Shropshire Local Transport Plan

**Provisional LTP Strategy
2011- 2026**

March 2011

Contents

1. Introduction

1.1. LTP Purpose

This, the third Local Transport Plan (LTP) for Shropshire sets out how Shropshire Council and its partners intend to maintain, manage and improve transport provision in the county over the period 2011-2026.

Transport is not a goal in itself but the ability to travel to the places we need and want to go, and to move goods around significantly enhances the quality of our lives and supports the economy. However, our travel choices and behaviour can have considerable impacts on ourselves and the lives of others, through the creation of pollution, congestion and accident risks from traffic; as well as impacts on our health and environment. The role of the Local Transport Plan is to guide the development of the transport system in Shropshire in a way which will maximise the benefits travel can bring while minimising the disadvantages and costs to our wider society.

1.2. LTP Structure

The Shropshire Local Transport Plan consists of a suite of documents.

- **LTP Strategy**- This document is the principal LTP document. It outlines the transport challenges facing Shropshire, sets out the vision aims and objectives, and details the policies Shropshire Council and its partners will implement to address the challenges and achieve our objectives. It is a longer term strategy covering the next 15 year period to 2026.

- **LTP Implementation Plan**- This is the key LTP delivery document. The Implementation Plan will be updated annually, reviewing progress made in the previous year and identifying the projects and schemes to be delivered over the next 3 to 4 years.

- **Supplementary LTP strategies and plans and policies**- Where necessary more detailed 'daughter' documents will be prepared containing further details on the way in which policies and priorities set out in the LTP Strategy will be pursued. Supplementary documents will be prepared and revised as necessary during the LTP period and appropriate consultation undertaken.

- **LTP Evidence Base**- The facts, figures and analysis which has underpinned much of the development of the LTP strategy is available as a series of supporting documents.

1.3. LTP Context

The Local Transport Plan does not sit in isolation. It is one of the key delivery documents for the Shropshire Community Strategy and Local Development Framework, and has links to a number of other strategies and plans, including a very close relationship with the Rights of Way Improvement Plan.

The relationship between the different LTP documents and linkages with other strategies and plans and community involvement is identified in the diagram overleaf.

LTP Context Diagram

National Legislation and Government Policy

Shropshire Community Strategy 2010 - 2020

Other Strategies, Policies and Plans

Shropshire Council e.g:
- Economic Development Strategies
- Shrewsbury Vision
- Sustainability, environment and climate change policy

Partner Organisations e.g:
- Highways Agency
- Bus and rail operators
- Network Rail
- PCT

Local Transport Plan

LTP Evidence Base 2011

LTP Strategy (2011 - 2026)

Detailed LTP Delivery Strategies (developed and reviewed as required)

e.g.
- Parking Strategy
- Bus Strategy
- Shrewsbury Transport Strategy

LTP Implementation Plan (2011 - 2013 reviewed annually)

Local Development Framework

LDF Core Strategy (2011 - 2026)

LDF (SAMDev) Site Allocations and Management of Development

LDF Implementation Plan (Local Investment Plan)

Rights of Way Implementation Plan (ROWIP)

Research and Evidence

Place Plans

Community Involvement
Including:
- Consultation responses
- Service requests
- Community engagement
- Parish and Town Plans

1.4.   Preparation of the LTP

A wide range of evidence and analysis has also been used to shape the development of the LTP Strategy including analysis of economic, census, accident and traffic data, as well as findings of local and national studies.

The Provisional LTP Strategy has been developed in collaboration with a range of stakeholders and the public. We have build upon existing evidence of community aspirations and undertaken specific stakeholder engagement to help clarify the LTP objectives and priorities and to build a consensus on suitable interventions.

Further details of the engagement and consultation findings can be found in the separate LTP Evidence Base documents.

This Provisional LTP Strategy will be subject to full public and stakeholder consultation for 12 weeks; comments will be incorporated into the final version of the document which will be adopted in summer 2011.

The policies in the LTP Strategy have been the subject of Sustainability Appraisal. The outcome of this work is set out in the separate LTP Sustainability Appraisal Report

1.5.   Responsibilities and scope of the LTP

The LTP focuses primarily on aspects of transport where Shropshire Council has direct responsibilities. The Council has duties for the management, maintenance, improvement and safety of most of the highway network in Shropshire, and for supporting essential public transport services where these are not provided on a commercial basis.

The Council does not have direct responsibility for:

- trunk roads (M54, A5, A483, A49 south of Shrewsbury and A458 west of Shrewsbury) which are the responsibility of the Highways Agency;
- rail network, which is the responsibility of the DfT, the Welsh Assembly Government in Wales, Network Rail and train operating companies;
- bus services which are run on a commercial basis by private companies;
- traffic law enforcement (excluding civil parking enforcement), which is the responsibility of the Police; or
- local lighting and bus shelters, which are currently the responsibility of local parish and town councils.

However, the Council aims to work closely with partners responsible for other parts of the network in order to achieve the best outcomes for residents and transport users in Shropshire. Wherever appropriate the LTP Strategy sets out Shropshire Council's position and aspirations in respect to parts of the transport network that is does not have direct responsibility for.

2. Transport context and issues

2.1. Geography

Shropshire is a large, predominantly rural land locked county situated in the West Midlands and bordering Wales and the North West. It has a population of 291,800[1] the equivalent of only 0.91 persons per hectare. As such, Shropshire is one of the most sparsely populated counties in England.

Around a quarter of the population (71,208[2]) live in the historic county town of Shrewsbury. The town provides the main commercial, cultural and administrative centre for Shropshire, and serves a wider catchment that extends into mid Wales. Shrewsbury has particularly strong links with Telford to which it is well connected by trunk road and rail.

Shropshire has five main market towns which together contain around 20% of population and provide a range of facilities and services for their resident communities and surrounding rural hinterlands.
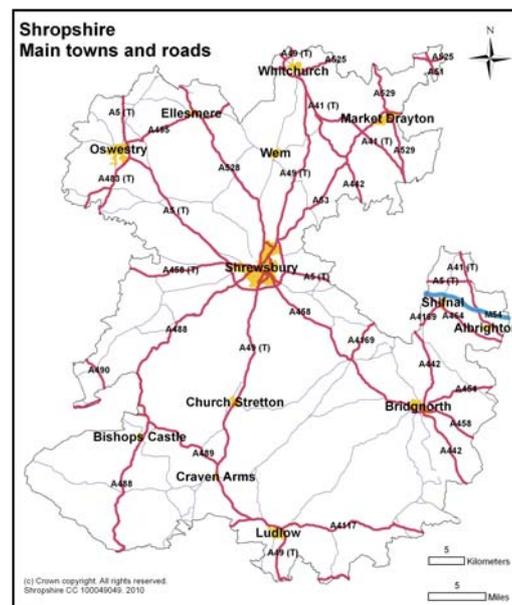
Oswestry (population 17,800) in the north west of the county is the largest of these market towns, providing a key centre for the surrounding rural area and has strong links with Wrexham and adjacent areas within Wales.

Market Drayton (population 11,127) and Whitchurch (population 8,739) in the north of the county have links with their rural areas and connections with the potteries and with towns in south Cheshire. North Shropshire is also influenced by the conurbations of Merseyside and Manchester.

Ludlow (population 9,878) is the main centre for south Shropshire, this area is relatively remote and more self contained, but also has significant links with Herefordshire.

Bridgnorth (population 11,401) has the highest proportion of commuters, having strong connections with Telford and areas in the West Midlands conurbation.

There are a further 13 smaller market towns and key centres in Shropshire which provide some local services[3]. Together these are home to a further 19% of the population.

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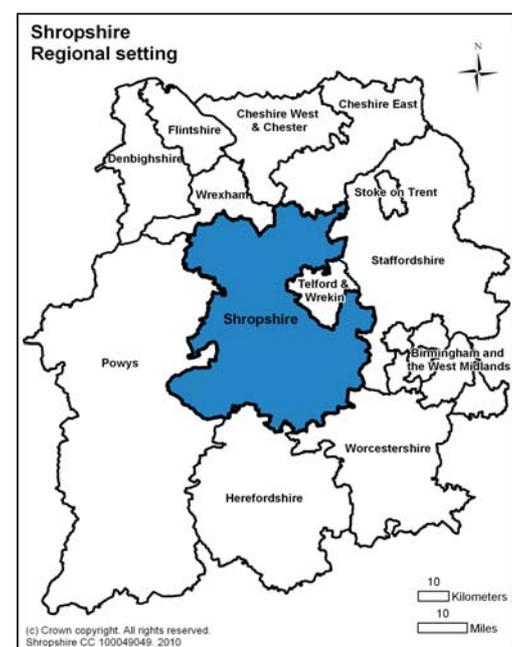
[1] 2009 mid year estimate

[2] 2007 mid year estimate including Bayston Hill

[3] Identified in LDF Core Policy CS3.

Outside these main settlements, the population is spread widely and sparsely with many small villages, hamlets and dispersed dwellings within the countryside. Overall, around 36% of the population live in rural areas.

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Key Issues
- Large and sparse county with significant distances between significant settlements
- The majority of the population live in towns or larger villages, however just over a third of the population are very sparsely distributed across a large rural area

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2.2.   Transport networks and connectivity

Whilst parts of Shropshire can be seen as being remote, much of the county has relatively good connectivity with the West Midlands and the national motorway network via the A5 and M54. London can be reached within 3 hours by road and rail, Birmingham, Manchester and Liverpool airports can be accessed within 2 hours.

Shrewsbury acts as a rail hub, with lines from Aberystwyth, Chester, Crewe, Wolverhampton, Cardiff and Swansea converging in the town. There are a total of 16 stations in the county. However, neither Bridgnorth nor Market Drayton is served by rail, and the station for Oswestry is at Gobowen, some 3 miles away. Rail generally tends to be more important for long distance journeys than local commuting.

Shropshire has a few key trunk and principal roads which provide links between the major settlements, predominantly in the form of single carriageway roads. The county also has a vast network of country lanes. The great majority of Shropshire roads have evolved from ancient rights of way and have not been designed or constructed to modern design standards, whilst in towns historic street patterns still predominate.

The provision of a comprehensive bus service in Shropshire is challenging. Long distances in rural areas make services expensive to operate, and a small, sparse population with relatively high levels of car ownership lead to low levels of patronage. Most local bus services rely on financial support from the Council with only a small number of services run on a commercial basis; most of these being within the town of Shrewsbury. The network currently consists of town services in the larger towns, interurban services linking market towns to Shrewsbury, Telford and other major centres outside of Shropshire, and the ShropshireLink demand responsive rural bus service.

Investment in recent years has achieved targeted infrastructure improvements for walking and cycling; and Shropshire has a very extensive rights of way network. However facilities for these modes are still poor in comparison to exemplar areas in the UK and Europe.

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Key Issues
- Lack of rail coverage in some areas of the county
- Traditional road system with single carriageway trunk roads and constrained street patterns in towns
- Sparse population in rural areas limits the scope for efficient public transport
- Opportunity to build on a tradition of walking and cycling within towns.

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2.3. Travel patterns[4]

Travel to work
The travel to work patterns shown below gives an indication of the key travel patterns within Shropshire, and interactions with neighbouring areas.

Work travel patterns
Movements of over 300 people. Census 2001

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Shropshire Council 100049049. 2010

Number of people staying within town	Number of movements between areas
● 300-500	→ 300-500
● 501 - 1000	➜ 501-1000
● 1001 - 2000	➡ 1001-2000
● 2001 - 5000	➡ 2000-3000
● 5001 - 22760	↘ Movement between town and rest of rural district

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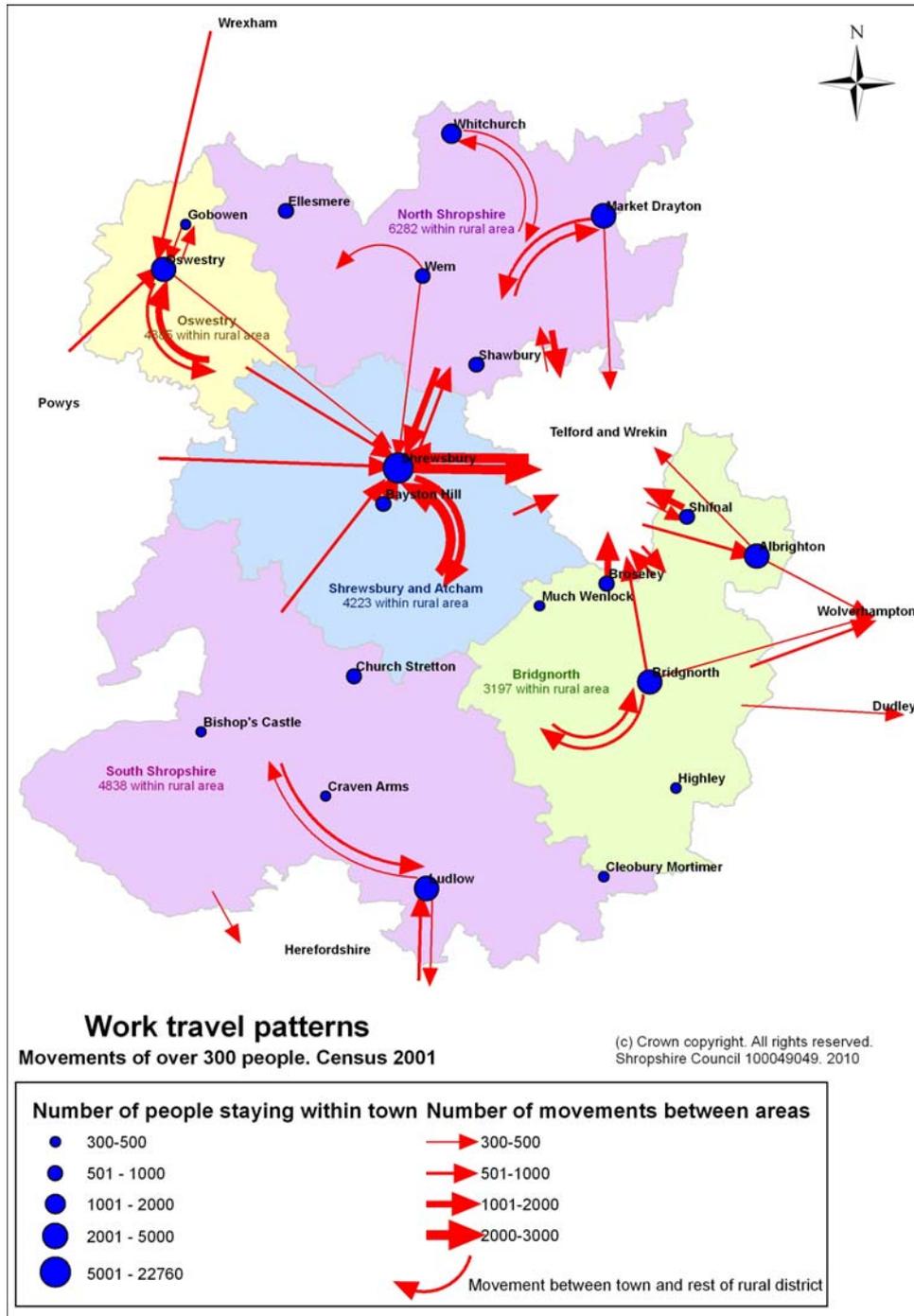
[4] **Based on 2001 Census data, ONS**

Levels of commuting have increased considerably over the last couple of decades as car ownership has risen and transport infrastructure has been improved. However, Shropshire still has a relatively high level of employment self containment[5] compared to other areas of England. 76% of those residents who work have jobs within the county; a further 9% work in Telford and Wrekin. However, levels of employment self-containment of different towns in Shropshire vary considerably. Shrewsbury is the most self contained (70%) while Bridgnorth (42%) and some other eastern parts of Shropshire have particularly high levels of out-commuting.

Figure 3.6: Levels of Self-Containment by Town, 2001

Town	Level of self-containment
Shrewsbury	70.0%
Albrighton	67.2%
Ludlow	62.7%
Oswestry	57.7%
Bishops Castle	56.0%
Market Drayton	52.6%
Church Stretton	51.1%
Whitchurch	48.5%
Much Wenlock	44.0%
Craven Arms	43.0%
Cleobury Mortimer	42.5%
Bridgnorth	42.2%
Ellesmere	36.1%
Wem	35.6%
Pontesbury	31.2%
Gobowen	29.9%
Highley	29.8%
Shifnal	26.4%
Broseley	25.5%
St Martins	24.3%
Alveley	24.0%
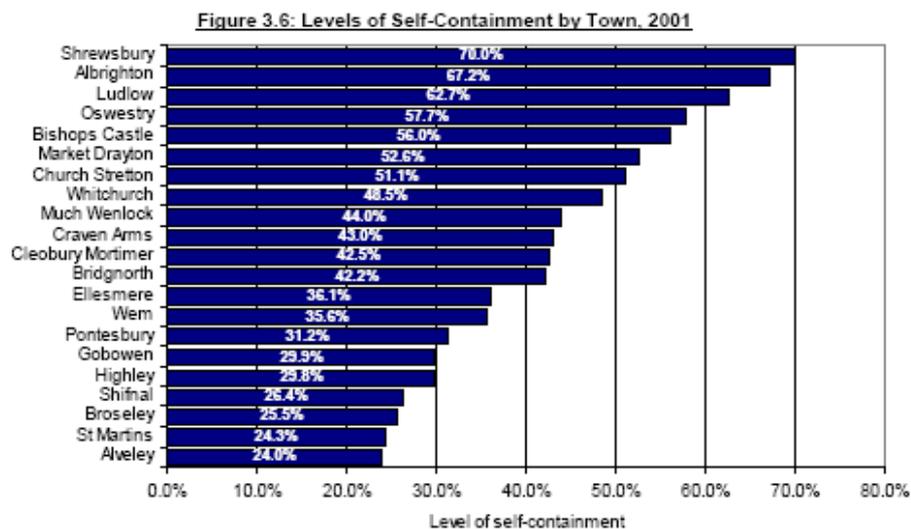
Source: 2001 Census Special Workplace Statistics (SWS207). Crown Copyright. 2010

The most significant flows of commuters both into and out of the county are between Shropshire and Telford and Wrekin.

Figure 3.5: In-Commuting by Place of Residence and Out-Commuting by Area of Workplace to/from Shropshire, 2001

Area	In-commuting	Out-commuting
Worcestershire	1039	2078
West Midlands	1755	6309
Warwickshire	59	128
Wales	4972	3912
Telford & Wrekin	6037	11831
Staffordshire	2288	2340
North West	1600	2262
Herefordshire	1133	1177
Other	1903	2974
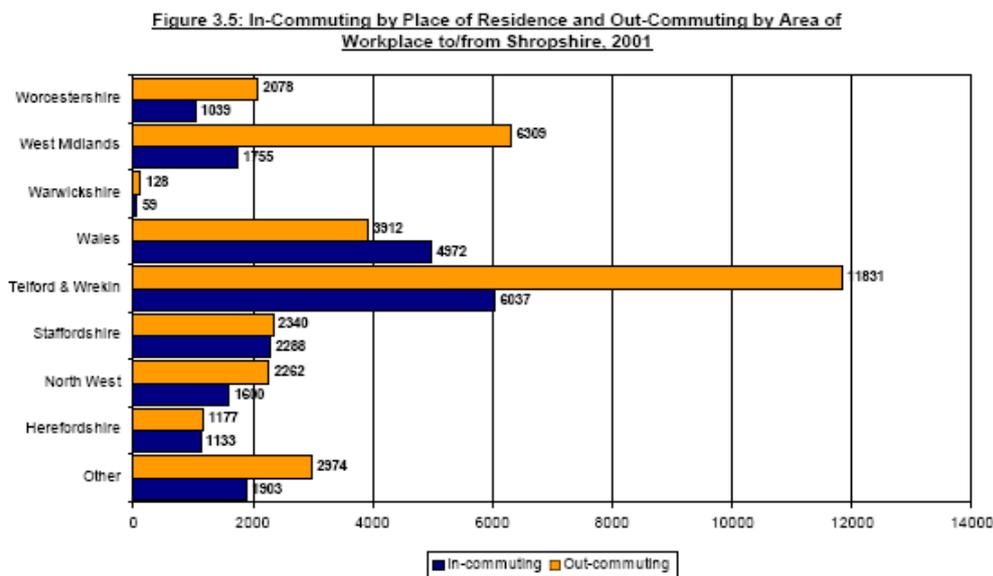
Source: 2001 Census Special Workplace Statistics (SWS207). Crown Copyright. 2010

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[5] **Employment Self Containment is where people both live and work in the same town or area.**

Average journey length for commuter journeys for Shropshire residents in 2001 was 15.9km, quite significantly higher than the English average of 11.7km. The number of short work journeys has not changed significantly in recent decades, and in 2001 just under half (44%) of all work journeys were less then 5km (3.1miles) in length. However, as the total number of workers has grown the number of longer commuting journeys has increased; in 2001 11% of workers travelled more than 30km (18.8 miles).

A significant proportion of high skilled, and better paid, workers commute out of Shropshire to work. Indicating a lack of high paid jobs in Shropshire, or that Shropshire is an attractive place for highly paid workers in Telford and other neighbouring areas to live.

Shropshire, particularly in the south, has one of the highest levels of home working in the country, reflecting both the traditional farming economy and the more recent growth in home-based enterprises. 13% of all those employed in Shropshire work at home.

Of those who travel to work, three quarters travel by car or van, a similar rate to other rural areas in England. However, levels of walking and cycling (19%) are higher than in other rural areas, and use of bus and train (4%) is significantly lower than in other rural areas. This reflects the lack of coverage of public transport, as well as the suitability of walking and cycling for short work journeys within Shropshire's relatively small and self-contained settlements.

While for many journeys the car will be the only practical option, there is an indication that some car journeys could be made by other modes. For example, over a quarter of work journeys are under 2km (1.25 miles), a distance that most workers could walk or cycle; however nearly half (44%) of these very short journeys are made by car.

Retail and leisure travel patterns

Shrewsbury is a key cultural and shopping centre for Shropshire and mid Wales. It is ranked ninth of all the retail centres in the West Midlands in terms of spend[6], above Telford which is its main local competitor and beneficiary of most 'leaked' retail spend. However, Shrewsbury has a reputation for independent retailers whereas Telford shopping centre comprises predominantly chain stores, and as such the two locations act as complementary shopping destinations. Shrewsbury is also a key focus of the night time economy.

61% of the population is within 2km of a supermarket, (compared with 87% of the population in England), and 94% within 10km. The larger market towns generally serve the needs of their residents and rural areas in terms of supermarket shopping, however the proportion of convenience retail expenditure retained within Bridgnorth is considerably lower than the other large towns; probably linked to higher levels of out-commuting.

Education travel patterns

While 88% of Shropshire households are within 2km of a primary school, almost a third of primary pupils who do not attend their local catchment school. 42% of primary level pupils

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travel by car. Around half of these car journeys are short journeys under 1 mile, often linked to parents' commuter trips.

Distances to secondary schools are much greater with only 56% of households within 2km of a secondary school. However, 19% of secondary pupils do not attend their catchment school. 40% of secondary pupils travel by public transport (predominately bus) and 40% walk or cycle, with 19% travelling by car. Only 4% travel by car and live within a mile of their school.

Travel mode is often related to school choice. Pupils who choose out of catchments schools, for which they are not entitled to free transport, can often be reliant on the car.

The planned national review of statutory home to school transport provision could have significant implications for travel to school in Shropshire, particularly at secondary level.

Students have to travel further distances to reach post-16 education; and there is considerable cross border travel at this age. There is considerable dissatisfaction from secondary and college level students with the quality of bus travel.

Key Issues
- Trend towards lower levels of employment self containment, increased levels of commuting and longer journey lengths; which will all contribute to increased traffic and carbon emissions.
- However, compared to other rural areas in England, there are still relatively high levels of self containment, short work journeys and a tradition of walking and cycling in many places. Opportunities to seek to retain these more sustainable patterns and build on them.
- High and growing levels of home working, helping to reduce commuting traffic.
- Shrewsbury is a key employment and retail focus for much of the county and areas in Mid Wales.
- Telford has a strong and growing influence on travel patterns in Shropshire. There is a particularly strong interdependence between Shrewsbury and Telford.
- Oswestry, Market Drayton and Ludlow provide significant local foci for employment and retail.
- Bridgnorth, Whitchurch and a number of other smaller settlements in the east of Shropshire act increasingly as 'dormitory' towns for commuters.
- Very low levels of public transport use for work journeys. However a large proportion of secondary and college students travel by bus and many have negative opinions of this mode.
- Significant use of the car for school journeys, particularly at primary level. This is partly influenced by parents choosing more distant out of catchment schools, and also linked commuting and school trips.

2.4. Demographics, population change and development

The population of Shropshire is growing. The population of Shropshire is projected to grow by 16.9% by 2031[7] to 338,000 people. This will put additional pressures on the transport systems and services.

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[7] 2008 long-term sub-national population projections based on 2006 data, ONS data

As a result of the growing population and the trend towards smaller household size the number of households is due to increase by 24%.The Core Strategy for the Shropshire Local Development Framework (LDF) plans a net increase in the supply of housing of 27,500 new homes from 2006 to 2026 in Core Policy CS1 to accommodate this additional housing demand.

The LDF Core Strategy also plans to deliver an additional 290 hectares of employment land to meet the longer term requirements to deliver sustainable economic growth in Core Policies CS13 and CS14. The strategic supply of employment land and premises will be distributed in accordance with the strategic approach in Core Policy CS1 which requires new employment to be delivered alongside new housing development to prevent a significant increase in employment related out-commuting.

Shropshire is also likely to be increasingly influenced by Telford which is expected to grow its population, housing and employment at even more rapid rates than Shropshire.

Shropshire also has a rapidly ageing population, caused by longer life expectancies, the net in-migration of people of retirement age and the higher than average out-migration of young people. Almost 20% of Shropshire residents are aged 65 and over compared to 16% nationally[8]. By 2031 it is projected that 31% of the population will be over 65 and 16% aged over 75.

A population comprising above average numbers of older people impacts on the local economy and puts pressure on public services. It has significant impacts on transport particularly as people become less able to drive, and become more reliant upon public transport services.

Key Issues
- Total population growth increasing pressure on transport systems
- Aging population increasing the need for public transport services
- Major housing development could provide an opportunity to locate and design new development in ways which encourage and support more sustainable transport patterns
- There is a threat that if housing growth is achieved but employment growth isn't realised that there will be further increases in out-commuting.

2.5.   Accessibility

Shropshire is one of the most sparsely populated counties in England. Residents, particularly those in rural areas, often have to travel longer distances to reach shops and services than in more densely populated areas. There is a continuing trend towards the closure of rural services which will further increase the distances people need to travel to reach services; unless virtual electronic provision is provided.

There are indications that when rural residents have access to cars then these longer distances are not a significant issue. Car ownership levels in Shropshire are high, particularly in rural areas and access by car is considered by local residents to be very good.

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[8] *2008 mid year population estimates*

However, the condition of local rural roads and the availability and cost of car parking are identified as concerns by some car users.

However, some people in Shropshire with relatively low incomes run a car out of necessity and can find the costs a burden. While people without access to a car can have significant accessibility problems; affecting their ability to access work, training, healthcare, shops and services as well as social activities. Groups often most affected by poor accessibility include older people, disabled people, people on low incomes and younger people.

Accessibility issues are exacerbated by the limited public transport services in many areas. In rural areas long distances and small numbers of users make it difficult to support economical public transport services. Few bus services in Shropshire are run on a commercially profitable basis, and the Council can only afford to support a limited number of essential services. The introduction of ShropshireLink in all rural areas has improved essential rural accessibility; however the service only currently runs daytime on a limited number of days; so is not suitable for all journey purposes, particularly work journeys. Community transport initiatives can also provide an important safety net for people without any other form of transport available. There is also very limited public transport available in evenings and weekends which can affect the ability of people to access shift work.

The location of workplaces, facilities and services affects levels of accessibility for people without a car. The trend over recent years to locate workplaces, shops and some services in edge of town locations rather than in town centres has made access by foot, cycle or public transport more difficult.

The cost of travel by bus is also a significant barrier to accessibility. While older and disabled people have benefited from the national concessionary fares scheme in recent years, this has resulted in higher fares for other bus users. Young people can find the cost of bus travel a barrier to taking part time work, or travelling for shopping or social purposes. Expensive public transport is cited as one of the factors influencing worklessness and ability to get into work for unemployed people in some of Shropshire's most deprived areas.

Physical barriers and poor design of facilities can make access more difficult for people with mobility problems. Issues include lack of low floor buses, availability of disabled parking spaces, blockages to pavements, lack of dropped kerbs and lack of controlled pedestrian crossings.

Lack of information can also act a significant barrier to accessibility; the need for better public transport information has been highlighted in consultations. Safety and security concerns can also be a significant barrier to some people to accessing facilities by foot and cycle.

Key Issues
- The need to travel long distances to shops and services in rural areas is being exacerbated by closures of rural services.
- Some people particularly in rural Shropshire with relatively low incomes will run a car out of necessity and can find the costs a burden.
- People without access to a car can have significant accessibility issues, including older, disabled and younger people and people on low incomes.

- Few commercially viable bus services and the council can only afford to subsidise a limited network of services.
- Cost of bus travel can be a real barrier particularly to younger people and those on low incomes.
- Physical barriers and poor design of facilities can affect the accessibility of people with mobility problems.
- Lack of information can also act a significant barrier to accessibility.

2.6.   Traffic and climate change

Nationally traffic levels have grown at an average of 1.6% per annum since the mid 1990s. Whilst significant, this is the slowest rate of growth since the 1950s when mass car ownership first started. Traffic on Shropshire roads grew at a slightly slower rate than all rural roads[9] in Great Britain. There was a slight reduction in traffic levels in 2009 due to the economic recession.
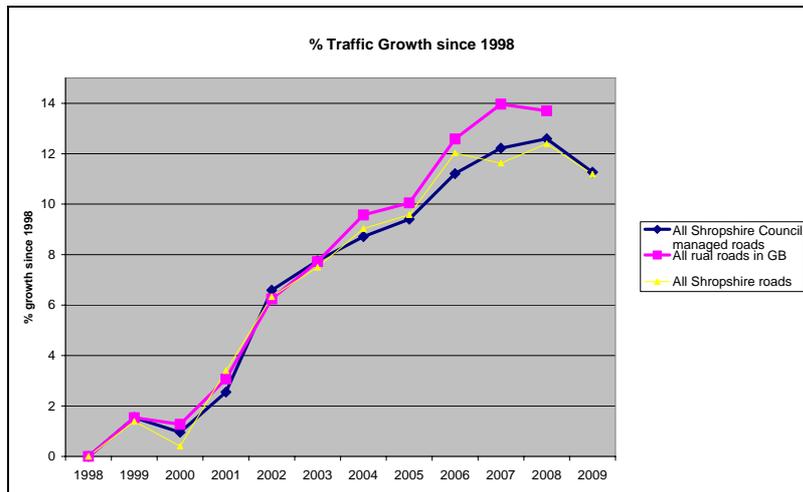
The slower rates of traffic growth in the late 2000s may have been partly influenced by rapidly increasing fuel costs. Fuel prices are predicted increase further, resulting in a 15% increase in the cost of driving between 2003 and 2015.

However, EU regulations mean that new cars will become significantly more efficient over the LTP period, countering the effect of more expensive fuel; by 2025 average car driving costs are predicted to be 11% lower than in 2003.

Improved vehicle efficiency is also predicted to result in reductions in CO_2 emissions in the medium term. However, cheaper motoring costs are expected to result in further traffic increases, and eventually this will counteract the reductions to CO_2 achieved by the increased vehicle efficiency. Increased traffic levels will also result in further congestion and longer journey times.

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[9] Rural roads are those classed as being outside of a urban area of more than 10,000 population
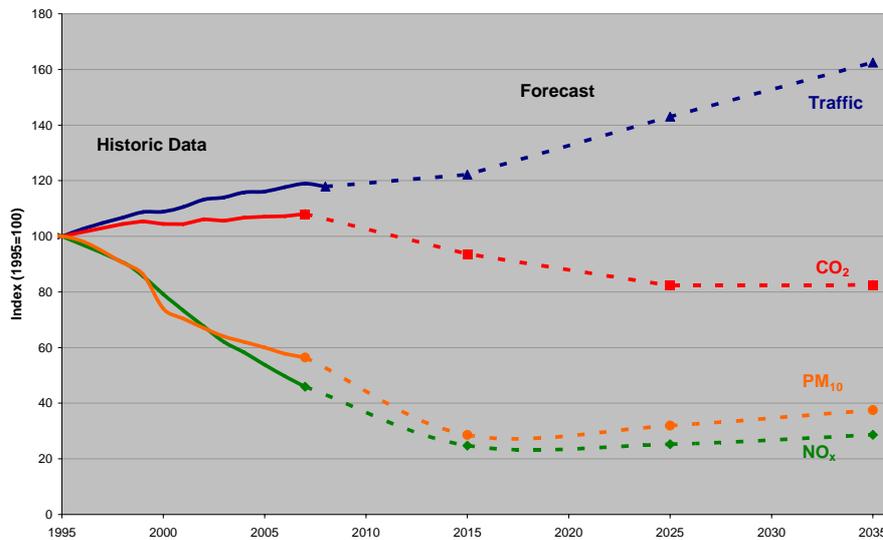
Climate change is recognised as possibly the greatest threat facing the world today. In Shropshire it will mean hotter drier summers and wetter milder winters with more extreme weather events. The Government has set legally binding targets for at least a 34% reduction in UK greenhouse gas emissions by 2020, and an 80% reduction by 2050[10]. Even with the agreed improvements to vehicle efficiency, more will need to be done to reduce carbon emissions from transport and ensure that the 2050 target is met.
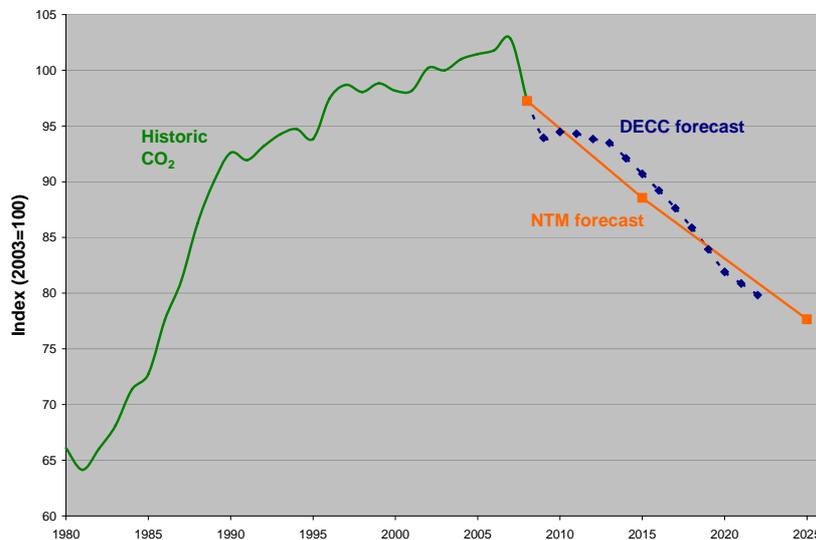
Transport is the source of about 30% of Shropshire's total carbon emissions[11]; this is slightly higher than the UK average of 24%. Cars contribute around two thirds of these emissions, with goods vehicles also being a significant source. Around two thirds of emissions are from motorways and A roads due to the higher traffic volumes and speeds on these roads.

Carbon emissions can be influenced by:

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10 from a 1990 baseline

11 Source Dept of Energy and Climate Change

- Efficiency of vehicles- the amount of carbon produced per km travelled is influenced by fuel type, engine efficiency, vehicle weight and size, driving style, speed, length of journeys etc.
- Traffic levels- the number of miles travelled by motorised vehicles, this is influenced by the length of journeys, number of journeys, mode choice etc.

Key Issues
- In the short term fuel and driving costs are predicted to increase further; this will pose a challenge to those on low incomes who are car dependent, but also an opportunity to encourage more sustainable travel patterns
- Beyond 2015, more efficient new vehicles are expected to become more widespread and reduce average driving costs and CO_2 levels, but also result in more rapid traffic growth and congestion.

2.7. Economy and congestion

While connectivity is important to economic success, so is a high quality of life. The remoteness of Shropshire is one of the factors which contribute to its attraction as an unspoilt and tranquil place to live, work and visit. This is a particularly important factor in attracting higher skilled workers and businesses. It is important therefore to ensure that the environmental assets of the county are not damaged when seeking to improve connectivity and accessibility.

Local business have identified that high quality of life, good environment and a central location are strong assets of operating a business in Shropshire. Access by car is seen as being relatively good although parking cost and availability is an issue of concern, and some trunk road improvements are called for. Congestion is not considered to be a significant problem except in a few 'hot spot' areas, predominantly in and around Shrewsbury. Data analysis also shows that the A5 around and north of Oswestry is a further congestion hotspot.

Businesses do not consider public transport currently meets the needs of business or employees. Better access to rail, faster line speeds and better reliability are called for; and the lack of buses to business parks and for those working shifts (particularly in the manufacturing, care and hospitality sectors) are highlighted as particular issues.

Shrewsbury and the market towns are vital to the vibrancy of the county, acting as important employment and service centres for the local population and representing a vital element of the tourism offer. Tourism is an important part of the local economy, with approaching 11 million people visiting each year. The tourism sector has a strong reliance on good transport provision, as well as generating significant volumes of traffic. Cycling and walking have also been identified as important parts of the tourism offer for Shropshire, with the quiet lanes and by-ways offering a high quality experience. Maintaining quiet routes for such tourism is important.

Shropshire has a predominantly small business economy. There are high levels of enterprise and entrepreneurship, and good rates of business survival. Shropshire also supports a particularly high level of home-based business, with nearly 12% of workers being self-employed.

However, productivity is low in Shropshire, and it has been growing at a comparatively slow pace. There has been a traditional dependence on agriculture and related sectors and a relatively slow up-take in knowledge based sectors which are expected to be the main focus of economic growth in the future.

There is also a higher than average dependence on the public sector, with nearly one in three workers employed in the public sector. There is a danger that significant cuts in the public sector could undermine the overall economic stability of the county unless the private sector is able to absorb the public sector job losses.

Unemployment rates in Shropshire are relatively low; although there are pockets of high unemployment in some towns, and youth unemployment is rising. However, lower claimant rates to some extent disguise a significant level of rural under-employment. A relatively high proportion of jobs are part-time and there is a substantial amount of seasonal and casual work (both tourism and agriculture related). Many people work two or three part time jobs to make ends meet.

Shropshire workers have relatively low wages; however residents' average weekly pay is much closer to the regional average reflecting the fact that a significant proportion of most highly skilled, and better paid, workers commute out of the county to work.

For local workers, higher than average house prices combined with lower than average wages create significant affordability issues.

To address these economic challenges Shropshire's Economic Development policy is currently focused on improving skills to meet the current and future needs of the business community, restructuring of the economy to support private sector job growth to compensate for the reduction in public sector employment, growing Shropshire's existing businesses, especially in key sectors and in the knowledge intensive industry and supporting start-up enterprises. There is a focus on specific sectors which have been identified as capable of significant growth, including tourism, manufacturing, the land-based sector, care/assisted living, food and drink, environmental enterprises, creative industries and social enterprise.

To support our economic development strategy Shropshire requires a modern, sustainable and affordable transport system. Development of better ICT infrastructure is also essential particularly in rural areas to support the modernising of the economy, increase competitiveness and reduce the need to travel. This has been recognised by the new Marches Local Economic Partnership.

Key Issues
- Balancing the need for good connectivity and parking opportunities to meet business needs, with the need to manage traffic growth to prevent further congestion and the negative impacts on Shropshire's high quality environment asset.
- Tackling existing congestion 'hotspots', particularly in and around Shrewsbury
- Tackling the negative perceptions by the business community of access to, speed of and reliability of rail
- Supporting the growth of the tourism economy, including maintaining quiet routes for walking and cycling; and managing associated traffic.
- Recognise transport affordability issues resulting from Shropshire's low wage economy.

2.8.   Environment

One of Shropshire's key assets is its high quality and attractive environment. The county's landscape and heritage assets are a key economic asset, creating not only an attractive place to live and work but also making Shropshire an important tourist destination.

Traffic, roads and the activities required to manage and maintain the road network can have a significant impact on the environment.

Vehicles, roads, signs and other street furniture can impact on the quality of landscapes and townscapes and on the setting of heritage assets.

Road traffic can affect biodiversity through collisions with wildlife and the impact on habitats of roads and highway maintenance practices.

Traffic is the main source of air pollution in Shropshire, and in some locations levels of nitrogen dioxide (NO_2) are at levels that can impact on human health.

Noise from traffic, particularly HGVs, is a widespread cause of annoyance and detracts from the quality of the local environment. In some situations traffic noise can also have health impacts.

Key Issues
- Reducing the impact of traffic, roads and our management and maintenance practices on Shropshire's valuable landscape, townscape, heritage and biodiversity assets.
- Reducing the air and noise pollution from vehicles with a particular focus on pollution that can damage human heath.

2.9.   Physical activity, health and road safety

Regular travel by the active modes of walking or cycling can be an important part of a healthy lifestyle. Travel by these modes can contribute to the recommended 30 minutes of moderate physical activity each day.

The likelihood of people to walk or cycle is influenced by a number of factors including the locations of key facilities, the quality and design of the local environment, levels and speeds of traffic and provision of specific safe infrastructure.

In recent years there have been very significant reductions in the number of people killed or injured on Shropshire roads, and Shropshire has the one of the lowest rates of road accident casualties of all comparable local authorities. However, road accidents are still the most significant cause of accidental death in Shropshire, making up nearly half of all accident deaths.
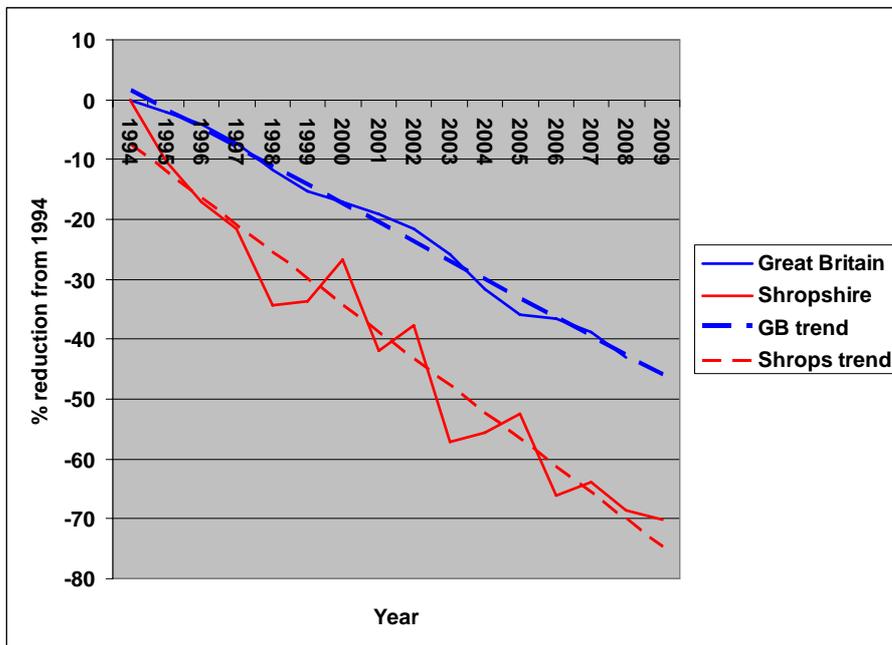
Reduction in fatal and serious casualties

.
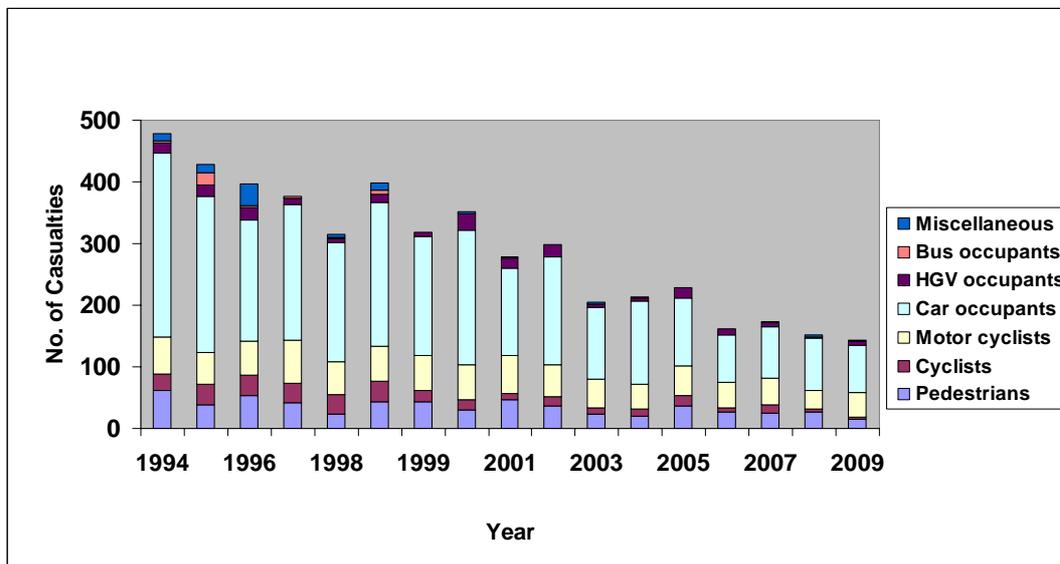
Travel mode of people killed and seriously injured

The risk for road users varies considerably depending on travel mode used, the age and gender of road user and the type of road travelled on. For example motorcyclists are at greatest risk of being involved in an injury accident, followed by pedestrians and cyclists; those travelling by bus are at lowest risk. Young people (16 to 24), particularly males, are at the greatest risk when travelling, and young drivers are almost twice as likely to be involved in an accident as older drivers. There is higher risk of death or serious injury when travelling on a rural rather than an urban road.

Even though road accidents and casualties have fallen significantly in recent years speeding traffic and fear of traffic accidents if still one of the greatest concerns of Shropshire residents. Fears about road safety may not always be related to actual accident risk; but fear can affect both quality of life for local residents and their travel behaviour, discouraging walking and cycling.

Key Issues
- Creating conditions which encourage and facilitate walking and cycling to make a significant contribution towards healthier lifestyles.
- Continuing to improve the safety of Shropshire's roads with a particular emphasis on key risk groups and factors including motorcyclists, pedestrians and cyclists, young road users and rural roads.
- Targeting road safety resources at addressing identified high risk factors whilst also addressing residents' concerns and perceptions of risk.

2.10. Related strategies and plans

Further evidence of the issues and challenges identified in this chapter can be found in the following documents:

LTP documents:
- LTP Evidence Base
  www.shropshire.gov.uk/traveltransport.nsf/open/2A79133CD32676E98025709E002EEF2B
  - Part 1 – Travel provision and trends
  - Part 2 – Consultation report
  - Part 3 – Economy and growth
  - Part 4 – Traffic, carbon reduction and environment
  - Part 5 – Accessibility and health
  - Part 6 – Safety and security

Other documents:
- Local Development Framework (LDF) - Core Strategy
  www.shropshire.gov.uk/planning.nsf/open/5ADFD31357B9398D80257545004C0888
  - Spatial Portrait (with Transport and Accessibility)
  - The Challenges we Face
  - Core Policies CS1, CS2, CS3, CS4& CS7

- LDF Core Strategy Evidence Base
  www.shropshire.gov.uk/planning.nsf/open/905672F7B6EBAD8B8025778200355226

- LDF Implementation Plan & Place Plans

- Spotlight on Shropshire Economy - Local Economic Assessment
  www.shropshire.gov.uk/economicdevelopment.nsf/open/DECA69501B3000B880257814004E9D7B

3. Vision and objectives

3.1. Contributing to the Shropshire Vision

Our LTP objectives have been carefully identified to help deliver the vision, priorities and aims set out in the Shropshire Community Strategy:

Shropshire Community Strategy (2010-2020)

Vision: *"A flourishing Shropshire"*

Priorities:
1. Enterprise and growth, with strong market towns and rebalanced rural settlements
2. Responding to climate change and enhancing our natural and built environment
3. Healthy, safe and confident people and communities

The LTP objectives' also expand upon the transport elements of the Spatial Vision and Strategic Objectives set out in the Shropshire Local Development Framework (LDF) Core Strategy:

Shropshire Local Development Framework (2011- 2026)

Extracts from The Spatial Vision:
"By 2026, quality of life for Shropshire people will have been significantly improved and Shropshire will have become a better place in which to live and work…..

Targeted improvements to the County's transport infrastructure will have taken place to widen transport choices and help reduce car dependency, improving accessibility and connectivity both within and beyond Shropshire."

Strategic Objective 8:
"Support the improvement of Shropshire's transport system in a sustainable and integrated way and locate development to improve accessibility by quality public transport, cycling and walking, help reduce car dependency and the impact of traffic on local communities and the environment."

3.2. LTP Objectives

In determining our transport objectives we have carefully considered:
- The vision and framework set by the Community Strategy and LDF
- The Government's policies and priorities,
- The specific transport issues and opportunities for Shropshire as set out section 2.

We have identified 10 LTP objectives. By focusing on these objectives we will be able tackle the transport challenges facing Shropshire, achieve the outcomes identified in following table and hence contribute towards overall delivery of the Shropshire vision. The policies set out in chapters 4-7 are based around the delivery of these 10 LTP objectives:

Community Plan priority and LTP goal	LTP objectives	Chapter and policies areas	Outcomes
Economy and growth	Improve connectivity and access, particularly by sustainable transport modes Improve journey time reliability and reduce unforeseen delays Support growth and ensure new housing and employment areas encourage more sustainable travel behaviour	**Economy and growth** • Air travel • M6 toll link • Strategic road network reliability improvements • Network capacity management hierarchy • Network management • Capacity improvements and new roads • Tackling Shrewsbury's traffic problems • Car parking and park and ride • Access to work • Supporting sustainable tourism • Location and design of new development	• Economy supported through good connectivity and access for workers, customers and goods. • More predictable and reliable journey times • Better access to employment, education, goods and services without needing to use a car • Tourism encouraged with good access, vibrant pedestrian friendly towns and high quality rural areas unspoilt by traffic. • More very local journeys, particularly within towns, to be made by foot or cycle • Greater use to be made of bus travel in towns and on strategic corridors where this can provide a practical alternative to the car • More provision and use of park and ride where this can be viable and can help to reduce traffic levels in historic town centres • A high quality environment and good quality of life which will attract and retain high value businesses and entrepreneurs.
Carbon reduction and environment	Reduce transport related carbon emissions Minimise the impacts of transport on our local environment and communities	**Traffic, carbon and environment** • Rail Infrastructure • Rail services and information • Access to rail stations • Managing freight • Encouraging more sustainable travel choices • Improving vehicle efficiency • Improving air quality • Reducing traffic noise • Reducing environmental impacts	• Greater use of new technology and different ways of working to reduce the need to travel • A greater proportion of short journeys being made by foot or cycle • Greater use of buses on strategic corridors and more use of park and ride where provided. • A greater proportion of longer distance journeys to be made by rail or coach, and greater use of car sharing • More long distance freight moved by rail, and reduced impact of HGVs on communities • Larger proportion of more efficient and cleaner vehicles in use, and wide adoption of greener driving practices • Air quality within EU limits across the county • Reduced impacts from noise at problem locations • Reduced impacts landscapes, townscapes, heritage, biodiversity, soil and water quality from our highways maintenance and highways improvement practices
	Maintain the condition of the highway network	**Highways maintenance** • Cost effective asset management • Maintaining a safe highway	• Provision of a highway network that is safe for all road users • Sections of highway are maintained in a appropriate condition for their function • The value of the highway asset is maintained

Community Plan priority and LTP goal	LTP objectives	Chapter and policies areas	Outcomes
		• Reducing our environmental impact and responding to climate change	• Maintenance is undertaken in the most cost effective way with impacts on the environment minimised
Healthy, safe and confident people and communities	Enable older, younger, disabled and other excluded people to more easily access a range of services and facilities	**Accessibility and health** • Supported bus network • Bus network enhancements • Bus fares and ticketing • Improve public transport information and marketing • Other bus enhancements • Community transport • Taxis and private hire vehicles • People with mobility difficulties • Cycle infrastructure • Encouraging cycle use • Pedestrian Infrastructure • Encouraging walking	• People living within larger towns and on interurban routes able to access a good range of employment and services via a reasonably frequent bus service • Some level of affordable transport available for all rural residents to enable then to access essential services and prevent social exclusion • People with mobility impairments able to travel more easily by appropriate modes, with barriers to mobility removed where possible • More short journeys are made by foot or cycle rather than car • A contribution has been made to reducing accessibility and health inequalities • Greater levels of social interaction and community cohesion have been achieved as a result of more people being 'out and about' and greater opportunities to interact when travelling by foot, bike or public transport.
	Encourage more travel by active modes of foot and cycle		
	Reduce the risk of death or injury due to transport accidents.	**Safety and security** • Safety schemes • Improving safety when maintaining and improving roads • Appropriate speed limits • Compliance with speed limits • Road safety education, training and publicity • Personal security	• A continued reduction in road accident casualties and deaths at a greater rate than the national average • Lower risk (number of casualties per distance travelled) for road users who are currently at higher risk, particularly motorcycle users, pedestrian, cyclists and young people. • Traffic moving at appropriate speeds for the road environment, greater compliance with speed limits and less public concern about speeding traffic • Greater perceptions of safety and security for all road users
	Help people feel safe and secure when travelling and protected from traffic in their communities		

4. Economy and growth

4.1. Objectives

- Improve connectivity and access, particularly by sustainable transport modes

- Improve journey time reliability and reduce unforeseen delays

- Support growth and ensure new housing and employment areas encourage more sustainable travel behaviour

4.2. Key facts

- Most businesses and residents consider that access by car in Shropshire is good, access by other modes particularly bus and rail is considered to be significantly poorer.

- 75% of commuters travel by car, similar to other rural counties; 19% walk or cycle – higher than other rural counties and only 5% using the bus or train, lower than other rural counties.

- Some Shropshire towns are relatively self-contained with most people working and living in the same town; and 44% of work journeys are under 5 km.

- However some towns, particularly in the east of Shropshire are becoming predominately commuter towns; and the number of people making longer journeys out of the county to work is growing, particularly for those in more senior positions.

- Congestion is identified as a problem in Shrewsbury, particularly for travel to and through the town centre; but reliability is not a problem experienced generally across Shropshire.

- The availability and cost of parking is a concern of business and low income users.

- Shropshire has around 10.6 million visitors per year, the vast majority are day visitors coming from the West Midlands region, and 86% of visitors arrive by car.

- By 2031 Shropshire's population is expected to have grown by 17% (from 2006); to cater for this larger population we are planning for a 22% increase in the housing stock. 290 hectares of employment land is also planned to provide appropriate sites for county businesses.

4.3. Challenges

Our key challenges in meeting our objectives are:

- Reducing the strong dependency on car transport for business and commuting, particularly in urban areas and on longer distance journeys where use of alternatives is viable.

- Enabling access to job and training opportunities for those without a car.

- Reconciling the demand for convenient and free parking in town centres; with the conflicting desire for high quality shopping environments in town centres, with little traffic and congestion.

- The challenge of providing affordable and practical public transport suitable for commuting, particularly in the rural areas of Shropshire; and reducing the comparative disadvantage of bus travel in terms of cost and journey time compared to travel by car.

- Improving the predictability and reliability of journey times by addressing existing congestion in Shrewsbury and at locations on trunk routes, preventing congestion occurring in other locations; and reducing the impact of temporary events on the road network.

- Responding to the growth of employment and retail located at edge of town business parks rather than in town centres, which makes access by modes other than the car more difficult.

- Ensuring that new housing and employment developments are designed in ways that make it easy to choose more sustainable transport habits.

4.4. Approach

Our strategic approach will be to maintain good access and improve reliability of journey times by car for commuting, shopping, tourism and business use; and good access for freight and deliveries; but to focus particularly on increasing the comparative advantage of more sustainable transport modes in locations and for journeys where these can become feasible alternatives.

4.5. Outcomes

Through our policies we seek to achieve:

- A vibrant economy supported through good connectivity and access for workers, customers and goods.

- More predictable and reliable journey times.

- Better access for all groups of society to employment, education, goods and services without needing to use a car.

- Increasing levels of tourism encouraged with good access, vibrant pedestrian friendly towns and high quality rural areas unspoilt by traffic.

- More very local journeys, particularly within towns and other locations with access to alternative transport networks, to be made by foot, cycle or other sustainable transport modes.

- Greater use to be made of bus travel in towns and by bus or rail on strategic corridors where this can provide a practical alternative to the car.

- More provision and use of park and ride where this can be viable and can help to reduce traffic levels in historic town centres.

- A high quality environment and good quality of life which will attract and retain high value businesses and entrepreneurs.

4.6. Policies

4.6.1. Improving connectivity- air travel

Although there is no international airport in Shropshire, however both Birmingham International and Manchester airports are within relatively easy access.

Policy E1: Air travel

We will support improvements to public transport access between Shropshire and existing regional airports, including Birmingham International and Manchester Airport

4.6.2. Strategic road network connectivity and reliability

Shropshire is fairly well linked into the strategic motorway network via the M54; however, there are issues where the M54 and M6 meet. Regular congestion on the M6 can cause reliability concerns for journeys to and from Shropshire, and although the M6 Toll road offers an un-congested alternative for journeys to the south and east there is currently no direct connection between the M54 and either the M6 Toll Road or the M6 northbound. Shropshire businesses have identified the link to the M6 Toll as a key missing link in the strategic road network serving Shropshire.

Policy E2: M6 Toll Road link

We will support the Highways Agency, the M6 Toll Road operator and neighbouring authorities in providing a new motorway standard link between the M54, M6 North and M6 Toll.

Businesses have also identified both safety and journey time reliability concerns about the key trunk roads within Shropshire. Unexpected delays are not usually caused by congestion, but by presence of slow moving freight or agricultural traffic and limited safe passing places.

Shropshire Council has worked with the Highways Agency to identify the potential impact on the strategic road network of planned housing and employment growth in Shrewsbury and Oswestry; and the need for junction improvements to accommodate additional traffic has been identified.

Policy E3: Strategic Road Network reliability improvements

We will support the Highways Agency in seeking to improve the reliability, safety and efficiency of the Strategic Roads within Shropshire.

We would particularly support:

- Safety improvements on the A49 that did not negatively impact on the Shropshire Hills AONB

- Dualling or partial dualling of the A5/A483 north of Shrewsbury

- Improved junction capacity at junctions on the A5 Shrewsbury and Oswestry bypasses

Shropshire recognises and supports Transport Wales' proposed cross boundary investment to improve 9km of the A458 from Buttington at Welshpool to Wollaston Cross on the Shropshire border in the Welsh Trunk Road Forward Programme to address the poor accident record of this stretch of road.

4.6.3. Local road network reliability

There is generally little recurring congestion on local roads in Shropshire, with the exception of some roads in Shrewsbury town centre. However, significant congestion can occur due to temporary factors such as road traffic accidents, road works and poorly parked vehicles; and slow moving vehicles can be a cause of journey delay.

Historic road networks not designed to take today's traffic levels can become congested with relatively low traffic levels and as traffic levels grow congestion may spread to more parts of the road network.

Where there are congestion issues on the local road network we will consider a hierarchy of interventions to address the problems; starting with local demand management measures, followed by more site specific traffic management measures. Only where these measures have been demonstrated to be insufficient to tackle the problem will we consider physical improvements to enhance capacity of junctions, or road widening. These measures will always be fully explored before the construction of new roads is considered. Use of this hierarchy will ensure that the potential of the more sustainable measures are exploited and that the best value for money solutions are pursued.

Policy E4: Network capacity management hierarchy

We will aim to tackle and prevent congestion and delays through the application of a hierarchy of measures
  - 1st.- Reducing demand through encouraging non-travel alternatives, car sharing and use of sustainable modes
  - 2nd.- Network Management to managing the network more effectively
  - 3rd.-Targeted capacity improvements at junctions
  - 4th.- Road widening
  - 5th.- New road links or bypasses

We will aim to improve network reliability and prevent congestion problems by pursuing measures in line with this hierarchy:

Demand Management: Reducing demand on the road network by encouraging more sustainable and space efficient modes is our highest priority, and this plan contains a number of policies to achieve that (see policies C1-3, C5, A1-5 and A9-12).

Network Management: Where there are specific local congestion issues these can often be addressed by improved traffic and network management, for example by preventing inappropriate parking, improving the efficiency of traffic signals or reducing the delays caused by roadworks and accidents.

Policy E5: Network management

We will improve the management of the road network to reduce and prevent congestion and disruption.

This will be achieved by:
- Completing a Road Hierarchy review to ensure the classification, management and maintenance of county's roads reflects their existing function.
- Introducing Urban Traffic Management and Control Systems where there are significant numbers of traffic signals. Using the system to smooth traffic flows, better manage available road capacity, respond to events on the network, encourage the use preferred routes and to provide greater priority to pedestrians, cyclists and buses.
- Using Traffic Regulation Orders to prevent parking that would cause unacceptable traffic delays or safety concerns.
- Utilising our civil enforcement powers to proactively tackle illegal parking.
- Considering seeking powers to enforce moving traffic offences e.g. yellow box junctions, one way streets, routes restricted to certain types of vehicles, bus lanes and weight limits where it causes congestion, environmental intrusion or it is detrimental to road safety.
- Where feasible providing adequate passing places and lay-bys on principal routes to enable overtaking of slow moving vehicles.
- Improved co-ordination and management of planned events, road and streetworks; including the introduction of a permit scheme to act as an incentive to reduce the amount of time spent on the highway.
- Improved incident response and contingency planning to establish diversionary routes quickly and enable roads to be returned to normal operation as soon as possible after an unplanned event such as an accident, especially on traffic sensitive roads.
- Improved information available to the public of current and planned road closures, roadworks, obstructions, and other events.

Capacity improvements and new roads: In line with the network management hierarchy we will explore network management techniques before considering more expensive physical works to increases capacity at junctions or on road links. All options to increase capacity on existing roads will be explored before consideration of construction of new roads or bypasses.

Some new roads or village bypasses may be considered desirable due to the local environmental and safety benefits that could be achieved by removing traffic from narrow streets in residential and shopping areas. However, it is anticipated that public funding for construction of major new road infrastructure, such as village bypasses, will be very difficult to secure during the plan period. We will only pursue cases where there is a very strong case for new road construction as demonstrated by a very strong benefit to cost ratio as well as a clear environmental benefit. A significant local funding contribution would also be required.

During the plan period we anticipate that significant new road infrastructure would only be provided in association with large scale new development, and we would expect such infrastructure to be primarily funded via developer contributions.

Policy E6: Capacity improvements and new roads

Where demand and network management measures have been proven to be insufficient to deal with network problems we will make best use of our existing roads by increasing capacity before any consideration of building new roads.

New road building will be restricted to where all other options have been fully considered, the benefits significantly outweigh the costs (both financial and environmental), and for which funding is available. Schemes would be prioritised on the basis of their cost benefit assessment.

4.6.4. Congestion in Shrewsbury

Congestion is already an issue on some roads in Shrewsbury. With the planned growth of population, housing and employment congestion is likely to get worse unless some intervention is made. Tackling traffic and accommodating growth in Shrewsbury will be one of our highest priorities. We will apply our Network Capacity Management Hierarchy to addressing this issue.

Previously the Council explored the possibility of constructing a new "North West Relief Road" to complete the town's outer ring road and divert some traffic from roads to and through the town centre, relieving congestion and enabling improvements to boost the town centre. A preferred alignment and outline design for such a road has been developed. However, funding for completion of this road is unlikely to be available in the short or medium term.

Over the LTP period we intend to pursue an alternative package of measures with the aim of reducing the volume of traffic passing through Shrewsbury town centre, reducing congestion and supporting the sustainable growth of the town. These measures, which are outlined in policy E7, build on the 'Shrewsbury Vision' work, and will be explained in more detail in a separate 'Shrewsbury Transport Strategy' document. We will pursue external funding opportunities to fund the implementation of this package.

Pursuing such a package of measures is in line with the hierarchy set out in policy E4, as it focuses primarily on reducing traffic demand by improving alternative modes and better managing traffic.

We expect such a package to address the transport needs of Shrewsbury in the short to medium term. At this stage it is not possible to say whether it will be necessary to pursue a North West Relief Road (NWRR) to tackle longer term needs; the option will be kept open to construct a road along this line at some future date. The need for a new road will be reviewed towards the end of the plan period, and any progression would be subject to funding being available.

As part of the policy to keep open the option of constructing a NWRR in the future a requirement has been made for an 'Oxon Link Road' to be provided as part of the planned Shrewsbury West Sustainable Urban Extension. This road would provide a valuable local route, reducing traffic on Welshpool Road and enabling more pedestrian, cyclist and bus priority on that route; and could potentially form part of a longer NWRR at some point in the future.

Policy E7: Tackling Shrewsbury's traffic problems

We will implement a Transport Strategy for Shrewsbury as funding opportunities become available. We do not expect to promote full construction of the Shrewsbury North West Relief Road during the plan period, but will retain the ability to construct the road in future if necessary and affordable.

Key elements of the Shrewsbury Transport Strategy will be:
- Significant improvements to the walking, cycling and public transport networks in Shrewsbury to reduce traffic demand.
- Progressively reducing the levels of car parking within the river loop; and prioritising the use of park and ride and edge of town centre parking.
- Reductions in traffic, increased pedestrian priority and environmental enhancements within the town centre; including better connection of the town with the river.
- Encouraging and facilitating traffic to use the inner ring road and outer bypass in preference to travel through the town centre.
- Traffic management measures, including Urban Traffic Control, to improve capacity of key junctions, particularly on inner and outer bypass routes.
- Development of a Shrewsbury Parkway Rail Station and fourth park and ride site; this is likely to be towards the latter part of the plan period.
- Any significant new development along the identified line of a possible future North West Relief Road will be required to either construct part of the road to an appropriate standard or protect the line as appropriate, in order that the future provision of the full road would not be compromised.

4.6.5. Car parking

The location, availability and cost of car parking can play a significant part in people's decisions on how, where and when to travel. Therefore, parking policies can have an impact on economic viability and vitality and also on sustainable travel habits.

Shropshire Council has responsibility for much of the public parking available in Shropshire, including many town centre car parks, park and ride and on street parking. Our parking strategy covers the management of this parking stock and aims to balance the following objectives:

- Enhance and support local economies in all of the market towns;
- Manage the car park stock, prioritising by price the prime spaces;
- Provide an income to allow the car parks to be operated without additional requirement on Council Tax; and
- In areas where alternatives are available, such as bus and park and ride, this can be encouraged and supported by the pricing structure of parking for that town.

There are also a number of publicly accessible car parks outside of the control of Shropshire Council, notably supermarket and retail park car parks, and the Council will need to influence and seek cooperation from other parties to achieve a fully coordinated strategy.

Policy E8: Car parking and park and ride

We will ensure provision of adequate car parking in Shropshire towns and other key visitor locations. We will manage car parking spaces in a way that will make most efficient use of parking space to support local economies and encourage use of alternative travel modes where available, making use of park and ride where viable.

This will be achieved by:

- Setting parking charges in a consistent manner across Shropshire based on a town hierarchy, reflecting the size and parking demand in each town.
- Ensuring there is provision of adequate town centre parking space to meet demand; in larger towns the required space may be split between town centre parking and edge of town park and ride provision.
- Encouraging the most efficient use by shoppers of prime on and off street parking spaces through the use of time restrictions and charges where appropriate.
- Encouraging long stayers, including commuters, to use alternative modes or more distant car parking.
- Where alternatives are available aiming to establish a hierarchy based on pricing that encourages local bus use, followed by park and ride, then town centre parking.
- Maintaining existing park and ride services and seeking to expand park and ride, with a particular focus on a site to the east of Shrewsbury, and a new park and ride service for Oswestry.
- Improving car parking signage and information to encourage use of the most appropriate car parks and discourage unnecessary traffic circulation in towns.
- Enabling the creation of residents parking zones where there is majority support from local residents.
- Encouraging and enabling private non-residential car park owners to produce and implement travel plans which address levels and management of parking within their sites, and are compatible with the Council's transport and parking policies. New developments will be required to adhere to parking standards and to develop, implement and monitor effective travel plans.

4.6.6. Access to work

Access to work by car in Shropshire is generally good, although there are parking issues in some locations. Key objectives are to improve access to employment and training opportunities for those without access to a car and to reduce dependence on the car for the work journey where alternative modes are viable.

Policy E9: Access to work

We will seek to maintain and improve access to work and training opportunities while reducing car dependency

This will be achieved by:

- Ensuring the continued provision of bus services in towns and on strategic routes at key morning and evening commuting times.

- Seeking opportunities to improve bus services to better serve employment locations at times to suit shift patterns, where funding is available.
- Seeking funding through Section 106 agreements from significant new employment development where there is a need to improve bus services to serve the development.
- Encouraging car-sharing through workplace and town based car sharing schemes.
- Assisting employers in developing workplace travel plans to improve access to their workplace, particularly by sustainable travel modes, as well as considering initiatives such as home working and tele-working to reduce the need to travel.
- Requiring the development of travel plans for significant new developments.
- Working with partners to support the Wheels to Work programme, which provides tailored transport solutions to individuals finding lack of transport a barrier to accessing employment opportunities.
- Placing a high priority on improvements to walking and cycling routes used by commuters.
- Further developments of park and ride services and enhanced marketing and incentives for commuter and business use.

4.6.7. Supporting sustainable tourism

Tourism is a significant and growing sector of the Shropshire economy. Transport has a direct effect on the accessibility of Shropshire to visitors and the quality of the visitor experience. We will seek to support increased tourism in Shropshire whilst promoting sustainable travel to and within Shropshire, and managing traffic in sensitive areas such as town centres and rural 'honey pots,' to ensure that traffic and congestion do not diminish the tourism asset.

Policy E10: Supporting sustainable tourism

We will seek to enhance tourist access and experience, manage tourist traffic and encourage greater use of sustainable modes of transport.

This will be achieved by:

- Seeking to enhance the street environment and public realm in Shropshire's towns, providing greater priority for pedestrians, shoppers and visitors to enjoy the historic environments, contributing to enhanced vibrancy and vitality and tourism experience.
- Improving the quality of visitor gateways including railway stations, bus stations and car parks; and enhancing visitor information available at these sites.
- Promoting the use of public transport including rail, bus, taxi and Shropshire Link by visitors. This may include visitor focused marketing and promotion, modifications to existing services to better meet visitors requirements and supporting visitor focused services, such as Shropshire Hills Shuttles.
- Encouraging greater use of park and ride where it exists by visitors through improved information, promotion and signing.
- Seeking to improve traffic and car parking signage to assist visitors and to reduce unnecessary traffic in town centres.
- Providing sufficient, free coach parking in Shropshire Council car parks.

- Enabling the signing of appropriate visitor attractions in line with our tourism sign policy.
- Seeking to enhance the use of information and view point lay-bys at appropriate locations.
- Supporting and promoting tourism related walking, cycling and horse riding, through improved promotion, information and signing; appropriate route maintenance and targeted network improvements.

4.6.8. Sustainable development

There will be significant new residential, retail, and employment development in Shropshire over the plan period accommodating an increasing population. This will result in additional travel demand. The location, design and access arrangements for this new development will influence the amount of traffic generated by the new development and the extent to which alternative more sustainable travel modes will be used. These factors will be determined through the application of policies set out in the Local Development Framework.

Policy E11: Location and design of new development

We will ensure that new developments are located, designed and served by transport in ways that enhance accessibility and reduce car dependency.

This will be achieved by:

- The objectives, policies and proposals of the Local Development Framework documents including the Core Strategy, Site Allocations and Management of Development DPD and supporting documents including the LDF Implementation Plan and localised Place Plans; and through the implementation of policies and proposals through the Development Management process.
- The identification of new land for development in appropriate and sustainable locations and through the careful planning, design and servicing of new development
- Requirements for transport assessments and the development of travel plans for significant new developments.
- Producing design guidance to promote best practice in the layout and design of new developments.
- Requiring promoters of new developments to either provide or financially contribute to the provision of necessary transport infrastructure and services, through site specific agreements or payment of a community infrastructure levy.

4.7. Outcome indicators and targets

Indicators and targets to be developed. Indicators under consideration include:

- Local congestion in Shrewsbury & Oswestry
- Number of people travelling into Shrewsbury town centre and modal split
- Footfall in key town centres
- Car park usage
- Park and ride use

- Disruption on major routes (due to temporary road closures)
    - o BVPI100 -Number of days of temporary traffic control or road closures on traffic sensitive streets caused by local authority roadworks
    - o % of works completed within published dates
- Public satisfaction with traffic levels and congestion

4.8.   Related strategies and plans

Further evidence and details on the implementation of the policies in this chapter can be found in the following strategies and plans:

LTP documents:
- LTP Evidence base – Part 3 - Economy and growth www.shropshire.gov.uk/traveltransport.nsf/open/2A79133CD32676E98025709E002EEF2B
- Shropshire Parking Strategy www.shropshire.gov.uk/parking.nsf/open/AC804AFD366D10278025775300365578

Other documents:
- Local Development Framework - Core Strategy www.shropshire.gov.uk/planning.nsf/open/5ADFD31357B9398D80257545004C0888
- Spotlight on Shropshire Economy- Economic Assessment www.shropshire.gov.uk/economicdevelopment.nsf/open/DECA69501B3000B880257814004E9D7B
- Shrewsbury Vision Regeneration Framework – final document due to be issued soon http://www.shropshire.gov.uk/planning.nsf/open/260E0AD14AAD93B3802577A600301968

New strategies and plans anticipated to be developed include:
- Local Development Framework - Site Allocations and Development Management (SAMDev) document. Options and issues papers at www.shropshire.gov.uk/planning.nsf/open/5F0348FBB3E36E2F802576F600487DA5
- LTP- Shrewsbury Transport Strategy (expected to be developed and consulted on during 2011)

5. Traffic, carbon and environment

5.1. Objectives

- Reduce transport related carbon emissions
- Minimise the impacts of transport on our local environment

5.2. Key facts

- 30% of Shropshire's carbon emissions are from transport, almost all from road based travel.
- Around two thirds of road transport carbon emissions are from passenger cars, just under a third from vans and HGVs, and a very small proportion from buses.
- Traffic in Shropshire is predicted to grow at an average rate of 1% per annum over the plan period, slightly lower that the 1.1% average annual rate experienced over the last decade.
- Traffic growth is expected to be slightly slower than this average early in the plan period as fuel costs continue to increase, but growth is expected to be more rapid after 2015 as significant improvements to the efficiency of vehicles reduce the cost of driving.
- Growth of light goods vehicle traffic (vans) is predicted to be particularly rapid, continuing recent trends.
- Over the last decade the proportion HGV traffic (lorries) on roads in Shropshire has fallen slightly, particularly on minor roads, and HGV levels are not predicted to increase over the plan period.
- Levels of CO_2 emissions are predicted to reduce by about 22% by 2025, due to increased vehicle efficiency, despite increased traffic levels.
- UK carbon reduction targets are for a 34% reduction in greenhouse gas emissions by 2020, and at least an 80% reduction by 2050 (from a 1990 baseline).
- Carbon emissions per km travelled increase significantly at very low speeds, and are minimised at around 40mph.
- A small but rapidly growing number of workers make long journeys which have a disproportionate impact on carbon emissions; 11% of commuters travel more than 30km (18.8 miles) to work.
- On a national scale leisure journeys, including visiting, are the reason for a third of all car mileage; with commuting accounting for a further quarter of car mileage; shopping (13%) and business travel (12%) are also significant.
- There are five designated air quality management areas in Shropshire; and recorded pollution levels in parts of Shrewsbury and Bridgnorth town centres are exceeding EU standards.
- A small number of the county's busiest roads have been identified as requiring assessment to identify any reasonable interventions that could be implemented to reduce noise or noise impact.

- Shropshire's relatively unspoiled and tranquil countryside is highly valued by local people and visitors. The nationally designated landscape of the Shropshire Hills Area of Outstanding Natural Beauty (AONB) covers 23% of Shropshire.

- The richness of Shropshire's historic environment is reflected in designation of 6,849 listed buildings, 120 conservation areas, 437 Scheduled Ancient Monuments, 34 Registered Historic Parks and Gardens and a Registered Historic Battlefield.

- The extent of Shropshire's biodiversity is reflected in the number of statutory designations for nature conservation: Four National Nature Reserves, 110 Sites of Special Scientific Interest, 14 RAMSAR sites, 698 Ancient Woodlands, 573 non-statutory wildlife sites, 6 (candidate) Special Areas of Conservation (cSACs) and two Environmentally Sensitive Areas within the AONB.

5.3.   Key challenges

Our key challenges are to:

- Contribute towards the national CO_2 reduction target by doing what we can locally to reduce our transport related carbon footprint.

- Make it easier to choose sustainable transport modes, with a particular push in the early part of the plan period when motoring costs are expected to be rising; and importantly to 'lock in the benefits' before the next period when motoring costs are predicted to fall.

- Ensure that air quality meets the National and European standards and tackling the causes of pollution from motorised vehicles where air quality is a problem

- Minimise the impact of traffic and roads on Shropshire's natural and built environment; including reducing impacts of noise, vibration, habitat damage, collisions, contamination from run-off and visual intrusion from roads, street furniture and vehicles.

5.4.   Approach

Our strategic approach to reducing the contribution of transport to Shropshire's carbon footprint and reducing environmental impact is to:

Encourage reductions in travel by high carbon modes where practicable: This would include supporting initiatives which reduce the need to travel, reduce distances travelled or encourage the use of more sustainable modes. This will be pursued by a particular focus on:
- Encouraging the choice of more sustainable modes where practical alternatives are available, for example replacing very short car journeys in urban areas with journeys by foot or cycle; replacing interurban car journeys with journeys by bus or train.
- Placing particular focus on the large number of short journeys, and the smaller number of particularly long journeys which have a high carbon cost.
- Focusing efforts particularly on commuting, business and shopping travel, as journeys for which the use of alternatives may be more viable; while recognising the large proportion of mileage associated with leisure travel for which car dependency is often stronger.
- Efforts to encourage behavioural change will be through a combination of improvements to alternative travel options, better information, publicity and promotional activities and demand management measures such as parking measures (see policy C5).

Encourage greater vehicle efficiency: Many journeys in a rural area like Shropshire will continue to be made by car. Where we aim to reduce the amount of carbon and other pollutants produced per mile travelled by:

- Promoting the purchase and use of cleaner and more fuel efficient vehicles, for example through awareness campaigns, facilitating the availability of alternative fuels and through procurement policies for council vehicles and transport services.
- Encouraging and promoting more efficient driving, for example though driver training courses and public information.
- Avoiding congestion and setting appropriate speed limits (see polices E4 and S3).

Targeted solutions to mitigate environmental impacts in sensitive areas: This would include traffic management and other solutions designed to mitigate specific environmental impacts, for example where there is air or noise pollution at levels that can affect human health:

- Traffic Management measures, e.g. to ensure traffic is utilising the most appropriate routes avoiding sensitive areas, restrict access for HGVs, smooth traffic flow to reduce emissions.
- Appropriate design, processes and technological solutions to enhance and reduce impacts on the environment.

5.5.   Outcomes

Through our policies we seek to achieve:

- Greater use of new technology and different ways of working to reduce the need to travel
- A greater proportion of short journeys being made by foot, cycle or other sustainable modes
- Greater use of bus or rail on strategic corridors and more use of park and ride where provided.
- A greater proportion of longer distance journeys to be made by rail or coach, and greater use of car sharing
- More long distance freight moved by rail, and reduced impact of HGVs on communities
- Larger proportion of more efficient and cleaner vehicles in use, and wide adoption of greener driving practices
- Air quality within EU limits across the county
- Reduced impacts from noise at problem locations
- Reduced impacts on landscapes, townscapes, heritage, biodiversity, soil and water quality from our highways maintenance and highways improvement practices

5.6.   Policies

5.6.1.   Improvements for walking and cycling

Many very short journeys (under 5km) within towns and villages are currently undertaken by car. These journeys produce a disproportionate amount of carbon for their length as they are generally undertaken with cold engines and at slower average speeds. Many of these

journeys could be undertaken by foot, cycle or other sustainable transport modes, reducing carbon emissions and local environmental pollution, relieving congestion and helping to improve residents' health and fitness. Encouraging (and providing better opportunities for) more walking and cycling is therefore a key part of our environmental strategy; detailed policies are set out in A9-12.

5.6.2. Improvements to bus services

Local bus services can provide viable alternatives to the car for short journeys within larger towns and for medium length journeys between towns. For longer distance journeys coach travel can be the most affordable and carbon efficient travel mode. Our commitments for supporting and improving bus services are set out in policies A1-5.

In the largest towns, park and ride bus services can help to reduce the number of vehicles accessing town centres; thereby helping to reduce local environmental impact and relieve congestion. Plans for providing and encouraging use of park and ride are set out in policy E7.

5.6.3. Improvements to rail

Rail already has a number of advantages over car use for longer journeys. One of the key opportunities would be for a larger proportion of business trips and long distance commuting to be undertaken by rail. To encourage this use there is a need to improve rail infrastructure in order to increase the speed of rail travel. Station improvements would also help to improve the attractiveness of travel by rail.

Policy C1: Rail infrastructure

We will support the Department for Transport Rail Group, the Welsh Assembly Government and Network Rail in undertaking improvements to rail lines and station infrastructure that will enhance the speed, capacity and attractiveness of rail travel in and to Shropshire.

We would particularly support:
- Line speed improvements on the Wolverhampton to Shrewsbury and Chester to Shrewsbury lines
- The electrification of the Wolverhampton to Shrewsbury Line
- Provision of CCTV at stations where anti-social behaviour is a problem
- Improved passenger waiting and interchange facilities and information at stations

Reliability of rail is a key factor in influencing use. There are a number of other specific rail service improvements that would help to encourage greater use of rail for business journeys and commuting.

Policy C2: Rail services and information

We will support the DfT and train operating companies in improving frequency, quality, reliability, comfort and affordability of train services in Shropshire.

We would particularly support:
- Reinstatement of a direct service between Shrewsbury and London.
- Enhanced service reliability.

- Additional train capacity or more frequent services at peak times on the Shrewsbury to Birmingham route.
- Provision of an hourly service on the Aberystwyth to Shrewsbury line, with the possible extension of this service to Crewe.
- The provision of better services between Shrewsbury and Crewe
- Extension of some services from Shrewsbury to Manchester, to access Manchester Airport.
- A fifth train per day on the Heart of Wales line.

One of the reasons cited by business for lack of rail use is the perceived poor accessibility and inadequate parking availability in Shropshire. In fact many users travel significant distances out of the county by car to use more accessible stations. This is particularly true of Shrewsbury station which offers the greatest availability of train services. To address this concern we will develop medium term plans for a new Shrewsbury Parkway Station to the east of Shrewsbury at Preston Boats.

We do not anticipate the creation of any other new stations in the county (subject to a review of work on the feasibility of a station at Baschurch) during the plan period. However, much could be done to improve access to existing stations within Shropshire, and to improve information and awareness of services to increase use of rail.

Policy C3: Access to rail stations

We will seek to work with partners to improve access by a range of modes to rail stations in Shropshire enhancing awareness and information about services.

This will be achieved by:
- Developing a new Shrewsbury Parkway Station to the east of Shrewsbury at Preston Boats, in the medium term.
- Working with partners to expand station car parking facilities where required and viable.
- Improving access to stations by cycle and foot, including improved routes to stations and provision of adequate cycle parking facilities.
- Encouraging bus and rail operators to co-ordinate bus and rail times.
- Promoting 'plus bus' through ticketing for combined rail and bus journeys.
- Ensuring sufficient information regarding other forms of transport is available to persons arriving by train at the stations within the county.
- Ensuring sufficient information regarding rail services is available both at rail stations and in the communities served.
- Supporting the work of the Community Rail Partnerships in promoting services and stations and negotiating improvements.

5.6.4.   Freight

Shropshire recognises its role within the West Midlands in accommodating freight movements. The M54/A5/A483 route is an identified part of the Trans European Network facilitating national and European freight movements from southern and eastern sea-ports into Wales and Ireland. The A49 is part of a strategic route linking South Wales with North Wales and the North West. We will facilitate the movement of freight on strategic routes and enable necessary access to rural sites, such as quarries and farms.

However, many of Shropshire's country lanes and town streets are not well suited to heavy traffic; and HGVs passing through towns and villages are a significant source of local pollution and a key concern of local residents due to noise, vibration, dust, fumes and fear of accidents.

Inappropriate use of heavy goods vehicles on minor roads also causes accelerated structural road damage and additional maintenance costs.

We will seek to reduce the volume and therefore impact of HGVs by encouraging the transfer of freight from road to rail. This would be facilitated by the geography of the rail network and Shrewsbury's historical situation in the national rail system which provides opportunities to encourage greater freight movements by rail, especially for mineral and waste operations.

Where freight must be transported by road, we will encourage use of the most appropriate routes.

Policy C4: Managing freight

We will accommodate the necessary movement of freight to and through Shropshire. while seeking to reduce the impacts of HGVs on the environment and local communities

This will be achieved by:

- Facilitating the movement on freight on strategic routes and enabling necessary access to rural sites such as quarries and farms.
- Ensuring sufficient provision of HGV parking and rest areas on identified routes
- Managing the potential impact of goods movements associated with new development through the planning process, particularly for rural developments.
- Encouraging greater movement of goods by rail, including promotion to local business of the Telford Rail Freight Terminal at Donnington, Telford.
- Using signing to encourage HGV traffic to use the most appropriate available routes where impacts on local communities and sensitive environmental areas can be minimised.
- Work with the DfT and other local authorities to improve the data used by satellite navigation systems; the aim would be for 'Sat Nav' systems to identify routes unsuitable for HGVs and promote the most appropriate freight routes
- Considering the introduction of weight restrictions where communities are impacted by significant HGV movements and there are reasonable and more suitable alternative routes available.

5.6.5.   Encouraging travel behavioural change

As well as seeking to improve the provision of alternative transport modes, there are a number of proven promotional techniques that can be used to encourage people to choose more sustainable ways of travelling.

Policy C5: Encouraging more sustainable travel choices

We will use promotional techniques to proactively encourage more sustainable travel habits

These will include:

- Leading by example through the implementation of the Shropshire Council travel plan, with a focus on reducing unnecessary business mileage, reducing the carbon impact of essential business journeys and encouraging and rewarding more sustainable commuting practices.
- Supporting and promoting technologies, initiatives and services which reduce the need to travel e.g. communication technologies and broadband infrastructure, tele-conferencing, homeworking, local and remote provision of services.
- Working with schools and colleges to assist them in implementing and reviewing their School Travel Plans.
- Assisting more workplaces to develop effective travel plans and, where appropriate, parking policies that encourage sustainable travel.
- Requiring transport assessments and effective travel plans for all significant new development.
- Utilising Personalised Travel Planning techniques to encourage behavioural change in a designated community; this technique will be targeted at people experiencing a period of lifestyle change or linked physical service improvements.
- Promoting and encouraging the development of local Car Clubs.
- Promoting and facilitating car sharing.
- Promoting the use of online journey planners.
- Undertaking event focused and longer term travel awareness campaigns.

5.6.6. Improving vehicle efficiency

The majority of journeys in Shropshire will continue to be made by motorised vehicles.

With the introduction of more stringent emissions standards for new cars in 2015 the average carbon and other emissions from cars are due to reduce. However, there are some local measures that could be taken to help make the transition to more efficient vehicles more quickly, and measures to help encourage more efficient driving practices.

Policy C6: Improving vehicle efficiency

We will aim to reduce the amount of carbon and other pollutants produced per mile travelled by:

- Enforcing a maximum age limit for vehicles used on contracted services, including bus services, and for licensed taxi's and private hire vehicles
- Aiming to use vehicles complying with the latest Euro emission standards (currently euro 5; euro 6 expected in 2014) for vehicles operating intensively within particularly sensitive areas such as Air Quality Management Areas e.g. park and ride buses.
- Exploring the use of low emission, alternatively fuelled or hybrid technology vehicles for introduction on public transport services in Shropshire.
- Demonstrating best practice by requiring all council owned fleet vehicles to comply with the latest euro emission standards.
- Encouraging businesses and the public to purchase and use cleaner and more fuel efficient vehicles, for example through travel plans and awareness campaigns, with a particular focus on high mileage business users.
- Facilitating the increase in availability of alternative fuels and refuelling/charging points.

- Considering changes to council's policies that would encourage use of very low emission vehicles, for example reductions in parking charges, where this is practical to implement.
- Promoting more efficient driving styles and practices though driver training courses and awareness campaigns.

5.6.7. Air quality

The principal source of air pollution in Shropshire is road traffic, with emissions of nitrogen oxides and particulates being the cause of greatest concern. Frequent exposure to high levels of these pollutants can cause serious damage to health. There are some locations within the county where established EU limits on acceptable levels of these pollutants in the atmosphere are being, or may be, exceeded; including parts of Shrewsbury and Bridgnorth town centres.

We will aim to improve general air quality through our efforts to reduce traffic levels and encourage cleaner more efficient vehicles; as well as looking at more localised measures to reduce pollution in the identified air quality management areas.

Policy C7: Improving air quality

We will aim to reduce air pollution from traffic though general measures to manage traffic and emission levels, and targeted solutions for areas of specific concern.

This will be achieved by:

- Following other policies set out in this chapter to discourage traffic growth and reduce vehicle emissions across Shropshire.
- Undertaking a review of the effectiveness of our existing Air Quality Management Area Action Plans and monitoring regimes and developing a single integrated Shropshire Air Quality Strategy.
- In areas with particularly poor air quality consider site specific measures to reduce traffic flows, restrict or reduce the most polluting vehicles, reduce congestion and smooth traffic flows.
- Continuing to undertake a programme of air quality monitoring and review.

5.6.8. Noise

Noise and vibration from transport can have significant environmental, health and quality of life impacts. We will aim to avoid, prevent or reduce impacts from road noise, on a prioritised basis, in line with the 2002 EU Environmental Noise Directive.

Policy C8: Reducing traffic noise

We will aim to prevent and reduce impacts of noise from road transport where necessary and practicable, focusing on areas where human health could be affected

This will be achieved by:
- Undertaking an assessment of the major roads in Shropshire identified in the DEFRA Noise Action Plan, consider the necessity of intervention and, if required, identify any

reasonable interventions that could be implemented to reduce noise or noise impact; for example use of noise barriers, introduction of low noise surfacing, reduced speed limits, HGV restrictions or other traffic management measures.

- Where necessary, utilising appropriate surfacing materials to reduce noise levels, whilst preserving safety for all users and the sustainability of the highway asset.
- Considering measures to encourage the most appropriate routing of HGV traffic to reduce noise impacts on communities, as set out in policy C4.
- Requiring the provision of appropriate landscaping and screening in new developments to mitigate the impact of traffic noise in locations close to the highway or rail networks.

5.6.9.   Other environmental impacts

Shropshire's high quality natural and built environment is one of its greatest assets. We will seek to minimise transport related impacts on this environment.

The quality of Shropshire's rural landscape is particularly important. Transport can potentially impact on this landscape through noise, visual intrusion of roads, street lighting, signs and other street furniture, traffic and parked cars.

Shropshire also has a very valuable historic built environment. Historic roadside buildings and bridges are exposed to damage from the effects of air pollution, vibration and accidental collisions from traffic. The setting of historic buildings and ambience of conservation areas can either be enhanced through street and public realm improvements, or adversely affected by the presence of traffic, congestion and inappropriate street furniture, street design and materials.

There are many sites in Shropshire considered to be important for nature conservation. Transport can impact on biodiversity through wildlife being killed and injured in collisions, loss and fragmentation of habitats and air pollution, as well as from water and soil pollution resulting from run off from roads.

Road maintenance and highway improvements also require the use of raw materials and energy.

We will continually seek to reduce the impacts we have on the environment through measures to reduce traffic and vehicle emissions; as well as through improvements in the way we manage and maintain the highway network.

Policy C9: Reducing environmental impacts

We will minimise the impacts of traffic, roads and highways authority activities on Shropshire's landscape, townscape, heritage, biodiversity, water and soil quality; and seek to minimise use of non renewable resources.

This will include:
- Utilising the minimum amount of street signage in order to provide necessary traffic information to reduce street clutter and visual intrusion.
- Making use of appropriate construction materials when undertaking maintenance and implementing traffic schemes in sensitive rural and historic areas.

- Where affordable, taking opportunities to enhance the quality of public realm and setting for historic buildings and conservation areas, and to protect historic structures from potential collisions.
- Taking opportunities to upgrade street lights to modern standards that consume less energy and minimise light pollution, reduce unnecessary lighting and switch off lights when not required.
- Supporting the limited introduction of concealed off-highway parking of an appropriate scale in sensitive rural locations to reduce visual intrusion from parked vehicles.
- Encouraging and increasing the amount of sustainable, recycled and reclaimed materials used in building and maintaining roads; and use of recycled street furniture.
- Following roadside verge and hedgerow cutting practices which enhance habitats and minimise wildlife impacts.
- Taking opportunities to create new habitats as part of highway improvement schemes e.g. habitat for bats and sand martins in replacement bridge structures.
- Reducing severance of habitats and the possibility of road collisions through crossing provisions such as badger tunnels in upgraded or new highway infrastructure.
- Minimising winter salt use to reduce impacts from salt run-off on habitats.
- Minimising the risk of flooding, water contamination and soil contamination from new highway infrastructure and the maintenance of existing highways.

5.7.   Outcome indicators and targets

Indicators and targets to be developed. Indicators under consideration include:

- Shropshire-wide traffic growth
- CO2 emissions from road based transport
- Air quality in Air Quality Management Areas
- Rail patronage
- HGV levels

5.8.   Other strategies and plans

Further evidence and details on the implementation of the policies in this chapter can be found in the following strategies and plans:

LTP documents:
- LTP Evidence base – Part 4, Traffic, Carbon and Environment
www.shropshire.gov.uk/traveltransport.nsf/open/2A79133CD32676E98025709E002EEF2B

Other documents:
- Shropshire Council Carbon Management Plan
www.shropshire.gov.uk/carbonmanagement.nsf
- Sustainability, Environment and Climate Change Policy
www.shropshire.gov.uk/sustainability.nsf/open/A15894E0F64610DF802574A500306C2D

New strategies and plans anticipated to be developed include:
- Shropshire Rail Strategy
- Integrated Air Quality Strategy

6. Maintenance of the Highway Network

6.1. Objective

- Maintain the condition of the highway network

6.2. Key facts

- The current value of the Shropshire highway asset, (excluding bridges and other structures) is £3.6 billion.
- Shropshire's major highway assets include:
    - 5,100 km of carriageway
    - 1,200 km of footway
    - 1,200 bridges
    - 16,000 streetlights
- In 2009/10 the proportion of each road type in a condition where maintenance should be considered was:
    - Principal roads 5%
    - Non-principal classified roads 8%
    - Unclassified roads 17%
- In 2008/09 the condition of Shropshire's principal roads and non principal roads was the same as the average condition for all county council roads, and slightly better than all roads in England. The condition of unclassified roads in Shropshire was slightly worse than the English average.
- The NHT survey in 2009 showed that the condition of roads was considered to be one of the most important concerns of Shropshire residents, and the element with which there was the highest amount of dissatisfaction, with over 40% of respondents being dissatisfied.

6.3. Challenges

- To ensure that we fulfil our principal duty to maintain a safe highway network.
- To preserve the value of our highway asset by undertaking timely maintenance to avoid unnecessary renewal costs in the longer term.
- To understand our customers needs and expectations, and reconcile these expectations with what can be achieved with the limited available funding.
- To deal with the changing demands on the network: through increased traffic; technological, regulation and legislative changes; and to deal with climate change.
- To contribute towards reducing carbon emissions and environmental impacts when undertaking highways maintenance.

6.4. Approach

Our primary concerns when undertaking highways maintenance will be to ensure safety for all road users and to preserve the structural integrity of our highways assets in the most cost effective way.

This will be achieved by following the principle that 'prevention is better than cure'. For example, by investing in improved drainage we can minimise the impact of water in deteriorating road surfaces, and by undertaking relatively low cost surfacing treatments of

roads while they are in a fair condition we can avoid the need for more expensive major renewal works later on.

In line with this strategy, we will take a whole life approach to highways investment, considering the long term costs when making decisions on both new highway infrastructure and maintenance methods.

6.5. Outcomes

- Provision of a highway network that is safe for all road users
- Sections of highway are maintained in an appropriate condition for their function
- The value of the highway asset is maintained
- Maintenance is undertaken in the most cost effective way with impacts on the environment minimised

6.6. Policies

6.6.1. Cost effective highway maintenance

In order to maintain our extensive highway asset in the most cost effective way with limited funding, we will concentrate our efforts on applying the most appropriate maintenance treatments at the time that it is most economical to do so, through adopting an 'Asset Preservation' approach. This has been demonstrated to be significantly more cost effective than the traditional approach of focusing resources at the worst roads through an 'Asset Renewal' approach.

We will also ensure that future maintenance liabilities are reduced by making investment decisions on a whole-life basis.

Policy H1: Cost effective asset management

We will take a whole life approach to highways investment and will increase the proportion of the network maintained under an Asset Preservation regime. We will use this approach where it is prudent to do so, whilst ensuring that remedial work is undertaken where required to ensure safety of users.

This will be achieved by:

- Network condition data being used in the targeting of maintenance on specific parts of the network.
- Targeting highway maintenance not only at areas in poor condition, but also at areas in fair condition to prevent their further deterioration.
- Maximising the use of low cost surface dressing treatments to prolong the network life to avoid the need for expensive major renewal.
- Making highway investment decisions on a whole life basis, i.e. considering future highway maintenance costs early in a scheme design.

6.6.2.   Maintaining a safe highway

The identification of different customer expectations for different classes of road enables us to form different approaches to different classes of roads:

- Principal Roads will remain a priority and we will maintain this vital asset in very good condition. Maintenance of these roads will be prioritised in line with the objectives of this plan using our value management system.

- Maintenance of our Non-Principal Classified Roads will be targeted towards dealing with areas of network in fair condition (Asset Preservation) as well as areas in poor condition.

- Non-Principal Unclassified Roads will continue to be maintained in a safe condition. A 10-12 year rolling programme of surface dressing works will be developed and the new Roadmaster machines will also be used to keep these roads in a safe condition. (This is considered the minimum maintenance regime possible for keeping these roads in a safe condition.)

- Footways to be maintained in a safe condition with continued targeting of maintenance works at the poorer sections of the network.

Policy H2: Maintaining a safe highway

We will maintain highways in a safe condition

This will be achieved by:
- Operating a reasonable regime of safety inspections and dealing with defects using a risk based approach as defined in the safety inspection manual.
- Managing the risk of wet-road skidding incidents using our skidding resistance policy.
- Undertaking highway maintenance according to our published maintenance standards.
- Treating designated parts of the highway in winter to keep it free of frost, ice and snow, in line with our winter maintenance policy. We will seek to expand the number of roads; and particularly pavements and cycleways which are treated if affordable to do so (see policy C9).
- Keeping water away from the road surface by providing and maintaining adequate drainage.
- Providing and maintaining essential street and footpath lighting (see policy C9).
- Maintaining the bridges and other structures that form part of the highway network, and strengthening them if necessary to cater for modern traffic, or restricting their use by heavy vehicles.

6.6.3.   Reducing our environmental impact and responding to climate change

The activity of maintaining the highway network can require significant amounts of natural resources and generate large quantities of waste, as well as having the potential to damage natural and cultural heritage on or near to the highway network. We will seek to minimise impacts where practicable.

The anticipated results of climate change will also bring new and additional highways maintenance challenges, such as flash-flooding and landslides, which we will need to respond to.

Policy H3: Reducing our environmental impact and responding to climate change

Where practicable, we will adopt highway maintenance practices which enhance efficiency, reduce waste and natural resource use and minimise local environmental impact. We will also adapt to the new highways maintenance challenges resulting from climate change.

This will be achieved by:
- Operating an asset preservation approach which makes extensive use of surface dressing which uses less resources and energy than full structural renewal.
- We will continue to use recycled materials for highway maintenance reducing energy consumption.
- We will consider the use of products for road surface which can be laid at lower temperatures reducing energy costs needed to heat and carbon emissions.
- We will investigate ways to reduce the environmental impact of street lighting including the use of low carbon technology such as LED lighting and part night switching.
- We will manage the impact of more severe wet weather by keeping the carriageways sealed by applying regular surface dressing and keeping highway drains clear by an appropriate frequency of cleaning.
- We will ensure that maintenance standards give a sufficient priority to the needs of more sustainable modes including pedestrian and cyclists.
- We will consider the environmental impacts and opportunities for environmental enhancements when undertaking highway maintenance (e.g. biodiversity) see policy C9.

6.7. Outcome indicators

Indicators and targets to be developed. Indicators under consideration include:

- Condition of:
    - principal roads (Council maintained 'A' roads) (NI168)
    - non-principal classified roads (Council maintained 'B' and 'C' roads) (NI169)
    - unclassified roads (Council maintained minor roads that are not designated) (BV224B)
    - footways
- Public satisfaction with condition of highways
- Skid resistance of main roads (% principal roads SCRIM surveyed in current year at or below investigatory level)
- Safety of the highway (Third party claims repudiation rate)
- Minimising costs (Annual reactive maintenance expenditure as % of planned maintenance)

6.8. Related strategies, plans and policies

Further evidence and details on the implementation of the policies in this chapter can be found in the following strategies and plans:

LTP documents:
- Environmental Maintenance Plan and Local Highway Maintenance Plans.
  www.shropshire.gov.uk/hwmaint.nsf/open/F4F072C769A54A4580256CCD005B40C0

New strategies and plans anticipated to be developed include:

- Highway Asset Management Strategy

Accessibility and health

6.9.   Objectives

- Enable disadvantaged people to more easily connect with a range of services and facilities
- Encourage more travel by active modes of walking and cycling

6.10.   Key facts

- 23% of urban households and 8% of rural households in Shropshire do not have a car.

- Household car availability, and hence accessibility, is closely linked to income levels. In Shropshire around 50% of those living in council or social rented houses do not have a car, compared to less than 10% of home owners.

- Consultation has identified improvements to bus services as a high priority, including more services in the evenings and weekends, better co-ordination and integration of transport services and information; more support for community transport, and methods to reduce the high cost of bus use for young people.

- Approximately 5% of the population are registered as having a disability.

- The number of residents aged over 75 is expected to double by 2027, to 15% of the population, and almost a third of the population will be over 65.

- 15% of Shropshire workers walk to work and 4% cycle, both rates are higher than the national average.

- Only 3% of workers travel by bus to work and 1% use the train, lower than national average.

- There is a social gradient in health – the lower a person's social position, the worse his or her health.

- People taking regular physical activity have a 20-30% reduced risk of premature death and a 50% reduced risk of developing chronic diseases such as coronary heart disease, cancers, stroke and type 2 diabetes.

- Less than a third of the population nationally achieve the recommended levels of at least 30 minutes of moderate activity for adults at least five times a week.

- Walking and cycling are the easiest ways for most people of all ages to increase their physical activity levels. Use of public transport can also increase physical activity due to use of active travel to reach public transport interchanges;

- In Shropshire there is a significant decrease in the amount of regular walking and cycling by age groups over 55, although regular physical activity is particularly important for older age groups.

- The majority of journeys in Shropshire are very short, for example 44% of work journeys are less the 5km (3.1miles), and could be made by foot or cycle by many people.

- 12% of all work journeys are less than 2km (1.3miles) and made by car.

- 42% of primary level pupils travel to school by car; 29% live within 1mile of their school and travel by car.

6.11. Key challenges

Our key challenges are to:

- Tackle issues of accessibility within the context of increasing public transport operation costs and reducing revenue resources that limit the ability to support public transport services.

- Enhance independence and accessibility for younger people who are too young to or cannot afford to drive, to enhance their experience and satisfaction with living in Shropshire; and encourage the adoption of more sustainable travel habits.

- Respond to the needs of the increasing numbers of older people who will increase the demand for public and specialist transport services. Encourage and facilitate healthier more active lifestyles for older people.

- Provide the transport infrastructure and services that can help to make it easier for people with mobility difficulties to travel and live independently.

- Assist people on low incomes to access job and training opportunities and essential services, tackling barriers of both availability and cost of public transport. While also encouraging and facilitating healthier lifestyles involving active travel.

- Encourage healthier more physically active lifestyles through tackling the cultural, psychological and practical barriers to more walking and cycling.

6.12. Approach

We recognise that for people without access to a car and for those who can't afford to operate a car, a lack of transport can lead to social exclusion. This is particularly true of people who are elderly, disabled, young, or on low incomes.

Our aim is to enhance transport provision so that all people, particularly those without access to a car, will find it easier to reach the places they need to go.

However, our approach is based on the acceptance that in a rural county as sparsely populated as Shropshire, with high levels of car ownership, it will not be affordable to provide a comprehensive public transport service that would ensure excellent accessibility for all residents. Our approach therefore, is to ensure that in rural areas there is at least a basic level of transport provision to enable all residents to access work and to reach essential services such as shops. We will also seek innovative ways of providing transport, harbouring the support of local communities, to improve cost effectiveness and to tailor services to local needs.

We will aim to provide a good level of public transport service in areas and on routes where there is sufficient demand to sustain the service at reasonable cost. Such services are likely to be within larger towns and on interurban routes. We will aim to enhance the quality of such services sufficiently that they can provide an attractive alternative to the car.

We will also aim to improve accessibility for people with disabilities by removing barriers to walking, car use and the use of mainstream public transport services; as well as supporting cost effective specialist services for those with additional needs.

We will make the improvements that will enable more people to choose to travel by foot or cycle for local trips; this will enhance accessibility at a local level and also make a significant contribution to improved public health.

6.13.   Outcomes

- People living within larger towns and on interurban routes able to access a good range of employment and services via a reasonably frequent bus service
- Some level of affordable transport available for all rural residents to enable them to access essential services and prevent social exclusion
- People with mobility impairments able to travel more easily by appropriate modes, with barriers to mobility removed where possible
- More short journeys are made by foot or cycle rather than car
- A contribution has been made to reducing accessibility and health inequalities
- Greater levels of social interaction and community cohesion have been achieved as a result of more people being 'out and about' and greater opportunities to interact when travelling by foot, bike or public transport.

6.14.   Policies

6.14.1.   Bus services

Ideally, the bus network in Shropshire would serve a range of objectives including social inclusion, modal shift, carbon reduction, passenger choice, economic development and providing access to local services and amenities. However, it will not be affordable to run a comprehensive network that fulfils these functions across the whole of the county.

We will, therefore, define a minimum network that aims to fulfil the most fundamental aim of providing basic accessibility to prevent social exclusion. The minimum network will ensure that people who are reliant upon public transport can continue to access essential services and amenities. We will aim to provide a higher level of service that also contributes to other objectives in locations where this is feasible and cost effective, when funding allows.

Policy A1: Supported bus network

We will define minimum standards for the network of public bus services in Shropshire in a Bus Strategy. We will provide a subsidy to achieve this minimum bus network if it cannot be provided on a commercial basis.

The key principles in defining the minimum bus network are:

- In larger urban areas and on principal interurban routes we will seek to ensure a level of service which can provide a good level of accessibility to employment and essential services, and provide a reasonable alternative to travel by car.
- In more rural areas an affordable transport service will be provided which will enable residents to access essential services and prevent social exclusion; however this may not be a daily service and is not likely to be suitable as a means of accessing employment. This is likely to be via the demand responsive 'ShropshireLink' bus service or through community transport provision.
- We would seek to provide enhanced bus services above the minimum standard where this was affordable and services could demonstrate good value for money and tangible accessibility or modal shift benefits.

The minimum bus service standards set out in the current bus strategy are for:

- Monday to Saturday peak hour and daytime services in the larger (group 1 and 2) market towns, at 30 and 60 minute frequencies respectively
- Monday to Saturday peak hour and daytime services on interurban of 1 hourly and 2 hourly frequencies respectively
- daytime services on a minimum of two days per week in group 3 towns, and all rural areas; which will be served by the demand responsive ShropshireLink service

The award winning ShropshireLink service was introduced in 2008 replacing poorly used fixed route market day bus services. All rural areas currently have a service available on at least 2 days a week, on a pre book basis. Use has continued to grow and passenger numbers are considerably higher than on the former fixed route services.

ShropshireLink and other demand responsive forms of transport should not be seen as a means of providing regular public transport to employment or education, or as a way of encouraging modal shift. However, they can provide an important 'safety net' of accessibility to services where conventional buses are not viable. Where regular flows of significant numbers of passengers are experienced, other fixed route methods can be considered.

Policy A2: Bus network enhancements

We will seek to achieve transport services in addition to the minimum network, in order to enhance accessibility, support the economy and encourage modal shift where it is affordable to do so.

This may be achieved by:

- Entirely commercial or voluntary provision of a service - where demand is such that a service would provide no or only nominal public subsidy
- Securing specific additional resources to fund service improvements, such as through specific grants or developer contributions
- Increasing overall bus use and revenue generation and/or reducing operating costs so that the public subsidy available can support a greater number of services

- Seeking opportunities with bus operators to develop new quality partnership schemes to improve commercial service provision. Where operators are unwilling to participate we may instead look to implement a Statutory Quality Partnership

Over half of all trips on buses in Shropshire are made by older or disabled people under the English National Concessionary Travel Scheme (ENCTS). For paying passengers the cost of bus travel has increased significantly above general inflation over recent years and cost is a significant concern and barrier to bus use for those passengers.

Unfortunately, additional blanket passenger subsidy for other groups, such as young people, is unlikely to be affordable unless supported by funding or policy changes at a national level. However, we will endeavour to work with operators who set commercial fares to look at ways of making bus use more affordable, particularly for the lowest income users.

Policy A3: Bus fares and ticketing

We will aim to work with the DfT and operators to maintain the affordability of public transport and target any financial assistance where there is the greatest need.

This will be achieved by:
- Undertaking regular fare reviews, setting fares with reference to contract costs and commercial fares, on supported services where the fare structure is issued and managed by Shropshire Council.
- Administering the English National Concessionary Travel Scheme for older and disabled people.
- Working with operators to explore ways of addressing the affordability of public transport for other low income groups, including young people and job seekers.
- Supporting the introduction of smartcard ticketing by operators and working together on maximising the potential of the technology to introduce innovative ticketing.

Consultation consistently raises the need for better information on passenger transport services. We must make sure that when people require bus information that is it easy to find and simple to understand.

We should also take opportunities to be proactive in marketing local bus services to relevant residents who could benefit from improved accessibility or undertake modal shift decisions.

Policy A4: Improving public transport information and marketing

We will work with operators to raise the awareness of services, improve attitudes to bus services, and enhance the availability, quality and appropriateness of passenger transport information.

This will be achieved by:
- Providing web based timetable information locally and increasing awareness of web based timetable information and journey planning tools i.e. Traveline and Transport Direct.

- Where appropriate, formalising unmarked bus stops and installing flags and timetables to promote and provide information about the services available.

- Seeking to reinstate and expand the use of Real Time Passenger Information at bus stops

- Using personalised marketing and promotion.

Policy A5: Other bus enhancements

We will seek to implement other bus service and bus infrastructure enhancements as affordable to enhance the service reliability, interchange and customer comfort and reduce environmental impact.

These will include:

- Seeking to set, or influence service timetables to enhance opportunities for bus to bus or bus to rail journey integration.

- Implementing bus priority measures at congestion hotspots to enhance journey speed and reliability; this is most likely to be in the form of traffic signal priority.

- Working with parish and town councils to improve bus shelters and town bus interchanges and waiting facilities.

- Replacing or upgrading of Shrewsbury bus station.

- Continuing to expand the use of modern low emission and low floor accessible buses through our contract requirements.

- In light of any national review of the home to school transport policy, continuing to enable and encourage bus use for educational journeys, particularly at secondary and tertiary level.

6.14.2. Community and voluntary and other transport schemes

Community transport schemes are available to people for whom conventional public transport is not available or not suitable. This can be for the reasons of frailty, disability or rurality to enable passengers to access essential services. Even with the provision of ShropshireLink and the fixed local bus network there is still a need for an additional layer of community transport to provide essential transport on days when the DRT services are not available, and to cater for people with significant mobility problems who are unable to use ShropshireLink, and urban residents unable to use the conventional town bus services.

We will support the work of community groups in providing innovative local transport solutions where these are proven to meet a local need and to be good value for money.

Policy A6: Community and voluntary transport

We will support the work of community groups and organisations and volunteers in providing innovative local transport solutions where these are proven to meet a local accessibility need, meet quality and safety standards and to be good value for money.

This will include:

- Support for 'ring and ride' schemes providing access for disabled people unable to use conventional town bus services.
- Support for community bus schemes in rural areas with a limited bus network.
- Support for the Shropshire Community Car scheme that is operated by volunteer owner-drivers using their own private vehicles and co-ordinated at local level.
- Consideration and support for other innovative ways of enhancing accessibility for key target groups e.g. "Wheels 2 Work" moped loan scheme for job seekers.

6.14.3.   Taxis and private hire vehicles

Taxis and private hire vehicles (PHVs) play an important role in enhancing accessibility for people without access to a car, or who don't want to use their car, to get to places not served by public transport.

We will aim to ensure there is an adequate supply of taxi and private hire vehicles in Shropshire to meet demand, to fulfil our licensing duty to ensure safety, and explore opportunities to encourage taxi bus and taxi-sharing schemes

Policy A7: Taxis and private hire vehicles

We will perform our licensing duty for Hackney Carriages and private hire vehicles to ensure accessibility, safety and passenger comfort.

This will include:
- Limiting the age of Hackney Carriages and private hire vehicles to ensure safety and to minimise environmental impacts.

6.14.4.   People with mobility difficulties

Over the plan period we expect to see an increase in the number of people with disabilities as the population ages. We will aim to remove barriers to travel by people with disabilities, whatever their chosen transport mode.

Policy A8: Improving access for people with disabilities

We will take all reasonable steps to remove barriers to accessibility experienced by people with disabilities.

This will include:
- Expanding the availability of accessible low floor buses through our contract requirements. And introduce a rolling programme to install raised kerbs and suitable areas of hard standing at bus stops to enable level access.
- Seeking to improve accessibility of Shrewsbury bus station, and working with the rail industry to encourage improved accessibility at rail stations in Shropshire.
- Supporting specialist 'ring and ride' and community transport services which provide essential access for people with additional transport needs.

- Encouraging driver training to enhance disability awareness.
- Enforcing misuse of disabled parking bays and illegal parking which causes obstructions to pavements and dropped crossings which reduces mobility for disabled people. Seeking to increase enforcement of parking on the footway.
- Ensuring the design of new highway improvement schemes fully considers the needs of people with disabilities or mobility restrictions; through use of up to date Mobility Guidance by designers and introduction of an audit tool, such as a Vulnerable Road User audit, that must be completed as part of the scheme design process.
- Ensuring all licensed Hackney Carriages are of a design that can accommodate wheelchairs.

6.14.5.   Cycling

Cycling is a practical and healthy alternative to car based travel for many local journeys and there is considerable potential for more cycling to take place, particularly within Shropshire towns.

Cycling can provide a practical means of enhancing accessibility to employment and other services, particularly where a car is not available and bus services not suitable. Cycling can also provide a means of transport for a wide section of the population, including children, older people and people with disabilities.

There is also more potential to further develop cycling as a leisure and tourism activity within rural areas, helping to support economic development.

In order to realise the potential of cycling, there is a need to create a physical and cultural environment in which more people feel confident to cycle. Achieving higher levels of cycling will require a concerted and long term effort to deliver infrastructure improvements, training and promotional measures.

When investing LTP resources in cycling improvements, the highest priority will be given to providing infrastructure for commuting and utility journeys that will attract the highest levels of use and encourage mode shift from the car. Such improvements are more likely to be within or linking to larger urban areas.

External funding will generally be required to enable the development of longer rural routes, such as disused railway lines, that will predominantly be used for leisure purposes.

Policy A9: Cycle infrastructure

We will improve conditions for cycling in ways which will encourage more people to choose to cycle for local journeys.

This will be achieved by:

- Safety improvements through reviews of speed limits and speed enforcements (see policy S3 & 4)

- Design of new developments, including residential, business and retail areas, in ways which prioritise access by cycle and foot.
- Provision of cycle tracks, cycle lanes, junction improvements, toucan crossings and other route enhancements as appropriate to provide safe, convenient and continuous routes for cyclists.
- Signing and promotion of advisory routes for cyclists; including the promotion of National Cycle Network routes, inter-urban routes and local leisure routes; these would generally promote use of existing quiet roads and lanes.
- Conversion of disused railway lines and development of other traffic-free rural routes for cycling, walking and horse riding, where feasible and where funding is available.
- Working with partners to provide appropriately designed and positioned cycle parking at key destinations including shops, leisure facilities, employment locations, educational establishments, health facilities and public transport interchanges.
- Provision of appropriate storage for cycles in all new residential business and retail developments.

Policy A10: Encouraging cycle use

We will seek to create a cultural environment where residents feel cycling is a safe and natural transport choice for many local journeys

This will be achieved by:

- Ready availability of good information on cycle routes and facilities in the area, including areas maps, online planning tools and on street signage.
- Use of time based signage to encourage an understanding of distances that can be covered by cycle in a relatively short time.
- Cycle training available for adults as well as children at primary and secondary schools.
- Packages of promotional activities and advice, supporting new infrastructure and targeting key groups and journey purposes e.g. BikeFest, Bike It.
- Promotion of cycling through school travel plans.
- Promotion of cycling at the work place, linked to workplace travel plans.
- Improving the availability of bikes in working order through promotional activities such as 'Dr. Bike' sessions.

6.14.6. Walking

Walking is a mode of transport that is available to most people, regardless of age or income. Almost all people in Shropshire will be a pedestrian at some time; either as a single transport mode, as part of all longer journeys by public transport and car, while shopping, or simply walking for leisure or exercise.

Walking is the most important mode of travel at the very local level, and offers the greatest potential to replace short car trips, particularly under 2 kilometres. Currently the majority of journeys under 1 km are made by foot, but many between 1 and 2 km are made by car. Encouraging people to make more, and slightly longer journeys by foot would have significant health, environmental and accessibility benefits.

To encourage more people to choose to walk we need to ensure safe and accessible environments where all people can move around on foot conveniently and in pleasant surroundings and feel comfortable and safe doing so.

Policy A11: Pedestrian infrastructure

We will improve conditions for walking in ways which will encourage more people to walk for local journeys.

This will be achieved by:

- Improving safety for pedestrians through reviews of speed limits and speed enforcement (see policies S 3& 4).
- Ensuring design of new residential areas in ways which prioritise permeability by cycle and foot and enable pedestrians to follow desire lines.
- Prioritising provision of new pavements or footpaths where there is no current provision, a significant demand to walk and where speed limits can't be reduced to 20mph.
- Involving local communities in reviewing existing pedestrian provision, identifying missing links and physical and psychological barriers e.g. poor lighting, narrow points, lack of road crossings; and make improvements on a prioritised basis.
- Take opportunities to provide and upgrade crossing points to give pedestrians' greater priority and convenience, including minimising waiting times and avoiding staggers and indirect routes.
- Reviewing and improving maintenance arrangements for footways.
- Reviewing and improving information, orientation and signing for pedestrians at appropriate locations.
- Working with school communities to identify physical barriers to walking and cycling to school and implementing 'safer routes to school' schemes on a prioritised basis in conjunction with school travel plans.
- Taking a holistic approach to walking infrastructure, and improving co-ordination of management, maintenance and promotion of highway and rights of way networks.

Policy A12: Encourage walking

We will seek to create a cultural environment where more residents regularly choose to walk for local journeys.

This will be achieved by:

- Promotional activities and campaigns emphasising the health benefits of walking; targeting key groups and journey purposes.
- Encouraging leisure and utility walking through promotion of good quality local routes, and indicating walking times on signs.
- Making pedestrian training available for primary age children.
- Promotion of walking through school travel plans.
- Promotion of walking at the work place, linked to workplace travel plans.

- Supporting 'walking for health' and other promotional initiatives.

6.15.   Outcome Indicators and targets

Indicators and targets to be developed. Indicators under consideration include:

- Bus patronage
- Cycle use
- Walking levels (at key sites)
- Accessibility to key services
- Public satisfaction with local bus services
- Public satisfaction with local public transport information
- Public satisfaction with ease of access to key services (including by disabled people)
- Public satisfaction with local taxi services
- Public satisfaction with community transport
- Mode share of journey to school

6.16.   Related strategies/plans
Further evidence and details on the implementation of the policies in this chapter can be found in the following strategies and plans:

LTP documents:
- LTP Evidence base – Part 5, Accessibility and Health
  www.shropshire.gov.uk/traveltransport.nsf/open/2A79133CD32676E98025709E002EEF2B
- Bus Strategy for Shropshire (2011 – 2016)
  www.shropshire.gov.uk/traveltransport.nsf/open/718FE540380A7ECE802577FC00353700
- Local Sustainable Transport Fund Bid
  www.shropshire.gov.uk/traveltransport.nsf/open/87FA92B12AB8B93C80257871002D24DB
- Mobility Guidance for Shropshire
  www.shropshire.gov.uk/traveltransport.nsf/open/D70FBD5C0BDB94C58025727A004FA3EA
- Sustainable School Travel Strategy
  www.shropshire.gov.uk/traveltransport.nsf/viewAttachments/LROE-893JQH/$file/sustainable-school-travel-strategy-august-2010-update.pdf

Other documents:
- Countryside Access Strategy for Shropshire 2008-2018
  www.shropshire.gov.uk/countryside.nsf/open/74AB1B9A3C0FF4A28025756E003BB28E
New strategies and plans anticipated to be developed include:
- Pedestrian Strategy
- Cycle Strategy

7. Safety and security

7.1. Objectives

- Reduce risk of death or injury due to transport accidents.
- Help people feel safe and secure and protected from traffic in their communities and when travelling.

7.2. Key facts

- There is strong public concern about road safety and speeding traffic. Safer roads was identified as one of the most important aspect of transport and highways in the NHT survey, and police community surveys and consultations consistently highlight speeding traffic as the number one concern of residents.

- Significant improvements have been made to road safety in recent years. Road accident casualties in Shropshire reduced by 30% between 1994-98 and 2009. The number of people killed or seriously injured (KSI's) reduced by 70% over the same period.

- Road accidents are still the most significant cause of accidental death in Shropshire, making up 46% of accident deaths for all ages and 89% of accidental deaths for children and young people.

- In 2009 there were 797 reported road accidents in Shropshire that resulted in an injury or death. These accidents led to 27 people being killed, 117 being seriously injured and 993 people being slightly injured.

- 50% of those killed or seriously injured on Shropshire roads are car users, 15% are pedestrians, 5% are cyclists and 5% HGV occupants.

- Motorcyclists are the road users at greatest risk of injury. Less than 1% of distance travelled is by motorcycle, but 10% of all casualties, 23% of people killed or seriously injured and 24% of fatalities are motorcyclists. Around half of accidents are a result of motorcyclist actions and half caused by other drivers.

- The majority of accidents involving pedestrians and cyclists occur in urban areas, but those occurring in rural areas are more likely to result in serious injuries. The majority of vehicular accidents occur in rural areas.

- Around a quarter of pedestrians and cyclist accidents involve children and these tend to be caused by the child's actions. Injuries to adult pedestrians and cyclists are generally as a result of drivers actions. Child casualties make up just 9% of all casualties and have reduced significantly over recent years.

- Young people are becoming an increasing large proportion of the people injured on Shropshire's roads. Young men (16- 25) have the highest casualty rate. They are less than 6% of Shropshire's population yet account for 20% of all casualties and 24% of all fatal and serious casualties. Drivers aged 17-24 are more than twice as likely to be involved in an accident as older drivers.

- Perceptions of personal safety are high in Shropshire compared to other areas of the country, with most people feeling very safe when walking or travelling during the day. However, perceptions of security reduce at night time; particularly for people using public transport or footpaths and alleyways.

7.3. Key challenges

Our key challenges in meeting our objectives are:

- Balancing our approach to address known risk factors as well as increasing the perception of road safety. The interventions that are evidenced to reduce risk of death or injury are not always the same as the interventions demanded by the public in order to enhance perceptions of safety. In some cases, fear of accidents can relate to more general quality of life concerns affected by high traffic flows, speeds, noise or levels of HGVs.
- Continuing to reduce the number and severity of casualty accidents in Shropshire at a point where clusters of accidents are less common and therefore more difficult to address with traditional site specific engineering solutions.
- Reducing the disparity in risk for different road users. Recent efforts to target young drivers and motorcyclists have not had a significant impact in reducing risk for these groups, so additional interventions should be considered. Interventions to reduce child casualties and cyclist casualties do seem to be having a positive impact so should be continued.
- Increasing the confidence of a safe environment for residents and travellers, particularly when using vulnerable modes such as walking.
- Improving perceptions of personal safety when walking and travelling in secluded areas and at night.

7.4. Approach

Our road safety strategy will focus primarily on reducing the risk of road accidents that will result in injury or death, with a particular focus on reducing deaths. We will take a dual approach of reducing the risk within the road environment through engineering safer roads and enforcing safer speeds, whilst also increasing the knowledge skills and abilities of road users through education, training and publicity.

In all aspects we will use the available evidence to target our resources at specific locations, routes, road types, age groups, or vehicle types associated with the high accident risk. In line with national guidance we will focus particularly on the following:

- Protecting motorcyclists
- Reducing risk for young people, including young drivers

- Reducing pedestrian and cyclist casualties, particularly in our towns and with an extra focus on our more deprived communities;

- Tackling illegal and inappropriate speeds

- Improving safety on rural roads

- Protecting children

- Targeting poor road user behaviour amongst a minority, such as drink driving

We will also aim to respond to community concerns, improve perceptions of safety, and the confidence of all road users; particularly through our speed management and safer routes to school programmes. However, where resources are limited we will need to treat this work as a lower priority where there is no risk based justification for intervention.

In delivering our road safety strategy we will aim to use a combination of education, enforcement and engineering measures in a way which will deliver a greater impact than the sum of the impacts of the individual component parts.

Engineering	Safer infrastructure	Reduced risk of death and injury due to traffic accidents
	Safer speeds	
Education	Safer young people and children	
	Safer pedestrians and cyclists	
	Improved driver training and testing	
	Safer motorcyclists	
	Tackling drink, drugs and drowsiness	
	Promoting safer road use	
Enforcement	Better enforcement	

7.5.   Outcomes

Through our policies we seek to achieve:

- A continued reduction in road accident casualties and deaths at a greater rate than the national average.

- Lower risk (number of casualties per distance travelled) for road users who are currently at higher risk, particularly motorcycle users, pedestrian, cyclists and young people.

- Traffic moving at appropriate speeds for the road environment, greater compliance with speed limits leading to less public concern about speeding traffic.

- Greater perceptions of safety and security for all road users.

7.6.   Policies

7.6.1.   Engineering measures

There are a number of changes that can be made to road environments to reduce the risk of accidents, or to reduce the severity of accidents if collisions occur.

Engineering measures need to be prioritised in order to give the greatest safety benefit for expenditure made.

Traditionally, engineering interventions have been used to improve safety at specific sites where there is a significant accident record. We will continue to analyse the road accident database to identify any sites with a significant casualty accident record but will also identify routes and urban areas with the highest accident rates, to produce a prioritised list of sites, routes and areas for which tailored interventions will be identified.

In some situations it may also be appropriate to apply highly effective but low cost measures in a blanket approach across the county, rather than just on prioritised site basis.

Policy S1: Safety schemes

We will analyse the road traffic accident database to identify the geographical areas or routes with the highest levels of casualty accidents; undertake safety reviews to identify safety problems and solutions at these sites, and implement cost effective safety improvements on a prioritised basis.

Appropriate interventions may include:
- Review of speed limits and measures to encourage compliance with speed limits
- Improvements to lines and signs.
- Protection for right turning vehicles.
- Use of vehicle activated signs to identify particular hazards such as bends or junctions.
- Use of antiskid road surfaces at bends and junctions.
- Improvements targeted specifically at improving motorcyclist safety, including improved hazard markers at bends ("Where you look is where you go" system).
- Safety barriers and other road restraint systems.
- Introduction of 'crash friendly' signposts and lighting columns
- Junction specific treatments.
- Carriageway narrowing and pedestrian refuges in urban areas.
- Considering improvements to maintenance practices e.g. more frequent vegetation cutting at specific locations to improve visibility.
- Provision of pedestrian and/or and cyclist facilities (e.g. crossings, footways, cycleways), or in low speed situations consideration of shared space.

We will ensure that any new roads are designed to the latest safety standards. We will also take opportunities to improve the safety of existing roads when any road alterations or maintenance is being undertaken.

Policy S2: Improving safety when maintaining and improving roads

We will take opportunities when undertaking structural maintenance or significant highway improvements to improve road safety.

This will be achieved through:
- Requiring safety audits to be undertaken for all significant changes to the highway
- Complying with the latest safety standards when replacing or installing new infrastructure, e.g. appropriate road surfacing, using 'crash friendly' signs.

- Taking opportunities to upgrade the safety rating of roads when carrying out structural maintenance, for example undertaking minor roads realignment, improving signing and lining.
- Effective management of street works to ensure safe passage for all road users while road works are taking place.

7.6.2. Speed management

Nationally, illegal or inappropriate speed is identified as contributing towards about one quarter of road deaths. Studies show that when drivers reduce speed, collisions are less likely and if there are collisions, at lower speeds there will be less serious injury. This is particularly true for vulnerable road users i.e. children and older people. Speeding traffic is also a key concern of local communities.

We will review our speed limits on local roads in line with national guidance to ensure they are the most appropriate speed limits to enable the road to perform its functions and improve safety.

Policy S3: Appropriate speed limits

We will set appropriate speed limits for the function and nature of local roads in line with government guidance; taking into account the local environment, nature of the road, mix of road users, and accident history. Speed limits will be reviewed and changed on a prioritised basis subject to funding availability. The minimum amount of signing to comply with legal requirements will be used.

We will work over a period of time to a situation where:

- On rural single carriageway roads:

  - Higher quality strategic roads with few bends, junction, accesses, and low accident rates will have a 60mph speed limit.
  - Lower 50 mph and 40mph speed limits will have been considered where there are relatively high numbers of bends or junctions, high accident rates, or high numbers of vulnerable road users.
  - We will consider the application of 40mph speed limits for unclassified rural roads with high accident rates, where there is a predominantly local access or recreational function; and on routes recommended for vulnerable road users.
  - The normal speed limit in villages will be 30mph.

- On urban roads:

  - 20 mph limits and zones are common in town centres, outside schools and in. residential areas, particularly where there is a high risk to vulnerable road users.
  - 30mph will be the standard speed limit.
  - Use of 40mph speed limits will be limited to higher quality roads and those on outskirts of urban areas were there is little development and separate provision for vulnerable road users.
  - 50mph will be used only on special roads, dual carriageways, ring roads, radial routes and bypasses.

We will work with the '*Safer Roads Partnership in West Mercia'* and local communities to help increase compliance with speed limits though a combination of encouragement and enforcement measures.

We will focus efforts on sites where there is a demonstrated significant problem of drivers exceeding the speed limit; additional priority will be given where there is also a significant accident history. Where there is strong public concern over speeding but intervention cannot be prioritised based on speed and accident data we will seek to enable local communities through their parish or town councils to fund or part fund interventions.

In order to spread our limited resources widely we will prioritise the use of low cost methods to encourage speed limit compliance, such as vehicle activated signs. The introduction of physical traffic calming itself can prove to be controversial as well as expensive and therefore we anticipate its use to be limited to the highest priority areas.

When introducing 20mph zones and speed limits, ideally the design and nature of the roads would mean that the limit would be generally self-enforcing. However, it will be not always be desirable or affordable to install extensive traffic calming measures in all areas where a 20mph limit is desirable. Therefore in some cases a 20mph limit may be applied without additional traffic calming measures.

Policy S4: Compliance with speed limits

We will work with our partners to use a variety of cost effective techniques to encourage and enforce compliance with speed limits.

This will be achieved through:
- The use of vehicle-activated signs to reinforce the speed limit. These will be used on a rotating basis at sites where there is a demonstrated speeding problem.
- Provision for other organisations i.e. parish councils to fund or partly fund vehicle activated signs at agreed locations where there is local concern over speeding but not a demonstrated problem.
- Continued active membership of the '*Safer Roads Partnership in West Mercia'* working with West Mercia Police, other local highway authorities, Fire & Rescue Services, the Courts and NHS Primary Care Trusts to make roads in the region safer for all users through speed enforcement and by seeking to change attitudes and driving behaviour.
- Supporting the Safer Roads Partnership's use of mobile safety cameras to encourage compliance with speed limits at locations where there is a demonstrated speed problem, as well a significant collision history or a high level of concern from local people. In future we will encourage the Partnership to consider using time-over-distance (average speed) cameras on sections of main road where little traffic joins or leaves.
- Offering Speed Awareness Courses (through the Safer Roads Partnership) to drivers facing certain speeding offences as an alternative to the fixed penalty process.
- Using low cost engineering speed reducing methods (e.g. village gateways, carriageway markings) where additional efforts need to be made to encourage compliance with the speed limit.
- Considering the limited use of physical traffic calming (e.g. road humps or narrowing) as a last resort in limited areas when there is a definite need to manage vehicle speeds downwards as identified through accident data. This will only be considered where there is clear local support.

- New roads being designed to naturally encourage compliance with the designated speed limit, including encouraging the use of shared space in new residential areas to encourage slow speeds and pedestrian priority.

7.6.3. Education, training and publicity

A range of education, training and publicity activities are a key element of our road safety strategy. These activities are designed to increase the awareness, understanding and acceptance of safer road use practices and to increase the knowledge and skill levels of roads users. These activities are generally low cost and excellent value for money having the dual benefit of increasing the confidence of road users, as well as helping to reduce the risk of accident and injury. Education and training for walking and cycling can be particularly beneficial in reducing fear and encouraging more active travel.

We will seek to work with a range of partners to deliver a co-ordinated package of road safety activities through a 'life long learning' approach; with a particular emphasis on interventions targeted at high risk groups or activities.

Policy S5: Road safety education, training and publicity

We will work in partnership to provide a road safety education, training and publicity package that has a particular focus on high risk groups and activities.

Activities will include:

- Providing advice, support and curriculum linked resources for delivery of road safety education at pre-schools, schools and colleges throughout Shropshire. Where affordable this will be enhanced with classroom presentations and theatre style learning. Education for older age groups will include a strong element of young driver education.
- Making 'Bikeability' style cycle training available to all year 6 pupils and offering additional secondary level and adult training where there is demand.
- Promoting and co-ordinating the delivery of "Stepping Out" pedestrian training for primary level pupils, with a focus on areas with high child pedestrian casualty rates.
- Providing information on and encouraging take up of motorcyclist, moped and scooter training; and using targeted publicity to encourage safer motorcyclist behaviour.
- Improving awareness of risk for young drivers thorough publicity campaigns and education programmes; promoting the 'pass plus' training for new drivers to enhance skills and knowledge.
- Encouragement for schools and parents to operate 'walking buses', practical sessions to assist in the transition form junior to secondary school e.g. accompanied cycle or walking training.
- Targeted road safety campaigns, linking with national and regional initiatives, focusing on tackling high risk minority road user behaviours, including drink driving, drug use, mobile phone use and tiredness awareness campaigns.
- The provision of School Crossing Patrols where justified.
- Providing driver assessment and training for individuals and organisations, particularly focused on occupational road risk and fleet training.
- Making the National Driver Improvement Scheme available as an alternative to prosecution for some moving traffic offences.

7.6.4. Personal security and property

While people generally feel safer when walking about in Shropshire compared to many more urban areas, there is still a significant level of fear when travelling by foot, cycle or public transport after dark.

There is also an identified problem of car crime and cycle thefts in Shropshire which need to be tackled.

Policy S6: Reducing personal security fears when travelling

We will seek to enhance feelings of personal safety when travelling, particularly after dark.

This will be achieved through:

- Ensuring the design of new residential areas provides good surveillance for pedestrian and cycle routes.
- Reviewing high priority pedestrian routes to identify security improvements, including improvement to lighting, removal of dark pockets and concealed areas and possible introduction of CCTV.
- Work towards the provision of more secure car, motorcycle and cycle parking facilities in public places; and encourage safer parking behaviour.
- Consider further provision of CCTV at rail and bus stations and on buses.

7.7. Indicators and targets

Indicators and targets to be developed. Indicators under consideration include:

- Number of deaths
- Number of serious injures (all)
- Child killed or seriously injured casualties
- Motorcycle killed or seriously injured casualties
- Pedestrian killed or seriously injured casualties
- Cyclist killed or seriously injured casualties
- Young people (16-25 year) killed or seriously injured casualties
- Accidents involving a young driver
- Public satisfaction with road safety locally

National Targets are
- Reduce the number of deaths by at least one third from the 2004-2008 average by 2020
- Reduce the numbers of serious injuries by at least one third over the same period
- Reduce the numbers of deaths and serious injuries to children and young people (0-17) by at least 50% over the same period
- Reduce the combined rate of deaths and serious injures for pedestrians and cyclists per distance walked or cycled by 50% over the same period

7.8. Other strategies and plans

Further evidence and details on the implementation of the policies in this chapter can be found in the following strategies and plans:

LTP documents:
- LTP Evidence base – Part 6, Safety and Security www.shropshire.gov.uk/traveltransport.nsf/open/2A79133CD32676E98025709E002EEF2B
- Urban and rural speed limit policies www.shropshire.gov.uk/hwmaint.nsf/open/72B33479522CE3428025765D0036A9AD
- Village speed limit policy www.shropshire.gov.uk/hwmaint.nsf/open/915A6A26D44DC522802575E400570558
- Vehicle activated signs policy www.shropshire.gov.uk/hwmaint.nsf/viewAttachments/LROE-8BGEAH/$file/vehicle-activated-signs-policy-november-2009.pdf
- Rail in Shropshire- Draft Rail Strategy

New strategies and plans anticipated to be developed include:
- LTP Road Safety Action Plan- including an update and review of existing speed policies