus services and network in Derby is high and patronage has increased over the period of LTP2. Therefore, maintaining its quality and reliability is fundamental to meeting transport challenges in the future. Whilst improvements to infrastructure and services have helped to deliver the long term transport strategy in LTP2, it is evident that there are still some issues and gaps that need to be considered. These include delays on some routes, improvements to better interchange such as facilitating cheaper integrated ticketing, frequency of services on some routes and the delivery of more park and ride.

Technology and alternative fuels

- 4.45** It is likely that future technology advancements will help us to tackle the issue of reducing carbon emissions, for example, the improvements and increased availability of hybrid and alternatively fuelled vehicles such as electric and hydrogen fuel cell. Toyota, whose European manufacturing facility is located on the edge of Derby, has just commenced the manufacture of hybrid vehicles that can achieve up to 70 miles per gallon. This is the first factory outside of Japan to make these vehicles which is a major boost to the local economy.
- 4.46** Research suggests that electric vehicles could realise up to a 40% benefit in CO₂ savings compared with a typical petrol family car in the UK. For electric vehicles to be truly zero carbon you need to consider where the electricity was generated. Larger emission reductions can be realised over time if the UK moves to lower carbon sources of power generation. Currently, most of Derby's electricity is generated at the large coal fired power station at Ratcliffe on Soar which by itself puts 8 to 10 million tonnes of carbon dioxide into the atmosphere each year.
- 4.47** Schemes to promote low carbon and electric vehicles have recently been announced by the government which has committed £43 million up to March 2012, to subsidise the uptake of electric cars through supporting the necessary infrastructure. This

Derby's Goals and Challenges 4

project and funding will be reviewed in January 2012. Derby is part of a Midlands-wide consortium who have won £2.9 million through the Plugged-in-Places grant scheme, which will support the installation of 1713 electric car charging points across the region.

Summary and Conclusions

Goal 2: Contribute to tackling climate change by developing and promoting low carbon travel choices

Problems

- climate change will potentially have a number of impacts on the transport network
- it will be difficult to achieve an absolute reduction in greenhouse gas emissions from transport if current transport trends continue
- gaps in the transport network, such as direct public transport links to the railway station from some suburbs, or gaps in the cycle network discourages the use of alternatives to the car. In addition, the cost and time taken to use more than one bus service to reach a destination is disproportionate to car travel and also discourages the use of public transport.

Opportunities

- promoting and enabling the use of more sustainable transport modes has good potential to assist with meeting our carbon challenge during LTP3. A more intensive promotion strategy could be implemented in Derby.
- the delivery of low cost small scale infrastructure to make best use of existing walking, cycling and public transport networks, focusing on filling gaps and removing barriers to alternative transport modes to the private car
- new technology, including that manufactured locally, brings with it the opportunity to encourage the use of low or no carbon vehicles within Derby
- the development of renewable energy for help power in vehicle recharging points within the city centre.

Conclusions

This section shows that there are many problems to solve and opportunities to help meet this goal. These can be expressed in the following challenges which will need to be addressed by the long term transport strategy for LTP3.

- minimise the effects of any unpredictable events on the transport network, and enhance adaptation to the effects of climate change
- minimise transport's contribution to climate change and improve energy efficiency
- encourage and enable all people and businesses to use sustainable travel options.

4 Derby's Goals and Challenges

Goal 3: Contribute to better safety, security and health for all people in Derby by improving road safety, improving security on transport networks and promoting active travel

- 4.48** There are many issues linked to delivering this goal including reducing the number of casualties from road traffic collisions within Derby, reducing crime, the fear of crime and anti-social behaviour on and around the transport networks and addressing issues of air quality and health where transport is the primary cause of the problem. Encouraging more active travel can both improve health, through improved fitness and also contribute to reduced emissions by encouraging a shift from car travel for shorter journeys.

Key themes for Derby

- Road safety
- Security
- Air quality
- Health

Road safety

- 4.49** Highway layout, highway condition and road user behaviour all contribute to making the highway safer for users. The issues of highway condition are addressed under Goal 1. The Derby and Derbyshire Road Safety Partnership, DDRSP, is important to reducing road collisions. A threat to the Partnership is the ability of partners to secure the funding required to work on the initiatives being developed. Road safety does require a collaborative approach and all agencies need to be in a position where they can devote staff resources. The best way to achieve this is to maintain commitment and learn from the successes to date achieved by DDRSP.
- 4.50** Derby City Council is committed to making Derby safe for all forms of travel and improving road safety overall. In particular, we want to reduce the number and severity of accidents. Although the actual number of casualties in Derby is relatively low, it remains important to continue to reduce road safety casualties.
- 4.51** We have not achieved our road casualty reduction targets for National Indicator (NI) 47 (total number of people killed or seriously injured), or for NI 48 (total number of children killed or seriously injured). These targets are based on three year rolling averages and our performance is shown in Figure 4.4 and 4.5 respectively. Annual year by year data shows a slightly different picture for the number of children killed or seriously injured which has reduced since 2007.

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Figure 4.4 Total people killed or seriously injured in road collisions within Derby

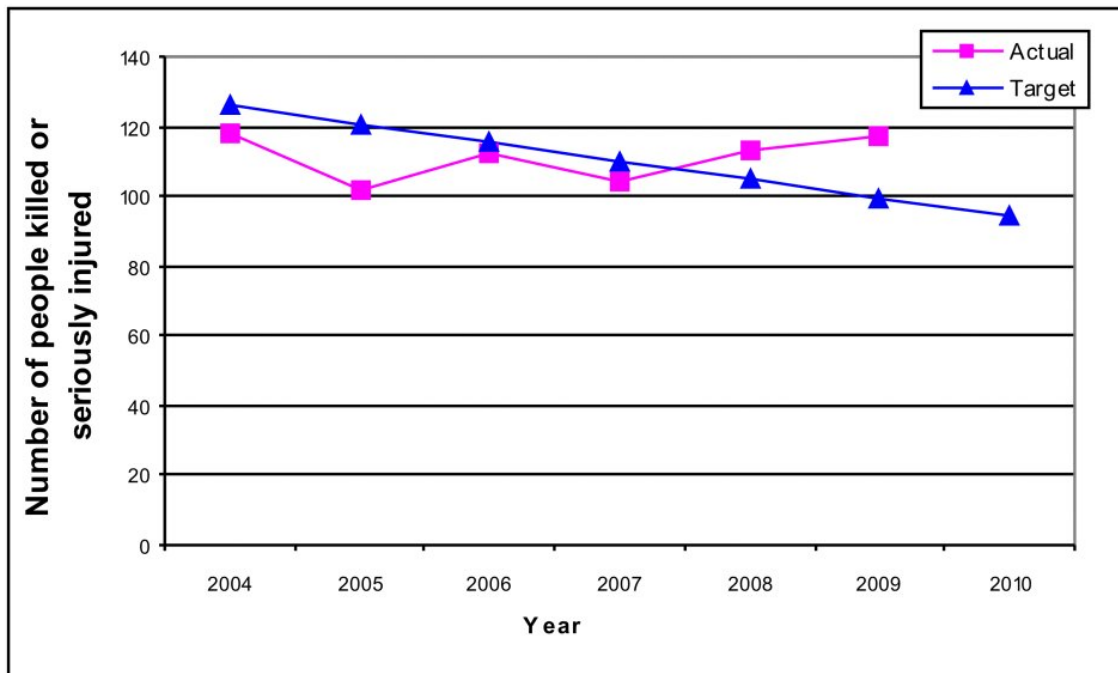
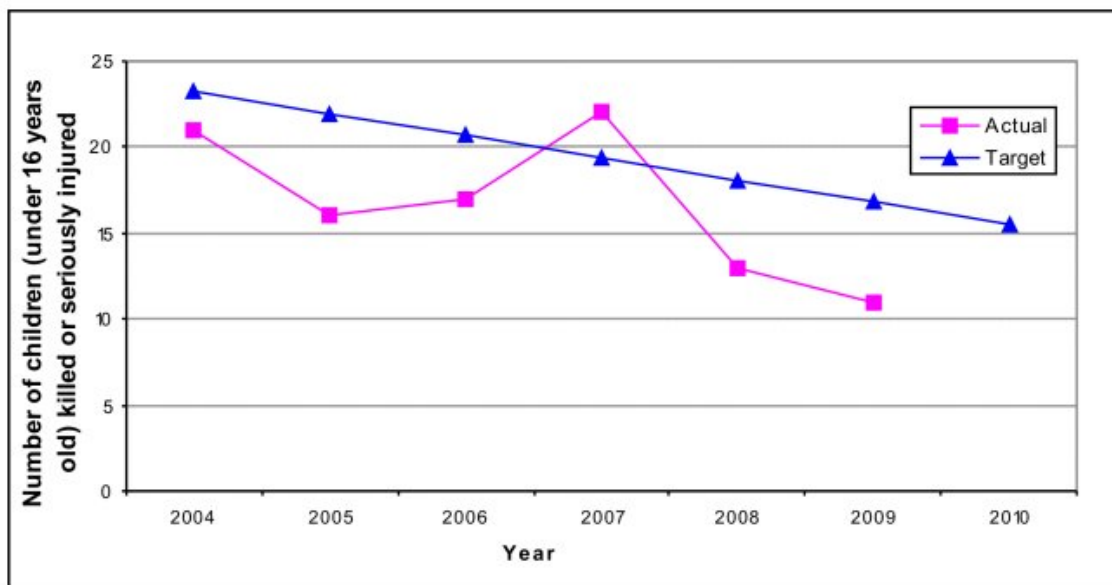


Figure 4.5 Number of children (under 16 years old) killed or seriously injured



4.52 Other casualty trends over the last three years include:

- an increase in casualties involving cyclists
- an increase in the number of slight injuries
- a decrease in pedestrian casualties.

4.53 Over the period of LTP1 and LTP2, Derby has invested a significant amount of money in engineering schemes to reduce accident clusters. We are now examining accident data in more detail. There is no obvious spatial pattern of accidents and only a limited amount can be achieved through changes to physical infrastructure. The focus has

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moved from major engineering schemes to looking at local safety schemes, providing road safety training and publicity, marketing and travel awareness activities that encourage less car use, and the maintenance of footways and cycleways.

- 4.54** Good design of walking and cycling routes can be incorporated in the land use planning considerations, and integrated into Derby's green infrastructure network. We can enhance the green infrastructure network as we develop our walking and cycling network, including through measures in the Rights of Way Improvement Plan (RoWIP).

Security

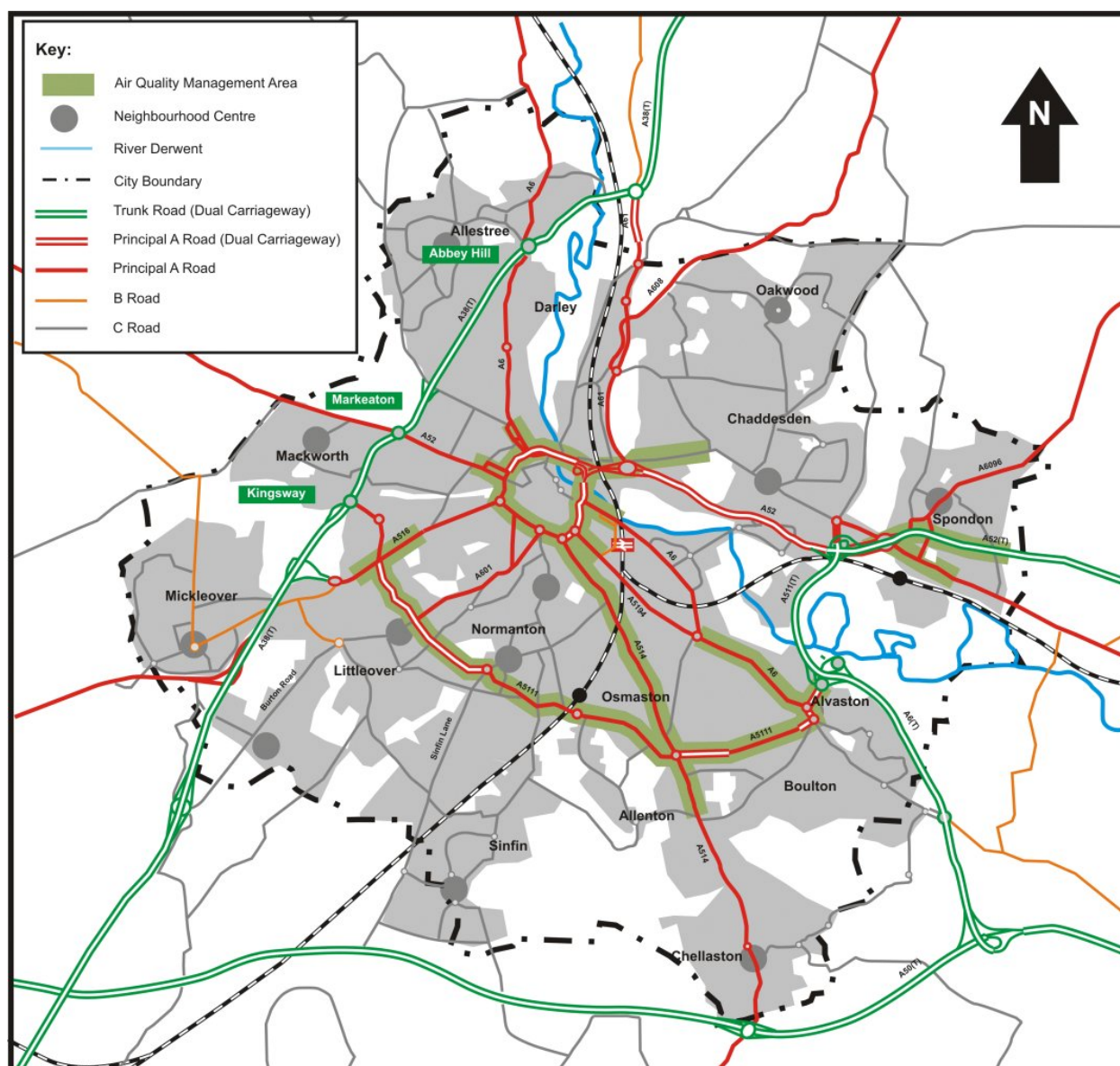
- 4.55** It is not just accidents themselves but fear of accidents that influence the way people travel. There is often a perceived risk of attack from strangers when walking, cycling or making public transport journeys, particularly at night. Whilst in most areas the perception of crime levels is worse than the reality, it is often people's perceptions that govern decisions such as which mode of transport they use, rather than their own personal experience.
- 4.56** Reflecting national trends, public perception of crime and disorder is relatively low in Derby and has shown improvement over time. Perceptions of anti-social behaviour, identified via the annual British Crime Survey, have shown a relatively static trend over recent years, which is supported by similar findings from the Local Government User Satisfaction Survey (Ipsos MORI, ASB, People Place and Perceptions).
- 4.57** A Derby Community Safety Partnership (CSP) 2008 survey found that speeding traffic, teenagers hanging around and rubbish/litter lying around were the most commonly perceived problems amongst respondents. Perception of issues being a problem was found to reduce with increasing age particularly in those aged 65 or over, and perceptions appear to have improved since the CSP 2004 survey.
- 4.58** 80.7% of residents were satisfied with their local area as a place to live, however, this varied considerably between neighbourhoods. Normanton, Abbey, Arboretum and Alvaston had the lowest overall levels of satisfaction; and Mickleover, Allestree, Chaddesden and Blagreaves had the highest.
- 4.59** One of the major initiatives that has been implemented over the period of LTP2 is a Private Finance Initiative (PFI) contract to replace our old street lights. Over the first five years it is expected that the contract will enable the replacement of two thirds of our street lighting including 27,000 new columns and illuminated traffic signs. Better lighting will have a big effect on the safety of the network and help reduce crime and the fear of crime, helping to encourage non car travel. Increased surveillance may also increase identification of crime and perception of security.
- 4.60** Throughout LTP3 we need to continue our work with partner organisations to improve Derby's residents' perceptions of their local areas. This will provide them with increasing levels of confidence to increase their usage of public transport, walking and cycling. Overcrowding on public transport, streets dominated by motorised vehicles and a fear of crime can influence travel choices and cause people to avoid using public transport, or to avoid walking or cycling.

Air quality

- 4.61** Air pollution can have a serious effect on people's health. Exposure to air pollution can affect people's health, in particular contributing to premature death due to heart and lung problems. Air pollution also pollutes vegetation, soil and waters. There are two main pollutants that are closely related to transport emissions, nitrogen oxides (NO_x) and particulate matter (PM₁₀).
- 4.62** Emissions of key air pollutants from road transport have fallen by about 50% over the last decade, despite increases in traffic, and are expected to reduce by a further 25% or so over the next decade. This is mainly a result of progressively tighter vehicle emission and fuel standards agreed at European level and set in UK regulations. Despite this long term improvement in air quality, air pollution continues to harm human health and the environment.
- 4.63** Derby has two Air Quality Management Areas (AQMAs), which have been designated due to traffic-related emissions of nitrogen dioxide (NO₂) exceeding European Union standards. These are shown on Figure 4.6 and include the city's inner and outer ring roads, and a section of the A52 in Spondon. These are major routes with high volumes of traffic which makes them difficult to manage.
- 4.64** The Council has a duty to review and assess local air quality under the UK Air Quality Strategy and is required to produce an Air Quality Action Plan (AQAP) indicating how we plan to improve air quality in these areas. Where air quality is primarily a transport issue impacts have been assessed within the SEA which has informed the development of LTP3. The activities associated with LTP3 should not worsen existing air quality problems identified within AQMAs, or cause additional problems in areas that are at risk of being designated as an AQMA. This process will enable us to continue to provide a systematic way of joining up air quality management and transport planning.
- 4.65** We will continue to monitor pollution of all types in Derby and mitigate where appropriate the adverse environmental effects of development and use of transportation infrastructure. Further detail respecting measures to be adopted will be described in the Local Development Framework.

4 Derby's Goals and Challenges

Figure 4.6 Derby's Air Quality Management Areas



Health

4.66 A Health Impact Assessment (HIA) of LTP3 is included with the SEA and assesses the likely impact of LTP3 and its schemes on human health. The HIA identifies the health issues that are likely to be affected by LTP3 schemes and activities. The results will also help to mitigate the negative effects on health and well-being, whether physical and/or mental health. The HIA also secures consistency between LTP3 and the Sustainable Community Strategy, coordinates the public health concerns in respect of air quality, noise and climate change, and contributes to the wider agenda relating to quality of life and reducing health inequalities. Health issues in Derby include:

- life expectancy levels fall slightly below the national average and the mortality rate for all ages for respiratory disease is above the national average, (2001 Census). Air quality issues need to be addressed to ensure that the effect of poor air quality does not make respiratory problems in the city get worse over time

Derby's Goals and Challenges 4

- significant inequalities exist in public health and research shows that lower socio-economic groups are more likely to experience health inequalities. Disadvantaged groups are more likely to be involved in a traffic collision due to geographical inequalities, and are more likely to suffer from social exclusion and experience health and stress-related problems due to reduced access to essential services and amenities
- access to health, recreation and community facilities and amenities should be accessible and affordable for all. It should be ensured that road safety and traffic calming measures are provided in residential areas close to busy parts of the road network
- the percentage of physically active adults in Derby is low and more could be done to encourage regular physical activity and to promote walking and cycling as a means of exercise
- noise pollution caused by traffic can lead to stress, interference with speech and sleep disturbance and may also limit children's learning
- land blight caused by roads and other transport infrastructure can reduce enjoyment and discourage active recreation.

4.67 Under Goal 5, which relates to quality of life, Figure 4.8 illustrates the Indices of Multiple Deprivation (IMD) 2007 for Derby produced by the Department for Communities and Local Government. The index is calculated using a number of indicators of deprivation that include employment, income, health, education, barriers to housing and services, and crime. It illustrates the areas of Derby where people are most at risk from the impacts of poverty and inequality because their circumstances restrict their choices. It is also these areas where there are health problems.

4.68 Transport has a significant role to play in areas of deprivation. Promoting healthier choices of transport such as cycling and walking through investment in better facilities, training and maintenance, can contribute to tackling wider health issues such as obesity amongst young people. Reducing adverse impacts of transport on our citizens, particularly in terms of poor air quality and noise, can improve health and wellbeing.

4.69 Derby is committed to becoming the most active city in England by 2015. The city's leisure strategy includes the development of an olympic-sized swimming pool and a multi-event arena incorporating a velodrome. We will support access to these facilities with sustainable modes of travel and aim to maximise the benefits to Derby's population and the transport network arising from increased participation and engagement in active travel.

4 Derby's Goals and Challenges

Summary and Conclusions

Goal 3: Contribute to better safety, security and health for all people in Derby by improving road safety, improving security on transport networks and promoting active travel

Problems

- road safety suffers when maintenance is inadequate due to factors such as lower skidding resistance, more trip hazards and reduced containment provision from restraint systems
- road safety remains a priority. We are currently on target to meet child casualty reduction targets but over the past two years total numbers of people killed or seriously injured has been above target
- people's perception of security can influence travel choices and cause people to avoid using public transport, or to avoid walking or cycling. For example, overcrowding on public transport, streets dominated by motorised vehicles and a fear of crime as a result
- Air Quality Management Areas are located along major road corridors with large traffic volumes making them difficult to manage
- there are a number of health indicators that show there are issues in Derby that are directly related to transport and may be improved as a result of improvements in transport.

Opportunities

- improving standards of maintenance and more effectively targeted maintenance expenditure will help eliminate some hazards and reduce risks
- road safety will remain a priority for the City Council. Road safety and marketing campaigns could be linked to work on promoting active travel. However, the effectiveness of education programmes are not always measurable.
- continued work with partners to improve security and perception of security. The roll out of the Private Finance Initiative (PFI) Street Lighting programme is improving the quality of lighting across Derby. In addition, new buses introduced by trent barton and Arriva include CCTV
- encouraging the use of more efficient use of vehicles, travel plans and alternative fuel vehicles could help to address air quality problems
- encouraging people to use more active modes of travel as part of a healthy lifestyle
- increasing natural surveillance and visibility for all transport modes through design.

Conclusions

This section has identified that there are many problems to solve and opportunities to take to help meet this goal. These can be expressed in the following challenges which will need to be addressed by the long term transport strategy for LTP3.

Summary and Conclusions

Goal 3: Contribute to better safety, security and health for all people in Derby by improving road safety, improving security on transport networks and promoting active travel

- minimise the negative effects of travel and existing and new transport infrastructure on local communities, air quality and the wider environment
- provide safer travel opportunities and reduce road casualties
- enhance the integration of transport in the urban environment to provide safe, secure and multi functional space, promoting greater social interaction and natural surveillance.

4 Derby's Goals and Challenges

Goal 4: Provide and promote greater choice and equality of opportunity for all through the delivery and promotion of accessible walking, cycling and public transport networks, whilst maintaining appropriate access for car users

- 4.70** Making sure that transport to all essential facilities and services is available and acceptable to the users is the main issue linked to delivering this goal. Key examples include access to education, employment, and health care. Transport needs to be accessible and affordable. Where possible there should be a choice of options available that ensures specific groups or individuals are not excluded and have equality of opportunity. Provision of transport options is not always enough in its own right. Evidence from across the UK shows that there can be a greater benefit gained, and accessibility improved, through promotion of transport choice. Information provision, marketing, education and providing incentives to test travel alternatives can have a positive impact.

Key themes for Derby

- Accessibility
- Walking and cycling
- Public transport
- Promotion and marketing

Accessibility

- 4.71** The analysis we have done suggests that overall accessibility to the key services in Derby is good for the majority of residents. This compares well with results from other areas. The detailed accessibility analysis for Derby is set out in the Accessibility Scoping Report, August 2010. The scoping report concludes that an Accessibility Strategy continues to be needed for LTP3 but it should give greater emphasis to local issues. These key issues are:

- access to the Royal Derby Hospital - reflecting concerns that there is not sufficient provision to access the facility from across the city, particularly for orbital travel movements
- access to out of hours GP services
- targeting employment – linking areas of unemployment with destinations that match the skill sets of those people
- continuing to ensure access to education – to ensure that accessibility does not become a barrier to education for disadvantaged groups in particular this relates to secondary education
- the worst levels of accessibility are not always in the less deprived areas, there may be individuals or areas of isolation where the elderly, young or unemployed residents in affluent areas do not have access to a private car
- access to the city from rural areas in Derbyshire and surrounding counties, in particular for key services such as the hospital.

Walking and cycling

- 4.72** Derby's compact size and relatively flat topography make walking and cycling a realistic alternative mode of transport. Cycling and walking increase accessibility and contribute to the delivery of other goals, for example, improved general health and fitness, reduced pollution and helping to tackle congestion.
- 4.73** Derby was awarded Cycling Demonstration Town, CDT, status in 2005 which continued through the period of LTP2 up until March 2011. The CDT status brought funding from the DfT, through a Cycling England grant to support the promotion of cycling through the Cycle Derby programme. Since 2005 Derby has invested around £3.6 million in cycling schemes with a strong emphasis on encouraging cycle skills to young people. £2.5 million of largely revenue investment came from Cycling England. The Cycle Derby initiative has successfully encouraged 'more people to cycle, more safely, more often' and we believe that the above average proportion of commuter trips by bike in Derby can be largely attributed to the work delivered through the Cycle Derby initiative. Maintaining the momentum of cycling delivery will be a key challenge
- 4.74** Gaps in the cycle network discourage cycling, reducing peoples' travel choices and accessibility for local trips. In close consultation with stakeholders, including Derby Cycling group we are preparing a cycling strategy which, when adopted by the Council, will set out our priorities and actions towards delivering improvements for cyclists across the city, marketing the benefits of cycling and providing training. Some of the issues respecting cycling include:
- lack of secure cycle parking in the city centre
 - the need to keep momentum of training and promotion for young people
 - the need to improve cycle routes to key destinations e.g. Royal Derby Hospital
 - priority and safety for cyclists at junctions, crossings and on the highway
 - the surface quality of key cycle routes
 - the need for promotion of cycling through travel planning and campaigns targeting commuters
 - permeability through the city centre.
- 4.75** Walking remains one of the main modes of transport in Derby and around 11% of the population still walk to work, however, this has declined with increasing use of the car. Walking will form part of most journeys, whether walking to the bus stop or parking in the city centre and walking to the shops or place of work. Walking is a sustainable form of travel and has significant health and carbon reduction benefits. There are a number of barriers to walking that are linked to other issues identified in the other goals:
- lack of information and signing, which has been highlighted as an issue in the city centre
 - people are discouraged from walking because of the fear of crime and threatened personal security. The decline of other road users, particularly other walkers, can reduce pedestrians' feeling of safety
 - higher traffic flows increase severance and push traffic through inappropriate residential areas

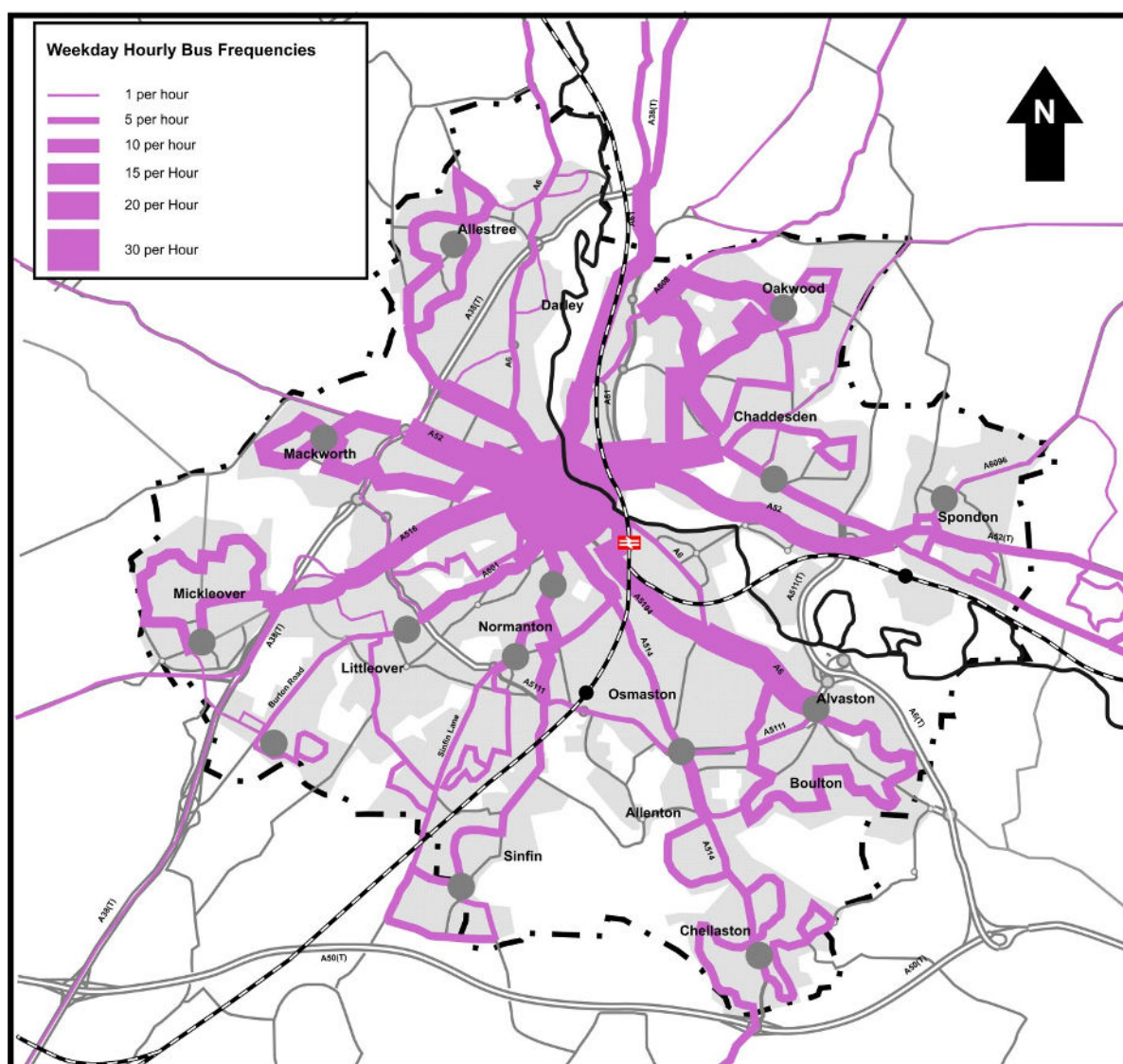
4 Derby's Goals and Challenges

- factors that discourage walking by creating a threatening or confusing environment for pedestrians including poorly maintained street lighting, overgrown foliage, street clutter, pavement hawkers, fly-posting, unauthorised signs and graffiti
- increasing traffic volumes reduce air quality and the walking environment
- continued need to upgrade the provision of walking facilities to assist people with reduced mobility including people with a disability, older people and people with small children and buggies.

Public transport

4.76 Buses are the main mode of public transport in Derby and are likely to remain so. Buses are the safest, greenest and most used form of public transport and are an important alternative for those people who don't have access to a car. They are also most heavily used by the lowest income groups, those households on incomes under £10,000. Figure 4.7 illustrates the weekday frequencies of bus services on the main routes and corridors.

Figure 4.7 Weekday hourly bus frequencies



Derby's Goals and Challenges 4

- 4.77** Consultation and the results of the National Highways and Transport annual survey has told us that overall public satisfaction with local bus and taxi services in Derby is high. People feel that the quality, frequency and accessibility of bus services have improved from 2009 to 2010. Patronage has also steadily increased over the period of LTP2. We believe the high satisfaction and the increasing patronage is largely a result of major improvements to bus services and facilities throughout LTP2 by the Council and bus operators. For example the new city centre bus station at Riverlights, significant investment by operators in new bus fleets and service frequencies, including evening and weekend services, innovations in operator ticketing and improvements to bus stops, information and promotion.
- 4.78** There are still some issues and gaps that need to be considered. We know that people would like us to make public transport more convenient and cheaper and that there are perceived barriers to bus use such as delays to services, pricing and the lack of some convenient bus routes, for example, to access to the railway station from certain parts of the city.
- 4.79** Further improvements, such as action to remedy congestion hot-spots, cheaper, integrated ticketing, priority measures on some bus corridors and the delivery of additional park and ride facilities would improve service reliability, accessibility and travel choice, equality of opportunity and access to facilities and services. We recognise the benefits of these measures and continue to support them, although recent and ongoing funding constraints mean that significant large scale physical improvements are unlikely.
- 4.80** We currently have two park and ride sites in operation. Pride Park provides 1,100 spaces and the Meteor provides around 250 spaces. Monitoring to date shows that we are exceeding our targets for the number of people using park and ride. The location of, and access to, the sites is not ideal. The delivery of additional park and ride sites is constrained by many different factors, in particular land and funding. New sites such as that proposed at Boulton Moor are tied to the delivery of large scale housing developments.
- 4.81** Bus operators in Derby must manage the reliability of services and delays on the network, particularly during weekday traffic peaks when congestion occurs. Buses are more susceptible to delays because they have to follow fixed routes and cannot divert onto alternative routes. Due to the ongoing impact of major roadworks in Derby city centre over the last year bus punctuality in Derby has deteriorated significantly as a result we will not meet our target of buses running on time for 2010/11.
- 4.82** The Startrak Real Time Information (RTI) system on Derby's bus stops has been successfully delivered through a partnership between Nottingham City Council, Derby City Council, Leicester City Council and the bus operators Arriva , trent barton and Kinchbus. The system is beneficial to users, operators and the council. However, the current contract is coming to an end and Derby is seeking to secure the future of an RTI system, again in partnership with neighbouring authorities and the public transport operators in order to continue with the benefits achieved over LTP2.

4 Derby's Goals and Challenges

4.83 From 2012/13 bus operators will pay 40% tax on the fuel they use; an increase from the current rate of 20%. Fuel is a significant part of bus operators' costs. This measure, in combination with any reduction in the level of reimbursement from the national concessionary fares scheme, may result in operators having to reconsider the provision of some marginally profitable services. This represents a significant threat for the bus industry. Bus operator costs will rise and could have major impacts on the operation of bus services. Communities could suffer, as a sharp rise in the cost of bus travel and cuts in bus networks could increase car use, worsen congestion, damage the environment and lead to higher costs for businesses. The potential negative impacts we foresee are:

- an increase in bus fares
- a reduction in frequencies particularly on lightly used routes and on -used evening and weekend services
- concessionary travel reimbursement could increase.

East Midlands Airport

4.84 East Midlands Airport (EMA) forms part of Derby's travel to work area and as such is a key employment source for the city. We know, from consultation feedback, that people would like to see better links to EMA. Significant improvements in public transport access to the airport have been made over the period of LTP2: The Skylink bus service between Derby and EMA now operates 24 hours per day using a new high standard vehicle fleet. Skylink aims to provide a fast, frequent, and reliable service and picks up at all stops along its route every 30 minutes during the day, hourly at other times and at attractive fare levels. The same service also provides opportunities for through travel to both Loughborough and Leicester for people who live in Derby. A pre-bookable subsidised taxi service between the recently opened East Midlands Parkway (Railway) Station and EMA also provides easy access between the rail network on the Midland Mainline and the airport, and ties in with a substantial park and ride facility at this location.

4.85 All these measures and further planned improvements are designed to give people better access to jobs at the airport as well as improving access to the airport for air passengers. This will be important as EMA's expansion plans will provide employment, travel and economic opportunities but it will be essential to provide an adequate level of surface access capacity to fully exploit these benefits.

Concessionary fares

4.86 Bus patronage has increased as a result of the The Department for Transport allocating local authorities an annual grant to reimburse bus operating companies' costs for offering this free travel.

4.87 Derby is part of the local Derbyshire wide Gold Card scheme; the local name for the English National Concessionary Travel Scheme (ENTCS), which has offered free local bus use to all people in England over 60. Under previous local arrangements Derby paid approximately 28% of the total scheme costs. This was based on a formula related to the number of people in Derby entitled to receive a card. Under the rules for the new national scheme introduced in April 2008 Derby City Council now has to

Derby's Goals and Challenges 4

pay for any concessionary journey that begins within the city. As Derby is a local and regional interchange the share of costs increased significantly to £6.2 million in 2008. Changes to criteria for eligibility being phased in since April 2010, coupled with changes in the reimbursement rules for the scheme introduced by the DfT in April 2011, are expected to deliver some cost savings nationally.

- 4.88** Derby also offers young people aged 14 to 16, and those aged 17 and 18 in full-time education, a significant reduction on travel on buses and trains through Derbyshire County Council's B-Line concessionary fare scheme.

Community transport

- 4.89** The City Council currently invests approximately £280,000 a year to provide community transport services in Derby. These services are designed to allow people who would struggle to use conventional bus services to access essential facilities such as food shopping and medical appointments as well as providing low cost transport for social events. The services the Council currently provides financial support for are:

- Dial a Bus, operated using wheelchair accessible vehicles, providing a weekly door to door service from all of the suburbs in the city to a local supermarket or the city centre, and home again. Assistance can also be provided to help people do their shopping. Passengers with a Gold Card do not pay to use this service
- health service ring and ride operating from 7am to 5pm Monday to Friday and provides a door to door service from anywhere in the city to allow people to access health appointments in Derby at doctors surgeries, hospitals, dentists etc.
- group hire, providing low cost wheelchair accessible minibus hire to social, community or religious groups in the city who want to undertake trips in Derby and the surrounding area
- football service, operated using wheelchair accessible vehicles, providing a door to door service from all of the suburbs in the city to Pride Park stadium when Derby County first team are playing at home.

- 4.90** Despite repeated efforts to encourage more people to use these services some of them continue to carry very few passengers.

- 4.91** A large scale consultation on all Council supported public transport services including community transport has recently taken place. Because of ongoing financial issues which the Council faces it seems inevitable that there will be major changes in the level of support the authority will be able to continue. This will mean that without other support some, if not all community transport services may be withdrawn in the future.

Taxis and private hire vehicles

- 4.92** Taxis form an important part of the public transport network and provide the following unique benefits:

- door to door transport for disabled people, people with heavy shopping, luggage and young children
- flexibility and convenience, for example, when an on demand service is required for disabled people or early morning or late at night when there are no bus services

4 Derby's Goals and Challenges

- they are part of an integrated transport system, for instance providing links to long distance rail routes, coach routes and airports
- they have the potential for innovative schemes such as taxi-buses providing demand responsive and cost effective transport where demand is low.

4.93 The criteria used for granting either a taxi or private hire vehicle licence within Derby area are amongst the strictest in the country, including a number of criteria additional to the national standard, and included in a local document, the Supplementary Testing Manual. We do not limit the number of licenses issued but use market forces to determine this level. There are numerous taxi ranks throughout the city centre and at some district centres. The provision of rank spaces is continually reviewed by the authorities and there are issues in terms of the number of taxis on the network, the capacity of the ranks, and access for other private hire vehicles to the city centre.

Rail

4.94 In Derby rail mainly provides inter urban travel to other major cities across the region and wider national destinations. Overall, rail accounts for a 1% mode share of all trips undertaken across the day. The services available from Derby provide excellent connections to the West Midlands, South Yorkshire and London and the South East. The completion of the Channel Tunnel Rail Link to St Pancras station has opened up wider opportunities for business and leisure travel within Europe and beyond.

4.95 Over three million people a year use Derby rail station (Office of Rail Regulation, 2009). National ticket sales provide a good indication of travel patterns and Table 4.1 below shows the most popular rail lines. The DfT Data Book shows that some lines are overcrowded. Loadings of 40% over capacity have been observed between Nottingham and Birmingham via Derby.

Table 4.1 Percentage of passenger trips to and from Derby rail station in 2009

	From Derby	To Derby
London	21.1%	22.6%
Birmingham	13.4%	13.1%
Nottingham	8.8%	8.7%
Leicester	7.6%	7.1%
Sheffield	5.6%	5.1%

4.96 Derby rail station has recently undergone a £21m refurbishment that rebuilt its platforms and canopies, installed lifts from the over-bridge to all platforms and introduced automatic ticket barriers. Major changes are planned within 2011 to improve the rail interchange facilities at the station as part of a £1.8 million scheme. Works will be taking place at the front of the station which includes the introduction of a new bus interchange and changes to the short stay car park and taxi rank. Consultation feedback indicates a need to improve and integrate public transport links between the rail station and the city centre and that there is a lack of direct bus services from a number of suburbs to the rail station.

Summary and Conclusions

Goal 4: Provide and promote greater choice and equality of opportunity for all through the delivery and promotion of accessible walking, cycling and public transport networks, whilst maintaining appropriate access for car users

Problems

- accessibility in Derby is relatively high. However, there are local issues that need to be overcome, such as access to Royal Derby Hospital
- gaps in the transport cycle network discourages cycling reducing travel choices and accessibility for local trips
- the delivery of cycling in Derby has been reliant on specific external funding grant streams. If this funding is reduced or ceases in the future we will struggle to maintain investment in cycling
- the level of bus provision is not consistent across the city, in particular the lack of orbital routes to serve destinations such as the hospital or access to the railway station from certain parts of the city
- there are perceived barriers to bus use, including concerns about the pricing structure
- people would like to see better links to East Midlands Airport
- the level of funding provided by central government in the past for the national concessionary travel scheme for the over 60s and disabled people has been insufficient to meet our costs. Further changes to the scheme are proposed.
- reductions in funding will threaten other concessionary fare schemes and delivery of community transport.

Opportunities

- to improve the integration of bus and walking journeys
- use of Smarter Choices, information, marketing and promotional initiatives to ensure that people are aware of all their transport options
- to maintain and maximise the longer term impacts of the Cycle Derby initiative, introducing the younger generation to lifelong cycling skills and habits
- to build upon the current high level of satisfaction with accessibility and bus services
- to provide new and enhanced park and ride sites supported by high quality, high frequency bus services
- information technology – further expansion of Real Time Information and travel information
- development of integrated ticketing
- community transport, subject to available funding, could help us address the pockets of inaccessibility in the city.

4 Derby's Goals and Challenges

Summary and Conclusions

Goal 4: Provide and promote greater choice and equality of opportunity for all through the delivery and promotion of accessible walking, cycling and public transport networks, whilst maintaining appropriate access for car users

Conclusions

This section has identified that there are a number problems to solve and opportunities to take to help meet this goal. These can be expressed in the following challenges which will need to be addressed by the long-term strategy for LTP3:

- provide an efficient transport network and reduce unnecessary delays to facilitate economic activity
- maintain and improve transport infrastructure to address existing and future needs
- minimise the effects of any unpredictable events on the transport network, and enhance adaptation to the effects of climate change
- provide good access to employment opportunities, key facilities and services for all residents and visitors to Derby
- encourage and enable all people and businesses to use sustainable travel options
- enhance the integration of transport in the urban environment to provide safe, secure and multi functional space, promoting greater social interaction and natural surveillance.

Goal 5: Improve the quality of life for all people living, working in or visiting Derby by promoting investment in transport that enhances the urban environment and sense of place

- 4.97** There are some aspects everyone would probably agree on as being important for having good quality of living standards such as personal safety and security, good access to essential services, adequate housing, schooling and recreation opportunities. Good design, for attractive sustainable places, is fundamental to good land use planning. The location of new development and the materials used will influence accessibility and the quality of life of both new and existing occupants of an area. Planning can be used to make sure measures that enhance the urban environment are incorporated. As well as providing connections to, from and within areas from the main population centres, transport contributes to regeneration and economic development, helps to improve the urban environment and to create a sense of place.

Key themes for Derby

- Quality of life
- Enhancing the urban environment and sense of place
- Neighbourhoods
- Permeability of public spaces and places

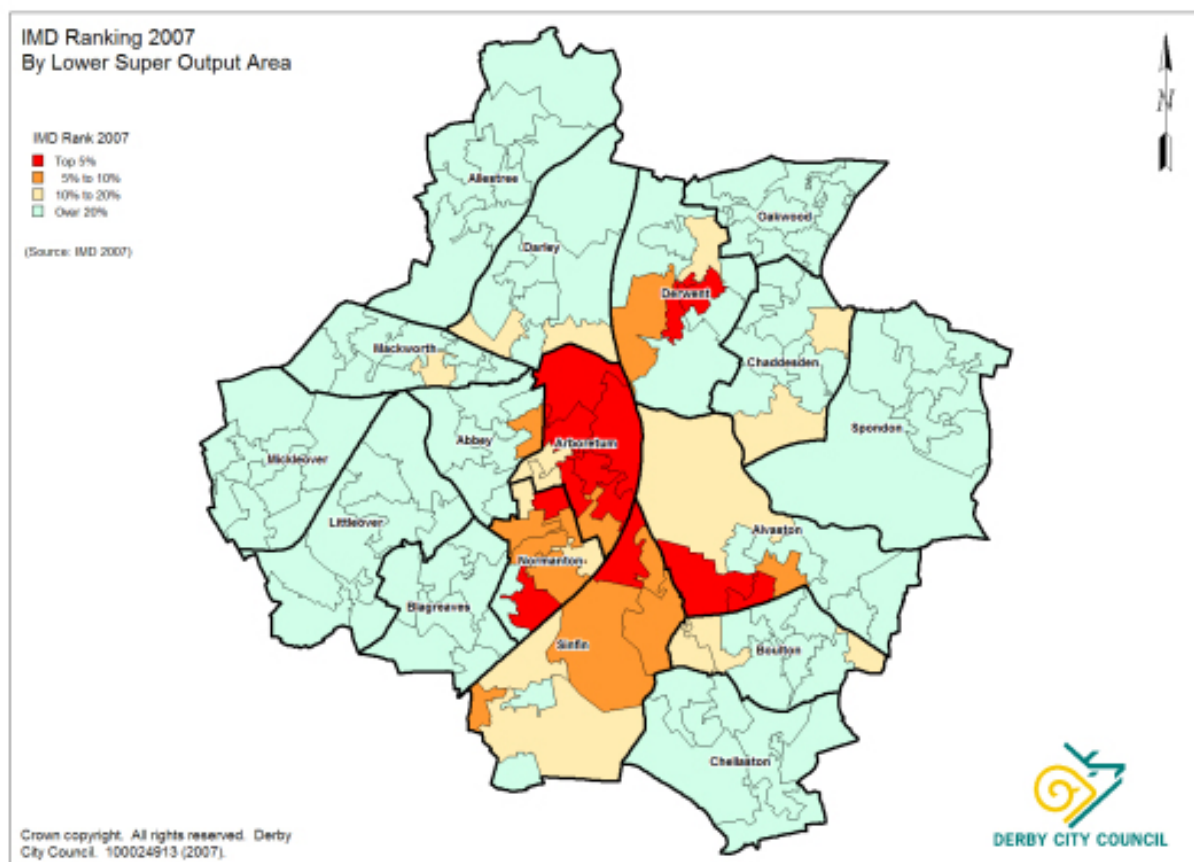
Quality of life

- 4.98** Quality of life for people in cities and towns is directly related to their surroundings. For example how clean the environment is, how safe they feel and how close they are to green space and trees. A good transport system and services is fundamental to our quality of life in terms of how it interacts with our environment and the accessibility it gives us to education, employment and services. Quality of life is influenced by:
- the quality of public spaces and better streetscapes
 - landscape and biodiversity
 - community safety, personal security and crime
 - health and well being
 - sustainable and prosperous communities
 - noise and air quality
 - climate change and greenhouse gases
 - accessibility and affordability of transport.
- 4.99** Access to green open spaces and then natural environment improves people's well being, and walking and cycling routes that are linked to green infrastructure mitigate the impacts of climate change, improve quality of life, and make these modes of transport more attractive.

4 Derby's Goals and Challenges

4.100 Figure 4.8 shows the latest Index of Multiple Deprivation (IMD) 2007 and the areas in Derby were some of the most vulnerable communities live. Derby is the 69th most deprived authority of 354 but ranks better than Nottingham and Leicester which respectively appear as 13th and 20th most deprived. Arboretum ward shows the highest overall deprivation. The majority of the ward falls within the worst 5% in the country. Parts of Arboretum show high incidences of deprivation in terms of crime, employment levels, health issues, income and living environment. Abbey, Normanton, Alvaston, Derwent and Sinfen wards have relatively high levels of deprivation in many of the domains.

Figure 4.8 Indices of Multiple Deprivation in Derby



4.101 Transport underpins our prospects and the vitality of where we live. Investment in transport enhances the urban environment and have a significant influence on regeneration and economic development of the city and its neighbourhoods.

Enhancing the urban environment and sense of place

4.102 The public realm, which includes both public spaces and streets, serves many different functions and is interconnected with the transport network. Well designed and managed public space can improve our health by providing opportunities for physical activity and play. It can also strengthen the local economy by attracting business investment, and increasing spending as footfall increases in city centres and local neighbourhoods. Public spaces are directly related to people's quality of life by:

Derby's Goals and Challenges 4

- improving the local environment and promoting a sense of belonging and pride in an area
- reducing road accidents through appropriately managing different transport modes and prioritising the pedestrian
- increasing perceptions of safety through attracting a large cross section of people at all times of day
- enhancing the attractiveness and safety of routes for walking and cycling
- providing an appropriate setting for social interaction and economic activity.
- improve speed and efficiency of journeys through, for example, better signage and mapping.

4.103 Public space can also help mitigate climate change by linking places together, making it easier and more attractive to move around by walking and cycling. This can be done through improving the environment around public transport hubs, encouraging people to use public transport.

4.104 Streets make up a large part of the public realm within Derby and they should not be just designed to facilitate the movement of motor vehicles. Manual for Streets promotes the following principles in the design of new streets or redesign of existing streets:

- help to build and strengthen the communities they serve
- meet the needs of all users, by embodying the principles of inclusive design
- form part of a well connected network
- are attractive and have their distinctive identity
- are cost effective and maintained
- are safe

4.105 Derby has delivered around £14.5 million of schemes to improve public realm during the LTP2. These include a range of local district schemes and city centre improvements on East Street, Cathedral Green and Midland Place. There are a number of schemes currently under construction including:

- Wardwick, Friar Gate and Cheapside to complete the city centre improvements enabled by the Connecting Derby Project
- Morledge to improve the environment in this area following the opening of the new bus station and to support the further expansion of the Riverlights development.

4.106 Enhancing the public realm is not a solution in its own right. It needs to be supported by encouraging active travel, managing traffic and parking, and reducing congestion and its associated environmental and social impacts. However, the cost of providing higher quality public spaces is high and has long term maintenance liabilities. With capital budgets coming under increasing pressure, large scale infrastructure has to compete for resources across other service areas.

4.107 The city centre masterplan and public realm strategy are currently under review to take into account the changed regeneration priorities within the city centre and also the reduced availability of grant and developer funding to enable schemes to be implemented.

4 Derby's Goals and Challenges

Neighbourhoods

- 4.108** The transport related issues and problems that have been identified in this chapter vary considerably across the city. Figure 4.8 illustrates that there are large differences between people and neighbourhoods.
- 4.109** Neighbourhood boards and forums empower communities to influence decisions on local issues such as transport. The Council has taken the local agenda a step further and recently reorganised the way that it delivers its services. Streetpride combines services such as street cleaning, road maintenance and refuse collection into four different zones in the city – north, east, west and city centre. Each zone is managed by a dedicated management team that works with the Neighbourhood Boards to give residents the ability to prioritise what their communities need.
- 4.110** The Council invests a significant amount of LTP funding in local schemes such as road safety, parking, traffic management, local public transport infrastructure and footway maintenance. These locally prioritised improvements will remain at the centre of our transport delivery plan, however, there will be increasing funding pressures affecting our ability to maintain investment in these schemes.

Summary and Conclusions

Goal 5: Improve the quality of life for all people living, working in or visiting Derby by promoting investment in transport that enhances the urban environment and sense of place

Problems

- there is social and economic deprivation in parts of Derby
- funding constraints can impact on ability to create quality public realm as part of transport schemes
- the potential shortfall in maintenance funding could have a detrimental effect on the existing street-scape and conditions of the wider transport network
- public realm is a maintenance liability
- investment in transport is needed to help regenerate and improve neighbourhoods.

Opportunities

- the emerging City Regeneration Framework will ensure we make the most of opportunities to improve the urban environment
- a good quality public realm can attract further investment and economic opportunity
- combining green infrastructure, walking and cycle ways, and sustainable urban drainage systems can encourage use of sustainable modes of transport whilst mitigating the impacts of climate change
- Streetpride - the way the council manages the street-scape and public spaces of Derby, encouraging ownership and stewardship, a brand and a sense of pride for local communities in their areas, providing rapid response and meeting the direct needs of

Summary and Conclusions

Goal 5: Improve the quality of life for all people living, working in or visiting Derby by promoting investment in transport that enhances the urban environment and sense of place

local communities across a broad range of council delivered services, from parks and open spaces to maintenance and parking.

Conclusions

This section has identified that there are many problems to solve and opportunities to take to help meet this goal. These can be expressed in the following challenges which will need to be addressed by the long-term strategy for LTP3.

- maintain and improve transport infrastructure to address existing and future needs
- minimise the effects of any unpredictable events on the transport network, and enhance adaptation to the effects of climate change
- minimise the negative effects of travel and existing and new transport infrastructure on local communities, air quality and wider environment
- encourage and enable all people and businesses to use sustainable travel options
- enhance the integration of transport in the urban environment to provide safe, secure and multi-functional space, promoting greater social interaction and natural surveillance.

4 Derby's Goals and Challenges

Derby's Transport Challenges

4.111 Having assessed the problems and challenges, we defined a short list of specific Challenges facing Derby that cover all the issues raised. The Challenges were assessed for compatibility with the Objectives proposed in the Core Strategy Options paper, January 2010, for both the city of Derby and the Derby Housing Market Area. The Challenges are also compatible with the existing Sustainable Communities Strategy and Corporate Plan objectives for Derby, but will need to be kept under review as a new vision emerges from the revised SCS, The Derby Plan, in 2011. The precise wording of the challenges is the result of consultation with the LTP Steering Group, the public and the wider reference group, and adoption of recommendations of the Strategic Environmental Assessment process.

Challenge 1: Provide network efficiency, reduce unnecessary delays and facilitate economic activity

Making better use of our existing traffic signals and roads will increase network efficiency. We can optimise the layout of and signs on our roads, and manage the priorities given to users of different modes of transport to reduce the economic, environmental and social cost of congestion and delays.

Challenge 2: Maintain and improve transport infrastructure to address existing and future needs

Before we improve the network, our transport infrastructure must be effectively maintained. Making best use of what we have is the first step to a sustainable road network. Improvements can be made to achieve this, and will be necessary to accommodate future growth in population and employment in the city.

Challenge 3: Minimise the effects of any unpredictable events on the transport network, and enhance adaptation to the effects of climate change

We can reduce the risk of unexpected events such as extreme weather or road accidents by managing the network efficiently, and putting measures in place to respond quickly and effectively to foreseeable circumstances. Hotter and drier summers, warmer and wetter winters, and higher incidence of extreme rainfall events are predicted as a result of global climate change. Forward planning to provide for heat-waves and flood events will require consideration to emergency planning measures and the use of materials and use of land for drainage across the city.

Challenge 4: Minimise the negative effects of travel and existing and new transport infrastructure on local communities, air quality and the wider environment

Air, light and noise pollution result from the use of the road network with significant dis-benefits to people living and working in the area. High levels of pollution can also have negative economic impacts, for example, real estate prices fall and businesses are deterred from certain areas. We can put measures in place to control the amount of light produced by transport infrastructure, and the noise generated by traffic and transport. Construction methods can be optimised to minimise the impact on people and the environment.

Challenge 5: Minimise transport's contribution to climate change and improve energy efficiency

We can encourage the use of alternative modes of travel to the private car, and make the road networks efficient in order to minimise fuel consumption. We can also promote the use of alternative fuels in vehicles, such as bio-fuels, fuel cells and hybrid vehicles. National schemes may support this challenge, such as provision of an electric power-network for private vehicles, and the use of renewable energy to power the grid and individual energy systems.

Challenge 6: Provide safer travel opportunities and reduce road casualties

Promoting safety awareness and providing facilities to allow safe use of the road network by all modes will facilitate achievement of this challenge. We can also make improvements to junctions and crossings where accidents are more likely to occur.

Challenge 7: Provide good access to employment opportunities, key facilities and services for all residents and visitors to the Derby Local Transport Plan area

Accessibility to services will promote the well-being of people in Derby, and economic growth potential. We can improve links for pedestrians and cyclists, and liaise with the bus service providers to improve services. Access by car for essential users and areas inaccessible by other modes can be protected and appropriate parking provision made.

4 Derby's Goals and Challenges

Challenge 8: Encourage and enable all people and businesses to use sustainable travel options

We aim to promote opportunities to use, and awareness of all modes of transport for all people in Derby. We can work with individuals, schools and businesses to raise awareness through, for example, travel planning, cycle training, and road safety awareness training.

Challenge 9: Enhance the integration of transport in the urban environment to provide safe, secure and multi-functional space, promoting greater social interaction and natural surveillance

Urban space is used for a whole range of trips, from walking across the street, to the use of roads for long distance freight haulage. Efficient use of space in an urban environment can create places where a number of different modes of traffic interact - such as vehicular streets that combine pedestrian, cycle and road traffic in a safe manner. This type of use of space can promote safety awareness, reduce delays and congestion by slowing down traffic, and increase urban security. Reducing the severance created by busy roads by integrating pedestrian and other traffic can improve quality of life by increasing social interaction. We can design new spaces and developments to integrate all transport users, and ensure that spaces can be used for both movement, and leisure and other purposes such as outdoor seating, eating or play.

- 4.112** Table 4.2 shows that the Challenges are compatible with the Derby Goals. By meeting these Challenges we will be seen to be aligning our LTP with the national approach to transport planning.
- 4.113** There are many different transport-related schemes and projects that we could put in place to meet our Challenges. Depending on where we put our money in the future, some challenges will be met to a greater degree than others. The next chapter explains how we have tested the relative effectiveness of different measures, in order to arrive at the proposed long term transport strategy.

Derby's Goals and Challenges 4

Table 4.2 Goals and Challenges' compatibility

Transport Challenges	Support Growth and Economic Competitiveness	Tackle Climate Change	Promote Safety Security and Health	Promote Equality of Opportunity	Improve Quality of Life
1 - Provide network efficiency, reduce unnecessary delays and facilitate economic activity	+	+		+	+
2 - Maintain and improve transport infrastructure to address existing and future needs	+		+	+	+
3 - Minimise the effects of any unpredictable events on the transport network, and enhance adaptation to the effects of climate change	+	+	+		+
4 - Minimise the negative effects of travel and existing and new transport infrastructure on local communities, air quality and the wider environment		+	+		+
5 - Minimise transports contribution to climate change and improve energy efficiency	+	+			
6 - Provide safer travel opportunities and reduce road casualties			+	+	+
7 - Provide good access to employment opportunities, key facilities and services for all residents and visitors to the Derby Local Transport Plan area	+			+	+
8 - Encourage and enable all people and businesses to use sustainable travel options	+	+		+	
9 - Enhance the integration of transport in the urban environment to provide safe, secure and multi-functional space, promoting greater social interaction and natural surveillance	+	+	+		+

5 Testing and Consultation

5 Testing and Consultation

Summary of the strategy development process

Generating options



5.1 The five Derby LTP3 Goals and nine Challenges were developed following detailed consultation with the LTP Steering Group, other key stakeholder organisations and the public. These goals and challenges have been used to assist with the development of the long term transport strategy for LTP3.

5.2 To give structure to the process of developing the long term transport strategy, we adopted three principles. These principles will guide the development of potential interventions:

- measures to reduce the need to travel
- measures to increase use of alternatives to the car
- measures to make best use of the available road capacity, supported by targeted new infrastructure.

5.3 The key principles were used to generate a 'long list' of potential measures which could be taken forward within the long term strategy and LTP3. The long list is shown below.

Measures to reduce motorised travel:

- spatial land use planning and integration with transport to reduce the need to travel
- integration of transport in the design of new development
- measures to encourage walking and cycling including education, infrastructure and schemes such as cycle to rent
- Smarter Choices: For example 'Big Wheel' type marketing, car club schemes, travel planning, school travel plans, home shopping and personalised travel planning.

Measures to increase use of alternatives to the car:

- integrated bus ticketing
- improved bus information for example, marketing, real time information, printed information, interchange, service disruption and electronic information including journey planner
- corridor bus priority improvements - assumed to be traffic neutral by design
- park and ride
- overall decrease in bus fares
- increased bus frequency on all urban services with less than a 10 minute headway during peaks. Inter urban services half hourly in the peaks and hourly off peak.
- make provision for electric cars or alternatives
- bus rapid transit such as from Mickleover/Mackworth using the former Great Northern Railway alignment to Friar Gate.
- trams
- High Speed Rail link (Birmingham to Scotland or new line) and potential for new station node

Measures to make best use of the available road capacity, supported by targeted new infrastructure:

- network management enhancements such as reduce on-street parking, red routes, VMS & MOVA
- improving accessibility to and from key employment and key services such as the rail station, hospital, Pride Park, University and East Midlands Airport.
- London Road rail bridge replacement
- sustained investment in the maintenance of the existing transport infrastructure to ensure fitness for purpose
- A38 Grade Separation
- road safety improvements
- district centre improvements
- freight quality partnership
- Street Work Permit Scheme
- reduction in long stay parking in city centre
- increase city centre long stay parking charges
- network wide 20 mph zones across city except radial routes
- noise management schemes through engineering and better low noise surfacing to be included as part of maintenance strategy.
- targeted new infrastructure to facilitate planned growth for example the A50 to Wilmore Road link
- new road schemes: Alvaston Bypass Extension, Spondon Bypass
- Low Emission Zones
- High Occupancy Vehicle (HOV) Lanes
- Work Place Parking Levy
- Road User Charging

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- 5.4** The long list was assessed against the local goals and challenges to determine how they would contribute to meeting them. Consideration was also given to the risk, deliverability and cost of measures. The measures were assessed either on a qualitative or quantitative basis to determine suitable schemes to be taken forward as candidates for inclusion within the long-term strategy. The assessment identified several measures that we are not proposing to take forward within the strategy period. These schemes and the reason for not including them in the long term strategy are shown below. The detail of the assessment outcomes is included in the Options Working Paper, April 2010.

Measures not taken forward for the LTP3 strategy

Trams

- 5.5** LTP consultation has revealed that a lot of people support the principle of development of a tram system in Derby. This probably reflects the success of the tram system in the neighbouring city of Nottingham, where the council has implemented one tram line and is now in the process of developing further additions to their network. However, there are several differences between Derby and Nottingham, the main one being size. Derby has a population of over 244,000, whilst the Greater Nottingham area has a population of approximately 630,000. Nottingham's additional population, together with a larger workforce, means that there is a larger potential number of people who can make use of the tram system and raise revenue for it's upkeep.
- 5.6** Tram systems are expensive to implement and operate. The Nottingham Express Transit (NET) phase 2 is estimated to cost in the region of £400 Million. This is more than ten times the cost of our Connecting Derby project. In addition to the initial outlay required to build the lines and purchase the trams there are the ongoing costs of maintenance of track and tram, energy costs and staff costs. The scale of these operating costs means that a tram system needs to be capable of generating a large amount of fare revenue to cover these costs without the need for a subsidy.
- 5.7** The Derby Area Transport Study in 2004 looked at the potential for a tram system in Derby. The study conclusion was unequivocal, and concluded that Derby is too small to be able to generate the critical mass of passenger numbers, to make a tram system financially viable. This is without considering the affordability of the hundreds of millions of pounds that would be required to build the system in the first place.
- 5.8** In this current period of austerity, and beyond, it is highly unlikely that Derby could afford to build a tram system. Furthermore, even if the city could afford to develop such a system it is highly unlikely that it would be financially viable to operate without significant ongoing public subsidy.
- 5.9** On this basis we have determined that we cannot consider trams as part of long term transport strategy up to 2026. We suggest that this position is reviewed at some point in the future as future developments in trams and their associated infrastructure could change the result of this assessment.

New road schemes

- 5.10** We consider that there is a role for targeted new transport infrastructure where it can deliver wider benefits, particularly in terms of new housing or economic regeneration. Such schemes that would fit into this category would be the A50 - Wilmore Road link. This will provide access to a planned new employment area known as Chellaston Business Park in the south of the city.
- 5.11** Other potential new road schemes that have been identified on the long list are Alvaston Bypass Extension and Spondon Bypass:
- 5.12** The route alignment of the Alvaston Bypass Extension has been protected in successive development plans since the 1950's. The aim of the scheme is to relieve traffic congestion in Alvaston District Centre. This would be achieved by allowing traffic to travel into the city from the south east via the A6 Alvaston Bypass to the junction with the A5111 Raynesway, and then join the bypass extension to avoid Alvaston District Centre, rejoining London Road in the vicinity of Alvaston Park.
- 5.13** There have been significant changes to the highway network in the Alvaston area over last 10 years. The Alvaston Bypass Trunk Road was constructed and opened to traffic in 2003. This road provided a direct link between the A50 to the south of the city and the A5111 at Raynesway.
- 5.14** A major project to grade separate the junction between the A6 and A5111 trunk roads is almost complete. This junction will also provide access to Derby Commercial Park. This is a major business park that is being developed with approximately 2 million square foot of floor space and is expected to generate in the region of 3,000 jobs.
- 5.15** There are similar plans to develop a site to the west of Raynesway for business uses which also has the potential to generate a significant number of new jobs. The Alvaston Bypass Extension would assist in providing access to the West Raynesway site and Derby Commercial Park, provide improved access to new employment sites and help to improve traffic congestion and air quality throughout Alvaston District Centre.
- 5.16** The development of Chellaston Business Park is being taken forward and it may be some time before there is the need or demand to develop the West Raynesway site. The Council does not now intend to act as scheme promoter for Alvaston Bypass Extension and so we have decided not to include this scheme as part of our long term transport strategy. Due to the linkages to commercial developments the Council will still support the bypass extension as a developer led scheme.
- 5.17** Spondon is a suburb of Derby located on the eastern side of the city straddling the A52 Brian Clough Way. The A6096 is a busy principal road that links towns to the north east of Derby to the A52. Traffic accessing the A52 has to travel through the centre of Spondon. The nature of the junctions with the A52 in this area means large numbers of HGV's travel through the heart of the residential area. As this is one of the older parts of Derby the roads and footways are narrow in places making some parts unwelcoming for pedestrians.

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- 5.18** A suggestion that has been put forward is to promote a bypass of Spondon. This would link the A6096 directly to the A52. The bypass would run parallel to the edge of the urban area allowing environmental improvements to be obtained within Spondon itself.
- 5.19** Currently the suggested bypass of Spondon has no basis in planning policy. Our initial assessment has indicated that the costs of the scheme are likely to be significant, particularly to engineer and construct a new all moves junction with the A52. Previous experience has also shown that the provision of a significant new link, which increases road capacity, is likely to lead to induce a significant level of traffic onto the new road. This is likely to create new environmental issues in the area and could lead to further problems upstream in the village of Kirk Hallam, and through Ilkeston.
- 5.20** Our initial conclusions for the proposed bypass of Spondon are that at best it will relocate traffic flows that currently cause annoyance to local residents to the eastern side of the suburb rather than through the centre. The scheme may also create further issues upstream in neighbouring towns and villages. As the scheme is likely to lead to increased traffic levels it will also not help the city to achieve its targets in terms of reducing carbon emissions. Furthermore, as this scheme is not directly linked to the provision of new housing or economic development it has a much lower priority for implementation when compared to schemes which will enable and support housing and employment growth.
- 5.21** On this basis, and taking into account the current period of austerity, we have determined that the Spondon Bypass is not likely to form part of our long term strategy up to 2026. However, we will review this determination if future circumstances change.

High Occupancy Vehicle (HOV) Lanes

- 5.22** Similarly to bus lanes, HOV lanes dedicate part of the carriageway for the exclusive use of vehicles containing two or more occupants. Typically buses, minibuses, taxi's and cars with more than two occupants are permitted to use HOV lanes.
- 5.23** Derby is a mature city whose form and built fabric was set out many years ago prior to the invention of the motor car. This is reflected in the city's highway network, the majority of which are single carriageway roads passing through predominantly residential areas.
- 5.24** It is considered that there are few opportunities for developing HOV lanes within the city. This is mainly due to the physical constraints of the network which mean that there is not enough road space to provide HOVs without extensive localised carriageway widening. This is likely to be expensive, disruptive and unpopular, particularly as this is likely to be within residential areas.
- 5.25** We will consider HOV lanes in the future if opportunities are found to reallocate the use of existing road infrastructure.

Workplace Parking Levy

- 5.26** A Workplace Parking Levy is a charge on employers that provide free or relatively cheap workplace parking. The availability of workplace parking has a major influence on the manner in which staff travel to work. A Workplace Parking Levy is intended to encourage employers to review how their staff travel to work and encourage sustainable travel patterns, such as increasing use of car sharing and public transport. By doing this employers can reduce the amount of parking that they provide, hence reducing the size of the levy that they are obliged to pay.
- 5.27** Within Derby city centre there are approximately 5,800 off street public parking spaces. In addition there are a further 900 short stay on-street parking spaces managed by a pay-and-display system. In comparison there are estimated to be up to 2,000 private non-residential parking spaces within the city centre. This means that if a Workplace Parking Levy was introduced for Derby city centre it would apply to only 23% of the total parking stock. As 77% of the parking stock already requires payment it is not anticipated that a Workplace Parking Levy could have any significant effect upon the levels of traffic and congestion within the city centre during the peak hours.
- 5.28** On this basis we have determined that a Workplace Parking Levy should not form part of our long term transport strategy.

Congestion charging

- 5.29** LTP2 made many references to congestion charging in response to the government policy of the time which was to have provided significant funding for transport improvements through the Transport Innovation Fund for transport authorities who introduced demand management measures such as congestion charging.
- 5.30** Our assessment work for LTP2 showed that if congestion charging was implemented at a regional or national level, and if all charges collected locally were available for investment in transport improvements, there could be major benefits for Derby.
- 5.31** Subsequent to this Derby worked as part of the 6Cs partnership, to undertake a detailed assessment of the potential for congestion charging in the three cities sub-region. The 6Cs partners were:
- Derby City Council
 - Derbyshire County Council
 - Leicester City Council
 - Leicestershire County Council
 - Nottingham City Council
 - Nottinghamshire County Council
- 5.32** The 6Cs undertook a detailed study which identified and quantified the congestion problems across the area. Following this study the Councils decided not to take the idea of congestion charging forward.

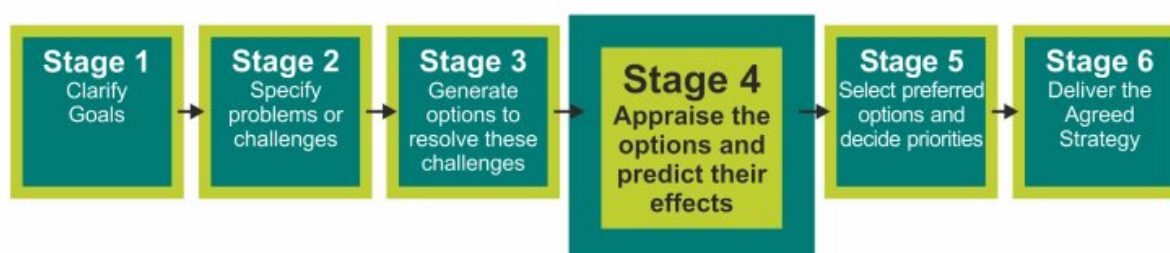
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- 5.33** The Secretary of State for Transport, Philip Hammond, confirmed to the House of Commons Transport Select Committee on 26 July 2010, that he has ruled out congestion charging for existing roads.
- 5.34** The difficulties of taking such a scheme forward were demonstrated by the results of the Greater Manchester referendum, and the coalition government has ruled out congestion charging on existing roads. On the basis of the Councils' previous decision not to proceed with congestion charging, we have determined that we should not include this in our long term transport strategy.

Developing a short list

- 5.35** Following our initial assessment which ruled out a number of schemes for inclusion in the long term transport strategy we identified a 'short list' of transport measures which could be tested in DATM. The short list measures were all tested individually to determine which performed best at addressing the Goals and Challenges.

Appraisal of options



5.36 This section describes the methodologies used to appraise the measures within the short list, and predict their effects including:

- testing a short list of measures with DATM
- developing several strategic alternatives, or packages of measures for Derby
- assessing the strategic alternatives to predict their effects on the environment
- carrying out public and stakeholder consultation on strategic alternatives to determine local priorities.

Broad option testing

5.37 The objective of the broad option testing is to inform the development of the proposed transport strategy to 2026. The focus at this stage is on policies and major measures that affect significant parts of Derby, rather than on detailed measures and schemes.

5.38 Not every measure from the short list could be directly modelled using DATM. This is because not all options can be represented within a strategic transport model, or would provide tangible results. These include planned maintenance, and network management measures such as Freight Quality Partnerships or a street work permit scheme. There are benefits of including these measures in the long term transport strategy but the justification is based on evidence and wider benefits that cannot be quantified by the model. Measures that were not modelled were tested in the SEA, HIA and through consultation with the public and our partners.

5.39 In total 11 short listed measures were tested using DATM:

1. reduction in public long stay parking in the city centre
2. increase in city centre long stay parking charges
3. integrated smart card bus ticketing
4. bus service improvements such as frequency
5. measures to encourage walking and cycling
6. smarter choices
7. bus reliability and traffic management improvements
8. park and ride
9. London Road rail bridge replacement
10. 20mph zones
11. network wide urban traffic management and control.

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5.40 We used a common set of indicators to assess the performance of each measure in the model. The indicators that we used are summarised in Table 5.1.

Table 5.1 Model appraisal indicators

Appraisal Area	Indicators
Economy	changes in average network speeds, delays, total trips, trip lengths and changes in the number of commute trips to the city centre
Accessibility	changes in modal share and changes in the types of trips that cross the inner ring road and outer ring road
Safety	application of standard accident rates and monetary values to forecast changes in vehicle kilometres on highway links within Derby. This assessment will be undertaken using COBA
Environmental	changes in emissions including carbon dioxide (CO ₂), nitrogen dioxide (NO ₂), suspended particles (PM ₁₀), and carbon monoxide (CO) at the roadside as a result of changes in speeds and flows

Outcomes from testing of the broad options

5.41 Based upon our assessment of the strategy options, using the indicators described, we have produced a summary table showing our assessment of each of the options this is shown in Table 5.2.

5.42 It is important to note that the testing looked at the effects of London Road rail bridge being closed to traffic by 2026. This is because in order to determine the benefits of replacing the bridge, we need to understand the problems that would be caused if the bridge were to be closed. The testing showed that if London Road rail bridge was to be closed, the most important single measure the council could implement would be to replace the bridge. Closure of the bridge would significantly undermine economic growth and accessibility to employment and the city centre.

5.43 Some measures performed better against certain indicators than others, so the testing helps to determine how the different measures would help to meet the transport goals and challenges in different ways. Some measures did not perform particularly well against any of the indicators, for example the 20mph zones and reductions in long stay parking spaces.

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Table 5.2 Broad option test results

Test	Economy	Accessibility	Safety	Environment
reduction in long stay spaces by 40%	-	0	0	+
long stay parking charge increase (20% & 40%)	++	-	0	+
integrated smart card bus ticketing	+	+	0	+
bus service enhancements	+	++	0	+
measures to encourage walking and cycling	+	++	0	0
smarter choices sector test	0	++	0	0
bus priority and traffic management sector tests	+	+	0	0
park and ride	++	+	0	0
London Road rail bridge closure	---	---	0	0
urban traffic control	+++	N/A	0	+
20 mph zones	--	-	0	+
Scoring:	+ Slight Beneficial	++ Moderate Beneficial	+++ Large Beneficial	
0 = Neutral	- Slight Adverse	-- Moderate Adverse	--- Large Adverse	

5.44 The key findings from the option testing process were as follows:

- the replacement of London Road rail bridge has to be the councils top priority in terms of major schemes. Tests show that there will be major negative impacts from the gradual loss of service and closure of the bridge. Major benefits to the economy and accessibility in the city would be retained by replacing the bridge
- regulating the pricing of long and short stay parking rather than the physical supply of city centre parking could be an effective measure for reducing traffic congestion on the approach to the city centre in the peak hours
- integrated bus ticketing, such as a single ticket that can be used across all public transport providers in the city, would help to address problems of cross city travel

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- bus service improvement, particularly those which improve reliability and journey times, will help to drive and support increases in demand for travel on public transport
- walking and cycling improvements will encourage increased use of these modes
- smarter choices have a definite role to play in support of a wider strategy but they are unlikely to have significant positive impacts if pursued as a stand alone strategy
- bus priority and traffic management measures have an overall net positive effect as well as delivering benefits within the transport corridors
- park and ride, in particular our long term aspiration for new sites close to the trunk road approaches to the city, is shown to be a very effective measure in delivering reductions in congestion across the city, and within the main transport corridors
- the maintenance and enhancement of Intelligent Transport Systems is shown as delivering significant benefits during the peak hours
- widespread use of 20mph zones are not shown to lead to any significant change in terms of safety, and have a major drawback of increased journey times for all motorised users, including buses.

5.45 The model testing also identified that whilst some measures provided benefits, they could also have negative knock-on effects. For example, measures that address weekday peak period congestion by reducing traffic during peak hours could induce additional traffic during the inter-peak period, as more parking becomes available during the day. This suggests that we need to make sure that we 'lock in' the benefits of the strategy interventions to prevent the benefits from becoming lost. We need to ensure that we tailor our strategy so that it delivers benefits across the whole day and not just the peak periods.

5.46 The results of the testing have helped us to identify the types of measures that perform well and also those that don't. This has helped us to understand how policies and major initiatives might interact with each other and the types of benefits that could be generated. However, the modelling tests are not the only consideration in developing the long term transport strategy.

5.47 Although not modelled, the maintenance of the highway asset is critical to the long term reliability and resilience of the transport network. Unless the network can be maintained to a certain level, benefits from improvements will be undermined by delays caused by increasing superficial maintenance works. Poor maintenance will lead to wider adverse impacts on safety, security and journey quality. The stand alone tests on the closure of London Road rail bridge and Urban Traffic Control demonstrated this to a certain degree.

5.48 A more detailed analysis of the results from the model testing can be found in the Derby LTP3 Strategy Option Results Working Paper.

Development of a new set of themes for LTP3

- 5.49** In order to be able to appraise the types of measures we could implement, and determine which should be prioritised, they have been grouped into themes. The council deals with a wide range of transport issues, so grouping similar measures together will help to show the effects of any particular strategy direction. This will help in communicating the alternative strategies to stakeholders and the public as part of the consultation process.
- 5.50** We followed an approach developed in LTP2 where the long term transport strategy was described under six broad themes, these were:
- land use policies
 - smarter choices
 - local safety and accessibility improvements
 - strategic public transport improvements
 - strategic traffic management and demand restraint measures
 - maintaining our transport infrastructure.
- 5.51** For LTP3 a set of revised themes were formulated based on the new transport goals and challenges. These are listed in Table 5.3 with a brief description of the work areas that each covers.

Table 5.3 LTP3 Transport Themes

Strategy Theme	Types of measures
Land Use Policies	focusing on putting developments in the right places, in particular the city centre, ensuring that more major trip attractors are located there and making sure that transport requirements are built into the design of new developments
Active Travel	walking, cycling, smarter choices and related safety and security
Public Transport	bus and community transport, rail, taxi, and related safety and security
Network Management	Intelligent Transport Systems, traffic management improvements including major road safety and environmental, freight, city centre access management and parking
Asset Management	maintenance of everything within the highway, including refurbishment of Intelligent Transport Systems and environment related maintenance

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Creating strategic alternatives

- 5.52** Guidance suggests that a range of alternative strategies should be compared. The consideration of alternative ways of achieving the LTP3 goals should inform decision making by comparing what would happen to the economy, environment, people's health and other factors under each alternative.
- 5.53** When developing the strategic alternatives we considered each of the transport themes in turn. Our consideration of the role of land use policies suggested that this was a policy requirement that would be delivered across all other areas, and will be described in more detail in the Core Strategy and other spatial plans. On this basis the strategic alternatives that we developed assumed consistent application of land use policies. We then considered the implications of supporting each of the remaining transport themes to four different levels, shown in Table 5.4.

Table 5.4 Different levels of support for transport themes

Alternative levels of support	Definition of level of support
Do nothing	representing a scaling back from services or standards currently provided
Low	representing maintaining the current level of support, either to existing levels, or to some achievable minimum
Medium	representing either maintaining or improving on services or standards
High	representing delivering significant improvements to services, or providing new facilities

- 5.54** A series of alternative strategies were put together by combining different levels of support for each theme in different ways. A number of strategic alternatives were identified which were considered viable, taking into account their cost, and all of the roles and statutory duties that the Council has. These alternatives are shown in Table 5.5.
- 5.55** A subsequent review of the strategic alternatives identified that alternative six, which would require high investment across all themes, was not realistic within the likely future funding constraints. This option was therefore not considered any further.
- 5.56** The other five alternative approaches formed the basis of a public consultation, carried out from July to September 2010, to determine the public's priorities for investment during the lifetime of LTP3.

Table 5.5 Strategic alternatives for Derby's long term transport strategy

Strategic alternative	Level of support				Description of alternative
	Active Travel	Public Transport	Network Management	Asset Management	
1.	Low	Medium	High	High	Significant support for network management and asset management and a minimum level of support for active travel and public transport
2.	High	High	Medium	Low	Significant support for active travel and public transport, moderate support for network management and a minimum level of support for maintenance
3.	High	Low	Medium	Medium	Significant support for active travel with moderate support for network management and asset management but a minimum level of support for public transport
4.	Medium	Medium	Medium	Medium	Either maintaining or improving on services or standards (medium level of support) across all areas
5.	Low	Low	Low	Low	Delivering an achievable minimum (low level of support) across all areas
6.	High	High	High	High	Delivering significant improvements (high level of support) across all areas

Environmental assessment of strategic alternatives

5.57 The five strategic alternatives were also assessed as part of the SEA to determine their relative environmental impacts. Table 5.6 provides a summary of the assessment of the strategic alternatives. More detail can be found in the accompanying Environmental Report.

5.58 The SEA determined that the environmental impacts of the strategic alternatives are mixed. Alternatives two, three and four provide an improvement on the balanced, low level of support approach of alternative five, and alternative three performs the best overall with no significant negative effects.

5.59 In summary, out of all the strategic alternatives:

Strategic alternative 1 is the least environmentally favourable alternative. It has significant adverse effects on air quality, biodiversity and natural environment, land contamination, soil quality and resources, and natural resources and waste. In a few social objectives, small positive benefits are likely to arise but so too are further minor negative environmental effects.

Strategic alternative 2 has the highest number of significantly beneficial effects, 7 in total, relating mostly to social objectives but also against objectives for air quality and greenhouse gases. Significant negative effects are nevertheless expected against land contamination and soil quality and vulnerability to climate change and flooding due to the location of the park and ride sites.

Strategic alternative 3 has significant beneficial effects on air quality, greenhouse gases, road safety and traffic and congestion. The strategic alternative has fewer significantly beneficial effects on the social side than strategic alternative two, but no significantly adverse environmental effects.

Strategic alternative 4 mostly has minor beneficial and adverse effects, with significant adverse effects on natural resources and waste and significant beneficial effects on traffic and congestion.

Strategic alternative 5 has mostly neutral or negligible effects, which can be expected given the lack of interventions in this scenario. There are minor negative effects against air quality and greenhouse gases.

5.60 The SEA recommended that strategic alternative 3 was the most sustainable overall as it has no significant negative effects. Alternative three has a high level of support for Active Travel and moderate support for Network Management and Asset Management. The SEA recommends some additional emphasis on Public Transport to provide additional positive social effects. Table 5.7 summarises the long term strategy recommended by the SEA.

Table 5.7 SEA recommendation for long term transport strategy

Strategic Alternative	Level of Support				Description of alternative
	Active Travel	Public Transport	Network Management	Asset Management	
SEA recommendation	High	Medium/High	Medium	Medium	Significant support for active travel and moderate support for public transport, network management and asset management

5 Testing and Consultation

Consulting on the strategic alternatives

- 5.61** The transport themes and strategic alternatives were presented to the public and various stakeholder groups to understand the popular views on the long term transport strategy for Derby. The consultation asked the respondents to:
- invest a hypothetical transport budget across the four themes
 - rank the transport themes in order of priority within the long term transport strategy
 - give general feedback and comments on the strategic alternatives or any related transport issues
- 5.62** The consultation was aimed as broadly as possible and was carried out with the LTP Steering Group, at Neighbourhood Forums, public events at various locations across the city, with diversity forums and specific focus groups during September 2010.
- 5.63** Comments received covered both the strategy and some very localised issues. The number of local issues raised makes it difficult to interpret the results in order to inform a long term strategy but are highly relevant to the development of the implementation plan and annual programme of transport works.
- 5.64** The results from the consultation indicated interest in many elements of transport delivery but that the majority of respondents would like to see higher levels of support for Public Transport and Active Travel themes. The public transport issues most frequently raised related to route improvements, pricing, bus frequency and the suggestion to introduce a tram system. Many of the suggested improvements can be addressed through working closely with public transport providers.
- 5.65** Network Management encompasses a wide range of transport issues so it is not surprising that many comments were made in relation to this theme. The most popular issues raised under this theme included congestion problems, parking and speeding. Opinions were raised regarding transport schemes such as the Kedleston Road bus lane and for which mode of transport should have first priority.
- 5.66** Overwhelmingly the responses respecting the Active Travel theme related to cycling, particularly safety concerns, route improvements, especially those through the city centre and cycling promotion.
- 5.67** The number of comments relating to the Asset Management theme was low in comparison to the other three transport themes. Most of these comments related to the need for a well maintained network and specific local problems requiring attention.
- 5.68** Around 200 individual comments were made during the consultation on the long term strategy, which cannot be considered representative of a city of population 244,000. The results have therefore been considered in combination with feedback from other consultations in Derby carried out during the preparation of the Draft LTP3. Appendix C summarises consultation responses from all consultation undertaken during the preparation of LTP3, including the National Highways and Transportation Survey, Derby results; Core Strategy; SCS and LTP3 consultation feedback.

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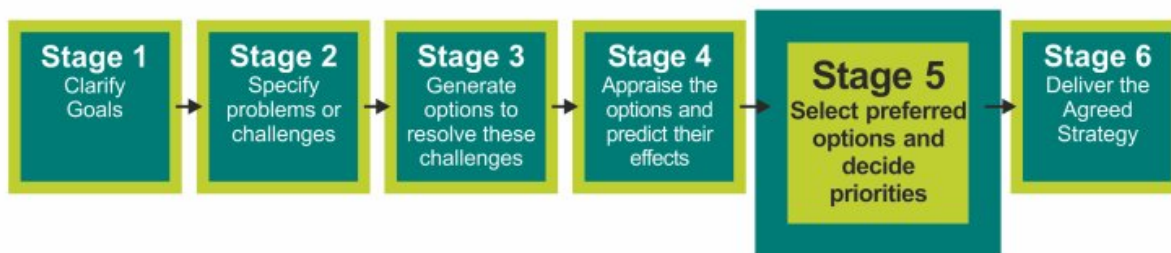
- 5.69** Consultation on the strategic alternatives indicates that the preferred strategy would incorporate support for all the transport themes. Public transport was the local issue raised most frequently by the public. However when the results of the consultation are combined with feedback from the Sustainable Communities Strategy and Core Strategy consultations a wider mix of issues is covered.
- 5.70** We feel that the feedback from all those consulted or who commented on transport during the preparation of LTP3 is best represented by the fourth strategic alternative, which represents a medium level of support across all the themes, with some additional emphasis on the public transport and active travel, particularly cycling.

Table 5.8 Consultation feedback on the long term transport strategy

Strategic Alternative	Level of support				Description of alternative
	Active Travel	Public Transport	Network Management	Asset Management	
Consultation feedback	High/ Medium	High/ Medium	Medium	Medium	a high level of support for public transport and active travel and lower levels of support for network management and asset management

6 LTP3 Strategy

6 LTP3 Strategy



- 6.1** This section sets out Derby's proposed long term transport strategy. The strategy is described, and how it was developed by analysing the evidence base, results of the broad option testing, the environmental assessment of the strategic alternatives and the findings of the consultation. The implementation plan is described in Part 2 of LTP3.
- 6.2** The SEA recommended that strategic alternative 3 supplemented by additional measures on public transport, would be the most sustainable long term strategy. However, taking into account the recommendations of the SEA combined with the appraisal of our strategic alternatives and the consideration of other issues, we believe that the most appropriate strategy that we can use to define a long-term transport strategy is represented best by the fourth strategic alternative. This alternative provides a balanced approach to investment in transport up to 2026; supporting asset management while allowing us to deliver in the other key areas of land use policies, active travel, public transport and network management. Like strategic alternative three this approach enables us to continue to support measures to improve and encourage walking and cycling, and promote the use of alternative modes to the private car. This will have a significant affect on our ability to manage traffic flows and Derby's transport-related carbon emissions.

Derby's long term transport strategy

- 6.3** Our long term strategy is a balanced approach for all areas of transport. We aim to make best use of our existing transport asset by maintaining the roads, managing traffic using the roads, and investing further in measures to support people who choose to travel by sustainable transport modes other than the private car. We need to invest in all these areas to make the most of opportunities for economic growth, and help the city minimise carbon emissions and adapt to climate change.
- 6.4** Maintenance is a high priority for Derby, and we will also continue to encourage and support the use of sustainable transport modes. We must make sure that we do not lose momentum in other initiatives such as Cycle Derby, preparation for major schemes, and local and active sustainable travel measures, which are essential to meet our national and local goals, and address the challenges facing the city in the future.

- 6.5** Safety must continue to be an extremely high priority for Derby. Although we have low actual casualty rates we have not reduced accident rates across the city as much as we intended to over the last five years and there are still too many casualties on the transport network. We will continue to invest in measures that make Derby a safer place for all people who use or are affected by the transport network.
- 6.6** Land use and the design of developments will continue to have a fundamental influence on the way people travel or choose to travel. Land use policies to support efficient allocation of space to every transport user will be developed as a part of the emerging Local Development Framework.

Key Priorities

6.7 Asset Management: maintaining what we have

- replacement of London Road rail bridge
- delivering significant planned maintenance

6.8 Network Management: managing traffic flows

- using technology to make best use of the existing network
- targeting road safety and casualty reduction

6.9 Supporting 'Active Travel' and Public Transport: supporting and encouraging travel choice

- providing information on all the travel alternatives available through promotion and training
- delivering and promoting walking and cycling schemes and initiatives
- working in partnership with public transport providers to improve services

Wider considerations

6.10 A number of major schemes have also been identified as important for Derby:

- the strategy development process clearly highlighted the high level of priority that needs to be given to the replacement of London Road rail bridge. DATM testing highlighted the major negative effects that could occur in terms of congestion and delays if the bridge was closed to traffic. In addition a significant amount of inward investment into Derby's economy could be at risk if the bridge is not kept in a fully serviceable condition
- as the city develops further the strategy will support transport infrastructure that mitigates the impacts, for example the development and provision of park and ride on key corridors
- A38 junction improvements will release land for development in and around the city. The scheme is proposed by the Highways Agency for the period after 2015
- rail improvements will reduce journey times from Derby to other cities including London and Birmingham. Rail improvement schemes will come forward in the longer term, outside the period covered by LTP3.

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- 6.11** Through good project management and clear and accountable prioritisation of schemes we will make efficient use of funding for transport. We will continue to work with local communities, businesses, interest groups and our partner organisations to deliver locally relevant schemes, and make sure all funds are spent efficiently in areas that will be supported by the community.
- 6.12** Reductions to our capital allocation mean that in the short term we will not be able to implement a programme that will make significant progress towards delivering our long term balanced strategy. In the next two years, maintenance of our existing road network will take the priority share of our capital allocation. The evidence shows maintenance is a fundamental requirement to ensure sustainable operation of the network for all modes of transport. Part 2, the implementation plan, explains the sources and the level of funding available and the urgency of our considerable maintenance needs. Short term priorities will change in response to local needs over the life of the strategy, and it is our aim to ensure that all areas of transport receive a sustainable level of support in the long term to deliver the balanced strategy.
- 6.13** More detail on the measures that will be delivered under the long term transport strategy is shown in Table 6.1, based upon the five broad themes. The themes have been developed to make management of the allocation of funds simpler. However it is worth noting that schemes that fall under any particular theme have links to other themes. Delivering transport solutions in Derby will rely on an integrated approach to all areas. For example, the maintenance of footways, whilst delivered under Asset Management provides significant benefits to the Active Travel theme, likewise Network Management schemes provide benefits to all users, including cyclists, pedestrians and public transport users as it concerns the priority given to different modes of transport using the network.

Table 6.1 Derby's LTP3 long term transport strategy 2011-2026

Long term transport strategy theme	Potential headline activity
Land Use Policies – We will focus on getting developments located in the right places to support the economic growth of the city whilst minimising the need to travel and reducing the negative impacts of additional development traffic.	- ensure LTP3 plans and delivery proposals align with the Core Strategy - pursue mechanisms such as S106 agreements to ensure developers negate the impacts of their developments - ensure that transport needs are appropriately integrated into infrastructure delivery
Active Travel – We will support and promote measures to encourage more people to walk and cycle within the city, more safely and more often. In addition we will also support and promote the use of targeted smarter choices and travel planning measures to encourage the use of more sustainable travel modes.	- cycling remains a high priority for Derby - promote transport information, publicity and travel choices - work with businesses and developers on their travel plans - consider and encourage the appropriate use of new technologies including electric charging points for a range of vehicles

Long term transport strategy theme	Potential headline activity
Public Transport – We recognise the significant role that public transport has in Derby in helping us to address congestion problems and reducing carbon emissions. We will continue to work in partnership with our bus operators to improve service delivery to encourage more people to use buses for travel within Derby. We will also recognise the important role that taxis and community transport have for specific accessibility issues.	• continue to ensure availability of a comprehensive network of high quality and reliable bus services • maintain our provision of accessible and high quality bus stops, shelters and real time information. • continue to develop and promote our bus and rail interchanges • continue to work in partnership with public transport operators across the city.
Network Management – Derby's network of roads, pavements, cycle routes and footpaths are an essential asset which enables the movement of people, goods and services through and across the city. The network has to be managed safely and efficiently to reduce unnecessary delays, facilitate economic activity and minimise disruption from incidents or planned events.	• introduce schemes to address strategic and local traffic management and safety issues where appropriate • expand the usage of Intelligent Transport Systems to enable active/real time management of the network • manage and enforce the usage of on and off street parking provision, including support for park and ride • ensure that neighbourhood priorities are addressed effectively • control the use of road space by utilities and other contractors to minimise the impact on other road users • endeavour to reduce the effect of traffic in environmentally sensitive areas.
Asset Management – We recognise the importance of maintaining the transport assets and that we have to keep them in a condition that is appropriate for their designation and usage. Our developing asset management plan identifies the need to increase the level of ongoing planned maintenance work if we are to maintain our assets to an appropriate level and we will work to address this during the strategy period to 2026. During the short term this is likely to mean an increased focus on maintenance activities. In addition to this one of the key priorities will be to secure funding to enable us to replace London Road rail bridge.	• deliver an effective planned maintenance programme for all transport assets • ensure a high level of access is retained on London Road and the surrounding area by replacing London Road rail bridge

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Selecting priorities for the strategy

- 6.14** The following paragraphs explain in more detail the factors that influenced the choice of Derby's long term strategy, including the transportation modelling work, asset life-cycle planning, Strategic Environmental Assessment and feedback from the public and stakeholders during consultation.

DATM results summary

- 6.15** The testing demonstrated that no one measure will provide significant benefits. The individual tests had only a marginal impact on safety and environmental indicators. However, individual tests are unlikely to have a significant impact unless they provide a large step change in peoples' travel habits. It is the larger schemes such as the replacement of London Road rail bridge and park and ride sites that show the most tangible changes but obviously cost the most money to deliver. For Derby it will be the combination of measures that will provide overall benefits for the city. Table 6.2 sets out a summary of the measures that performed successfully in the broad option tests grouped by the new LTP3 transport themes.

Table 6.2 Summary of successful measures from DATM modelling

Theme	Transport Intervention
Land Use Policies	policy measures to guide the location of development and sustainability of design and ensure that suitable conditions are placed on development to secure contributions towards necessary infrastructure and soft measures
Public Transport	- bus service enhancements - integrated bus ticketing - bus priority and traffic management sector tests
Network Management	- London Road rail bridge replacement - measures to manage access to the city centre - park and ride
Active Travel	- measures to encourage walking and cycling - Smarter Choices
Asset Management	maintenance of Intelligent Transport Systems

- 6.16** We combined the successful measures from the broad option tests with other measures that were tested qualitatively or through the SEA, such as maintenance of everything in the highway, into the five strategic alternatives described in Chapter 5.

Asset Management life-cycle analysis

- 6.17** Effective asset management is based around a process of development of life cycle analyses for each of the asset elements that make up the highway infrastructure. Identification of appropriate funding for management of the highway asset is a cyclical process that takes the information developed for each of the asset types, such as highways, structures, traffic signals etc., and combines them to produce a cohesive plan that makes the most effective use of available funding for this work. As part of this process we examine the risks of not carrying out improvement works together with targets associated with levels of service.
- 6.18** The output from this analysis indicated that the funding currently being provided for management and maintenance of the road and footway asset elements falls below that required even to keep these assets in a steady state, which is not either improving in condition or deteriorating.
- 6.19** Analysis has shown that of all the asset groups being considered, the carriageway asset (the road and the footway) is the asset that is most in need of financial support, not only in the short term but also into the future. The analysis looks at available data for each of the asset types in relation to condition over the recent years and uses this to forecast how the condition of the asset will change over the future years making use of alternative funding scenarios.
- 6.20** The forecast need, in terms of expenditure on the road and footway assets over the coming 10 years at current day prices is shown in Table 6.3.

Table 6.3 Life-cycle analysis results: maintenance investment requirements

Financial Year	Roads (£million)	Footways (£million)
2011/12	£1.92	£1.34
2012/13	£1.92	£1.34
2013/14	£1.97	£1.34
2014/15	£1.97	£1.34
2015/16	£2.00	£1.34
2016/17	£2.05	£1.34
2017/18	£2.11	£1.34
2018/19	£2.16	£1.34
2019/20	£2.29	£1.34
2020/21	£2.36	£1.34
2021/22	£2.38	£1.34

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- 6.21** In addition we still need to provide funding to ensure that all the other highway assets are also maintained, and the funding required to achieve this has been identified through a similar analysis. The Highways Asset Management Plan will provide more detail on targets for service provision, and the sources of funding.

SEA recommendations

- 6.22** The conclusion of the strategic alternative assessment indicates that the most appropriate strategy is best represented by the third strategic alternative, combined with additional public transport measures. This represents a high level of support for Active Travel and medium support for Public Transport, Asset Management and Network Management. The SEA recommends this approach to secure the maximum benefit for both the environment and society from transport schemes implemented in the next 15 years.

- 6.23** The Environmental Report makes several recommendations for mitigation measures that should be considered in the future, including:

- that the location, number and size of any new park and ride sites should be considered further in order to mitigate the impact of new development on greenfield land, and compensate for any losses.
- to expand the Intelligent Transport System network to reduce use and wastage of natural resources
- to incorporate Construction Environmental Management Planning in any physical works, to limit the adverse impact of any infrastructure delivery during the LTP3 period
- to ensure that designs are sensitive towards townscape and landscape, and historic assets
- to improve awareness of and access to areas of public open space, natural open space, and recreation, through travel plans
- to improve access to health facilities, employment, shopping and other services
- to control the creation and impact of pollution from the construction and operation of transport-related infrastructure, including the impacts of run-off on groundwater protection zones
- to incorporate CCTV and lighting as necessary on public transport schemes such as park and ride
- to consider the potential for noise mitigation where noise may have an adverse impact on the environment or people's health.

- 6.24** A number of schemes that could be implemented to achieve these mitigating measures were suggested, that have been considered during preparation of the evidence base and assessment of the strategic alternatives for LTP3. These are outlined in more detail in the Environmental Report, and will be considered during the preparation of specific transport policy documents and schemes as they come forward.

Consultation results

- 6.25** Feedback from all those consulted or who commented on transport during the preparation of the LTP3 strategy is best represented by the fourth strategic alternative: a medium level of support across all the themes, with some additional emphasis on the Public Transport and Active Travel, particularly cycling.
- 6.26** Consultation on the draft LTP3 revealed the majority (64%) of respondents supported the long term strategy and the key priorities for Derby. There was a mixed response to the proposed order of priority for investment in the short term. We found that many people felt that a higher level of priority should be given to investment in Active Travel and Public Transport, even if they still didn't receive as much funding as Asset Management and Network Management. By giving sustainable modes of transport higher priority, allocation of funds additional to the LTP capital received from DfT would be more likely to reach those areas.
- 6.27** We recognise the concerns of the consultees. A balanced long term strategy means we will continue to support transport measures in Active Travel and Public Transport in the future. In the short term however, maintenance is our first priority, based on the evidence from Life Cycle Analysis and modelling the drivers and barriers to economic growth in the city. Maintaining and managing our network and the traffic using it are fundamental requirements for the viability of all modes of transport, including pedestrians, cyclists, buses and cars.
- 6.28** In response to the high level of interest in Public Transport services, we raised the level of priority given to public transport in the implementation plan, from fourth priority, to joint third level of importance with Active Travel modes. This reflects the importance we give to encouraging use of sustainable modes of transport, and the vital role they play. We must make sure that we do not lose momentum in other initiatives such as Cycle Derby, preparation for major schemes, and local and active travel measures, which are essential to meet our national and local goals, and address the challenges facing the city in the future. The finalised priorities for investment are outlined in Part 2, the implementation plan. More detail on the consultation process and feedback is summarised in Appendix B.

Wider considerations

- 6.29** There are wider transport issues and opportunities that the evidence base suggests would have a significant influence on the growth of the city. These are fully supported within the priorities for Derby and have been selected for inclusion within the draft long term transport strategy.
- 6.30** The A38 Derby Junctions Grade Separation scheme, a Highways Agency scheme, is critical to facilitating housing growth to the west of the city. The scheme has already been identified as both a sub regional and local priority. Its delivery will be subject to funding availability for schemes of this scale but is scheduled to take place after 2015.
- 6.31** Although not directly tested in the strategy development work, rail, in particular Derby Midland rail station, has an important role to play in the long term transport strategy. Rail plays a key role in catering for inter and intra regional travel and is one of Derby's

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most important assets to encourage business investment. The number of rail passengers using the station has increased by almost 20% since the commencement of LTP2 and is forecast to continue to do so.

- 6.32** Trains on the Midland Main Line are slower than on the other main intercity routes such as the West Coast Main Line and the Great Western. Derby will continue to support track improvements and the electrification of the Midland Main Line, which would allow journey times to approach those achieved on other equivalent lines.
- 6.33** Derby supports high speed rail in the East Midlands, and will actively encourage a route which passes close to Derby and Nottingham. High speed rail would encourage sustainable business travel between Derby and the West Midlands, London and Europe, particularly if the alignment and an interchange were located in close proximity to Derby. These major rail schemes would significantly improve connectivity to Derby and provide wider economic benefits.
- 6.34** Support and engagement in emerging national schemes and initiatives, such as making provision for electric or other alternatively fuelled vehicles, will play an important role in the long term transport strategy. The development of infrastructure for alternatively fuelled vehicles would help us to support the take up and use of such vehicles and would contribute towards meeting our local air quality objectives and wider climate change targets, particularly if the electricity is derived from renewable sources. Derby would seek to grasp opportunities that may become available for such projects over the lifetime of LTP3.
- 6.35** New transport infrastructure may be appropriate if it supports development, particularly if that development will provide new jobs and contribute to the supporting the local economy.

Strategy delivery

- 6.36** LTP3 guidance highlights that even the most carefully prepared plan and strategy will not achieve its goals unless it is delivered effectively and arrangements are in place to oversee delivery, manage risks and monitor outcomes. The implementation plan in Part 2 outlines how we will achieve the delivery of the long term transport strategy over the next two years. Delivery of LTP3 schemes will be managed through:
- the prioritisation of schemes and projects
 - arrangements for the effective delivery of an approved programme of works
 - how we allocate funding to the strategy areas,
 - how we monitor and review our progress
 - how we manage risks.