

# CHAPTER 4

## Tackling congestion

### Introduction

4.1 This chapter explains how the delivery of our longer-term strategy is addressing the shared priority of tackling congestion through our strategy to deliver the LTP objective of:

**Tackling congestion** by increasing the use of public transport, walking and cycling with less growth in car mileage and more effective vehicle use of congested road space.

4.2 It includes:

- An overview of our strategy
- Options we have not taken forward
- The measures we have included in our strategy
- The expected impact of our strategy
- The performance indicators we will use to measure, monitor and manage performance
- A summary of the contribution our strategy for tackling congestion will make to our other LTP and quality of life objectives.

### Overview of our strategy for tackling congestion

4.3 As both the local and national economies grow, people become better off and their need and desire to travel increases. The road network has a finite capacity and as a result congestion increases, with all that entails for economic activity and people's quality of life. We cannot build our way out of this, but by making the best use of the existing road space, making the alternatives to the car more attractive and taking other steps to influence travel behaviour, we can manage this growing demand for transport and the congestion problems it creates.

4.4 Our longer-term strategy sets out how we need to tackle congestion if the improvements we envisage in our economic strategies are to take place. This chapter explains how, within this context, we will put the building blocks in place over the next five years. There is clearly no single solution and a full range of measures is proposed to work in combination with each other. The strategy has been developed based on the existing and future congestion problems identified in Leicestershire as detailed in Chapter 2 and is based on the consultation and detailed technical assessment work we carried out as identified in Chapters 1, 2 and 3. Using this work we also identify those measures that we have considered, but for a variety of reasons relating to cost, practicability or value for money, have decided not to take forward in LTP2.

4.5 Based on the strategy testing work, the general approach we will adopt to tackle congestion will involve a package of measures to influence demand so that fewer vehicles attempt to use congested roads. We will also manage and enhance congested road space to produce more freely flowing traffic. Improvements to local bus services are key to the strategy and hence we have fully integrated our bus strategy (see Appendix G) within this. Our package of measures to tackle congestion includes:

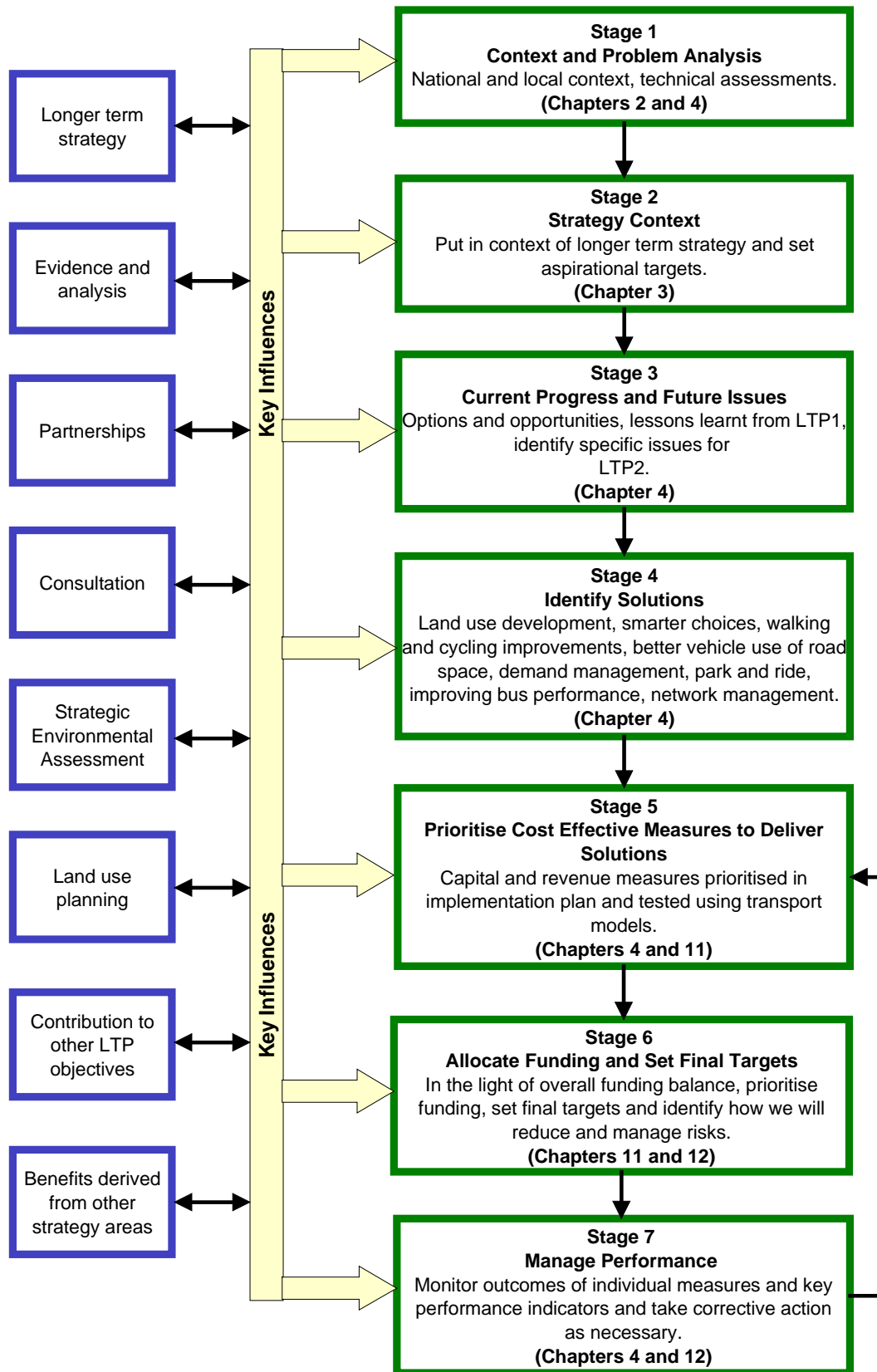
- Using the land use planning system to influence the need to travel and mode used, and to ensure developers provide the necessary infrastructure to service new developments properly
- Making ‘Smarter Choices’ work to influence people’s travel behaviour towards more sustainable options
- Walking and cycle improvements
- Making better use of road space
- Managing demand through parking policies
- Making the most of train services
- More park and ride in Central Leicestershire
- Improving bus performance
- Managing the network to enable traffic to flow more freely.

4.6 We show within this strategy how we are focussing a substantial part of our capital investment in Central Leicestershire and Loughborough, where congestion is currently worst. This will provide the best value for money in the short term and provide a firm basis to take our longer-term strategy forward. We also show how we have used modelling work in Central Leicestershire, and national best practice, to demonstrate what we expect the impact of some of our proposals will be. Finally, in Chapter 12, we identify how we will measure, monitor and manage our performance through a range of key outcome, intermediate outcome and contributory output performance indicators.

4.7 We demonstrate how we work to deliver our strategy with our partners, including Leicester City Council, district councils, the Highways Agency, public transport operators, schools, businesses, neighbouring authorities, Sustrans and freight operators. We also demonstrate the importance we attach to revenue and partner funding which complements our proposed LTP2 capital implementation programme.

4.8 The overall approach we have adopted in the development and delivery of our tackling congestion strategy is summarised in Figure 4.1.

Figure 4.1 Development and delivery of the tackling congestion strategy



## Options not taken forward in LTP2

4.9 As detailed in Chapters 2 and 3, we have developed our strategy for tackling congestion based on the outcomes from our extensive consultation work and also on detailed technical assessments. These have used transport models such as the CLTM as well as other data sources such as ITIS, the traffic control centre from its day to day operations, CCTV coverage and traffic information broadcasting, and national research findings. Working in partnership with the City Council, we have developed and used the CLTM to test a range of strategy options. Full details of, and results from, the strategy testing work are given in Chapter 2 of the Central Leicestershire LTP2. In summary, this work involved:

- Developing future year demand matrices based on predicted future year land use proposals for 2011, 2016 and 2021
- Developing future year modal shares
- Testing of a Do Nothing scenario
- Development and scenario testing of various demand restraint policies (for example parking restraint, congestion charging, and workplace levy) and various schemes (for example bus service improvements, park and ride) in terms of modal shares, congestion, accessibility, safety and air quality
- Testing of the proposed LTP2 programme.

4.10 It was clear from the ‘Do Nothing’ results that this was not an option. The increases in delays and reductions in vehicle speeds would impact severely on congestion levels for all road users and this would result in a worsening in air quality, safety and accessibility on key radial corridors.

4.11 As part of the strategy testing work there are some measures that we considered, but decided not to take forward in LTP2. This is because they either do not represent value for money or are not considered either necessary, deliverable or appropriate in the local circumstances. These are described below.

### **Road user charging and workplace parking levies**

4.12 Our exploratory work on road user charging, in partnership with the other Three Cities authorities, is described in Chapter 3. We are investigating seriously the longer-term potential for this, but do not believe that it will be timely to introduce it within the LTP2 period. Initial work on road user charging is likely to concentrate on the Central Leicestershire area, with consideration of other urban areas possibly following later. At present, in accordance with current DfT views we believe road user charging, rather than the workplace parking levy, is most worthy of exploration.

### **Park and ride services outside Central Leicestershire.**

4.13 The existing park and ride at Leicester Forest East, and our modelling work for the previous Leicester West park and ride proposal, show that park and ride can be a very effective way of reducing car use on radial routes into Leicester city centre. However, it is also very costly to introduce, and would not currently be value for money if introduced elsewhere in the county where the potential demand for the service would be significantly less. Its high cost would also impact detrimentally on our ability to deliver other more cost-effective measures. In these circumstances we believe priority should be given to Central Leicestershire and that there is not a case for park and ride outside this area in the LTP2 period.

4.14 We have checked this by considering the outline potential for park and ride in Loughborough. We did this by comparing figures from our modelling work in Loughborough and Central Leicestershire, and in each case we looked at car journeys which terminate in the central areas within a radius of about 10 minutes walking distance. In Leicester the total number of car journeys is about 4000 in the morning peak hour and 2000 in a typical off peak hour. The equivalent figures for Loughborough are about 1800 in the morning peak hour and 1500 in the off peak hour. Although the scope for significant bus priority measures for a park a ride service in Loughborough is less than in Leicester it may be possible that a service for Loughborough may be justified soon after the LTP2 period. This will be kept under review in the context of Charnwood Borough Council's new local development framework.

### **Further rail stations on the local rail network**

4.15 For a number of years the County Council, with Leicester City Council, had ambitions for higher frequency train services and an increased number of stations as important elements of the strategy to tackle congestion in Central Leicestershire. The recent history of the rail system makes this aspiration no longer realistic. DfT Rail (formerly the Strategic Rail Authority), on the basis of a series of route utilisation studies, has made clear that it sees best value from giving inter-city and freight services priority for use of limited network capacity rather than local passenger services, except in the largest conurbations. Our proposal for a new station at Blaby, described later in this chapter, is the sole exception to this.

### **Ivanhoe Stage 2 rail service**

4.16 The County Council planned for many years to reinstate a passenger service on the Ivanhoe Stage 2 route between Leicester and Burton on Trent via Coalville. Regrettably, what once appeared to be a good value-for-money project has, with changes in the industry, become unaffordable, with predicted subsidies for a limited service far beyond what the County Council could justify. The reopening would nevertheless bring substantial benefits in providing a new congestion-free route into Leicester, as well as helping the new National Forest to prosper. We therefore intend to keep it under review in case external circumstances change to make it affordable in the longer-term. In the meantime, any threat to the integrity of the existing rail route will be resisted, and we will be working with district councils to include policies to protect the line through the local development framework process.

### **Statutory bus quality partnership and quality bus contracts**

4.17 There are clear benefits from our work in partnership with the commercial bus companies and other local authorities in quality bus partnerships, intended to secure comprehensive improvements to bus services. The Transport Act 2000 also provided for the possible introduction of statutory bus quality partnerships or bus quality contracts. We have considered the scope for these, with Leicester City Council, but have jointly concluded that they do not at this stage offer any realisable advantage.

4.18 Quality contracts have some appeal, because they would give greater control over the services provided and allow innovation that the bus companies, subject to actual and potential competition, are not currently prepared to undertake. In particular, we believe the introduction of high quality and fast bus services from the suburbs could produce much larger scale increases in bus patronage than currently seem possible. However, we believe quality contracts would be opposed by the bus companies and, without the necessary extra funding from government to compensate for the up-front risk, neither would they be affordable. In the longer-term, however, Transport Innovation Fund finance could change that situation and bring them into serious consideration.

4.19 A statutory partnership would offer control of the use of particular bus facilities and could be useful in the longer-term in the centre of Leicester, and possibly the centre of Loughborough. Here, the local authorities will have invested substantially in improved bus facilities and will wish to ensure that the bus companies match that by improving the quality of their bus fleets and bus services. With our partners, we will keep the possibility of statutory partnerships under review through the LTP2 period. In the short term, however, we believe that we could not secure the necessary bus company commitment to investment which would make a statutory partnership work.

### Trams in Central Leicestershire

4.20 With the City Council we have assessed the potential for a tram system in Central Leicestershire and have concluded that one would not represent value for money at the present time. It would be extremely costly to introduce, and a funding package would not be deliverable. In addition, trips are relatively evenly distributed on the key radial routes with no clear need for high capacity on one single route. Neither is there sufficient space to accommodate trams without significantly increasing congestion for general traffic. The alternative of introducing fast and high quality suburban bus services would be far more cost effective and is considered later in this chapter.

## The strategy

4.21 All the other transport measures identified at the start of this chapter are available and, we believe, have the potential to offer value for money when used in combination. This section describes the options to be taken forward in our strategy to tackle congestion and assesses the cost-effectiveness of the measures and the extent to which they can be implemented. The section then concludes with the results from our technical assessment of the impact these measures will have on tackling congestion.

### Land-use development

4.22 One of the most cost-effective ways of tackling congestion is to ensure that land use and transport planning are fully integrated throughout the planning processes. We can influence the impact of land-use development on congestion at three stages:

- **Stage 1** - in structure plan and regional spatial strategy policies for levels of house building, employment and other development, and broad areas of allocation
- **Stage 2** – by working with the District Councils as they allocate particular areas of land for development in the new local development frameworks
- **Stage 3** – by working with the District Councils and developers in response to developer enquiries and planning applications.



4.23 Structure plan and regional spatial strategy policies at stage 1 follow guidelines designed amongst other things to improve transport sustainability. With allocations being very much in general terms, there has been no accepted way of assessing the congestion impacts of different approaches with the result that transport improvements, and their funding mechanisms, are generally left until later in the planning process. However, we are now working with the Highways Agency and the five other authorities in the Three Cities region to address this, for example by using the Ptolemy model, detailed in Chapter 2, to assess the transport implications of the RSS.

---

4.24 The new local development frameworks at stage 2 will involve specific allocation of pre-determined levels of development. Here, site choices can greatly influence the amount of traffic and congestion produced: a good location for provision of bus service links, and cycling and walking access to nearby facilities, can substantially reduce car dependency. Not only that, but robust policies at this stage can ensure that new development contributes properly to minimising the traffic impact it creates, whether that is through support for bus services, provision of new transport infrastructure or other means. These measures can help to reduce the risk that new development will add further to existing congestion in urban areas.

4.25 We worked in partnership with the District Councils to secure these objectives in the last round of local plans. With the new local development frameworks we are starting this work at an early stage, to ensure that the vital process of determining development sites takes the transport requirements fully into consideration. This process will allow us, in some instances, to use pooled contributions from different developments to fund transport infrastructure, which would not be justified by one development alone. It may also be noted that well thought-out planning decisions on the location of new facilities, such as hospitals, schools, shopping centres and employment sites, can contribute significantly to **improving access to facilities**.

4.26 Securing the right policies at stage 2 is vital for effective dialogue with developers at stage 3, where specific agreements affecting the design of development and developer contributions can be made. Our new policy document 'Highways, Transportation and Development', which replaced Highway Requirements for Development in 2004, deals with the provision of highways and development infrastructure for new developments and contains policies based on LTP objectives that influence land-use planning. We are increasingly working with developers and the District Councils to secure imaginative investment to minimise the transport impact of development. Amongst recent initiatives is the provision of travel planning information for new residents along with subsidised bus travel for a launch period.

4.27 A number of developer-funded transport improvements to tackle congestion are already planned under existing development agreements. The largest of these are the new park and ride site on the A6 at Birstall, and junction improvements for better vehicle use of road space in the M1 Junction 21 area as identified in the recent study. The B4114/B582 Foxhunter roundabout will be substantially improved and works carried out at other junctions in the area. These works will also contribute to **reducing road casualties**.

### Smarter Choices

4.28 Smarter Choices is a term that describes schemes and initiatives that reduce the need to travel, or encourage travel behaviour change, for commuting, leisure and shopping journeys.

4.29 The Department for Transport published the 'Making Smarter Choices Work' report at the end of 2004. The Department identified particular success where Local Authorities promoted 'soft' (now called Smarter Choices) transport policy measures vigorously. The report indicated that these measures could cut car traffic significantly, with reductions at peak times by up to 21%. Whilst these sorts of reductions are highly aspirational, we believe that Smarter Choices measures will provide wide-ranging benefits for the people of Leicestershire and we will build on work that we have already undertaken through the LTP1 period.

4.30 We intend actively to promote Smarter Choices through LTP and other funding sources. This will include measures and initiatives that are already developed, as well as those that are new to us. It is important that we implement complementary 'hard' infrastructure measures to maximise the economic, health, safety and environmental benefits that these measures can provide. These measures and initiatives will include travel plans, walking and cycling schemes, bus priority measures and speed reduction measures, and are described in more detail elsewhere in LTP2.

4.31 Table 4.1 demonstrates the work that we have undertaken, and will continue to undertake, to deliver Smarter Choices in Leicestershire

**Table 4.1 Smarter Choices initiatives**

<b>Programme Area</b>	<b>Types of schemes and initiatives</b>
School travel plans and routes to school programme	<ul style="list-style-type: none"> <li>● Routes to school</li> <li>● 20mph zone programme</li> <li>● Star Walker - walk to school initiative</li> <li>● Walking buses</li> <li>● Park and Stride.</li> </ul>
Workplace travel plans	<ul style="list-style-type: none"> <li>● County Hall Travel Plan</li> <li>● Major employers focus (250 or more employees)</li> <li>● Review of Employer Travel Plan function</li> <li>● Improving travel plan guidance to developers</li> <li>● Promotion of government site specific advice scheme</li> <li>● Home working, including BT's teleworking package</li> </ul>
Personalised travel planning	<ul style="list-style-type: none"> <li>● Links to Transport Direct website from our website – transport journey planner for Great Britain.</li> </ul>
Travel marketing and promotion	<ul style="list-style-type: none"> <li>● Publication of annual calendar of safety and sustainable travel campaigns on National TravelWise Association website</li> <li>● Regional TravelWise member</li> <li>● National Bike Week</li> <li>● UKLAST (UK Local Authority School Travel Association) member</li> <li>● Walk-in-to-Work-Out</li> <li>● EMMA day (European Mobility Management Awareness day).</li> </ul>
Public transport information and marketing	<ul style="list-style-type: none"> <li>● Bus information strategy</li> <li>● Publication of bus maps and guides</li> <li>● Marketing and promotion of services</li> <li>● Traveline support</li> <li>● Website development</li> <li>● Star trak.</li> </ul>
Active travel	<ul style="list-style-type: none"> <li>● Cycling schemes</li> <li>● Walking improvements</li> </ul>

**School travel planning and routes to school programme**

4.32 Over the past 20 years there have been major changes in the way that children travel to school. Car use has doubled and the proportion of pupils walking or cycling has decreased sharply. Driving to school causes congestion and, in urban areas in term time, nearly one in five cars at 8.50am is on the school run. To reverse this trend it is necessary to encourage less reliance on the car for the journey to school and to develop travel patterns in the young that will lead to healthier life styles and promote sustainable modes of transport for the future.

4.33 School Travel Plans play a key role in reducing the number of car journeys to school. National research in the Government's "Smarter Choices – changing the way we travel" has confirmed the considerable potential for school travel plans to tackle localised congestion problems. The case studies showed that a well developed programme of travel plans across a number of schools might be expected to reduce the amount of school run traffic by between 8% and 15%. However, typical spending on infrastructure measures in the case studies was between £30,000 and £75,000 per school. If we were to spend at this level in Leicestershire, it would require £15 million to provide the equivalent level of infrastructure at all our schools. This would require about half of our total planning guidelines for the LTP2 period. We clearly cannot spend at this level, so we will have to look to increasingly innovative ways of changing travel behaviour if we are to achieve the reductions in school run traffic shown in the case studies.

4.34 We have made substantial progress during the first LTP period in working with schools on school travel plans and carrying out improvement works. At the end of 2004/05 a total of 77 schools had adopted a school travel plan. To contribute effectively to our overall target on congestion our target is for 90% of schools to have school travel plans by the end of the LTP2 period in 2010/11.

4.35 A recent review of school travel plan strategies in England has been undertaken. The Travelling to School Initiation Project Board, on behalf of the DfT, assessed 122 strategies from authorities across England, using a five point numeric grading system. In January 2006 we were advised that our school travel plan strategy had been assessed and classified as 'Category 1', the highest grade. A spokesperson for the Department for Transport stated, "*Leicestershire has produced a robust strategy to guide the development of their school travel plan programme and I am not proposing to provide any more detailed feedback as their approach is fine and no further work is required at this stage.*" We intend to build on the good work that we have undertaken so far. Our next step will be to consider the evaluation feedback and, where appropriate, introduce changes in order to maximise the benefits gained from introducing our school travel plan strategy.

4.36 We studied Halton Borough Council's junior travel approach and developed a similar scheme called travel detective. This involves several one hour sessions with Year 5 and 6 children, taking them through the fictional development of a school travel plan, using various techniques including role play. The aim of travel detective is to encourage children to participate in the development of travel plans, and it is used as part of the overall approach to travel plans. The scheme has been running since the beginning of 2003 and many schools have participated.

4.37 As well as receiving grants from the Government, schools that adopt travel plans also benefit from a range of road safety and travel awareness initiatives, including the Star Walker walk to school scheme, pedestrian training and cyclist training. Schools will also have priority consideration for a 20mph school safety zones, as well as the possibility of other appropriate traffic calming and engineering measures. The County Council's Road Safety and Travel Awareness Team offers advice and support to all schools within Leicestershire who wish to consider the benefits of setting up their own travel plans.

4.38 The capital programme will mainly concentrate on schemes to improve conditions for walking, but with some cycling improvements, all identified through school travel plans. We expect schemes to include vehicle speed reduction around schools as well as footway and crossing improvements. Measures to increase walking and cycling are being identified by the schools, working with our two school travel plan co-ordinators.

4.39 In response to the Smarter Choices publication we have accelerated proposals to make travel to school safer and tackle congestion around schools through school travel plan initiatives. Measures are summarised in Table 4.2 with further details given in Appendix F and include:

**Table 4.2 School travel plan initiatives**

Initiative	Explanation
School modal shift schemes	Comprehensive schemes to facilitate modal shift, targeted at schools where there is the potential to achieve the greatest change
20mph zones around schools	A pilot was completed in 2004 of 20mph signing outside schools. As a result a comprehensive programme of 20mph zones is proposed, aimed at slowing traffic around schools
Walking routes to school	Improvements to routes that children use to walk to school
'Walking bus' initiative	Initiative for primary school pupils which encourages walking with other pupils for the school journey
'Park and Stride' initiative	Primary pupils with longer journeys can also walk for part of the journey by taking part in this initiative
'Star Walker' scheme	An initiative for primary schools to encourage pupils and their families to walk to school. Journeys are recorded in 'Star Walker' passports and pupils are rewarded at regular intervals with rewards.
Car share	Encouraging shared use of cars where children have to travel to school by car
Cycle training	Encouraging cycling through cycle training, improved cycle routes and providing cycle storage
Public Transport	Reviewing bus services to schools so that more children are able to use buses
Curriculum links	Developing curriculum links associated with school travel plans
'Healthy Schools' Programme	This programme is run in partnership with the County's Primary Care Trusts and includes the promotion of increased physical activity.
Funding advice	Making schools aware of additional government grants to help them develop their school travel plans

4.40 Approximately 50% of primary school pupils and 20% of secondary school pupils in Leicestershire go to school by car. It is encouraging however that 8% more pupils walk to school where a travel plan has been developed than at schools where one has not been. We have achieved excellent results in our primary schools with our 'Star Walker' initiative, with monitoring of primary schools indicating that some schools have achieved a 17% increase in the proportion of pupils walking. In another example a 23% reduction in the proportion of pupils arriving at the school by car has been achieved.

4.41 We will continue to use capital funds to support travel plans. However, given the resources available, it will not be possible to support all plans in this way. We have therefore reviewed our procedures and we will target those schools and schemes where the funds used will be most cost-effective in reducing car use and the associated congestion. In this way, we will ensure that our investment in school travel planning maximises benefits and offers good value for money. As part of the development control process we will continue to require school travel plans for new and extended schools.

4.42 Travel to school by bus not only contributes to our school travel planning work but also contributes to generating habits of public transport use for young people. There are three main elements funded through revenue expenditure as follows:

- Funding and managing travel for pupils with statutory entitlement. Our entitlement definitions extend well beyond the minimum demanded by legislation and we also make full use of any spare seats on buses to offer transport at a fare to non-entitled pupils
- Funding and managing separate local bus service contracts for 'schools special' services where all the pupils are non-entitled and pay a fare
- Bus service initiatives in association with the 16 Plus partnership to improve access to education for 16 to 19 year olds, including substantial funding for travel to further education colleges using season tickets on public bus services.

4.43 These are important parts of the bus strategy (see Appendix G). We currently transport 1,600 pupils to school by bus in addition to the 16,500 who are entitled to travel this way.

4.44 We can do much to improve travel choices, but our experience has shown us that success in reducing car use depends on partnership work with schools and parents. We are very active in promoting new initiatives including 'park and stride', car sharing and 'walking bus routes', of which we currently have 20. We have recently increased the number of 'Star Walker' schemes to nine and these schemes provide modest rewards for children who walk to school. We will continue to build on this successful work with LTP2.

4.45 The introduction of specific DfT funding in 2004/05 is helping with this work, and we now have both extra school travel planning staff and greater funding to offer schools for on-site enhancements. Success depends not just on improving the alternatives to car use but also persuading parents, children, staff and governors of the value of a different approach to the journey to school.

4.46 In order to build on our success and ensure continued improvement and value for money, we regularly review the effectiveness of our campaigns. Where appropriate, impartial external consultants are used to assess the benefits, examples including reviews of the effectiveness of our road safety publicity and a primary school website appraisal.

4.47 We are also currently reviewing our system of how best to engage independent schools to set up school travel plans. This will help us to meet our target of 90% of schools having a school travel plan by 2010/11. Once this review is completed we intend to create a toolkit which will be marketed to other authorities in order to share expertise.

4.48 Apart from tackling congestion, this programme will make a vital contribution to our other LTP objectives. **Access to facilities** other than by car clearly benefits from better routes and choices, for example by bus from further afield. Many of our routes to school schemes will include better crossings and in some cases speed reduction measures, all helping to **reduce road casualties**. **Air quality** benefits from any reduction in local congestion and car use, including CO<sub>2</sub> emissions and climate change. Similarly, reductions in traffic volumes or speeds on the school run will help **reduce the impact of traffic**.

### Workplace travel plans

4.49 Workplace travel plans aim to encourage travel by public transport, walking and cycling as well as car sharing and such innovations as teleworking and compressed hours. National research has shown that comprehensive and effective travel plans can reduce commuter car journeys by more than 10%. Our surveys for the transport models in Central Leicestershire, Loughborough and Melton Mowbray show that over 60% of all journeys in the morning peak are on the journey to work. The potential for work place travel plans to provide a cost-effective contribution to tackling congestion is therefore clear.

4.50 We are active in promoting workplace travel plans in Leicestershire and, in the case of both workplace and school travel plans, we have been able to strengthen this work through planning conditions associated with new development.

4.51 We have focussed our efforts in workplace travel planning on employers of more than 250 people. These are likely to provide the best return on our investment of effort and the employers will have the internal resources to deliver travel behaviour change by their staff. By the end of 2004/05 22 public and private sector employers had adopted workplace travel plans. We will continue and develop this work whilst continuing to offer advice and support to smaller employers. Many additional travel plans have also been achieved for new employment, residential, shopping and leisure and sports developments through the planning process, and we will continue this aspect of our work.

4.52 We work closely with planners, developers and the Highways Agency to maximise benefits of employer travel plans. One example is our current work with the Highways Agency as part of their wider three year initiative to test the impact of Smarter Choices work in relieving congestion on the strategic highway network. Joint working between the Highways Agency, County and District Councils, consultants, Grove Park management and employers could result in a tailored travel plan which would bring benefits to both companies and their employees and reduction in peak hour traffic to the Grove Park development alongside Junction 21 of the M1.

4.53 To support our current target, we are preparing guidance to assist in the preparation of travel plans. It will explain, amongst other things, the purpose of plans and what an effective plan should contain. The guidance will be published as part of our design guide 'Highways, transportation and development', helping to reinforce the importance of travel planning in land use policy. We will also take steps to monitor better the effects of travel plans in helping to meet key objectives of LTP2, particularly tackling congestion.

4.54 Other measures to be developed during LTP2 period include:

- Investigating, with the City Council, the creation of an internet-based City and countywide commuter car share registration scheme
- Promoting a package of advice provided by BT to employers willing to consider 'teleworking' arrangements to avoid the need for some staff journeys to work
- Continuing to promote and support the government funded site-specific advice scheme under which organisations obtain free consultancy help for travel planning.

4.55 We have adopted a travel plan for our main headquarters at County Hall and we will use this not only to local benefit but also as an example of good practice to other employers in the county. The County Hall travel plan is already showing this good practice in facilitating a car-sharing scheme and preferential parking for car-sharers.

4.56 To build on previous successes and maximise benefits we have reviewed the workplace travel plan function. We believe that the most efficient way to use our limited resources will be to put an increasing focus on securing travel plans and associated supporting measures from developers through the development control process, and we will initially focus our work with existing large employers in Loughborough where the scope for modal shift is greatest and where it could have a potentially beneficial effect on the air quality management area in the town centre.

4.57 We continue to form workplace travel plan forums around the county with the aim of providing supportive networks to exchange information and advice. The Loughborough travel plan forum has been meeting through the year and a new one has recently met at Nottingham East Midlands Airport.

### Personalised travel planning

4.58 We have watched with interest the trials elsewhere of personalised travel planning, and will review the success of this work early in the LTP2 period before deciding whether to introduce a similar initiative here. Meanwhile, enquirers seeking personal journey plans are either offered the Liftshare, Traveline and Transport Direct telephone and web-based services, or are provided with paper timetables and information leaflets. We will assist developers of all new residential estates to provide such information in 'welcome packs' to each new household.

4.59 As an example of initiatives already undertaken we have, in partnership with a major retailer, prepared a detailed local walking and cycling route map for the Grove Farm / Fosse Park area near M1 Junction 21. This was distributed to staff and local customers with the intention of assisting users to negotiate more safely the complex major roads and junctions of that area. Similar collaborations will be offered to developers of other retail, employment and leisure sites elsewhere in the County.

### Travel marketing and promotion

4.60 If we are to tackle congestion effectively we need to persuade Leicestershire people to use their cars less at peak times and instead to car-share, walk, cycle or use public transport. Critical to this are:

- Making the other modes of travel more attractive
- Ensuring that people understand the issues around congestion and air pollution
- Ensuring that people have good information about other modes available to them.

4.61 Much of the work described in this section is aimed at making the alternatives more attractive. Our work in travel marketing and promotion is aimed at improving understanding and information. So far, much of our effort has been concentrated as part of school and workplace travel planning, described above.



4.62 School and workplace travel planning, together with bus service and cycle promotion, are three of the main strands in travel marketing and promotion. The last is our wider promotional work aimed at motorists generally and emphasising the environmental, health and safety benefits of better travel choices. We have been active in this through the LTP1 period and will continue and develop this work. National campaigns to raise general travel awareness have been actively promoted in Leicestershire and we have used the publicity material for these campaigns to assist with more local promotions and give momentum and motivation to local efforts.

4.63 Many local campaigns have been devised, often in conjunction with road safety education, and this full range of activities is planned to continue throughout the LTP2 period. In addition, as part of our development control process, we require developers to provide travel packs to new home owners. These packs include such items as bus timetables, travel passes, promotion of local amenities and information on local walks and cycle routes.

## Public transport information and marketing

4.64 Public transport information and promotion in partnership with the bus operating companies is an essential part of travel marketing. This activity is a key part of the bus strategy and will see an increasing number of actions taken during the LTP2 period. Effective promotion, if combined with service improvements, can result in large patronage increases. As one example, the DfT has acknowledged the success of our Leicester to Loughborough quality bus corridor, a joint project with Arriva and the City Council, which produced a 26% increase in passengers. Elsewhere, promotional activity for services on our hourly bus services network has produced patronage increases on individual services of around 20%.

4.65 We adopted a bus information strategy in July 2003 and this is incorporated into our bus strategy (see Appendix G). Our bus information strategy recognises the need for high quality information, properly updated and delivered through a variety of media. The implementation of the strategy is already producing marked improvements.

4.66 Building on our previous success, our key commitments to increase bus patronage in Leicestershire are to:

- Maintain the bus services database for the Traveline telephone and on-line enquiry service, with full contribution to the costs of these
- Maintain the County Council website providing comprehensive local public transport information
- Provide and distribute high quality timetable leaflets for all contract services
- Provide full guides to the hourly services network, one for the whole county and one for Central Leicestershire
- Provide guides to the services in main urban areas, delivered door to door at six-monthly intervals
- Provide and maintain bus-stop displays at all main bus stops served by contract bus services
- Provide permanent on-street displays giving comprehensive local bus information in all Leicestershire town centres and in all railway stations
- Provide data for the national Transport Direct initiative.

4.67 To help ensure effective publicity for changes, and to reassure customers, we have joined an agreement with bus companies and local authorities across the East Midlands to change bus timetables on only six standard days each year.

4.68 We are a member of a partnership to introduce and expand the star trak real-time information system and associated star text text messaging in Leicestershire. This system is currently in operation on 24 routes in the county and is widely welcomed by passengers. As the system is costly, and relatively labour-intensive to introduce and run, it needs to be targeted at the most important routes if it is to be cost-effective. We will continue to focus on quality bus corridors as they are introduced, and on other areas where we are making substantial investment in bus stop facilities.

4.69 We were founder members of 'EMTIS', the East Midlands Travel Information Service, and have played a leading role in moving the regional Traveline telephone enquiry service forward to its present high level of performance. We have entered into a data sharing agreement to ensure effective input to Transport Direct.

## Walking and cycling improvements

### Cycling - Introduction

4.70 Cycling is a viable alternative to car travel for medium length journeys of up to about five miles in our urban areas and for those journeys that are too long to walk. Experience elsewhere, and comment from cyclists locally, leads us to believe that we need to focus on two types of initiatives to encourage significant increases in cycling. These are:

- Comprehensive cycle networks, so that most local journeys can be made without leaving safe cycling routes
- Effective promotion, so that people who would otherwise not have thought of cycling are encouraged to try out the new facilities.



### Cycling – Working with partners

4.71 We have been an enthusiastic supporter of the Sustrans National Cycle Network. The Network has been developed over the past 10 years by the transport charity Sustrans, in partnership with local agencies. The project has resulted in several routes connecting towns and villages in Leicestershire, providing local networks for recreational, school and commuter cycle journeys. In September 2005 we received an award from Sustrans for ‘consistently delivering the (cycling) Network swiftly and imaginatively, across disciplines and departments’.

4.72 In addition we have also been involved in the Sustrans/Cycling England Links to Schools Programme and have recently received one of the largest grants awarded. This has enabled us to build on our cycling investments. One scheme that has recently been completed is a route, which links the Wreake Valley Community College to Syston, East Goscote and Queniborough. Students can now choose a healthier way of travelling following the completion of this new cycle track. Members of the student council have been actively involved in this scheme, working with us on the design of the cycle track and taking the lead role in the design and specification of the new cycle parking shelter. In addition, members of the student council have designed the route signing to the school and are now actively promoting its use to fellow pupils with presentations and displays. The completion of the scheme forms part of the development of the College Travel Plan and healthy living initiatives.

4.73 We are members of the Cycling Touring Club (CTC) Midlands Regional Cycle Benchmarking Project. The project, which was started in 2000, was funded by the Department for Transport and organised by the CTC. Its objective is to develop the skills and knowledge of professionals, particularly those working in local authorities, responsible for the development and delivery of cycling strategies, and central to this is the commitment to promote best practice and encourage exchange of experience. We have signed up to the project along with 10 other authorities, CTC and the English Regions Cycling Development Team. As an early initiative we hosted a visit from nine other local authorities and the CTC in October 2005.

4.74 A report on this visit identified many excellent features in Leicestershire’s approach and activities which would provide a good platform for continuing to develop cycling in the county, particularly as the officers were “experienced, motivated and had good relationships with other stakeholders both internal and external”. A consolidation workshop was held in March 2006 and an Action Plan produced, which includes actions to be taken as a consequence of the comments received from the benchmarking project visit.

4.75 Other examples of our best practice working with partners are given in Appendix F and include:

- Producing a best practice cycle guide to share with other authorities, neighbours and developers
- Being used as an example of good practice for signing the National Cycle Network
- A request from Sustrans, based on the quality of our waymarking of routes within Leicestershire, to give our expertise in helping to develop new standards and designs for the waymarking of cycle routes
- Commendation by the National Byway on the excellent quality of signing and the integration of new signs into existing signage in Leicestershire.

### **Cycle networks**

4.76 Our investment in cycling improvements during LTP1 has resulted in a gradual increase in cycling in the four years from 2000 to 2003 at the 21 sites which are monitored automatically. We believe that our cycling investment in recent years, which has been enhanced by developer contributions and other funding sources, has helped to prevent a decline in cycling in the county, and there is evidence that the combination of good networks and effective promotion can produce increases in cycle use. Monitoring of comprehensive routes built in the last 5 years shows excellent increases in cycling. At one site cycling increased from approximately 100 cyclists a day to approximately 300 cyclists, with approximately two thirds of cyclists using the new facilities and one third continuing to use the carriageway.

4.77 We have already invested significantly in cycle networks in Central Leicestershire and Loughborough, where congestion is greatest. It is in these areas that there is the greatest potential to contribute to our objectives if we can deliver more comprehensive networks coupled with effective promotion. We believe this is essential for long term success: in promoting cycling we need to be able to reassure potential cyclists that they can travel along a safe route to almost anywhere in the urban area they wish to reach.

4.78 Figures 4.2 and 4.3 show the existing and proposed networks in Central Leicestershire and Loughborough. Whilst much has already been achieved, further investment can complete a number of missing links and help us to realise the full value of the many individual sections of route constructed during LTP1 and earlier. Wherever possible this work will be supported by developer contributions.

4.79 To maximise the return, the large majority of our investment will be focussed on the two main urban areas. However, we will also consider providing a small number of individual new links elsewhere if these will result in more cycling at congested times of day. Such schemes are most likely to arise in association with workplace travel plans adopted by larger employers. We also expect to be continuing investment associated with the national cycle network, including connections to local networks and destinations. This will involve separate funding and work in partnership with Sustrans. We are currently reviewing our procedures for identifying and implementing cycle schemes and we will target those routes where the funds used will be the most cost-effective in increasing cycling. In this way, we will ensure that our investment in cycling maximises benefits and offers good value for money.

Figure 4.2  
URBAN CENTRAL LEICESTERSHIRE CYCLE NETWORK

Figure 4.3  
LOUGHBOROUGH CYCLE NETWORK

## Promotion of cycling

4.80 We will link this infrastructure investment with increased activity in promoting cycling. In particular, as well as advocating the benefits of cycling, we will build on our existing work in producing clear maps of safe cycling routes in our urban areas. In doing so, we will work wherever possible with local cyclists' groups in order to make the maximum impact. In addition, as part of the development control process we will continue to provide cycle facilities, such as those in the Grove Park/Fosse Park area, and publicise the new routes through information boards located at large retail premises.

## Cycle training

4.81 We run the 'Bike 4 Life' cycle training scheme, which is primarily targeted at year 6 (10-11 year old) children. This includes on-road training and the children are assessed throughout the six-session course. Currently nearly 60% of year 6 pupils benefit from this training. In addition, cyclist training at secondary schools is being increasingly promoted.

4.82 We also plan to offer cycle training, in line with the Cycle Training UK model, to adult cyclists. Road safety education and awareness initiatives, co-ordinated with the police, are targeting cyclists and pedestrians and urging drivers to accept responsibility for the continued safety of these vulnerable road users. We will also provide improved road crossing facilities where they will be cost-effective in reducing cyclist road casualties.

## Walking improvements

4.83 Our investment in walking improvements is aimed primarily at improving access to facilities and is therefore described mainly in Chapter 5. However, an increase in walking impacts on many of our shared priorities, including tackling congestion, improving air quality, reducing road casualties and reducing the impact of traffic. Our work on improving footways and crossings includes:

- Improvements associated with providing safe walking routes to school
- Improvements to remove the difficulties in walking short distances to access facilities – described in Chapter 5
- Improvements in crossings to reduce road accident casualties – described in Chapter 6.

Leicestershire has more than 3000 kilometres of footpaths, bridleways and byways. This network provides local routes linking communities and giving access to shops, schools and other facilities. It is also the best way to explore and enjoy the countryside. As detailed in Chapter 5 we have prepared a rights of way improvement plan, which assesses the current and future needs of users and how best to manage the network. We are currently consulting on this.

## Better vehicle use of roadspace

4.84 We already have day to day operation of traffic signal junctions throughout the County from the traffic control centre in Leicester. In the central urban areas of Hinckley, Loughborough and Melton Mowbray, there is real-time control of traffic signal timings in response to detected traffic. Part of our LTP2 programme will involve updating facilities at the traffic control centre to enhance methods of central control and driver information to lessen the impact of congestion. These improvements in day to day operations will also go towards meeting our network management duty.

4.85 Elsewhere, we regularly review traffic signal timings in response to new traffic counts and direct observations on-site. Based on our identification of congested junctions, we will reassess traffic signal timings and how they can be kept up to date. We will upgrade some traffic signal junctions to microprocessor optimised vehicle actuation (MOVA) as used for new trunk road traffic signal junctions. Experience of de-trunked MOVA junctions shows how modest investment in this method of control can delay the onset of congestion, and



thereby reduce queuing at the height of the peak period. An updated version of MOVA has been proposed for the M1 junction 21 scheme, which is being managed by the Highways Agency. The initial indications are encouraging, with the new system being even more effective than the existing MOVA system. We will consider further expansion of this system to other junctions on county roads in the junction 21 area, in order to maximise overall benefits.

4.86 We will also carry out more frequent observations of junction performance and some updating based on manual methods. This closer attention to the operation of traffic signal junctions is likely to point towards further congestion savings through minor changes to geometric layouts or traffic signal sequences. Because traffic movements are so dependent on critical junctions, many of which have traffic signals, the performance of key junctions is a main determinant of highway network efficiency.

4.87 All this work is co-ordinated through the sophisticated UTMC (Urban Traffic Management Control) run by Leicester City Council on behalf of both authorities. Over the next five years we plan to exploit further the ability of UTMC to give more sophisticated control of traffic signals, as noted above, and to improve driver information, particularly in respect of traffic delays and parking availability.

4.88 Our programme also includes a few more substantial improvements to tackle the most heavily congested junctions. Priority will be given to junctions on the strategic road network, particularly those on well used bus routes. Account will also be taken of the scope for a junction improvement to contribute to achieving our other objectives of reducing road casualties by improving road safety, improving accessibility by benefiting pedestrians or cyclists and improving air quality, even if the deterioration in air quality caused by the congestion has not led to the declaration of an air quality management area.

4.89 In Chapter 2 we summarised our technical assessments relating to congestion and Figure 2.5 shows the main points where significant congestion currently occurs. In the early years of LTP2 we will undertake improvements at three key interconnecting junctions in Melton Mowbray. A small number of further schemes later in the plan period will be identified from more detailed analysis of congestion levels at these junctions, and the costs and benefits of carrying out improvements.

4.90 In the case of the junction improvements proposed for Melton Mowbray, we have significant local congestion and a significant casualty problem at present. We have reviewed other methods of alleviating these problems but have found none that will be effective and have therefore concluded that physical alterations will be required. The schemes, nevertheless, will be designed to the minimum capacity necessary to tackle congestion and improve pedestrian and cyclist facilities, with particular concern to avoid taking land outside the highway other than that already owned by the County Council.

## Demand management

4.91 Increasing public transport use, cycling and walking through measures described in this chapter, and improving our use of road space, will all help to reduce demand for space and contribute to our objective to tackle congestion. Demand management is another important tool to use alongside these in ensuring that we get the best use from available road space. We will use it to increase the effectiveness of the transport improvements outlined in this chapter.

4.92 At the local level, we can help to manage demand by our parking strategy. We are at an advanced stage of work with district council partners leading to the introduction of parking decriminalisation in 2007. This will allow us to improve significantly the effectiveness of on-street enforcement and to co-ordinate off-street and on-street parking regimes. Working with the District Councils, we will be able to manage charges to reduce nuisance from all-day commuter parking and help town centre economies by encouraging short-stay shopper parking.



4.93 We have made good progress during the LTP1 period in achieving a balance between long and short stay parking. For example, in Loughborough, all-day parking charges have been increased to £5.50 and residents' parking already operates in areas around the town centre. Elsewhere in the county a number of town centre car parks already have restrictions or recently introduced car parking charges. North West Leicestershire and Harborough District Councils have recently introduced charges.

4.94 In the longer-term we will be able to consider strengthening our management through the introduction in appropriate circumstances of on-street charges. Effective parking management through decriminalisation will also help us meet our responsibilities under the Traffic Management Act, by allowing us better enforcement of the inappropriate parking which causes congestion and road safety hazards.

4.95 We have also recently revised our parking standards for new developments to bring them into line with the maximum standards in PPG13 and RPG8 and this, along with associated developer travel plans, supports our demand management aims. We are also working regionally to review the parking standards to be included in the regional spatial strategy and ensure that they are effective in applying an appropriate level of restraint, and we will work with the District Councils through the local development frameworks to ensure they are applied consistently across the county.

4.96 Our exploration of road user charging is a joint initiative with other authorities in the Three Cities sub region and is described in Chapter 3. Although we do not envisage the introduction of road user charging during the LTP2 period, if and when it is introduced it could be an important mechanism both for managing demand and for providing transport investment funds.

## Local travel by train

4.97 The existing train services are described in Chapter 2 and over the past four years rail passenger journeys in Leicestershire have increased by nearly 18% from 2.34 million in 2000/01 to 2.75 million in 2004/05. The Ivanhoe service from Leicester to Loughborough, which has been supported by the City and County Councils, has seen year by year increases in passengers and currently carries nearly a quarter of a million passengers per year. Local rail services therefore have an important role to play in tackling congestion.

4.98 However, as outlined earlier in this chapter, our strategy for local rail must reflect the new realities of the rail industry and we will therefore seek to obtain best value for money from the local rail network within the current constraints by making best use of the existing network. This means:

- Continuing our partnership work with the rail industry to improve interchange at railway stations, particularly with infrastructure, information and through ticketing for bus to rail interchange
- Pressing for high quality, even-interval services of at least hourly frequency for all Leicestershire local stations, without the repeated timetable changes that have undermined passenger confidence so much over the years. There will be an important opportunity to influence this when the Central Trains franchise is re-let in autumn 2007
- Completing the integration of the Ivanhoe service from Leicester to Loughborough into the main rail network, so that it offers the best service to passengers and is provided as cost-effectively as possible
- Planning with the rail industry and Blaby District Council for the provision of one new station, at Blaby on the Nuneaton line south of Leicester. This line already has a truly local rail service and we do not believe that the addition of a fourth local Leicestershire station would undermine the wider objectives of the service. It could act as an effective railhead for a wide area south of the city and thereby contribute significantly towards tackling congestion.

### Park and ride

#### Introduction

4.99 Leicester is currently served by a single, highly successful park and ride site at Leicester Forest East (A47), which was opened in 1997. The bus service operating from this site typically carries 1,750 passengers each day to the City centre; diverting 200 cars each peak hour. A second site, at Birstall on the A6 to the north of Leicester, is to be constructed at the expense of developers and is expected to become operational in 2010. We are exploring with the developer the possible earlier construction of this site. There are also Saturday-only services, supported by the County and City Councils, operating from County Hall on the A50 and Oadby racecourse on the A6 south.

4.100 A major scheme bid to the Government to fund the Leicester West Transport scheme, a three site park and ride development, was turned down in 2004. In parallel, the inspector for Leicester's Local Plan inquiry ruled against the use of one of the proposed sites, at Aylestone. Despite these setbacks, it remains the view of the County and City Councils that park and ride is the single most effective way to tackle congestion on the main arterial routes in Central Leicestershire, to improve access to Leicester City and to help promote the economic regeneration of the city centre.

#### Proposed park and ride site

4.101 In accordance with this ongoing commitment, a third park and ride site is proposed at Enderby, to the south west of the city centre, close to M1 junction 21 and the Fosse Park retail centre. This site will be served by a frequent, non-stop bus service to the city centre. Figure 4.4 shows park and ride provision for Leicester, including the preferred location for the new site. The estimated outturn cost of the proposal, detailed in Chapter 11, is £9.2m, and it is intended to fund the project jointly, with the County and City Councils each contributing £3.6m, together with £2m of developer contributions.

4.102 The proposed site was selected following a reappraisal of some 40 sites originally examined as part of the Leicester West Transport scheme. This appraisal considered planning, land ownership, environmental and physical issues as well as patronage predictions and traffic forecasting.

4.103 Strong public support for park and ride was expressed in responses to both LTP consultations. Consultation on the specific site proposal was completed in December 2005 and elicited views from key stakeholders as well as over 500 returned questionnaires from members of the public. This showed strong support for the proposal from likely users in the catchment area but considerable opposition from those living close to the site. Further scheme development will need to address these local concerns so that the project is acceptable to all.

4.104 Modelling work suggests that, as a result of the introduction of Park and Ride and associated measures, a reduction of up to 10% in peak hour traffic flow on Narborough Road can be achieved. Despite the high cost, this substantial reduction will offer excellent value for money when placed alongside the economic development advantages.

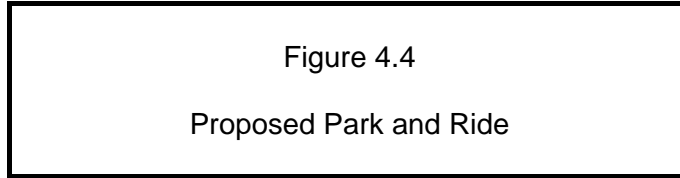
4.105 A further study by independent consultants to check our predictions indicates that daily patronage of between 500 and 700 vehicles can be expected, with Saturday patronage close to the site capacity of 1000 vehicles. The results indicate that a park and ride site of 1000 spaces is appropriate and that the service could be operated without ongoing revenue subsidy.

4.106 In order to promote confidence in the deliverability of the project at this stage, a number of environmental investigations have been commissioned. Archaeological desk top and geo-physical walk over surveys have indicated that, despite the site being adjacent to the Fosse Way roman road, there is little evidence of the presence of archaeological artefacts. Trial trenching to validate this work is programmed. In addition, initial ecological surveys have not indicated the presence of any protected or endangered species. Further ecological investigations are programmed.

4.107 Following preliminary design and consultations to date, the proposed site includes:

- 1000 parking spaces including disabled badge-holder and motorcycle parking
- Access controls to prevent non-user parking
- Perimeter landscaping to minimise noise and visual impact of the development
- Restoration of the historic Fosse Way as a public footpath
- Sustainable drainage system
- Feature central building with waiting facilities, toilets and security observation area
- CCTV coverage, full time security staff and perimeter fencing
- Integration of the site into the local cycle network, including cycle lockers
- Surfacing materials selected for aesthetics and low maintenance costs.

4.108 In order to promote confidence in the deliverability of the project at this stage, a number of environmental investigations have been commissioned. Archaeological desk top and geo-physical walk over surveys have indicated that, despite the site being adjacent to the Fosse Way roman road, there is little evidence of the presence of archaeological artefacts. Trial trenching to validate this work is programmed. In addition, initial ecological surveys have not indicated the presence of any protected or endangered species. Further ecological investigations are programmed.



4.109 Following preliminary design and consultations to date, the proposed site includes:

- 1000 parking spaces including disabled badge-holder and motorcycle parking
- Access controls to prevent non-user parking
- Perimeter landscaping to minimise noise and visual impact of the development
- Restoration of the historic Fosse Way as a public footpath
- Sustainable drainage system
- Feature central building with waiting facilities, toilets and security observation area
- CCTV coverage, full time security staff and perimeter fencing
- Integration of the site into the local cycle network, including cycle lockers
- Surfacing materials selected for aesthetics and low maintenance costs.

4.110 A technical appraisal of various alternative bus routes from the site to the city centre has also been undertaken. This has concluded that use of the outer ring road and the A47 will provide the quickest peak and off-peak journeys, compared to the more direct route using Narborough Road and Upperton Road. This route also makes use of the existing bus priority corridor created for use by the Leicester Forest East park and ride service, providing a ready made low cost corridor for part of the new service route. In order to reduce journey times and improve reliability, the proposals include additional outbound lengths of bus lane on the A47 totalling approximately 500m in length. We will also improve bus journey times further by using selective detection of buses linked to 'hurry calls' at traffic signal junctions.

4.111 During the development of the proposal, contacts at other authorities experienced in the procurement, delivery and operation of park and ride facilities have been made. This has ensured that best practice in these areas is adopted. Equally, where our own research during scheme development, such as how to prevent the use of the site by those not intending using the bus service, is of value, then this is being shared with those authorities. To facilitate this process we are members of the national park and ride benchmarking group, which shares best practice in this field.

### **Proposed programme**

4.112 We plan to have the facility fully operational by the summer of 2010. This completion date allows adequately for all necessary statutory procedures, including an assumed public inquiry. Significant savings to this programme can be made if an inquiry is avoided, and therefore considerable effort to develop a widely acceptable planning application is being made, including consultation with all key stakeholders.

4.113 The project is being led by officers at the County Council who are experienced in the PRINCE2 project management methodology. This will increase certainty in project delivery both in cost and programme control.

4.114 Project key dates are:-

Submission of planning application	Winter 2006/7
Public inquiry	Winter 2007/8
Granting of planning permission	Summer 2008
Construction starts	Summer 2009
Site Operational	Summer 2010

4.115 An appraisal of possible procurement methods, including those adopted by other authorities for park and ride, has concluded that the use of early contractor involvement to assist in the design process will contribute to cost and time savings. The savings to the programme are thought to be in the region of 3-6 months.

4.116 It is clear that, along with associated measures in the city, park and ride will contribute to the LTP2 objective of tackling congestion. It will also, by virtue of the reduction in traffic, contribute to the objectives of improving air quality and reducing casualties.

4.117 We also plan investment to tackle existing problems of congestion and casualties in the M1 junction 21 area. We will allocate developer contributions to proposals that will see significant improvements along the B4114 corridor, specifically at the Foxhunter, Everards and Fosse Park junctions. An environmental scheme along Narborough Road South will address noise and air quality issues experienced by residents living close to this route.

### **Improving bus performance – quality bus partnerships**

4.118 The County Council can directly influence only some aspects of the service mix. To secure a comprehensive improvement we work in partnership with the commercial bus companies and other local authorities in Quality Bus Partnerships (QBPs) as detailed in our bus strategy attached in Appendix G. In LTP2 we have prioritised our work on tackling congestion in the places where it is worst overall, namely Central Leicestershire and Loughborough. The QBPs for these areas are therefore central to our efforts. In Central Leicestershire particularly, the work needs to be, and is, fully integrated with the efforts of Leicester City Council.

4.119 A third QBP covers Hinckley. The scope for bus company investment here is less, since bus routes are generally less profitable, but we intend to maintain this QBP in pursuit of the small-scale but nevertheless valuable improvements in service which can be made. Paragraphs below say more about the work of the QBPs.

4.120 Market research consistently shows reliability and punctuality near the top of the list of required bus service attributes for potential customers. Much of the improvement in this area must come from bus company partners in scheduling services to take proper account of likely traffic conditions and in day by day operational management thereafter. We can help, however, by taking steps both to remove delay points affecting all traffic and to protect buses specifically from traffic congestion.

4.121 We have already agreed within the Central Leicestershire QBP that we will progress a Punctuality Improvement Plan to look in detail at all aspects of the highway system which can worsen punctuality. The Plan, which should be in place by late 2006, will set out specific measures to tackle those problems, and the bus companies will continue to take complementary actions to improve their own operational management. We intend to extend this approach to the Loughborough and Hinckley QBPs once it is tested in Central Leicestershire. It will be key to meeting our target for bus punctuality, and monitoring and review systems will be agreed at the next stage of this process.

4.122 The bus corridor partnership schemes described below not only speed buses up but also help to improve their reliability. We are assessing the potential for further bus priority schemes in Loughborough, where there are not the long 'corridor' routes to be found in Central Leicestershire but there may be the potential for shorter lengths of bus priority. In the longer-term we may be able also to prioritise bus priorities in Hinckley and other county towns.

4.123 We can also make smaller scale cost-effective improvements to help buses through congestion, for example by providing short bus-only links or giving buses priority at key junctions. In other cases there will be no opportunity for bus priority but we can invest to ease traffic congestion for all traffic, with consequent benefits for the bus services affected.

---

4.124 Marketing and promotion have a key role to play in the success of our work with QBPs, and we have already carried out many promotions, including as an integral part of the highly successful Leicester – Loughborough corridor upgrade. This work is described in more detail in Chapter 5 and includes not only promotional activities but also the continuing provision of comprehensive timetable information.

4.125 Integrated ticketing has an important role to play to make buses a more attractive option to car users and this area of our work is again described in Chapter 5. We have undertaken a number of small-scale initiatives but have been held back from more comprehensive network ticketing by bus company concerns over competition legislation. Such ticketing has the potential to make bus travel financially more attractive and also, through faster boarding times, to produce a quicker journey. For these reasons we will continue to pursue actively the potential for integrated ticketing.

### Leicester quality bus corridors

4.126 Apart from park and ride, the single most effective way to use buses to help tackle congestion in the city and urban Central Leicestershire is through quality bus corridor improvements in partnership with the bus companies. This requires a fully integrated approach between the City and County Councils, working through the Central Leicestershire QBP as detailed in our bus strategy attached in Appendix G.

4.127 Our experience during the LTP1 period is that these corridor improvements must be comprehensive if they are to deliver the greatest increase in patronage. Where this was done on the Leicester to Loughborough corridor, the improvements, coupled with a higher frequency service, resulted in a 26% increase in patronage. If this can be achieved elsewhere, there will be a peak hour increase of between 100 and 200 passengers on each corridor improved, contributing significantly to our overall objective. At this level of increase, bus quality corridor investment has the potential to offer excellent value for money. Marketing and promotion of improved and new services are essential contributory factors in the success of these schemes, and continued promotion is necessary in order to maximise benefits over the longer-term.

4.128 For LTP2, work will be concentrated on five main corridors where there is considerable scope for increasing the numbers of passengers into the city. The improvements will include:

- Upgraded bus stops with raised kerbs, new shelters and real time bus information
- Modern buses, improved schedules, customer care training and service promotion
- Bus priority at traffic signals, bus lanes and other road layout alterations as appropriate
- Better day to day operation and control to improve reliability and punctuality.

4.129 The proposed programme is integrated with that put forward by the City Council. However, we will not in all cases invest in the same corridor in the same year, with a phased approach sometimes delivering improvements within Leicester in one year and across the boundary in the county the next. Similarly, the bus companies have other constraints on their own investment programmes and we cannot expect them to be able to invest in new vehicles and other improvements to exactly our timescales: in some cases they may invest before and in some cases after ourselves. The vital element, though, is to ensure that the investment overall is comprehensive so that all aspects of the bus journey experience are improved.

4.130 Working with the bus companies and the City Council, we have carried out a detailed analysis of the potential of the different bus corridors into the city centre, looking at existing flows of both cars and buses and assessing the scope for transfer. Generally, the two councils have targeted first those corridors where there is the largest scope for transfer of passengers and where the implementation can be achieved at the lowest cost. The programme is ongoing from

LTP1, though priorities have been thoroughly reviewed in the preparation of this and the Central Leicestershire LTP2. The five year programme of proposed construction start for each corridor is:

- Year 1 2006/07 Melton Road from the Syston area
- Year 2 2007/08 London Road from the Oadby area
- Year 3 2008/09 Saffron Road from the South Wigston area
- Year 4 2009/10 Lutterworth Road from the Blaby and Whetstone areas
- Year 5 2010/11 Groby Road from the Glenfield and Groby areas.

4.131 The Melton Road scheme takes priority because the City Council has already invested substantially in bus priorities on the same corridor and there is considerable scope for passenger growth on the bus routes to Thurmaston and Syston, with the County Council's investment complementing the earlier investment. Similarly, on the London Road, the City Council has been able to make progress with bus priorities recently and County Council investment will produce a complete corridor.

4.132 The schemes for years three, four and five will be co-ordinated with complementary schemes inside Leicester to complete the priority bus routes. These three corridors have been chosen as next in priority for their combination of the scope for modal transfer coupled with achievability. The new developer-funded park and ride service from Birstall will itself fund bus priority at the north end of that corridor, with buses joining the Melton Road corridor further on.

4.133 The five corridor schemes will also bring benefits to bus services from rural Central Leicestershire and beyond, including the county towns of Melton Mowbray, Market Harborough, Lutterworth and Coalville.

4.134 As well as tackling congestion, the Leicester bus corridors will help meet our other LTP objectives. **Access to facilities** will clearly be improved, particularly for people needing to travel to the city centre, and level boarding at bus stops will also further improve access for parents with buggies and people with mobility impairments. Newer buses will also help to improve **air quality** and reduce CO<sub>2</sub> emissions, and contribute to tackling congestion and reducing car use. Apart from the five corridor schemes, other improvements to bus stops in urban Central Leicestershire and beyond will be carried out as part of the countywide programme described in Chapter 5.

## Network management

### Introduction

4.135 The Traffic Management Act 2004 places a network management duty on local transport authorities "to manage their road network with a view to achieving, so far as may reasonably be practicable having regard to their other obligations, policies and objectives, the following objectives:

- securing the expeditious movement of traffic on the authority's road network
- Facilitating the expeditious movement of traffic on road networks for which another authority is the traffic authority".

4.136 The duty applies to all road users as the term "traffic" includes pedestrians and cyclists as well as motorised vehicles, whether engaged in the transport of people or goods. Although the duty refers to securing the expeditious movement of traffic, the Act states that this should not be at the expense of practicability and the other responsibilities of the authority. As an example, securing the expeditious movement of traffic should not be at the expense of road safety. The authority should, however, make the best use of existing road space for the benefit of all road users.

4.137 The network management duty is in addition to powers that the County Council already has under the Highways Act 1980, the New Roads and Streetworks Act 1991 and the Road Traffic Regulation Act 1984. The remainder of this section details the work we are carrying out on network management and its contribution to tackling congestion. In making arrangements to carry out our responsibilities under the network management duty, we have taken full account of the network management duty guidance produced by the DfT, including the Halcrow report. Our approach has also been informed by the TRL document 'Traffic Management Procedures – Provisional Guidance for Local Authorities', which was commissioned by the DfT.

### Traffic Manager

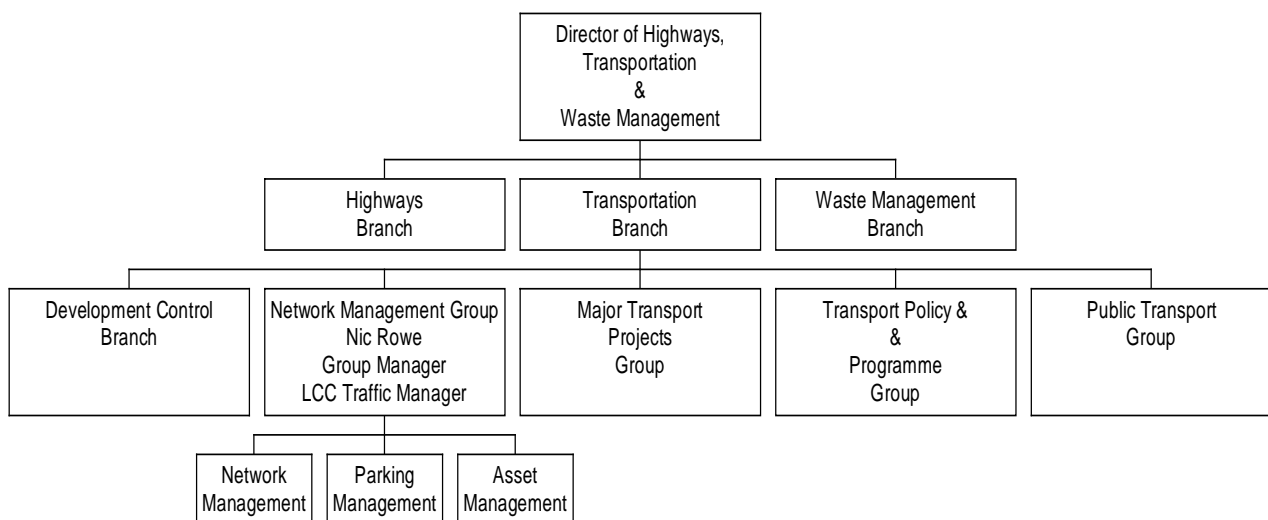
4.138 The Act requires that a Traffic Manager be appointed to perform the tasks that an authority considers necessary for meeting the duty. This is a statutory post and the County Council has appointed the Group Manager (Network Management) as its Traffic Manager.

4.139 In addition to achieving the objectives set out in the Traffic Management Act, the Traffic Manager's responsibilities include acting as the champion of network management within the authority and establishing processes for ensuring that we:

- Identify causes and potential causes of congestion and disruption to traffic movement
- Consider accordingly what action could be taken
- Determine specific policies and objectives in relation to different roads or classes of road
- Monitor the effectiveness of organisation and decision making processes and the implementation of decisions
- Assess network management performance
- Keep the effectiveness of arrangements under review.

4.140 In addition to appointing a Traffic Manager, the Authority has restructured the Highways, Transportation & Waste Management Department to include a new Network Management Group, which brings together Parking Management, Asset Management and Network Management teams. This structure is shown in Figure 4.5.

**Figure 4.5 Highways, Transportation and Waste Management departmental structure**



4.141 The Network Management Group includes the authority's Streetworks Co-ordinator under the New Roads and Streetworks Act. It sits in the Transportation Branch of the department, alongside groups responsible for Transport Policy, Major Transport Projects, Public Transport and Development Control. This arrangement helps to ensure that the authority can deliver a co-ordinated, planned and effective response to the network management duty across the whole organisation.

### Whole authority approach

4.142 Links with wider corporate targets are shown in Chapter 3. These have been drawn from the Community Strategy, Medium Term Corporate Strategy, Structure Plan and Best Value Performance Plan. As described later in this section, we have established a series of working groups which bring together teams from different disciplines within the County Council to oversee the implementation and monitoring of the network management duty. These include those dealing with planned events, and the network manager is also involved in working groups on:

- the LTP2 work programme
- Quality Bus Partnerships
- Area Traffic Control
- the Transport Asset Management Plan
- the Freight Quality Partnership
- traffic regulation orders.

4.143 The District Councils in Leicestershire are responsible for refuse collection and street cleansing and we are working with each of them to ensure that the collection and cleansing routes avoid congested routes at peak times.

### Cross boundary co-operation

4.144 As demonstrated in Chapter 3, we work closely with Leicester City Council, neighbouring County Councils, the Highways Agency, Leicestershire Constabulary and bus operators. Specific network management examples include:

- **Leicester City Council** Our programmes of work are designed to dovetail precisely with those of the City Council. Indeed, in key projects such as that for park and ride, there is a single integrated project management group to take the project forward. As described in later sections, we meet regularly with the City Council to secure co-ordination of streetworks, we have agreements in place for winter maintenance and we will also be working closely with the City Council in developing our network management hierarchy
- **Working with neighbouring County Councils** In addition to Leicester City Council we also share a boundary with seven County Councils and we are involved in a large range of joint schemes and initiatives with them. Network management work includes the co-ordination of cross-boundary winter maintenance as well as timetabled regular liaison measures for streetworks co-ordination. Through the East Midlands Regional Traffic Managers' Forum we are working on a series of formal cross boundary protocols for joint use. Initially they will cover sharing operational information, links with planning authorities, streetworks register information, emergency & contingency plans and passenger transport service information. Further additions will follow.

- **Highways Agency** - As the highway authority for the motorway and trunk road network, the Highways Agency is an important partner in achieving LTP2 objectives. The interaction between motorways, trunk roads and local roads is critical in terms of overall congestion and where traffic chooses to go. Network management work includes planning meetings with route managers to identify diversion routes for the M1 and providing support to the route managers in the day to day management of the trunk road network. This support has been strengthened with the introduction of the Highways Agency Traffic Officer service which is starting in spring 2006. Operating protocols are being developed in discussion with their East Midlands Network and Leicestershire Operations Managers, to ensure effective management of both the trunk road and County road network. As described in later sections, we meet regularly with the Highways Agency regarding co-ordination of streetworks, we have agreements in place for winter maintenance and we will also be working closely with them in developing our network management hierarchy. The Regional Traffic Managers' Forum will also provide further opportunity to work closely with the Highways Agency in planned regular meetings with the East Midlands Traffic Operations Regional Group.

### **Value for money**

4.145 As detailed in Chapter 3, all initiatives aimed at tackling congestion are subject to the County Council's processes, which ensure that value for money is obtained. These processes include selective tendering, evaluation of options and the use of a project management approach to all schemes. Of relevance to network management, key actions of our procurement strategy include improvements to the local highway service delivery with better traffic management, and introduction of our Highway Patrols. Where possible we will clarify and streamline processes to ensure that the principles of network management are delivered alongside our existing duties and within existing budgets.

### **Identifying and managing different road types and identifying locations where congestion regularly occurs**

4.146 Our Network Management Plan, which will set out the arrangements for performing the network management duty, is programmed to be completed in spring 2006. The operational arrangements are planned to be in place by November 2006. One of the principal tasks will be to produce a network management hierarchy which will include a user classification of roads, differentiating use by various categories such as cars, goods vehicles, public service vehicles, cyclists and pedestrians, as well as winter gritting routes and highway inspection categories. The Plan will also identify seasonal variations due to trading periods such as pre and post-Christmas, and local events such as markets, exhibitions, shows and sporting fixtures. Note will be taken of the classified road network and existing traffic sensitive streets identified under the New Roads and Streetworks Act, to see if there is any correlation with other hierarchies.

4.147 Much of this work will involve close co-operation with adjacent authorities, particularly Leicester City Council, to ensure that roads passing from one area to the other are similarly categorised. Close co-operation with the Highways Agency is also important, as any disruption to traffic flows on the M1, M6 and M69 motorways and A42, A46 & A52 trunk roads can have a significant impact on the adjacent road network. Chapter 2 illustrates the work we have carried out to quantify where congestion regularly occurs, and is likely to occur in future. This demonstrates that we have an understanding of the different parts of the network and the challenges future traffic growth will bring.

### Monitoring the road network

4.148 We already have day to day operation of traffic signal junctions throughout the County from the traffic control centre in Leicester. In the central urban areas of Hinckley, Loughborough and Melton Mowbray, there is real-time control of traffic signal timings in response to detected traffic. Part of our LTP2 programme will involve updating facilities at the traffic control centre to enhance methods of central control and improve driver information to lessen the impact of congestion. These improvements in day to day operations will improve network management.

4.149 Elsewhere, we regularly review traffic signal timings in response to new traffic counts and direct observations on-site. With the identification of congested junctions, there will be a fresh assessment of traffic signal timings and how they can be kept up to date. We will upgrade some traffic signal junctions to microprocessor optimised vehicle actuation (MOVA) as used for new trunk road traffic signals junctions. Experience of detrunked MOVA junctions shows how modest investment in this method of control can delay the onset of congestion, and thereby reduce queuing at the height of the peak period.

4.150 We will also carry out more frequent observations of junction performance and some updating based on manual methods. This closer attention to the operation of traffic signal junctions is likely to point towards further congestion savings through minor changes to geometric layouts or traffic signal sequences. Because traffic movements depend so much on critical junctions, many of which have traffic signals, the performance of these junctions is a main determinant of highway network efficiency.

4.151 All this work is co-ordinated through the sophisticated UTMC (Urban Traffic Management Control) operated by the Area Traffic Control, (ATC) team at Leicester City Council on behalf of both authorities. A formal service level agreement is in place which details the work that ATC carries out in the County Council area. Regular meetings are held between County Council and ATC staff. As part of the quality assurance procedures in place in the County Council's highway design section, ATC are involved in the latter stages of scheme design. A large proportion of the UTMC system is controlled by SCOOT software, which automatically optimises traffic signal settings to cope with varying demand. Over the next five years we plan to exploit further the ability of UTMC by expanding the SCOOT system to give more sophisticated control of traffic signals, as noted above, and to improve driver information, particularly in respect of traffic delays and parking availability.

4.152 As well as using UTMC for real-time control of the traffic signal settings, ATC uses over 80 CCTV cameras at strategic locations to monitor traffic flows and incidents on the highway network. When an incident is observed, camera operators can take control and inform the Traffic Information System desk, which has direct links to local radio stations. This enables motorists to make informed choices on alternative routes to avoid congestion. There is scope for linking in to the CCTV systems run by some district councils and links have already been made with security cameras at Loughborough University to provide a more complete picture in the Loughborough area. Eleven of the CCTV cameras are equipped with automatic number plate recognition software which is used to assess journey times as part of a pilot scheme to assess congestion levels. It is proposed to use this system to develop performance indicators to measure network effectiveness.

4.153 A two phase programme is under way to provide variable message signs (VMS) in the central Leicestershire area. Phase 1 is well under way and provides real time car park information in the city centre. Motorists can use the information to assess which car park to use, avoiding unnecessary driving in search of a space, thereby reducing congestion. The second phase, which will be developed during the LTP2 period, will be to provide route direction VMS. As with all the other technological solutions, the information will be co-ordinated by ATC.

4.154 We are piloting the use of GPS monitoring systems in vehicles driven to and from work by County Council employees during periods of peak congestion. The GPS loggers accurately record time and location at preset intervals of time or distance. Employees travel to County Hall and area offices from adjacent counties as well as across Leicester and Leicestershire. Data collected in this way will give further accurate information on journey times and areas subject to congestion. It will also record when drivers opt to take alternative routes to avoid abnormal congestion due to an incident.

4.155 We have a partnership with the City Council, Arriva, First and Kinchbus to introduce the star-trak real-time information system and associated star text text messaging. It is already in operation on 24 routes in the county and is widely welcomed by passengers. The system is costly and relatively labour-intensive to introduce and run, so needs to be applied to the most important routes if it is to be cost-effective. We will continue to invest to this end, focussing on quality bus corridors as they are introduced and on other areas where we are making substantial investment in bus stop facilities. In each case a partnership with the relevant bus company is required, the County Council funding the bus stop displays and the supporting central control system while the bus company funds the in-vehicle equipment. Agreement has now been reached with Nottinghamshire and Derbyshire County and City Councils to expand the star trak system into those areas.



4.156 Information from the star trak system is fed into UTMC, which can detect if a bus service is running late. The UTMC can then revise traffic signal phasing to help the bus regain time lost, resulting in more reliable journey times for bus passengers. We will continue to invest in and develop the star trak system in partnership with the bus companies and the City Council.

### **Streetworks co-ordination**

4.157 We have over many years accumulated experience of streetworks co-ordination and have regularly reviewed our systems to ensure that we stay up to date with best practice. We hold separate quarterly meetings for the northern and southern halves of the county, and we also attend the meetings held by the City Council. In each case the statutory undertakers and transport authorities are invited, as well as the City Council and Highways Agency, and we have developed this approach over the years into what we believe to be a highly effective system. Data is taken from utilities notices and the County Council's newly developed schemes database, which details all works proposed by the authority on a geographical information system. The combined data is presented on a spreadsheet, which enables any clashes to be identified and subsequently resolved.

4.158 In addition to formal quarterly meetings, streetworks co-ordination is an on-going process as notices are received from the statutory undertakers on a daily basis. These notices are assessed by area inspectors who are able, under Section 56 of the New Roads & Streetworks Act 1991, to alter the timings of works to avoid, for instance, market days or other planned events, and have powers to prevent unnecessary delays and obstructions. We operate a rigid regime for challenging these notices and Leicestershire is one of the highway authorities that have chosen to implement Section 74 of the New Roads and Streetworks Act 1991, which means that charges are made for unreasonable prolonged occupation of the highway. If a

streetworks licence holder does not give the proper notices of starting and ending their works, or if they take longer to complete the works they have given notice for, they will be subject to a charge. Charging under Section 74 has proved effective in reducing disruption due to prolonged streetworks.

4.159 In addition to the streetworks co-ordination, we operate a system of skip and scaffolding permits. This is supervised by the same inspectors who assess the streetworks notices. The permits are also logged on the newly developed Highway Management System which records all enquiries, correspondence, routine highway safety inspections and other data, referencing it to the National Street Gazetteer. We are one of an increasing number of authorities that publish regularly updated roadworks information on the Empress/Elgin website.

4.160 In addition, to ensure that traffic management meets the appropriate sector 12 scheme standards, a permit system is being introduced on high speed dual carriageways and other high volume high speed roads. We will ensure that we co-ordinate works to maximise the activities undertaken when there is intrusive traffic management, so that congestion on these busy roads can be minimised. A trial is being undertaken to assess its effectiveness.

4.161 We have also recently appointed standards officers to improve standards across all activities carried out by our own workforce in order to demonstrate our commitment to improving value for money and service delivery. They operate across the county and provide an impartial and independent service to improve safety and quality standards. This helps to ensure consistent treatment between roadworks and streetworks

### **Dealing with planned events**

4.162 Planned events are co-ordinated from a network management perspective through the streetworks co-ordination meetings to ensure that they do not conflict with known streetworks. Once events are firmly in the calendar, approval is not given for any subsequent streetworks that may cause disruption. We receive notification of events from a number of sources, the main one being the City and County Events Advisory Group which meets monthly. Membership includes City and County staff and representatives of the emergency services. Information from this group is sent to area highways offices, which act as the focus for our response to network management issues, dealing with temporary road closures as well as streetworks co-ordination. The Events Advisory Group publishes a diary of events and this will shortly be available on the Local Resilience Forum web-site. We plan also to make this information available on the County Council web-site.

4.163 There are a number of events which occur on an annual basis, such as the County Show, Ashby Statutes Fair, Loughborough Fair, Loughborough Canal Festival, Melton Show, Melton Food Fair and Tour of Britain Cycle Race. In addition, venues such as Donington Park and Mallory Park host motorcycle grand prix and pop concerts which can attract up to 100,000 people. All of these annual events have their own organising committees, which include representatives of the County Council and emergency services. Events which attract more than 1,000 visitors agree a contingency plan with the County Council's Emergency Planning section

4.164 We have published a leaflet "Planning an Event?" after discussions with neighbouring Authorities, and this is also available on our website. It deals with all aspects of event planning, including detailed requirements for events which occur on the public highway and those that are likely to cause disruption to the free movement of traffic.

### **Incident management procedures**

4.165 We have well developed incident management procedures which vary according to the severity and type of the incident. Our systems for dealing with severe weather are regularly reviewed and accurate forecasting ensures that the relevant response can be mobilised in

---

advance. Procedures for undertaking winter maintenance were revised a few years ago; it is carried out by an in-house operations unit which has access to up to date weather forecasts and advanced temperature and ice detection equipment. Particular care is taken to ensure that routes that cross authority boundaries are consistently treated and agreements are in place with Rutland, Nottinghamshire, Northamptonshire, Leicester City and the Highways Agency managing agents allowing roads to be gritted by the adjacent authority where the majority of the road between turning places is in one area.

4.166 The Soar Valley is susceptible to flooding and we receive severe weather and flood warnings from the Met Office and Environment Agency. Roads that are prone to flooding are monitored so that, if closure is required, alternative routes can be quickly signed and details communicated to the traffic control centre and local radio stations. Many incidents are identified by the police or ATC, which monitors the urban traffic management system. Our area offices deal with the majority of incidents such as those involving spillages, carriageway defects and adverse weather conditions, and staff are on duty 24 hours a day to deal with these. When the incident is more severe, agreed emergency plan procedures are invoked. These procedures are discussed and developed on a regular basis at the Local Contingency Forum. Regular table top and multi-agency exercises are held involving the emergency services, all local authorities, the Environment Agency and other relevant bodies. A recent example is an exercise which simulated a rail incident in Market Harborough. Such exercises include a debriefing session so that lessons learned can be acted upon.

### **Making best use of technology**

4.167 Detailed information on the use of technology and Intelligent Transport Systems is given in the sections on monitoring the road network, streetworks co-ordination and consultation and engagement with stakeholders. It can be summarised as follows:

- UTMC control of traffic signals
- CCTV cameras for network monitoring
- ANPR technology for journey time monitoring
- ITIS vehicle tracking data
- In-car GPS loggers
- VMS for car park information & route direction information
- Startrak bus monitoring system
- Star text text messaging of bus information
- Streetworks database
- Schemes database
- Highways management system
- Empress/Elgin website
- SNAP survey software
- Electronic voting handsets.

### **Managing parking and traffic regulation**

4.168 Traffic regulation orders to manage parking have been implemented for many years by ourselves and by the District Councils who acted as agents in the urban areas. These agency arrangements were terminated three years ago, and permanent traffic regulation orders,

including those necessitated by development proposals, are now dealt with by the Parking Management Team, whose manager is the Traffic Manager for the authority. A detailed review of all waiting and loading traffic regulation orders is now being undertaken by consultants and is programmed to be completed by January 2007. The detailed survey will be plotted on a geographic information system called Parkmap. Consolidation orders are being prepared and, following a comparison of existing written orders and what is on the ground, amendment orders will be prepared and advertised. Once this has been completed, we will be in a position to assess the appropriateness of each order.

### **Enforcing road traffic regulation**

4.169 The police are re-focussing their resources and will withdraw the traffic warden service in April 2006. The responsibility for enforcement will remain with theme and will be carried out for an interim period by Community Support Officers, who retain the necessary powers. The County Council, in partnership with the district councils, has agreed to take over the responsibility for enforcing waiting and loading restrictions in Leicestershire by implementing decriminalised parking enforcement. A robust project management approach, supported by consultants, is being employed to meet a target date of June 2007. The successful implementation of decriminalised parking enforcement will help to tackle congestion caused by infringements of traffic regulation orders. It will also improve turnover of parking spaces, giving easier access to shops and services. It will aid reliability of public transport journey times, in turn reducing reliance on the private car, and it will improve access and response times for the emergency services.

### **Accommodating essential service traffic**

4.170 The Leicester and Leicestershire Freight Quality Partnership was established in March 2000 to develop environmentally sensitive, economic and efficient ways of delivering goods in Leicester and Leicestershire. The partnership has representatives from the local authorities, private sector, interest groups, Highways Agency, police and Chamber of Commerce. The partnership has been successful in raising awareness between members and has enabled the councils to understand the practical problems of the operators. We have worked closely with partners in many of our schemes, including the major improvements implemented or proposed for the town centres of Hinckley, Ashby-de-la-Zouch and Loughborough. We also support the East Midlands Regional Freight Strategy which has been developed in conjunction with the East Midlands Regional Assembly. The Strategy aims to achieve modal shift by transferring some freight movements to rail and by supporting the use of pipelines for the transfer of liquid and gas products.

4.171 We have been working with freight and road haulage industry representatives since the early 1990's to develop and implement our complete lorry route network. Discussions were held at an early stage to help influence the development of the strategy and over 70 individual schemes were implemented over a twelve-year period at a cost of £1.5 million. The overall scheme was the first of its type to be completed in the country and is now followed as best practice by other authorities and has been cited in green papers on the countryside. 7.5 tonne weight restrictions keep unsuitable rural roads free of through heavy goods vehicles and this also helps cyclists and other vulnerable road users who use these roads. The restrictions are well signed and published on a readily available plan. Signing is also provided to direct heavy goods vehicles to areas such as industrial estates and quarries. In Central Leicestershire, we are working with the City Council to ensure that freight signing schemes identified by the Freight Quality Partnership are implemented as set out in the Central Leicestershire Local Transport Plan. The majority of these are in the city, but need to be aligned with signing schemes in the county. We also plan improved signing in the county towns.

### Regular reviews of network

4.172 Details of the review processes that have been established have been given in previous paragraphs and can be summarised as follows:

- Detailed review of traffic regulation orders
- Review of fixed time traffic signal settings through Urban Traffic Management Control
- Use of SCOOT to optimise traffic signal settings
- Automatic fault reporting system on traffic signals.
- Continued monitoring of congestion locations, leading to action plans.

### Consultation and engagement with stakeholders and the public

4.173 Key stakeholders we work with include:

- Neighbouring authorities - for example with regard to co-ordination of cross boundary winter maintenance
- Police - for example liaison on planned road closures and unplanned incident procedures
- Bus operators - for example involvement in the early stages of planning major works and events
- Highways Agency – for example regarding co-ordination of streetworks and agreements for diversion routes.

4.174 In 2003 we set up our Roadline freephone telephone number for members of the public to report highway defects, including street lighting. The number is widely published in County Council publications, on the website and on roadside and all calls are automatically routed to the area office nearest to where the call originated from, and logged on the Highways Management System referred to above. Of the 22,700 calls logged on the system in 2005, 10,900 were via the Roadline number. Defects can also be reported directly through the website, which also has an automatic link to the Highways Management System. Our Highway Patrols, detailed elsewhere, are equipped to repair minor defects and carry out emergency works, so providing a rapid response to reported defects as well as enabling defects found on routine inspections to be repaired immediately.



4.175 Our highways roadworks protocol initiative was launched in July 2005, and provides improved information to road users. It covers all highways work that is on site for more than 5 days.

4.176 We have well developed strategies and processes for consulting with the public, road users, and other interested parties, and value and make full use of the views received. Listed below are examples of our most recent consultations, which will illustrate the very large volume of this work. All these consultation processes can be accessed through our web-site.

- Loughborough, A512 Ashby Road - pedestrian and cycle safety scheme (spring 2006)
- Loughborough town centre transport scheme - bus routing options for the A6 Market Place and junction options on the Loughborough Inner Relief Road. (winter 2005/06)
- Leicester Park and Ride - Fosse Park Area - proposals for a new park and ride service for Leicester. (November / December 2005)

- Queniborough - road safety scheme (November / December 2005)
- Pullman Road, Wigston, traffic management proposals, (November / December 2005)
- Kibworth Beauchamp - proposed road safety scheme (winter 2005/06)

4.177 We have a corporate consultation toolkit and staff across the authority have access to a corporate consultation database, electronic voting handsets and SNAP survey software. This software was used for the LTP, Loughborough Town Centre and Leicester Park and ride consultation processes and will be used extensively in future. Electronic voting handsets are used to record the views of focus groups and similar small scale meetings. We consult with district councils and district highway forums as well as parish councils. Post scheme implementation is also carried out to determine how effective users feel a particular scheme has been. We also make use of the “Leicestershire’s Voice” Citizens’ Panel and will continue to use this method for regular consultations on the network management function during the life of LTP2.

### **Information gathering and dissemination**

4.178 We maintain our contribution to the National Streetworks Gazetteer (NSG) and have appointed an NSG Custodian who works in the Asset Management Team in the Network Management Group. Updated information is sent quarterly to Intelligent Addressing, which was awarded the custodianship for the NSG as part of the mapping services agreement with local government in August 2005. A level 3 gazetteer is maintained and used for streetworks co-ordination. We use the unique street reference number which is derived from the NSG to maintain databases for development control, street lighting and highway maintenance inventories.

4.179 We use many other sources of data in the wider management of the network, including IT IS, monitoring from Area Traffic Control, the star-trak system and others. All these are detailed earlier in this chapter.

### **Provision of travel information**

4.180 Area Traffic Control also provides a traffic information service for the whole of the county and city. Increasing importance is attached to providing up to the minute information to road users about the condition of the transport network. A central database of incident and roadwork information is maintained comprising data which has been supplied from a variety of sources including real time information from CCTV cameras. In addition the police, local authorities, utility companies, public transport operators and the general public supply information.

4.181 Regular broadcasts are made on BBC Radio Leicester and the information can be easily accessed to send regular reports to the motoring organisations and the media. As well as publishing details of roadworks in the county on the County Council web-site, we provide links to the following web-sites which all have up to date travel information:

- Area Traffic Control
- BBC travel news
- Elgin/empress (electronic local government information network, based on the Empress specification)
- [www.help2travel.co.uk](http://www.help2travel.co.uk) (displaying traffic information from across the Midlands using the Matisse system).

4.182 We also share information with the emergency services and bus operators as part of the planning of major schemes and events.

### Monitoring the network management duty

4.183 Successfully meeting the responsibilities incumbent in the network management duty will result in more reliable journey times across the network, improved access to facilities and improved air quality. In order to monitor these effects, we have set up a network management board, with representatives from our Network Management, Integrated Transport Schemes, Highway Design, Development Control and Major Projects groups, together with our Area Offices. This board meets every six weeks to discuss progress in achieving these aims and to identify any obstacles which need to be overcome. Chaired by the Traffic Manager, the board has specific responsibility for: monitoring the effectiveness of our organisation, our decision making processes and the decisions made. It assesses our performance in managing the network and reviews the effectiveness of our network management arrangements. To facilitate this it will use the full range of performance indicators, both local and LTP.

4.184 It is difficult to quantify the exact impact that successful implementation of the duty will have on our network. However, we anticipate that improved management of planned and unplanned works and incidents will improve journey times and reduce delays in locations at or close to capacity, and will ensure the network quickly resumes efficient operation after an incident. In the specific instance of traffic signal optimisation, our recent UTMC experience indicates journey time savings in the peak periods of up to 15% can be achieved with the introduction of SCOOT.

### Impact of the strategy to tackle congestion

4.185 This concluding section summarises the results from our technical assessment of the impact these measures will have on tackling congestion. As detailed previously, the technical assessment for Central Leicestershire is based on the results from CLTM which we have jointly carried out with the City Council. Full details of this work are presented in Chapter 2 of the Central Leicestershire LTP2. In summary, CLTM predicts that by 2011 a combination of the proposals identified in this chapter will result in the car mode share reducing by nearly 1% and that of public transport increasing by nearly 1% in the peak periods. This will result in a 12% to 14% extra demand for public transport which is primarily due to improved vehicle speeds and journey times. The CLTM has been used to calculate the initial environmental, safety, economy and accessibility impacts of the strategy and these are detailed in the appraisal summary tables in Annex 9 of the Central Leicestershire LTP. Overall, the CLTM indicates a positive economic impact in terms of time savings for all users, improvements in accessibility, accident benefits and air quality and noise benefits.

4.186 More specifically, our preliminary modelling work suggests that, as a result of the introduction of park and ride and other measures identified in LTP2, a reduction of up to 10% in peak hour traffic flows on Narborough Road can be achieved. A further study by independent consultants to check our predictions indicates that daily (weekday) patronage of between 500 and 700 vehicles can be expected. This assessment also predicts a Saturday patronage close to the site capacity of 1000 vehicles.

4.187 Our own previous experience would support the technical assessment work, for instance the success of our Leicester to Loughborough quality bus corridor, a joint project with Arriva and the City Council, which produced a 26% increase in passengers. Promotional activity for services on our hourly bus services network has produced patronage increases on individual services of around 20%.

4.188 Work carried out for the CLTM indicated that the impact of the Smarter Choices package of measures on their own could reduce peak hour traffic flows overall by between 1% and 3%. Our review of national research has indicated that many of these measures are extremely effective in tackling congestion on a local scale, for instance the DfT Smarter Choices report

confirmed the considerable potential for school and workplace travel plans to tackle localised congestion problems. This showed that well developed and supported school travel plans could be expected to reduce car use on the journey to school by between 8% and 15%, and that comprehensive and effective workplace travel plans can reduce commuter car journeys by between 5% and 15%.

4.189 Outside Central Leicestershire we have carried out detailed assessments using, for example, the following:

- Loughborough - our Loughborough transport model has been used to assess both existing and future problems and to test various improvement options. Subsequently it has assisted us with developing the Loughborough town centre major scheme proposal described in Chapter 11, specifically testing bus route options, bus stopping locations, pedestrianisation options, traffic routings and alignments for completion of the inner relief road. The model demonstrates that nearly 10,000 vehicles a day will be removed from the A6 Swan Street, eliminating the conflict with 20,000 pedestrians per day. The results also indicate that the current air quality management area could be revoked with this removal of traffic and that there will be no net worsening in congestion as a result of the proposed scheme. The model will be used subsequently to assist with defining the scheme's environmental, economic, safety, accessibility and integration benefits as part of our major scheme proposal
- Earl Shilton – our Earl Shilton model has been used to establish problems and develop alternative options from which the major scheme bypass proposal, described in Chapter 11, has been established. The results from this work have been used to assist our consultation and our Annex E major scheme submission and were presented at the scheme public inquiry
- Melton Mowbray – our Melton Mowbray traffic study, which we consulted on in 2005, was informed by the results from our Melton Mowbray transport model which was used to establish existing and future problems and develop alternative options. Based on this, as identified in Chapter 11, we have identified junction improvements to be implemented in LTP2 and, as identified in Chapter 8, the need for a bypass beyond the LTP2 period.

4.190 Our technical assessment work has demonstrated that, as a combination of measures, our strategy for tackling congestion should be effective in meeting our objective of tackling congestion by increasing the use of public transport, walking and cycling with less growth in car mileage and more effective vehicle use of congested road space.

## Performance management

4.191 We have identified a range of outcome performance indicators reflecting the issues and areas of concern raised in the development of our strategy. We will use these to monitor and manage our overall performance as well as monitoring the outcomes of individual measures. We have kept the number of indicators to the minimum we consider necessary to ensure there is a clear focus on what we need to achieve over the next five years. The indicators are:

- person journey time in Central Leicestershire
- vehicle delays in Loughborough
- bus passenger journeys
- satisfaction with bus services
- satisfaction with public transport information
- bus punctuality at the start of bus routes

- bus punctuality at intermediate timing points
- bus punctuality at bus stops between timing points
- school travel by car
- level of cycling
- school travel plans
- workplace travel plans.

4.192 Details of our targets, our trajectories towards those targets and our performance management regime are given in Chapter 12.

### **Contribution to other LTP and quality of life objectives**

4.193 Our strategy to tackle congestion has been developed specifically to achieve its stated objective but it will also contribute to other LTP and quality of life objectives. The contribution it can make has been borne in mind in the development of the strategy. Table 4.3 summarises these contributions.

**Table 4.3 Congestion strategy contribution to other LTP and quality of life objectives**

Objective	Contribution of our congestion strategy	
Improving access to facilities	✓✓ ✓	Improvements in facilities for pedestrians, cyclists and bus users will provide a real choice in the way people travel to facilities and services. Our land-use development strategy will also encourage the development of local facilities accessible by walking, cycling and public transport.
Reducing road casualties	✓✓	Improvements in network management will improve safety at roadworks. Cars aiming to avoid congestion can impact on safety in communities and residential areas, and this strategy will encourage traffic to remain on appropriate routes. Improved cycle facilities will reduce cycle casualties.
Improving air quality	✓✓ ✓	Road traffic is a principal contributor to air pollution and tackling congestion is key to improving air quality.
Reducing the impact of traffic	✓✓	Tackling congestion on main transport corridors could discourage motorists from rat-running through other communities.
Managing transport assets.	✓	Better network management improve the efficiency of our maintenance activities
Quality of public spaces and better streetscapes	✓	By increasing the numbers of people walking, cycling and using public transport and by removing traffic from inappropriate communities and residential areas, we will improve the quality of public spaces leading to their greater use. This will help to create an increased sense of place.
Landscape and biodiversity	-	Limited contribution
Community safety, personal security and crime	✓	In partnership with bus operators our improvements to bus services will also improve personal security to make users feel more comfortable about using the bus.
Healthy communities	✓✓ ✓	By increasing walking and cycling there will be health benefits as people exercise more regularly.
Sustainable and prosperous communities	✓✓ ✓	Tackling congestion will help improve the economic vitality of communities, and our land use development strategy will deliver growth in a sustainable way.
Noise	✓	Greater walking, cycling and public transport use will result in less traffic related noise.
Climate change and greenhouse gases	✓✓	This strategy will encourage more sustainable modes and introduce more Smarter Choices for travel and this should reduce the production of traffic related greenhouse gases.

- ✓ = Modest contribution
- ✓✓ = Moderate contribution
- ✓✓✓ = Significant contribution