Oxfordshire Highways

Cogges Link Road
Complementary Traffic Measures Study

B0834600/Doc/CLR/CM April 2008

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Document No	:	B0834600/Doc/PA/CLR/CM
Revision No	:	01
Date	:	April 2008

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Executive Summary

This study has examined the current transportation issues facing Witney and looked beyond the proposed opening of a major scheme aimed at easing traffic congestion in the town. It outlines the current policy framework and conditions in Witney in order to provide the context against which a sustainable transport system can be developed rather than a quick-fix whose benefits will soon be lost as traffic levels continue to increase.

The Cogges Link Road (CLR) or a fully grade-separated A40 Interchange at Shores Green (Shores Green Slip Roads - SGSR) are two alternative solutions to Witney's traffic problems that are currently the subject of an Environmental Impact Assessment. Both offer benefits in terms of removing traffic from sensitive locations, but neither scheme alone will be sufficient in the long term. In order to derive maximum benefit from either scheme therefore, this study proposes a series of measures that will encourage traffic to use the new facility, whilst discouraging unnecessary vehicular travel in the town.

One of the key findings in the study came from an analysis of the recently revalidated Witney Traffic Model (WTM). It found that in 2005, almost a quarter of all vehicular trips in the town were journeys of 2km or under, whilst around 40% were less than 5km in length. These statistics lie at the heart of what is currently wrong with transport in Witney, and they provide the impetus for a range of sustainable solutions that will complement the major road scheme.

Any new road such as the CLR will relocate some traffic from one location (e.g. Bridge Street) to a place where its overall impact is diminished. Whilst this is a worthwhile benefit, it will not reduce the overall volume of traffic in the town unless additional measures are in place to encourage some journeys to be made by alternative modes. The significant number of short journeys in Witney identified above provides a clear target group for mode switch. Success here is essential if the traffic problems blighting the town for decades are to be addressed effectively.

Two categories of complementary measure were examined in this study; physical measures aimed specifically at diverting traffic towards the new scheme, and softer measures that will encourage mode shift. Of the physical measures proposed, the most effective is the signalisation of the Staple Hall junction to replace the existing roundabouts. It is clear however, that such measures will only work if a suitable alternative access to the town centre (i.e. CLR or SGSR) is in place, therefore such changes would be inappropriate in a Do Minimum scenario.

The CLR and SGSR traffic models include the Staple Hall signals, traffic calming along Woodgreen and Newland, and the self-optimising signal system MOVA at the Ducklington Lane / Station Lane junction. This junction and Staple Hall form two of the key highway intersections in the town, and managing the movement of traffic through these locations will be central to the overall success of either major scheme.

The results consistently demonstrated that the CLR option performs best in terms of removing traffic from sensitive locations and carrying town centre trips that would otherwise use less appropriate routes. There is a relatively low demand for A40 through trips that use the Shores Green slip roads, although the addition of the proposed intersection at Downs Road does increase this. Consequently, town centre trips using the Shores Green slip roads tend to add to the already heavy demand at Ducklington Lane, unless their origin is within the Downs Road area, whilst the remainder continue to use existing routes through sensitive areas such as Bridge Street. Full details of the modelling analysis are contained in the Traffic Forecast Report submitted as part of the Environmental Impact Assessment.

These measures alone however will be insufficient to provide a sustainable solution to Witney's traffic problems. In order to maximise the positive effects that they will bring, certain traffic management schemes will be required, as well as initiatives aimed at achieving a mode switch. Only a car park charging regime would provide the catalyst for this fundamental change in travel behaviour.

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Appendix A - Accident Analysis

1 Introduction

1.1.1 This report considers transportation measures to complement a chosen major road scheme for Witney. The need to relieve traffic congestion in the town was identified through the Local Plan process in the mid 1980s, and although progress has been slow, proposals now exist that are the subject of this study.

1.1.2 Planning permission for the Cogges Link Road (CLR), a proposed town distributor road for Witney, linking the B4022 Oxford Hill to Witan Way around the south of the Cogges Estate, was granted by Oxfordshire County Council (OCC) in January 1997. This expired in 2002 due to a funding shortfall and a lack of detailed surveys and design work. The re-submitted application required an Environmental Impact Assessment, detailing a full assessment of the CLR and an alternative solution, involving the provision of west facing slip roads at Shores Green (SGSR) to the east of Witney.

1.1.3 The aim of this study is to evaluate transport measures that could assist in relieving town centre congestion by encouraging use of the chosen scheme, whilst discouraging unnecessary use of congested routes or sensitive areas. It will allow implementation of schemes to improve town centre accessibility for pedestrians, cyclists and public transport. Measures will promote sustainable transport for people working, shopping and undertaking leisure activities in Witney and mitigate the transport impact of new developments in the area over the short and medium term. The measures considered will all concur with the wider objectives of the Oxfordshire Local Transport Plan (LTP) 2006 – 2011 outlined in Section 4 of this report. Consultation on all the proposed traffic management schemes will evaluate the balance between improving facilities and protecting and enhancing the natural environment.

The remainder of this report is set out as follows:

1.2 **Section 2 – The Study Area**

1.2.1 This section shows the extent and nature of the study area where measures are considered.

1.3 **Section 3 – Existing Conditions – Current Problems and Issues**

1.3.1 This section reviews the existing traffic conditions and congestion in the study area, including pedestrian, cycling and public transport provision. The Witney Traffic Model (WTM) has been used to identify the potential for mode switch using the recommended thresholds within Planning Policy Guidance (PPG13). An analysis of the accidents within the study area over the last five year period has also been undertaken.

1.4 **Section 4 – Policy Review**

1.4.1 This section outlines the national, regional and local transport policy pertaining to the study and proposed measures.

1.5 **Section 5 – Impact of Future Development and Traffic Growth**

1.5.1 Consideration is given to the pressures that proposed and committed development in Witney will place on the highway network as well as the opportunities for trips to be undertaken by sustainable modes.

1.6 **Section 6 – Existing Proposals**

1.6.1 This section critically reviews each of the existing studies aimed at reducing traffic congestion and improving provision for non-car modes in Witney to ensure the measures proposed in this report are in full accordance with them.

1.7 **Section 7 – Strategy Development – Complementary Measures**

1.7.1 The WTM was used to test the impact of the specific measures identified for each short-listed major scheme. This section evaluates these measures against their ability to remove traffic from inappropriate routes, particularly for town centre trips, and the potential to meet the objectives of the LTP. Additional measures that will promote mode shift are also discussed.

1.8 **Section 8 – Public Transport Facilities**

1.8.1 The impact of each major scheme on bus services in Witney was considered; along with the opportunity it creates to improve provision in the town. A review of existing bus services was undertaken to identify the potential for a mode shift towards public transport.

1.9 **Section 9 – Pedestrian and Cycling Facilities**

1.9.1 This section assesses the opportunities created by the chosen major scheme to improve accessibility to Witney town centre for pedestrians and cyclists. Additional crossing points and network improvements have also been considered.

1.10 **Section 10 – Costings of Recommendations**

1.10.1 Costings have been produced for each of the recommended schemes.

1.11 **Section 11 – Summary and Conclusions**

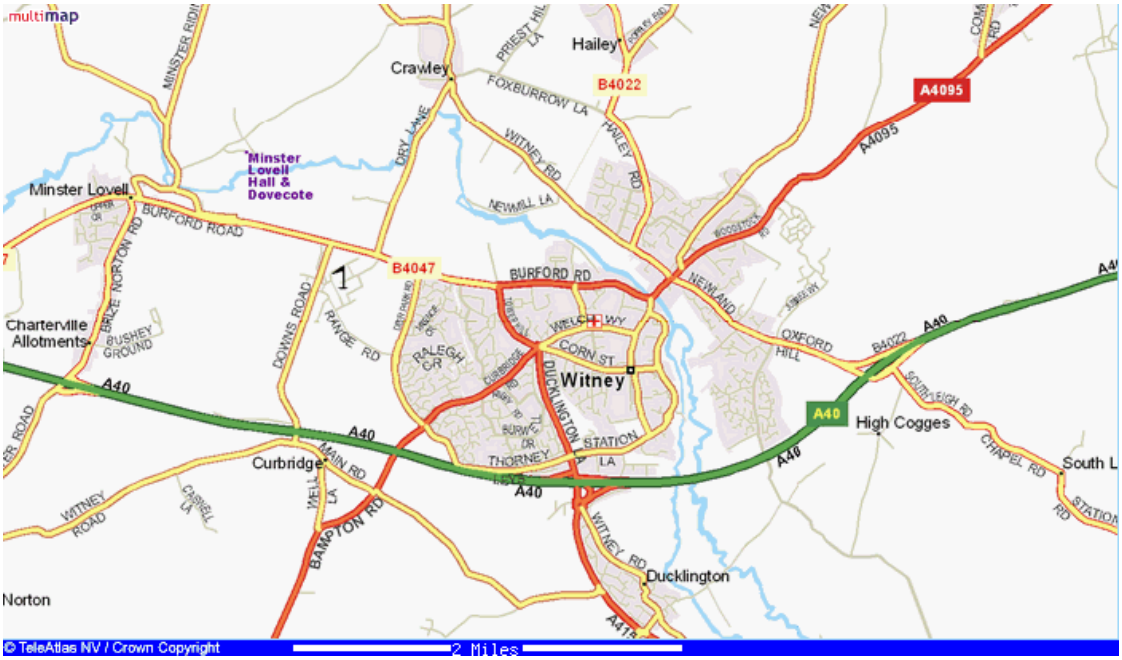
1.11.1 A summary of the key measures assessed in the study is provided, along with conclusions on what can realistically be achieved.

2 The Study Area

2.1 Introduction

2.1.1 The study area is bounded by Downs Road to the west, the A40 to the south, the A4095 Woodstock Road junction with Jubilee Way to the north east and the B4022 Hailey Road and A4095 Burford Road to the north west, encompassing all built-up areas. This is shown in Figure 2.1.

Figure 2.1 – Study Area (Source: Multimap)



2.2 Land Uses

2.2.1 This report examines the problems and opportunities relating to transport for all land uses within Witney.

Land Uses (compete in terms of travel demand and use of network capacity)		
Residential	*Education*	*Food Retail*
Non-Food Retail	*Office*	*Light Industrial*

2.2.2 Witney Town Centre (as opposed to the area covered by the Local Plan Central Area Inset Map) is primarily located along High Street, and incorporates parts of Corn Street, Langdale Gate and Welch Way. The Woolgate Shopping Centre is located between High Street and Witan Way. This area forms the main retail attraction of the town although there are some local shopping precincts within residential areas. Sainsburys and Waitrose supermarkets are located on Witan Way, along with associated car parking facilities.

2.2.3 There are several industrial estates in Witney, with commercial employment mainly concentrated around Station Lane and Downs Road. These include business parks and smaller industrial estates, namely West End to the north, Newland to the east and the centrally located Eagle.

2.2.4 Predominant leisure facilities within the town are located at the recently extended Windrush Leisure Centre to the east of Witan Way, and the Witney Lakes Resort off Downs Road. Additional town centre community facilities include Abingdon and Witney College, Witney Community Hospital, Witney Library, Nuffield Health Centre, and the Police and Fire Stations.

2.2.5 Residential development within Witney is currently bounded by Deer Park Road to the west, Thorney Leys to the south and the A4095 / B4047 Burford Road to the north. The area is characterised by relatively high density housing estates. The residential area extends towards the town centre as far as Holloway Road and Corn Street. The land in between Deer Park Road and Downs Road consists mainly of new employment development and open countryside.

2.2.6 To the east of the River Windrush, residential areas are located in the Newland, Cogges and Woodgreen areas of the town, incorporating the new Madley Park development, as well as along the B4022 Hailey Road. In addition there are several planned / approved new developments within the study area which are discussed in more detail in Section 5.

3 Existing Conditions – Current Problems and Issues

3.1 Existing Traffic Conditions and Congestion

3.1.1 The River Windrush forms a significant barrier to north-south movements within the study area. The single town centre crossing is the low capacity A4095 Bridge Street, which carries over 25,000 vehicles per day. (Source: LTP 2006-2011). This causes significant congestion, particularly during peak hours, along the corridor that encompasses the Mill Street, High Street and Witan Way junctions as well as Newland, West End and Woodgreen Hill.

3.1.2 The A40 forms the primary east-west corridor between Cheltenham and Oxford and also provides a link to the M5 and M40 motorways. The B4047 Burford Road – A4095 Mill Street/Bridge Street – B4022 Newland/Oxford Hill formed the original route of the A40 prior to the construction of the A40 dual carriageway Witney Bypass in 1977.

3.1.3 North-south movements within the study area are served by the A415 and A4095 providing links to Abingdon, Faringdon and Bicester. Witan Way was constructed in the early 1990s at the same time as the Woolgate Centre and associated car parks.

3.1.4 West Oxfordshire has limited access to direct passenger train services and Witney no longer has a railway station. The former Oxford – Fairford branch line was closed to passenger traffic in 1962 when Witney (passenger) station was located on Station Lane, near the junction with Avenue Two. A freight service continued from Oxford to Witney until 1970.

3.1.5 Free parking in the town centre comprises some 1,200 public parking spaces and a similar number of private spaces. Car parks are located on Welch Way, Witan Way and at the Woolgate Centre and Windrush Leisure Centre. Sainsburys Supermarket on Witan Way also has a large free car park. On-street parking is also available within the town centre, including on sections of High Street and Corn Street.

3.1.6 During site visits, many vehicles were parked on double yellow lines in High Street and Langdale Gate, despite the free car parks not being full. Parking along High Street encroaches upon the taxi rank, causing an obstruction to the taxi firms and their customers. Parked vehicles were also observed near junctions, disregarding any restrictions. This can lead to unnecessary congestion and has the potential to cause accidents.

3.1.7 There are no loading bays in Witney town centre which causes difficulties. When delivery vehicles unload on Bridge Street, traffic flow is reduced to one direction. Inappropriate commuter parking occurs in residential areas, particularly near the college in Holloway Road, where the parked vehicles reduce visibility greatly.

Bridge Street and High Street

3.2 Pedestrian Facilities

3.2.1 Witney offers extensive facilities for pedestrian travel. The High Street and town centre can be reached safely from the majority of areas. The pedestrian network in Witney consists of existing footways adjacent to highways and several Public Rights of Way. Within the central area pedestrian routes generally follow the highway, whilst further out they form river crossings, directing pedestrians through large housing areas such as Windrush Valley Estate and Cogges. Details of limitations to the pedestrian network are discussed in Section 9.

3.2.2 Fundamental to the provision of a successful pedestrian network is the location and nature of safe crossing opportunities. Several formal town centre crossing points are located along High Street, Welch Way, Witan Way, Mill Street, Langdale Gate and Corn Street. These are complemented by drop kerbs, central refuges and splitter islands on junction approaches.

Pedestrian Crossings - Langdale Gate and High Street

3.2.3 Witney town centre provides an attractive townscape for pedestrians, but the High Street which is dominated by vehicular traffic and parked cars, significantly impairs its appeal. Various styles of crossing exist along High Street including signals, pedestrian refuges and raised platforms. The crossing points are conspicuous due to the use of tactile paving, whilst build outs along the footway enable good visibility along the road whilst waiting to cross.

There is a raised area along the west side of High Street between the Post Office and Corn Street. Steps are available to reach the footway but there are no facilities for the mobility-impaired. Access to the steps is sometimes blocked by vehicles using a parking bay directly in front of them. During busy shopping times some High Street pedestrians walk on the carriageway, suggesting that the footways are too narrow for the demand.

3.2.4 To the north of Mill Street, there are several housing developments. As an obligation of the planning permission gained for the construction of Woodford Way (West End Link South), pedestrian crossings have been built along Mill Street. These are mainly signalled crossings with tactile paving, which offer a safe route to and from the High Street and shopping area. The large number of pedestrian crossings in Witney raises public perception of safety. More people are likely to travel by foot if there is a clearly defined safe route. Pedestrian guide railing exists in busier areas, for example Witan Way, to hinder crossing in unsafe locations.

3.2.5 Despite the town having an adequate pedestrian network, certain areas do not have safe, desirable routes into town. A prime example is the Staple Hall double roundabout where crossing points are not available on any of the four junction arms, although uncontrolled facilities exist on Newland and West End near to the junction. In addition, narrow footways, such as on Woodgreen Hill and Bridge Street make routes less desirable, creating an unpleasant and intimidating environment for pedestrians.

Staple Hall Junction and Bridge Street

3.2.6 Footways exist along most roads in Witney, although some are undesirable to pedestrians. Welch Way has no facilities on the north side between Moor Avenue and Tower Hill. The footway is discontinued along the eastern side of Witan Way and no provision exists along Woodgreen Hill on the north side of the carriageway between Bridge Street and New Yatt Road. Footways on Woodgreen Hill and Woodstock Road are narrow, whilst none exist along Puck Lane (an access only road south of Mill Street that links to Gloucester Place). Gloucester Place caters for pedestrians along the north side, although the footways are very narrow and obstructed by refuse bins.

3.2.7 Overall, the pedestrian environment in the town is desirable, with recent road developments incorporating landscaped areas. The High Street has wide pavements on both sides of the carriageway as well as crossing points with tactile paving, which improve the town centre environment. The footways include street furniture such as benches and refuse bins, and those near the main shopping area include grass verges to add to the area's attractiveness.

3.3 Cycling Facilities

3.3.1 As with the pedestrian network, cycling facilities in the town are fairly comprehensive, although possibly lacking in crossing opportunities. The cycle network is particularly well developed in the newer residential areas of West Witney (Deer Park) and Cogges.

Existing Cycle Network, Witney (on and off road cycling provision)

Shared use off road path on Oxford Hill (North Side)

Shared use path on Ducklington Lane (East Side)

Shared use segregated cycle path along Station Lane (North Side)

Segregated shared use path on Burford Road (South Side)

Segregated shared use path on Deer Park Road (East Side)

Unsegregated shared use path on Woodstock Road

Advisory on road cycle lane on Woodford Way

Off road segregated use path on Jubilee Way

Off road segregated shared use path linking Witan Way to Church Lane, crossing the River Windrush

Off road shared use cycle lanes throughout Cogges Hill Estate (signposted to town centre)

Shared use off road cycle path between Deer Park Road and Tower Hill, through Windrush Valley Estate

3.3.2 The cycle paths in the area are clearly signed and marked and they are well maintained. Many are relatively new or have been established on the newer roads in the area, for example Woodford Way where the road markings are well defined. The route over the River Windrush accessed from Witan Way has no overhanging vegetation or obstructions. Tactile paving exists at the ends of many of the off-road cycle paths in Witney to draw attention to the change in facility. As with a pedestrian network a key part of a cycle facility's success is the provision of safe crossing opportunities on busy roads.

Toucan Crossing Locations

These facilities enable unsegregated crossing for pedestrians and cyclists

(Note: Cyclists are not permitted to use Zebra, Pelican or Puffin crossings)

Station Lane	Witan Way	Mill Street	Ducklington Lane	Curbridge Road

Cycle Facilities - off-road route over the River Windrush and on-street advisory cycle way on Woodford Way

3.3.3 Witney lies on Regional Cycle Route 47, which links the town to the Gloucestershire Cotswolds. The route between Witney and Farmington to the northwest utilises quiet roads along the Windrush Valley. At Farmington, Regional Cycle Route 48 begins providing a link to Cirencester. The final route through Witney is yet to be agreed. At present no signage exists in the town, but the route is marked from the B4047 onwards towards Minster Lovell, where the cycle path lies parallel to the road.

3.3.4 The High Street has cycle parking including seven wall mounted stands outside the Post Office and a further stand for fourteen cycles in Market Square. There is also cycle parking provision outside the library and in Welch Way using front loading racks. Evidence from site visits suggests there may be insufficient facilities as bicycles were seen parked against shop windows, due to racks being full. A cycle counter exists along the off-road cycle path accessed from Witan Way enabling accurate route usage data to be collected.

3.4 Public Transport Facilities

3.4.1 Witney is linked to Oxford via a network of bus routes and is itself a smaller hub for services to nearby towns. Stagecoach is the largest bus operator in Witney, with a garage in Corn Street, although the town is also served by smaller companies. McLeans provide local services within Witney, whilst others based in nearby towns provide regular services to and from their operating bases. These include Worth's of Enstone and Thames Travel of Wallingford. Witney bus services fall into three broad categories; links with Oxford; links with other nearby towns and local town services. These are described further in Section 8.

3.4.2 The Market Square bus stops are currently located at the far end of the High Street shopping area and allow interchange between all bus services in the town. Passengers, many of whom are elderly or accompanied by pre-school children, are required to walk to reach the shops at the northern end of the High Street. This location allows buses to stop with minimum adverse effect on other traffic. For buses passing through High Street however, taxis appear to take priority in the allocation of road space, followed by on-street car parking. This leaves little space for additional bus stops or for commercial deliveries.

3.4.3 There is a pair of bus stops further along High Street which is located closer to the new shopping developments. The stop on the eastern side (towards the Market Place, outside the Methodist Church) is marked with a standard premium routes flag.

3.4.4 Buses also stop on Welch Way, these serve Witney Community Hospital as well as the proposed Marriotts Close development.

3.5 Potential for Achieving a Modal Shift

Travel by Foot

> "Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips particularly those under 2 km".
>
> *Paragraph 75, PPG13*

3.5.1 The Institute of Highways and Transportation (IHT) in their publication 'Guidelines for Providing for Journeys on Foot' (2000) set out acceptable walking distances which will differ depending on factors such as fitness and land topography. The walking distance acceptability to various attractions is presented in Table 3.1.

Table 3.1 – Suggested Acceptable Walking Distances

	Desirable	Acceptable	Preferred Maximum
Commuting / School	500m	1000m	2000m
Town Centres	200m	400m	800m
Elsewhere	400m	800m	1200m
Bus Stop	300m	n/a	400m
Local Shop	400m	n/a	n/a

Travel by Bicycle

3.5.2 A preferred maximum cycling distance, given reasonable physical conditions is five km as this can be cycled comfortably by a fairly fit person. In addition the relatively flat topography throughout much of Witney is conducive with cycling.

> "Cycling also has the potential to substitute for shorter car trips, particularly those under 5km and to form part of a longer journey by public transport".
>
> *Paragraph 78, PPG13*

3.5.3 Witney has a level of cycle use that is three times higher than the national average. This is recognised in the Local Plan which states that: *"The greatest potential for cycling is within the towns of Witney and Carterton where journeys to work and shopping/recreational trips can be made easily by cycle…"* Witney has an attractive cycle network that is being upgraded and expanded.

3.6 Existing Conditions and Opportunities

3.6.1 The 2005 WTM was used to identify vehicular trips made within acceptable walking and cycling distances.

3.6.2 Table 3.2 demonstrates that a significant proportion of trips could in theory be made on foot or by bicycle.

Table 3.2 – No. of trips made to Witney within 2km and 5km thresholds

2005 Base Year					
Scenario	Matrix Total	Trips < 2km	% < 2km	Trips < 5km	% < 5km
2005 AM Peak	11,269	2,639	**23.4%**	4,644	**41.2%**
2005 PM Peak	11,694	2,801	**24.0%**	4,666	**39.9%**

3.6.3 The Transport Assessment that accompanied the planning application for the Marriott's Close redevelopment concluded that approximately 95% of Witney is within reasonable walking distance of the proposed site. A survey completed in Witney for the Local Transport Plan (LTP) found that 75% of existing visitors to the town centre come from within the town itself. Given these figures, it is clear that the potential for local walk trips is high.

Table 3.3 – Location of Accidents Recorded in Witney, July 01 to June 06

Road	Location		Severity			**Total**
	At Junctions	Between Junctions	Slight	Serious	Fatal	
A415	22	1	23	0	0	**23**
A4095	24	17	37	4	0	**41**
B4022	14	14	20	7	1	**28**
B4047	9	3	7	5	0	**12**
Thorney Leys	6	0	5	1	0	**6**
Corn Street	8	5	10	3	0	**13**
Dry Lane	0	1	1	0	0	**1**
Crawley Road	1	1	2	0	0	**2**
Witan Way	3	1	4	0	0	**4**
Station Lane	5	2	7	0	0	**7**
Welch Way	8	6	12	2	0	**14**
High Street	3	3	6	0	0	**6**
Langdale Gate	1	3	4	0	0	**4**
Burwell Drive	2	2	4	0	0	**4**
New Yatt Road	2	0	2	0	0	**2**
Cogges Hill Road	2	0	2	0	0	**2**
Holloway Road	2	0	2	0	0	**2**
Market Square	2	2	4	0	0	**4**
Moor Avenue	1	0	1	0	0	**1**
Church Green	0	5	5	0	0	**5**
Total	**115**	**66**	**158**	**22**	**1**	**181**

3.7 Accident Analysis

3.7.1 A summary of personal injury accidents at specific locations within the study area for the five-year period 01/07/01 – 30/06/06 is presented in Table 3.3. Road accidents are classified as slight, serious or fatal dependant upon the nature of any injuries sustained. Of the 181 accidents in the area, one was fatal, twenty-two were serious and the remainder were slight.

3.7.2 A full analysis examining accident statistics such as locations, conditions and causes over the five year period is included in Appendix A. This method enables the primary causes of the accidents to be pinpointed according to location and trends identified.

3.8 Conclusions from Accident Analysis

3.8.1 Almost two thirds of accidents occurred at junctions, with 40% of these being along the main A415 or A4095 corridors. The majority of junction accidents resulted from a failure to give way, turning across the path of traffic, pulling out in front of traffic or from rear shunts. Between junctions, most involved pedestrians running into the road or rear shunts and were typically due to human error, mainly failure to look properly or carelessness. No highway defects were identified as contributing factors, although parked vehicles do restrict the view and were cited for several accidents. Few accidents that occurred between junctions resulted in serious or fatal injuries, suggesting that speed was not a major contributor.

3.8.2 Pedestrians and cyclists were involved in several accidents which is typical of town centre environments. These were often caused by human error, for example moving out into the path of moving traffic or as a result of vehicles failing to stop. It is unlikely that physical measures will reduce such accidents, although controlled crossings within the desire lines of pedestrians may bring benefits. Such incidents are typical nationally and local improvements will only have a minimal impact as they are principally down to poor driver behaviour. Awareness may be raised through improved signing, the addition of anti-skid road surfacing or ‘Keep Clear’ markings near junctions.

3.8.3 Most accidents (nine) were at the Ducklington Lane / Thorney Leys / Station Lane signal junction, with rear shunts and turning across the path of traffic being the most common causes. Several also occurred at the Ducklington Lane / Welch Way / Corn Street / Tower Hill Roundabout, mainly as a result of vehicles pulling out into the path of circulating traffic. The road link with the most accidents, due to human error (all eight) was Woodstock Road.

3.8.4 Areas such as Holloway Road with numerous parked vehicles can be intimidating to cyclists and pedestrians. Visibility is reduced, presenting a hazard to vulnerable road users. Another location that may pose a safety concern to pedestrians or cyclists is the Staple Hall junction. This area is prone to congestion and has sections of narrow footway with no controlled crossing areas, decreasing the route’s desirability. Several accidents in this area could have been prevented with appropriate crossing facilities.

4 Policy Review

4.1 Introduction

4.1.1 In developing an approach, detailed consideration must be given to the policy framework within the study area. This section examines the documents relating to traffic, transportation and development in Witney. In particular, the review presents measures and policies that influence the town's future transport programmes and objectives.

4.2 Policy Documents

National Policy

Government White Paper - 'A New Deal for Transport: Better for Everyone' (July 1998)

- Vision for integrated transport policy
- Implementation at the local level through Local Transport Plans
- Focuses on sustainable development and achieving a sustainable transport system by encouraging better integration between land use and transport, tackling pollution and congestion, improving public transport, reducing car use and promoting alternative travel choices.

4.2.1 The principles contained within the White Paper are reinforced within Planning Policy Guidance (PPG) and Planning Policy Statements (PPS). These reflect Government policy on development and its links with transportation and accessibility.

Planning Policy Guidance 13: 'Transport' (PPG13) (March 2001)

- Provides advice to local authorities on how to reduce the need to travel, through good land use and transport planning practices.
- Fundamental principles encourage the implementation of sustainable transport programmes/schemes for people and freight by local authorities.
- Guidance promotes accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling, thus reducing the need to travel by car.

<u>Modal Shift Statements</u>

- There is a strong potential for walking to replace car journeys of under 2km in length.
- Cycling has the potential to replace car journeys of less than 5km or form part of a longer journey made by public transport.

Planning Policy Statement 1: 'Sustainable Development' (PPS1)
Replaces former Planning Policy Guidance 1 (1997)

- Sets out the Government's overarching planning policies on the delivery of sustainable transport through the planning system.
- Works alongside 'The Planning System: General Principles' which explains the hierarchical structure of guidance for planning at all levels.

Planning Policy Statement 6: 'Town Centres' (PPS6)

- Main objective to promote the vitality and viability of town centres by:
  - planning for the growth and development of existing centres
  - promoting and enhancing existing centres through focusing development in these areas
  - encouraging a wide range of services in a good environment accessible to all

4.2.2 The importance of sustainable development is approached as the core principle underpinning planning.

Regional Policy

4.2.3 Regional planning principles are contained in Regional Planning Guidance (RPG) although these are to be replaced by Regional Spatial Strategies (RSS).

'The South East Plan' (RSS9)
Replacement for RPG9 the guidance currently adopted for South East England

- The Plan was submitted to Government on 31/03/2006 and is expected to receive approval in 2008.
- A revised and updated version of the Regional Transport Strategy will form an integral part of the South East Plan.
- It will form a statutory document with which local authority development plans must conform.
- The South East Plan will set out a longer term vision for the region from 2006 -2026, focusing on housing, transport, economy and the environment.
- It will set out the necessary improvements required to ensure that the region remains economically successful and an attractive place to live.

4.2.4 RPG9 provides a framework for development in South East England until 2016 and gives guidance to local authorities for the preparation of strategic and local plan policies. The key objectives of RPG9 for both new developments and transport are 'to enable an urban renaissance, to promote regeneration and renewal, to concentrate development in urban areas and to promote wider choice in travel options, thereby reducing reliance on the private car'.

4.2.5 Chapter 9 provides a framework for targeting investment and development of transport within South East England until 2016. Investment in transport: 'maintaining the existing network, enhancing access as part of more concentrated forms of development, overcoming bottlenecks and supporting higher capacity and less polluting modes of transport'.

4.2.6 The strategic framework set within RPG9 emphasises the need for sustainable development and the promotion of sustainable travel behaviour within the existing Structure Plans, Local Plans and forthcoming Local Development Frameworks.

Local Policy

4.2.7 Local policy that is relevant to this study is laid out in the following documents:

- The Oxfordshire Local Transport Plan 2006 – 2011;
- The Oxfordshire Structure Plan 2016;
- The West Oxfordshire Local Plan 2011.

Oxfordshire Local Transport Plan 2006 – 2011

4.2.8 The Oxfordshire LTP covers a five year period from April 2006 to March 2011 and sets out a vision for transport in Oxfordshire. The overall aim of the Plan is to "improve access to jobs and services, particularly for those most in need, in ways which are both safe and sustainable". Five priority areas are focused on:

- Tackling congestion;
- Delivering accessibility;
- Safer roads;
- Better air quality;
- Improving the street environment.

4.2.9 The LTP includes proposals to improve Witney's transport infrastructure, including funding for improvements to cycling and pedestrian networks and other transport schemes for example road safety improvements and TravelWise Initiatives.

4.2.10 It recognises that the county's worst congestion occurs in West Oxfordshire, with a few key localised problems, largely on routes into the district's main settlements. It states that OCC intends to focus its efforts over the Plan period on the congestion hotspots in West Oxfordshire.

4.2.11 Bridge Street is identified as one such location. The LTP proposes a new relief road to remove traffic from the town centre along with measures to encourage it to use the CLR as well as the provision of enhanced facilities for buses. The scheme is expected to reduce congestion significantly and also improve air quality.

4.2.12 The LTP asserts that the national air quality objectives are exceeded in Bridge Street and consequently an Air Quality Management Area (AQMA) on the route was declared in 2005. OCC has allocated funding for an Air Quality Action Plan measure in its LTP programme, which is likely to include the construction of the CLR as well as complementary measures to encourage traffic to use the new distributor road instead of Bridge Street.

4.2.13 High Street has been identified as an area where transport contributes to an overall problem in the quality of public space. The LTP stresses that High Street is becoming more dominated by traffic and is impairing both the attractiveness of the town centre and its economic and commercial vitality. It again asserts the role the CLR can play in achieving a solution for Witney. It states that this and the West End Link (WEL) proposal should enable traffic management measures to be implemented to reduce or slow traffic through the town centre and improve the environmental quality of the central area, especially for shoppers and visitors.

4.2.14 OCC will continue to secure funding for transport improvements needed as a result of development. These will be implemented as part of the LTP spending programme. The LTP remains committed to implementing the recommendations made as part of the Transport Network Review carried out by OCC in October 2004. This is to ensure measures will be taken on several roads in West Oxfordshire to protect them from excessive traffic, particularly where this bypasses congested locations on the major road network. Included in this is the downgrading of the A4095 (A40 to A420) to a B-class road.

Oxfordshire Structure Plan 2016

4.2.15 The Oxfordshire Structure Plan, adopted in October 2005, sets out a strategic policy framework for the development and use of land in the area and ensures adherence to national, regional and local policy. It stresses that transport and development strategies need to be mutually supportive through the co-ordination of policies and proposals.

4.2.16 OCC's long-term objectives for transport are:

- To manage the county's system of transport networks in support of a strong local and regional economy;
- To improve access to services, particularly for those without access to a car;
- To improve the safety of travel;
- To minimise the impact of travel on the environment.

4.2.17 Several schemes are proposed in the Plan including the CLR which is financed substantially by developer contributions, with any possible shortfall being met by LTP funding.

4.2.18 The Plan contains several policies on the strategy for Witney to adopt, however these will be superseded by the South East Plan in 2008.

Policy T1 'Sustainable Travel'

- Asserts that future transport measures and development proposals should give emphasis to the needs of pedestrians, cyclists and public transport and balance these against ease of traffic movement, thereby improving travel choice and reducing dependence on private motorised travel.
- States provision should be made for servicing, for the needs of disabled people and for promotion of safety.
- Aims to reduce dependence on cars and foster the use of more environmentally acceptable transport.
- Will give priority to pedestrians, cyclists and public transport over ease of traffic movement particularly in town centres, local neighbourhoods and other areas where access is significant.

Policy T2 'Parking'

- Emphasises that a comprehensive approach should be adopted for the provision and management of car parking space with the aim of promoting sustainable travel choices.
- Explicitly states that car parking management is an effective tool that should be included in a transport strategy seeking to reduce travel within an area.
- Stresses that car parking restraint should be accompanied by complementary measures to provide alternative choices to the private car.
- States that where transport strategies have been adopted with the aim of reducing congestion and traffic, their success depends on limiting and managing the use of car parking space in sensitive areas.

Policy T3 'Public Transport'

- Attempts to increase public transport use through the encouragement and promotion of convenient, reliable, secure and high standard public transport services and through improved integration between different modes of transport and interchange facilities.
- OCC will seek improvements to the quality, comfort, reliability and extent of bus services to improve the attractiveness of public transport, helping to cut congestion by reducing the need to travel by private car.

Policy T5 'Networks of routes for pedestrians and cyclists'

- Will be promoted and developed particularly within urban areas and their environs, to improve access to facilities and widen travel choice.
- Supports transport strategy for local areas: local networks should be based on good routes serving town centres, schools, other key sites and routes into urban areas and take into account national networks and recreational routes.

Policy T6 'Networks for motorised travel'

- States that OCC will promote and support a comprehensive strategy for the safe and convenient carriage of people and freight by road, rail or special track.
- Recognises the importance of principal transport corridors in providing access to main development areas for both strategic and local movement.

West Oxfordshire Local Plan 2011

4.2.19 The Local Plan was adopted in June 2006 and sets out West Oxfordshire District Council's (WODC) policies and proposals for the development of land in the district. Witney is recognised as having a number of transport problems including growing traffic congestion; a conflict between vehicles and other road users, environmental damage and pollution; and a lack of available public funding. The Plan remains committed to solving the transport problems facing Witney that were identified in the 1997 Local Plan. In addition to supporting OCC's transport objectives contained within the Integrated Transport and Land Use Strategy, WODC sets out a number of proposals to improve conditions in Witney that they will seek to secure during the plan period.

4.2.20 Policy T4 of the Local Plan covers major highway schemes and states that land will be safeguarded for the following:

- Witney – Cogges Link Road;
- Witney – West End Link (northern section);
- Witney – A40 Downs Road Junction.

4.2.21 A new junction with access to and from the A40 at Downs Road forms Proposal 11. This is intended to serve existing and future development to the west of the town and reduce the increased pressure being placed upon the approach roads to Ducklington Interchange, the existing A40 access.

4.2.22 Proposal 12 'Traffic Management in the Central Core and Fringe Central Area' proposes measures to improve facilities for public transport, pedestrians and cyclists and to reduce the conflict between vehicles and people in the town. Measures recommended include pedestrian priority areas, traffic calming and comprehensive traffic and parking management within the central area of the town. Measures to discourage non-essential traffic movements through the town centre, reduce the speeds of residual traffic and improve the environment and highway safety are also proposed. The strategy also recommends proposals outside the central area, including traffic management and traffic calming measures that will reduce traffic speeds and improve highway safety.

4.2.23 The Local Plan does not include detailed parking policies and proposals. The Structure Plan states that local authorities, such as WODC, should adopt policies that take a comprehensive approach to the provision and management of public and private car parking space in their area, including its charging regime, so as to support transport strategies for their area. Management of off-street car parks is undertaken by WODC through the use of time limits.

4.3 Summary

4.3.1 Local policy documents recognise Witney suffers from significant traffic congestion, an increasing conflict between vehicles and people and rising environmental damage and pollution created by vehicles. These problems are set to worsen with the recent and proposed development in Witney. Several specific policies are aimed at solving the town's transport problems and this strategy attempts to expand on some of the measures promoted for the Witney area.

4.3.2 The over-arching National and Local policy framework is one of integration of transport systems, the provision of opportunities for choice of non-car modes and ensuring that the services are accessible and safe to all in the community.

4.3.3 Key features that emerge from the policy review are:

- Improved public transport services, including delivery of evening services;
- Improved pedestrian and cycle network, with appropriate and safe crossing facilities;
- Parking management measures;
- Urban safety management, including traffic calming measures;

4.3.4 It is clear that local policy has placed great emphasis on the effective integration of cyclist, pedestrian and public transport routes in order to improve accessibility levels for all sectors of the community. In particular it focuses on those with mobility impairments and the more vulnerable groups.

4.3.5 Underpinning all of this is the need to ensure that the safety and security of users of the network is enhanced and that access to recreation is improved. In examining the LTP policies it can be seen that those Local Plan objectives are further clarified with emphasis placed upon road safety improvements, especially for vulnerable members of society, improving sustainable travel patterns and cross modal integration.

4.3.6 The Witney study area with its complex mix of residential, commercial, retail and employment opportunities is a prime location to allow such policies to be enacted, building upon the existing transport infrastructure through complementary intervention measures. This study was undertaken in the light of this understanding of the policy issues.

5 Impacts of Future Development and Traffic Growth

5.1 Introduction

5.1.1 Witney's population has doubled over the last 30 years to 25,000 residents, as a result of OCC's desire to ease the housing pressures on Oxford. It is a particularly attractive location as its transport links give good access to the A40, A34, M4, M5 and M40 routes.

5.1.2 The Oxfordshire Structure Plan sets out the strategy for development and use of land in the county whilst the West Oxfordshire Local Plan sets out the allocations for new development in Witney to help achieve the objectives of the Structure Plan.

5.1.3 A key objective of the Structure Plan is to provide enough new dwellings to meet Regional Planning Guidance requirements on meeting the continuing housing need for the UK. The replacement Structure Plan 2016 distributes 6,800 additional dwellings to West Oxfordshire District during the period 2001 – 2016, of which about 3,000 are allocated to Witney. The Local Plan sets out WODC's policies and proposals for development and land use in West Oxfordshire, including the basis for co-ordinating future housing development.

5.2 Recent Development

5.2.1 Recently, there have been several new residential developments in Witney, including allocated sites from the 1997 Local Plan. Together with sites still under construction, these comprise the following:

- Charter Place – 24 new dwellings located near Church Green (opposite Farm Mill Lane);
- Tower Hill – 61 dwellings;
- Woodford Mill – 55 dwellings off Mill Street, opposite Jacobs Close;
- Bridge Street Mills – located off Witan Way near Windrush View, 226 residential dwelling development, including a retirement home complex; (Note: This was assumed to be 176 dwellings in the traffic model as this reflected the latest information available at the time).
- Early's Mill – 219 dwellings, located off Burford Road.

5.2.2 The major Madley Park development was allocated in the 1997 Plan and has been under construction since 2000. Some 1,150 homes are being built with the last phase due to be completed in 2008.

5.2.3 Planning permission has been obtained for the development of 161 residential units in the former Woolhouse buildings on Dark Lane and Puck Lane, situated off Woodford Way. This development is currently under construction.

5.2.4 Most of the new developments are in sustainable locations on the edge of the town centre. Residents have good access to public transport and have a number of key local amenities within walking and cycling distance. Whilst the locations will assist in minimising additional traffic movements within Witney, they will still contribute to some increase, especially in and around the town centre.

Early's Mill and Bridge Street Mills

5.3 Future Development

Residential

5.3.1 The assessment of future housing supply from windfalls and the identification of larger residential development sites within the existing built-up area were undertaken as part of the Witney Urban Capacity Study. Allocated sites, including those from the 1997 Plan, for which the Local Plan has made provision, include (as presented in Table 5.1 from the adopted Local Plan):

- 20 dwellings off Kingsfield Crescent, located off Newland;
- 50 dwellings as part of a mixed-use development at Buttercross Works, off Station Lane;
- 46 dwellings on land between the eastern section of the CLR and Cogges housing area;
- 185 dwellings as part of a mixed-use development at Marriott's Close, off Welch Way; (Note: This was assumed to be 75 dwellings in the traffic model as this reflected the latest information available at the time).
- Additional development on unidentified sites (or windfalls) within the existing built-up areas taking into account past completion rates on such sites and having regard to Government guidance on urban capacity assessments.

5.3.2 In addition to the above provision, land to the west of Witney (North Curbridge Development Area) has been identified as a reserve site for approx. 800 dwellings, to meet the longer term needs of the community and future housing requirements. An urban expansion towards Downs Road, Curbridge is seen as the most effective planning solution.

5.3.3 As the North Curbridge area is relatively distant from Witney town centre, the Local Plan states that development of the site will only be permitted if proposals to mitigate the impact of associated traffic are included. This includes a comprehensive network for pedestrians, cyclists and public transport, links to adjoining areas and a new A40 junction at Downs Road.

Table 5.1 – Committed and Planned Residential Development in Witney

(Position at 1 April 2005 – adopted Local Plan)

	Number of Dwellings 1996 – 2001	Number of Dwellings 2001 – 2011
Completions	275	875
Dwellings remaining to be built		
North East Development Area *		540
Early's Mill		219
Bridge Street Mills		176
Other outstanding planning consents		212
Additional development on unidentified sites		100 – 150
Allocations		
Newland *		20
Cogges *		46
Marriott's Close, West of High Street *		191
Buttercross Works		50
Witney Total	275	2,438 – 2,488
Reserve Site – North Curbridge Development Area		800

**** = remaining from the 1997 Local Plan***

Employment

5.3.4 With the additional housing forecast for Witney there is a need to provide enough jobs to accommodate the needs of the town's working population. Failure to do this will result in long distance travel to surrounding employment centres. The Local Plan aims to achieve an appropriate balance between the number and type of jobs and the size and skills of the local workforce. This can be achieved by providing employment opportunities for local people, but not on a scale that encourages significant commuting into the area. It recognises that excessive dispersal of employment could impact adversely on the district's high environmental quality, leading to excessive journeys to work by car.

5.3.5 Given the very low levels of unemployment within the district, the Oxfordshire Structure Plan makes no specific provision for land to be released for employment in Witney. WODC have avoided allocating excessive areas of land for employment to minimise pressures on the level of housing provision required.

5.3.6 The Local Plan includes some employment proposals:

- Employment or mixed-use development at Buttercross Works, located off Station Lane;
- Further 12.3ha of land at Downs Road, as part of the existing employment area allocated in the 1997 Local Plan, which has now been largely developed;
- Coral Springs Policy Area – the land located between Curbridge Road and the A40.

5.3.7 The Local Plan states that surveys of new housing in Witney reveal only around 17% of new full-time and half of part-time employees work in the town. This imbalance between local jobs and resident workforce creates significant pressures, with commuting to nearby employment centres being predominantly by car.

Retail / Leisure

5.3.8 Witney is the principal town centre within the West Oxfordshire district. In addition to future residential developments, proposals exist to increase the retail space. Local Plan policies indicate a desire to concentrate new retail development within central areas.

5.3.9 A large scale mixed-use development at Marriott's Close off Welch Way has been allocated in the Local Plan and comprises the following elements:

- A five-screen, 910 seat multiplex cinema;
- 14 new retail units, varying from 18 sqm to 2,000 sqm;
- Ancillary restaurant uses;
- A 656 space multi-storey car park;
- Customer and staff cycle parking facilities (Sheffield stands);
- 185 residential units comprising flats, houses and bungalows; (Note: This was assumed to be 75 dwellings in the traffic model as this reflected the latest information available at the time).
- 50 at-grade parking spaces for use by residents.

5.3.10 Permission was granted (with conditions) in February 2007, and development is expected to commence in 2007/08 with completion due in 2009. This will improve Witney's retail and leisure facilities significantly, reducing leisure-based trips to Oxford as local residents' needs are better satisfied. The substitution of longer primarily inter-urban trips with shorter localised trips will reduce pressures on the highway network. It will provide Witney with a town centre that is commensurate with its size and which is within reasonable walking and cycling distance for a large number of residents. The reduction in trips to other centres would however be offset by an increase in journeys to Witney town centre from its rural hinterland.

5.3.11 An assessment of traffic generation relating to the Marriott's Close development was presented in the Transport Assessment accompanying the planning application and is summarised below in Table 5.2.

Table 5.2 – Marriott's Close Development Traffic Generation

	Arrivals	Departures	Total
AM Peak	66	48	114
PM Peak	187	150	337
Saturday Peak	254	201	455

5.3.12 An extension to the Sainsburys superstore on Witan Way was recently completed to almost double the store's size. Research studies indicate that the number of trips to the store will increase by approximately 40 – 50% of the relative increase in gross floor area. The extension will therefore generate a significant number of additional journeys.

5.3.13 Land to the rear of the Witney Methodist Church, to the east of High Street has been allocated for a mixed-use development. The Local Plan states that appropriate development would consist of shopping, commercial and community land uses with residential use on upper floors. Any proposals will require the provision of a convenient and attractive pedestrian link through the site to High Street. A mixed use development of shops and offices and 20 flats was permitted in 2003 and is now under construction.

5.4 Conclusion

5.4.1 With several new residential developments planned, particularly within the central area, Witney will experience further traffic pressures, although they do provide scope for more non-car travel, due to their close proximity to the town centre. It is also apparent that consideration was given to access design to maximise the potential for alternative modes to be used whilst reducing car dependency.

5.4.2 The main transport challenge in Witney for the foreseeable future will be pressure on the A40 and Bridge Street due to the impact of new developments on the surrounding transport network. Existing and committed employment land to the West of Witney will also require a new A40 junction at Downs Road to protect residential areas from the newly generated traffic. This has been recognised by OCC and WODC.

6 Existing Proposals

6.1 Introduction

6.1.1 When developing an integrated approach to the problems experienced in Witney, any existing proposals, investment already secured through developer obligations and the aspirations of the local population and stakeholders need to be considered.

6.2 Previous Studies

6.2.1 Several studies aimed at reducing traffic congestion and improving provision for non-car modes in Witney are critically reviewed in this section.

Witney Integrated Transport and Land Use Strategy (WITLUS)

6.2.2 WITLUS was first prepared in July 1996 by consultants Llewelyn-Davies. A revised strategy was finally approved by the County Council Executive in December 2003 following further work and debate on issues such as High Street/Market Square and in particular parking management. The CLR is included in the WITLUS and LTP as a scheme to provide relief for Bridge Street, yet there is no reference to it in the statutory part of the Structure Plan.

6.2.3 Several of the agreed aims for the new strategy accord this study's objectives, namely:

- Improve accessibility to facilities within the town, especially those within the town centre, for all people including those whose mobility is limited;
- Promote safer, more pleasant and suitable conditions for cyclists and bus passengers;
- Promote the efficient operation of all traffic types and related activity, including parking.

6.2.4 The strategy also includes measures relevant to this study, including:

- Proposals for the improvement of High Street / Market Square;
- A Parking Management Strategy;
- Cycling and walking improvements (new route development and crossing facilities);
- Public transport improvements (measures to assist buses);
- Changes to the road system, (traffic management).

Witney High Street Pedestrian Improvements

6.2.5 A feasibility study into improving pedestrian facilities on High Street between Welch Way and Corn Street was undertaken by Babtie Group in 2004. It aimed to identify options for improvement of the environment, discouraging traffic through the town centre, widening footways and rationalising signs and street furniture, despite certain constraints that existed.

6.2.6 Several pedestrian improvements were initially considered, including:

- Rationalisation of on-street parking and dedicated parking bays;
- Resurfacing of footways for consistent surfaces;
- Removal or relocation of any unnecessary or badly placed street furniture;
- Improving the aesthetic quality of the street (maintenance and furniture replacement).

6.2.7 Junction improvement schemes were considered to provide gateway enhancements at the north and south entrances to High Street, with additional signs and a change of priority at Welch Way to divert traffic away from the route.

6.2.8 Two options for alterations to High Street at the junctions with Welch Way and Langdale Gate were also presented:

6.2.9 Northern End

- Priority junction at Welch Way with wide pedestrian refuge near the junction to allow a small right-turn lane for waiting vehicles turning into High Street from Welch Way;
- Mini-roundabout at Welch Way, with single lane approaches from each direction and the installation of a zebra crossing on Welch Way immediately west of the junction.

6.2.10 Southern End

- Small kerb build-out by Corn Street and infill between the build-outs by Market Square;
- Large kerb build-out by Corn Street using imprint surfacing that can be over run by buses, and removal of the build-out on the east side of the ramp near Market Square.

Bridge Street, Witney Pelican Crossing

6.2.11 Babtie Group were commissioned by OCC in July 2004 to design and implement a pelican crossing facility on Bridge Street. The report identified the principal desire line into the town along the west side of Bridge Street and across Mill Street. A previous feasibility study had concluded that physical constraints prevented a crossing on the Mill Street desire line.

6.2.12 The consultation suggested three potential crossing locations to several businesses and residents living in the vicinity of Bridge Street. There was strong opposition from local residents to a pedestrian crossing on Bridge Street, with increased vehicle emissions, disruptions to traffic flow and a perceived increase in noise being cited. Recommendations offered by residents included a zebra crossing at either end of Bridge Street, on approach to the junctions with Mill Street and Newland. The report recommended further public consultation and advised new proposals to implement a pedestrian crossing on Bridge Street that would gain local support.

6.3 Committed Improvement Schemes

6.3.1 The effectiveness of recent proposals considered by OCC through negotiations with developers or the LTP process have been examined as part of this study. These include:

Table 6.1 – Proposed Improvements via Development Obligations

Source	Scheme	Funding	Implementation
Developer	Traffic Calming on Woodstock Road near Madley Park entrance	£230k	2006 onwards
Developer	Pedestrian crossing on Bridge Street and/or Witan Way	£85k	Anytime between 2006 and 2016
Developer	Jubilee Way / Woodstock Road signals	£26k	2006 onwards
Developer	Ducklington Lane / Station Lane improvements to junctions near Henry Box School or crossing on Station Lane	£105k	Must be spent by March 2009
Developer	Public Transport infrastructure improvements in Bridge Street area	£10k	Anytime between 2006 and 2016

6.3.2 There are no plans for physical improvement to the highway network as part of existing development proposals. The main contributions will be enhancements to the pedestrian and cycling network within Witney. The Marriott's Close development includes proposals to transform Welch Way into a pedestrian-friendly boulevard with substantial landscaping. This will help create a strong pedestrian link between Marriott's Close and the town's other shops.

6.3.3 The Bridge Street Mills development proposals include pedestrian and cycle links, with public footways along Witan Way and Bridge Street connecting to the town centre and the cycle path link following a direct route through the site. The developer agreed to fund a pedestrian crossing and OCC suggested locating it on the desire line between the new bridge access, town centre and local shops.

6.3.4 Funding for crossings on Bridge Street and Witan Way has been provided by adjacent developers, although the works have not been implemented yet.

7 Strategy Development – Complementary Measures

7.1 Introduction

7.1.1 The aim of the study has been to evaluate those measures that best encourage traffic to use the chosen scheme, and reduce flows through the Conservation Area (CA) and AQMA, as well as on the existing river crossings of Bridge Street and Dry Lane. Trips to or from the town centre were given additional weight in the analysis as these form a significant proportion of the town's traffic. Maximising the volume of town centre traffic that uses the new route will therefore be fundamental.

7.1.2 Whilst many complementary measures will encourage a mode switch, others are targeted at redistributing existing traffic in a way that protects the sensitive areas of the town. It is these that were tested in the WTM by applying network changes representing each scheme. The complementary measures were added to the high growth model (for a worst case scenario) cumulatively, enabling an overall impact to be assessed for an opening year of 2011 and a design year of 2026 with the following schemes:

- Cogges Link Road (CLR);
- All movements junction at Shores Green (SGSR);
- CLR and SGSR with the West End Link (WEL) Phase II added between West End and Mill Street (2026 only).

The only significant non-scheme network change was the addition of an intersection between Downs Road and the A40 to the south-west of the study area in the 2026 models.

7.1.3 Whilst the CLR and SGSR options had performed best in the initial screening of options undertaken for the EIA, the WEL remains a long term aspiration, and as such will have a significant bearing on the benefits derived from any complementary measures.

7.1.4 Complementary measures were not considered in a Do Minimum scenario, as there would be by implication, no scheme to complement. Tests in the traffic model confirmed that adding these to the DM model would exacerbate the current situation and force traffic onto less appropriate routes.

7.1.5 All traffic model outputs for Witney use passenger car units (PCUs) rather than vehicles. This is a standard modelling methodology that takes account of the greater impact of larger vehicles such as buses or articulated lorries.

7.2 The Strategy Elements

7.2.1 The measures proposed in this study take full account of the new WITLUS strategy and those suggested in the Witney High Street Pedestrian Improvement Feasibility Study.

7.2.2 The modelled element covered the following four measures:

- Signalisation of Staple Hall junction;
- Traffic calming along A4095 Woodstock Road/Woodgreen Hill and B4022 Newland;
- Introduce MOVA at the A415 Ducklington Lane / Station Lane signal junction;
- Introduce MOVA at the Oxford Hill / Jubilee Way / CLR signal junction (CLR only)

7.2.3 Each option was assessed by its ability to remove traffic from sensitive areas of the town and attract it to the new major road. This involved the identification of "cost trips" (those in sensitive areas such as the AQMA) and "benefit trips" (those using the new scheme, in particular town centre traffic).The impact of adding each of the above measures was assessed by plotting graphs showing the sum of cost and benefit trips in each scenario. This enabled a comparison to be made on the effectiveness of measures accompanying each scheme. Full details are included in the Traffic Forecasting Report which was submitted as part of the Cogges Link Road Environmental Impact Assessment in 2007.

7.2.4 The following measures were also tested in the WTM but were found to have limited impact in this particular analysis of cost and benefit trips. This does not mean that such measures have no value – they will, but they have been considered in terms of the individual benefits they will bring to the town.

- Traffic calming along Welch Way;
- Closure of Narrow Hill;
- Signalisation of A4095 Bridge Street/Mill Street/ High Street junction;
- Downgrading the A4095 to a B-class road.

7.2.5 For example, the closure of Narrow Hill (a popular rat-run) would do little to reduce traffic passing through the Conservation Area or AQMA as it will simply remain on Woodstock Road, but there would be local benefits to residents and businesses. These would include enhanced safety, reduced noise and improved air quality.

7.2.6 The following measures were not included in the traffic model tests, but are discussed below to examine how they can bring additional benefits to those demonstrated in the traffic model.

- Signing strategy in Witney, post major scheme;
- Parking management strategy;
- Improvements to the Pedestrian and Cycle Network;
- Improvements to the Public Transport Network.

Modelled improvements: Signalisation of Staple Hall Junction

7.2.7 The existing double roundabout at Staple Hall currently experiences traffic congestion throughout the day, particularly during the peak hour periods. The junction is heavily constrained by the close proximity of buildings, meaning it is unlikely that any significant capacity increases could be achieved without substantial cost.

7.2.8 A signal-controlled junction can be accommodated within the existing highway boundary without compromising minimum highway standards and safety, although insufficient space exists to provide flares catering for right-turning traffic. It was modelled to allow one movement at a time with a long inter-green to allow traffic to clear.

7.2.9 Adding traffic signals would reduce the junction's attractiveness as a route for accessing the town centre. The 'gating' effect (i.e. allowing separate platoons of traffic to pass through at regular intervals) can limit traffic entering the AQMA and allow queues to be held back in less environmentally sensitive areas. The main purpose of this measure however is to make the alternative major scheme a more attractive route, although attention must be given to the potential of transferring the problem elsewhere (e.g. Dry Lane River crossing to the west).

7.2.10 Signalisation can improve facilities for pedestrians and cyclists if a dedicated stage exists, thus enhancing access to the town centre from the residential areas in Woodgreen and Hailey Road. Previous studies have revealed a significant pedestrian demand exists here, with great difficulty being experienced crossing Bridge Street in particular. A pedestrian stage would alleviate this and assist in delivering the accessibility and safer roads objectives with the Oxfordshire LTP 2006 – 2011.

7.2.11 The major disadvantage of traffic signal control is that queuing may continue throughout the day, although much of the demand here will have been displaced (e.g. to the CLR). Retaining the current arrangement would not allow satisfactory provision for pedestrians and cyclists, although this issue may be resolved with the provision of a Puffin crossing on Bridge Street. This is discussed in more detail in chapter 9.

Impact of introducing Staple Hall signals

7.2.12 The traffic model shows that introducing signals at Staple Hall would have by far the biggest positive impact in reducing cost flows and increasing benefit flows. In the 2011 CLR scenario (see Figure 3.1 of the Traffic Modelling Forecast Report), the net reduction in cost and benefit flows following signalisation is over 9,500 pcu movements (-32.6%). In the Shores Green alternative, the reduction is almost 13,000 (-37.0%), although overall the net figure remains higher than in the CLR scenario. In this respect, the CLR out-performs the SGSR option by 11.6% overall with the signals in place.

7.2.13 Introducing this measure in 2011 results in over 1200 peak hour trips switching to the CLR (+53.5%). In the SGSR scenario over 750 switch to use the slip roads. Of the 1,926 SGSR slip-road trips however, only 458 (23.8%) are to or from town centre destinations (this is the sum of both peak hours). In the CLR option, there are 3,605 peak hour trips using the CLR of which 2,322 (64.4%) are town centre trips. This means that 1,864 town centre trips that would use CLR are still using alternative routes such as Bridge Street in the SGSR option.

7.2.14 The SGSR option does give a greater reduction in trips passing through the CA. This is principally because the western end of the CLR passes directly into the CA, although the majority of trips here do not pass right through the CA (i.e. they would enter / leave the CA in any scenario). The SGSR option would also reduce the need for vehicles to drive through central Witney to access the westbound A40, although relatively few through movements of this type exist (see Table 7.1).

Table 7.1 – A40 Through Trips with Shores Green Slips and Staple Hall Improvement

	2011 AM	2011 PM	2026 AM	2026 PM
Off-slip through trips	102	109	197	348
% of slip road flow	26	18	40	40
On-slip through trips	71	39	357	249
% of slip road flow	12	12	46	33

7.2.15 Although in 2026 the CLR out-performs SGSR by less than in 2011 following signalisation (6.5%), the pattern is similar overall and when considering the trips switching to the new scheme. The impact on the AQMA is slightly greater in the CLR scenario, yet this is offset by the huge difference in benefit flows. (See Figure 3.9 of the Traffic Modelling Forecast Report). With the addition of the West End Link however, the CLR option out-performs SGSR in every traffic aspect following signalisation (21.4% overall – see Figure 3.15 of the Traffic Modelling Forecast Report). The inclusion of the A40 / Downs Road intersection in 2026 does however result in more traffic using the SGSR slip roads to access the A40 west of the A415.

Modelled improvements: Traffic Calming of Woodstock Road / Woodgreen Hill and B4022 Newland

7.2.16 The second complementary measure added to the traffic model was the addition of traffic calming on the eastern and northern approaches to Staple Hall. With the positive impact of the signals measure, this was added to discourage more traffic from heading into Bridge Street, encouraging it instead to use the new scheme. Although it is recognised that this will be controversial among locals, the removal of unnecessary trips from this area will improve those journeys where Staple Hall and Bridge Street still form the most appropriate route however.

7.2.17 This is predominately a residential area with access to many individual properties and a speed limit of 30 mph. Traffic calming is an important way to reduce the impacts of vehicular traffic, especially in residential areas. It is the ideal solution when there is excessive traffic on a route, or passing through an area, and when a more suitable alternative exists. Vehicles currently dominate this area, diminishing the quality of life for residents, and the pupils of Wood Green and Madley Brook Primary Schools.

7.2.18 Traffic calming delivers safer and more amenable streets to vulnerable road users by reducing accidents and improving the environment through better driver behaviour and awareness. It also promotes alternative modes of transport by slowing traffic and increasing awareness of the surroundings. In addition, the balance of priority moves towards pedestrians and cyclists. This can reduce accidents and improve the local area for recreational activities. Evidence suggests that vertical deflection methods such as road humps and speed cushions are the most effective at reducing speeds and accidents. If speed cushions are installed, traffic flow reductions can be less extensive as they are less severe than other vertical deflections.

7.2.19 As well as encouraging the use of the major scheme, some traffic may transfer onto New Yatt Road, providing an alternative east-west route to the A4095. This attractive through route has recently been traffic-calmed with a chicane system west of Early Road to reduce unsuitable use. Such measures are less effective during peak hours due to the unequal directional traffic flows; therefore further measures may be required here.

7.2.20 There were 14 accidents on Woodgreen Hill / Woodstock Road in the last five years, of which four involved pedestrians or cyclists. Road humps and speed cushions can reduce accidents by between 50% and 75%, whilst the severity of injuries that do occur can often be reduced due to lower vehicle speeds. This will assist in fulfilling the safer roads objective within the Oxfordshire LTP 2006 – 2011.

7.2.21 The reduction in overall vehicle speed will depend on the height and spacing of speed humps. Average speeds below 20 mph can be achieved with 75mm high speed humps placed 70m apart. (Further guidance is contained in The Highways (Road Humps) Regulations 1990 for England and Wales). It will also contribute to improved perceptions of safety for pedestrians and cyclists. Any speed reduction achieved along the route would also complement future safer routes to school strategies locally.

7.2.22 Cyclists' needs must also be incorporated into the design of any traffic calming features. A balanced approach should therefore be adopted, as measures will also need to minimise impacts on bus services.

7.2.23 Flat-top speed humps provide smooth and easy crossing places for pedestrians. There is an existing raised zebra crossing on Woodstock Road outside Wood Green School. Additional crossings along Woodgreen Hill / Woodstock Road proposed as part of this strategy (see section 9) in conjunction with the flat-top humps would help the area to appear more pedestrian-friendly and less attractive as a through route for traffic.

7.2.24 A 'gateway' feature is also recommended on Woodstock Road, south of Jubilee Way to draw drivers' attention to the significant change in the road environment, i.e. the commencement of a residential area and of an urban traffic-calming scheme. Such features help designate areas where lower speeds are desirable and where additional engineering measures or enforcement effort can be expected. It is proposed that the gateway should comprise of 300mm wide build-outs on either side of the carriageway, coupled with 30 mph vehicle-activated speed limit signs, however the applicability of these measures will be considered in greater depth as the scheme options are developed.

Impact of introducing Traffic Calming

7.2.25 The model shows that traffic calming benefits the network in the CLR scenario more than the SGSR alternative. In 2011, CLR out-performs SGSR by 17.8% overall with both the Staple Hall and traffic calming measures in place.

7.2.26 By 2026, CLR out-performs SGSR by 7.8% overall, although this increases to 24.9% with the addition of West End Link. Much of this additional benefit is derived from a large reduction in AQMA through trips.

Introducing MOVA at the A415 Ducklington Lane / Station Lane Junction

7.2.27 If junction reconstruction is not feasible, a MOVA signal-control strategy should be considered here, as it is an ideal improvement where there are prolonged periods of congestion resulting from high flows. MOVA determines the optimal signal timings which will maximise the junction's capacity under the prevailing traffic conditions. The program monitors conditions during over-saturated periods and when appropriate, selects and implements the cycle time that maximises capacity. TRL/DfT trials indicate that MOVA reduces delays by an average of 13%.

7.2.28 Historically, the A415 Ducklington Lane / Station Lane junction has experienced delays during busy periods of the day. Traffic is predicted to grow in Witney as a result of committed developments in the area; therefore any measure that helps ease the pressure at this junction will be of some benefit. In the CLR scenario, the Oxford Hill / Jubilee Way / CLR junction was also modelled to represent the MOVA improvement added, as the increased demand does reduce the capacity here. It is unnecessary in the SGSR scenario as demand is low enough for the existing arrangement to cope.

Impact of introducing MOVA

7.2.29 The model shows that MOVA benefits the network in the CLR scenario more than the SGSR alternative. In 2011, CLR out-performs SGSR by 22.5% overall with the Staple Hall, traffic calming and MOVA measures in place. By 2026, CLR out-performs SGSR by 7.5% overall, although this increases to 24.2% with the addition of West End Link.

7.2.30 The new A40 junction on Downs Road in 2026 will serve employment and residential areas to the west of the town and help reduce the impact on Ducklington Lane / Station Lane junction for vehicles currently accessing the A40. Table 7.2 shows that the level of through trips on the Shores Green slips with all three complementary measures in place is largely unchanged from those in Table 7.1 (Staple Hall measure only).

Table 7.2 – A40 Through Trips with Shores Green slips and Staple Hall, Traffic Calming and A415 MOVA Improvements

	2011 AM	2011 PM	2026 AM	2026 PM
Off-slip through trips	85	115	153	320
% of slip road flow	22	19	35	38
On-slip through trips	70	41	358	254
% of slip road flow	11	12	38	32

Physical Recommendations

1. Replace Staple Hall Roundabouts with signal arrangement
2. Traffic calm Woodgreen Hill and Newland on approach to Staple Hall
3. Add gateway feature on Woodstock Road
4. Install MOVA at Ducklington Lane / Station Lane
5. Install MOVA at Oxford Hill / Jubilee Way (CLR scenario only)

7.3 Other measures not included in the final traffic model

Traffic Calming along Welch Way

7.3.1 This forms part of the Marriott's Close development in which the eastern end of Welch Way would become a boulevard, allowing limited access by vehicular traffic. Traffic calming was tested in the traffic model but was found to have minimal impact on the overall assessment of cost and benefit flows. Locally, it results in some trips switching between Welch Way and Corn Street.

Closure of Narrow Hill

7.3.2 This option would force rat-running traffic to remain on Woodgreen Hill, thus making the Staple Hall route less attractive. Tests in the model showed that this would merely add to delays at Staple Hall rather than help divert traffic onto either of the major schemes. Furthermore, the removal of traffic from the area created by other measures such as traffic calming results in a reduced demand to use Narrow Hill anyway.

Signalisation of Bridge Street / Mill Street / High Street Junction

7.3.3 It is assumed that this improvement will be present in all "Do Something" scenarios that have been modelled. As such the impacts of this individual change are represented by the basic forecasts before any complementary measures are added (see Traffic Forecasting Report for details).

7.3.4 As with Staple Hall, land is largely constrained by the proximity of buildings and by the River Windrush. Large scale improvements to increase the junction's capacity are therefore impossible, although a signal-controlled arrangement can be accommodated within the existing highway boundary. A dedicated pedestrian phase would improve facilities for those travelling on foot to the town centre. Previous studies have identified a significant pedestrian desire line on Mill Street the provision of this phase would therefore help achieve a continuous pedestrian route into the town centre for north Witney residents.

7.3.5 Co-ordination of signals between this and the High Street / Witan Way junction would allow for more efficient movement of traffic in the area. Linked signal operation is particularly effective for 'gating' to relocate queues and can help prevent exit blocking of junctions which can cause substantial traffic delay or impede buses.

Downgrading the A4095 to a B-class Road

7.3.6 The A4095 forms a rural link between Bicester and Faringdon passing through Witney. Journeys between the two towns however, are better served by the A420 and A34. The main purpose of the A4095 is to provide a link for residents along the route to access the principal routes of the A40, A44 and A420. The Transport Network Review (TNR) completed by OCC in October 2004 developed a long-term strategy for the development of the county's strategic transport networks and set out a detailed road hierarchy. This assists OCC in decision making on vehicle routing and signing, and to an extent, the route standard including the speed limit. The review identified that the A4095 is not currently of an appropriate standard for its role in the hierarchy. OCC therefore proposed to implement appropriate measures to downgrade the route to a B-class road between Faringdon and Witney.

7.3.7 The Oxfordshire hierarchy asserts that the primary role of A-roads is to link settlements to major roads and provide missing links in the network, whilst B-roads link these to and between local areas. National guidance states that A-class roads are typically between five and twenty-five miles long and attach 'A' roads to each other. In this respect, although the A4095 route exhibits these characteristics overall, to the south of Witney the A361 and A415 provide alternative north – south non-primary routes between the A420 and A40, and can better fulfil this function. The TNR recommended that the B4477 is upgraded to an A-class road to reflect the increase in size and importance of the town, and providing an alternative north-south route. To this end, the recommendation to downgrade the A4095 between Faringdon and Witney is adhered to.

7.3.8 The existing highway network leads drivers from outside the area to choose the A4095 route through Witney. It is considered that the Woodstock Road / Woodgreen Hill / Bridge Street route is unsuitable for its current role as an A-class road due to its residential nature, its proximity to schools, the narrow width of the road and the high level of on-street parking.

7.3.9 Reclassification would be more representative of the route following additional enhancements proposed in this study, especially as some measures will alter the route's image. It would also encourage less familiar drivers to use the alternative Jubilee Way / CLR to access Witney town centre or less commonly, as a through route.

Signing Strategy in Witney, Post Major Scheme

7.3.10 An important element of encouraging traffic to use the chosen scheme is an appropriate signing strategy that utilises the most appropriate routes for through traffic and local access to the town centre. Advance directional signs are those on the classified road network to strategic and local destinations, i.e. towns and villages within the study area. It does not usually include signing to local attractions. Better signing will assist in fulfilling the safer roads objective within the Oxfordshire LTP.

7.3.11 Witney's highway network should be adequately signed to assist drivers unfamiliar with the area to continue their journey efficiently, along suitable roads. Better signing will reduce the unnecessary vehicle mileage that adds to local congestion and help keep traffic on suitable routes following the introduction of the major scheme.

7.3.12 It is recommended that improved directional signing is located on the A4095 at the junction with Jubilee Way and Woodstock Road to encourage southbound traffic to use the CLR as a through route and as the primary method of accessing Witney town centre rather than the existing Bridge Street route. Although it is common practice to sign local destinations on minor roads, it is recommended that Witney town centre; the A40 and the A415 are explicitly signed along Jubilee Way. A change in traffic priority was achieved with the completion of Jubilee Way, where vehicles travelling southbound along the A4095 must give-way to northbound traffic before turning right into Woodstock Road. This measure encourages traffic to continue along Jubilee Way although on-site observations have indicated that a significant amount of traffic still continues into Woodstock Road.

7.3.13 At present Jubilee Way / CLR are to be unclassified routes. It is illogical to sign traffic to use this route rather than the existing A-class road for which traffic is seemingly intended. Should the A4095 be downgraded and Jubilee Way / CLR remain unclassified it would remain irrational to direct traffic to an unclassified route instead of a B-class road. It is therefore recommended that the entire Jubilee Way / CLR route is upgraded from its current unclassified status to a B-class road to reflect the increase in size and importance of the route. The TNR states that any proposed upgrading should not generally occur unless the route is of the appropriate standard; however Jubilee Way and the CLR will meet this requirement.

7.3.14 This should also be done in conjunction with the downgrading of the A4095 Woodstock Road to a B-class road between Jubilee Way and Faringdon. Consideration should also be given to upgrading the section of Station Lane between the A415 Ducklington Lane and the Witan Way / CLR roundabout to a B-class road to provide a continuous through route between the A40 and the existing A4095.

7.3.15 As stated above, B-class roads normally include signing for local areas rather than longer distance and primary destinations. Such local destinations signed in Witney should include small neighbourhoods, industrial estates and public buildings. As part of the signing strategy however, it is recommended that Witney town centre, the primary route highway network (i.e. the preferred access to the A40 and the A415), and the proposed new B-classification of Jubilee Way / CLR, are clearly signed on approach to central Witney, from Burford Road, Hailey Road and Newland / Oxford Hill.

7.3.16 At present, access to the town centre at Staple Hall is signed along Bridge Street. It is recommended that following the construction of the CLR, the town centre is signed along the B4022 to Oxford Hill and the CLR. Whilst this may not be adhered to by all local residents, it will provide some benefit and indicate OCC's preferred route for vehicles. Such a sign would be inappropriate at this location in the SGSR scenario due to the longer distance involved. Clear direction signing should however be added here and at the Jubilee Way / Oxford Hill junction to indicate that the westbound A40 can be accessed via Oxford Hill (east).

7.3.17 For northbound through movements, encouraging traffic that currently uses the A415 and A4095 to use the CLR / Jubilee Way will require additional direction signing. If feasible, it may also require modifications to the Ducklington Lane / Station Lane junction to allow a greater green time to the preferred movement, although the MOVA measure outlined above should help accommodate this.

Road Hierarchy & Signing Recommendations

6. Downgrade A4095 to B status between Faringdon and Witney
7. Improved directional signing to town centre at Jubilee Way / Woodstock Road
8. Upgrade Jubilee Way / CLR route to B status
9. Town centre and primary route network to be clearly signed from Burford Road, Hailey Road and Oxford Hill

Parking Management Strategy

7.3.18 The Oxfordshire Structure Plan 2016 explicitly states that local authorities should adopt policies that take a comprehensive approach to the provision and management of public and private car parking space in their area, including its charging regime, so as to support transport strategies for their area. It states that where transport strategies have been adopted with the aim of reducing congestion and traffic, their success will depend on limiting and managing the use of car parking space in sensitive areas.

7.3.19 WODC currently operates a policy of providing free car parking throughout the District, including Witney, although this is subject to time restrictions. This strategy is based on the recognition that the main centres serve a large rural area, where alternative transport options to the car are limited. WODC monitor the use of car parks in Witney to ensure time limits are not exceeded; short stay constitutes one hour or up to three hours' duration and long stay up to twelve hours.

7.3.20 The existing large surface car park off Welch Way is to be redeveloped as part of the new mixed use (retail/leisure/residential) Marriotts Close scheme. This will fundamentally affect car parking patterns and modal choice over the next two years and beyond. A multi-storey car park will be provided to serve the new development. As part of this scheme the amount of long stay public car parking in the town will be reduced and more one hour limits will be introduced. The Council regularly monitor their approach to car parking management and the situation will be reviewed further once the Marriotts Close development is operational.

7.3.21 Historically, Witney has performed the role of a small market town where the availability of free parking was previously a reflection of low demand for spaces in the town centre. At present however, as a result of the town's rapidly expanding population, demand for parking in the town centre has increased substantially and is now approaching, and at times exceeding, the supply.

7.3.22 Changes in Government policy since 1998 and the desire to manage demand of private car use, as well as improving the integration of land use and transport planning, have resulted in the need for more stringent local authority polices towards parking provision than those currently exhibited in Witney.

> PPG13 states in paragraph 49, *"The availability of car parking has a major influence on the means of transport people choose for their journeys."* The document goes on to say that *"the level of parking in a town can be more significant than levels of public transport provision in determining means of travel (particularly for the journey to work) even for locations very well served by public transport."*
>
> Paragraph 57 asserts that *"Car parking charges should also be used to encourage the use of alternative modes. Local authorities should set out appropriate levels and charges for parking which do not undermine the vitality of other town centres."*

7.3.23 The current regime of free parking throughout Witney can discourage the use of alternative modes of arrival to the town centre, where alternatives exist. PPG13 encourages the use of adequate enforcement measures to control on-street parking. In Witney, such enforcement appears to be lax at present, due to the current management arrangements. The County Council are responsible for on-street parking whilst the District Council manage off-street public car parks. In addition there are numerous small privately owned car parking areas.

7.3.24 A reduction in parking provision, relocation of facilities or the introduction of charges are three mechanisms available to WODC to control and possibly limit traffic levels entering the town centre. If controls are used in conjunction with the provision of alternative transport modes, they would provide a means of targeting and modifying demand management polices that greatly enhance the strategy's effectiveness as a whole.

7.3.25 Acceptance of parking charges may be greater if revenues were used for local public transport or environmental improvements. By removing or relocating obtrusive parking, the town's attractions may also be enhanced, thus improving the town centre's viability.

7.3.26 The IHT document Parking Strategies & Management, (July 2005) provides advice for local authorities on implementing parking strategies. It states that where they provide free off-street parking they incur significant costs in terms of maintenance, cleaning, land rates, and the opportunity cost of the site. It concludes that they are subsidising the users of the car parks and should consider whether this is the best use of their funds.

7.3.27 It adds on page 98 that *"the pricing of parking facilities is one way of directly affecting the cost of car journeys relative to other modes. Ideally the price of public and private transport modes should be coordinated in order to achieve mode split objectives."* It is apparent that without the introduction of parking charges in the town centre it will be difficult to achieve a modal shift in Witney. At present, the presence of free parking forms a fundamental barrier to the implementation of a successful integrated transport strategy for Witney.

7.3.28 The pricing structure should reflect the relative demand for parking, which in turn reflects the attractiveness of the town centre. In setting appropriate tariffs it is important to understand the current parking behaviour of visitors to Witney. If the majority spend under an hour in the town centre, this should be reflected in the pricing. Similarly, if a problem exists with commuters parking all day, the tariffs should target this.

7.3.29 Witney does not compete with similar sized towns for retail trade. Banbury and Bicester are the closest 'main towns' identified in the Oxfordshire Structure Plan but are too distant to form realistic alternative destinations. Abingdon, Carterton, Chipping Norton, and Faringdon are ranked as the next tier of towns but offer far less retail choice than Witney. The main alternative shopping destination is the principal location of Oxford. It would not therefore be necessary for WODC to liaise with adjacent authorities to ensure charges in comparable sized towns are similar, as Witney does not directly compete with any such town.

Parking Management Recommendations

10. Introduce an on-street parking charge with loading bays added on High Street. A low tariff (e.g. 20p/hr) should be introduced initially with a maximum daily charge, but this should be revised upwards annually.

11. The charges should also be adopted at the Welch Way, Woolgate Centre, Windrush Leisure Centre, and Witan Way car parks.

12. Introduce greater enforcement of parking regulations in the town centre.

Improvements to the Pedestrian and Cycle Network

7.3.30 Improvements in pedestrian and cycling facilities will make these modes more attractive and improve access to other modes, particularly bus services. These measures are discussed in more detail in chapter 9.

Improvements to the Public Transport Network

7.3.31 The chosen major scheme will potentially allow for improved bus service routes in the town. This includes the potential for bus priority measures to be implemented. These measures are discussed in more detail in chapter 8.

8 Public Transport Facilities

8.1.1 The chosen major scheme will create opportunities to implement wider initiatives to improve accessibility to Witney by public transport. An analysis of local bus service effectiveness has therefore been undertaken as part of this study.

8.1.2 Public transport priority measures on the A4095 and within Witney have been considered, but the town's urban fabric precludes many measures due to the proximity of buildings. Instead therefore, this section examines how bus services can be tailored to add to the benefits offered by either the CLR or SGSR scheme. There is scope for some of the measures to be implemented prior to the approval and implementation of the chosen scheme if they are deemed advantageous.

8.2 Bus Services in Witney

8.2.1 As indicated in Section Three, Witney's bus services can be divided into the following three categories:

- Links with Oxford;
- Services to nearby towns;
- Local town services.

Links with Oxford

8.2.2 Witney is well connected with Oxford, a key destination and bus / rail interchange. Service frequency exceeds that available in many urban locations and they operate evenings and Sundays.

8.2.3 The main services are:

- Stagecoach 100 – a high quality link using low floor buses, passes Oxford rail station and is designated as a quality service.
- Stagecoach 200 - provides supplementary journeys at shopping times from Monday to Saturday. (This becomes the X1 at peak times providing a fast service from Carterton to Oxford via the Witney Bypass).

8.2.4 The combined weekday daytime frequency of six or more buses per hour is sufficiently high for passengers to "turn up and go" without consulting a timetable. Services between Oxford and Witney operate daily, including Sunday and extend through the evening and into the early hours.

8.2.5 Routes 100 and 200 are designated bus routes and as a result will benefit from investment in newer buses and Real Time Passenger Information on buses and at bus stops within the next year.

Services to Nearby Towns

8.2.6 Stagecoach provides regular links with Carterton on a commercial basis by extension of Oxford – Witney services 100 and 200. The combined weekday off-peak frequency is four buses per hour reducing to every 30 minutes on weekday evenings and every 30 or 60 minutes on Sundays.

8.2.7 Other regular services operate between Witney and Abingdon (Thames Travel), Chipping Norton via Charlbury (Worth's of Enstone) and Woodstock via Long Hanborough (Stagecoach). These run hourly during daytimes from Monday to Saturday, but lack evening journeys. Sunday services are restricted to two round trips to Wallingford via Abingdon (Thames Travel). Witney is also served by less regular services, some operating less than daily, tailored to the shopping needs of surrounding rural communities.

Services to Residential Areas within Witney

8.2.8 Local services to residential areas within Witney are provided by:

- Town bus services operating circular routes from the town centre through residential areas and back to the town centre;
- Operation of Oxford – Witney – Carterton service 100 through residential areas to the south west of the town centre.

Local Town Services

8.2.9 At the time of the initial study, three local services operated wholly within Witney under contract to OCC. These comprised two one-directional circular routes, one in the west of the town and the other in the north, plus a separate service to Cogges Estate. Following re-tendering, the northern circular route operates in both directions and has been widened to include Cogges Estate, formerly served by a separate service. All town services are now operated by Stagecoach.

Routes

213 – operates on a circular route from Market Square through the northern part of Witney, then via Madley Park, and Jubilee Way, a detour into Cogges Estate, then returning to Market Square via Bridge Street.

214 – similar to service 213 but makes the circle in the opposite direction.

215 – operates on a circular route from the Market Square through the north west of Witney back to Market Square.

8.2.10 Services 213 and 214 combine to give an hourly service to the north part of the town. Off peak frequency is every two hours in each direction around the circular route. Peak time services follow route 213 and omit Cogges Estate. Service 215 serves western Witney by following a circular route in one direction only. The timetable enables one bus to operate all journeys on the three town services. They do not operate on Sundays or Bank Holidays.

8.2.11 Away from the town centre, the town services operate on a “hail and ride” basis. There are no formal bus stops as passengers are picked up and set down at safe points. This minimises walking distances, but a lack of shelters and timetable displays means no indication is given of available services or expected arrivals.

8.2.12 Services 213, 214 and 215 provide a connection with the town centre for an established clientele who have no alternative means of travel. The low frequency cannot match the convenience of car travel and circular routes extend travel times for many journeys. Fares on Witney town services are similar to other Oxfordshire market towns but travel cost compares unfavourably with free car parking, particularly if people travel together.

8.2.13 Bridge Street, Newland and Oxford Hill are served by six buses an hour and many people from areas with a less frequent service walk to the main road to catch these services. Tower Hill and Burford are also well served with a 30 minute service on route 200.

Service Extension and Diversions within Witney

8.2.14 In contrast to other parts of Witney, Burwell Drive and Thorney Leys have regular services throughout each day. Low floor buses on Service 100 (Oxford – Witney) extend to Thorney Leys every 15 minutes during weekday daytimes, whilst evening and Sunday services operate every 30 to 60 minutes. Alternate journeys extend to Carterton during both periods. Throughout the 100 route, bus stops with passenger information are provided and many have shelters. Attractive frequency and high quality buses results in higher patronage on Service 100 than on other local services in Witney. Nevertheless, car travel remains an attractive alternative for local journeys due to the town centre’s free and abundant parking.

Bus Routes within Central Witney

8.2.15 Bus stops at Market Square are the focal point of services in Witney. Two lay-bys, one on either side of the road, each accommodate two bus stops. Passenger shelters with seating are located between each pair of stops. Timetables and route details are shown on the individual stops where services call but there is no central map or tabulation showing where to catch particular services.

8.2.16 All services in Witney call at Market Square, allowing interchange between different services. Buses departing via Bridge Street use the stops on the western side of Market Square. Arrivals on these routes and other departing services use the eastern side. Most services from the eastern side of Market Square depart via Corn Street. The Market Square bus stops cause little conflict with other traffic as they are located at the southern end of the High Street shopping area.

8.2.17 Two buses can stop simultaneously in each lay-by at Market Square but congestion results if they wait for longer than necessary. One route therefore extends to Sainsburys whilst Service 100 extends to Thorney Leys or Carterton.

8.2.18 Other than Market Square, the centre of Witney has few bus stops. Buses departing via Bridge Street have an additional stop towards the northern end of High Street between Welch Way and Witan Way. Those arriving via Bridge Street set down passengers just north of the High Street / Welch Way junction but, as there are no marked bus stops here; passengers have no boarding point between Newland and Market Square.

8.2.19 Recent route changes have reduced the number of buses using Welch Way. Only a circular hourly town service (215) and the Abingdon service (X15) now serve the bus stop opposite the library, and there are no regular buses in the opposite direction.

8.2.20 The lay-by outside Sainsburys attracts few passengers but allows terminating buses to wait away from the town centre. Following recent service changes, only one county service now serves this stop.

8.3 Possible Future Bus Routings

Cogges Link Road

8.3.1 The CLR would provide choice for future bus routes. The Oxford Services 100 and / or 200 could use the CLR or Bridge Street. The CLR would probably be better in terms of avoiding congestion, but it is unlikely that the bus companies would wish to completely avoid Bridge Street as they have many existing customers along this corridor. The new traffic lights in Bridge Street may offer the opportunity to give an advantage to the bus. In order to offer maximum opportunity to customers further consideration should be given to bus services using both routes. As the detailed work on the CLR is progressed, so to will the complementary measures and matters such as this will need to be examined in more detail, in consultation with the bus companies and public.

8.3.2 For buses to make use of the CLR the most beneficial routing would be for buses arriving from Carterton and Thorney Leys to travel via Welch Way, High Street, Market Square, Langdale Gate, Witan Way, CLR to Oxford Hill and onto the A40. Return services would follow the reverse route. This would remove some buses from Corn Street but allow them to serve a wider range of town centre stops. The use of Welch Way would take services closer to the current medical facilities and proposed leisure developments.

8.3.3 If all buses to Oxford were to be routed via CLR and Welch Way it would result in buses to Oxford leaving from the east side of Market Square and those to Carterton leaving from the west side, a reversal of the current arrangement. If services to Oxford were to be split between using the CLR and using Bridge Street it would result in departures from opposite sides of the road in the town centre.

8.3.4 If the service 100 and 200 were re-routed away from Bridge Street and Newland current users from North East Witney who access the bus at Staple Hall and Church Lane would become isolated and bus patronage would suffer. However the CLR offers potential benefit to the contracted northern town services (213 and 214). Extension of a service terminating at Sainsburys into Cogges Estate would remove the need for a detour into this area, whilst maintaining local service provision on Newland.

8.3.5 OCC has the ability to modify contracted services' routes as new highway becomes available but this power does not extend to services provided at the commercial risk of their operator. Councils can encourage re-routing of commercial Services 100 and 200 but cannot compel the operator to make a change of route. The new options presented by the CLR will need to be fully discussed with the bus companies and users of the existing services.

Shores Green

8.3.6 Whereas the CLR would offer route choices for bus operators, the Shores Green option would give no immediate routing benefits. Services from Carterton approach Witney via the A4095 or B4047 and carry local passengers within Witney. There is no passenger or operational benefit in passing Witney on the A40 to enter the town via a new slip road at Shores Green. The Shores Green scheme could also increase traffic on Oxford Hill, thus creating possible delays for buses on the Oxford routes at the junction with Jubilee Way.

8.3.7 The Shores Green scheme is intended to attract traffic to / from northern residential areas away from the town centre. Madley Park would be accessed via Jubilee Way but traffic for West End and New Yatt Road would still need to traverse Staple Hall with possible adverse effects on bus operation.

8.4 Improving Modal Share of Buses in Witney

8.4.1 Increasing bus patronage is a key issue as more people on buses generally results in fewer people in cars. Constraining traffic through Bridge Street and promoting public transport will contribute significantly to relieving traffic congestion in Witney.

Travel to and from Oxford

8.4.2 The Shores Green scheme would not change the current route of the 100 or 200 services. Operation via the CLR would offer improved coverage of the town centre by either or both of these services but would remove them from Newland.

8.4.3 Much of Witney lacks simple pedestrian access to services 100 and 200, giving a greater incentive for car travel. Diversion of either service through developing areas in the north of Witney has potential to increase the attraction of buses for residents on the extended route, but risks delaying or discouraging passengers from further west along the route. It would also require retention of the current route via Bridge Street and could not use the CLR.

8.4.4 As peak time seating capacity on Service 100 is well matched to current patronage, passenger growth would require additional resources. A new direct service between Oxford and developing areas of Witney such as Madley Park can be considered but would probably require financial support to set up and develop. Section 106 support from developers is a possible source of “pump priming” finance but cannot rectify deficiencies in established developments or in those already under construction.

8.4.5 Interchange between local and longer distance services in the town centre uses existing bus stop infrastructure. Unfortunately, the low frequency and limited operating times of Witney town bus services offer a very restricted range of connections and are unsuitable for most people working in Oxford.

Improved Local Travel by Bus

8.4.6 In addition to being the main route to Oxford, Service 100 links Thorney Leys and Burwell Drive with Witney town centre throughout the day, every day. Modal share of this service is regarded as the maximum attainable for local bus travel within the residential areas of Witney at current bus fares and parking rates.

8.4.7 Local town bus services to other parts of Witney are:

- Low frequency (hourly);
- Limited in hours of operation;
- Lack evening and Sunday operation;
- Lack route infrastructure (shelters / information) on “hail and ride” sections;
- Relatively slow due to route patterns.

8.4.8 These services mostly cater for people who have no alternative means of travel, principally the elderly and parents with small children. There is little prospect of increasing use of these services without a significant increase in frequency and quality.

8.4.9 All bus routes in Witney (including Route 100) are affected by:

- Limited availability of bus stops in the town centre;
- Main High Street bus stops being located away from the main shops;
- Widespread disregard of parking restrictions, resulting in congestion;
- Availability of ample free car parking.

8.4.10 Free car parking in Witney is a particular disincentive to bus travel. Bus fares on commercial services must cover cost plus an element of profit. Services operating under contract to OCC charge fares at similar rates. In autumn 2006, a parent travelling by bus with two school-aged children paid £3.20 for a return trip between Madley Park and the town centre. Motorists perceive this as expensive for a short trip.

8.4.11 The introduction of parking charges could shift the modal balance towards bus travel in areas served by route 100, but would have a minimal effect elsewhere without a significant improvement in bus service frequency and quality. As increased frequency immediately raises operating costs, with revenue growth taking longer, increased subsidy would be required. Unless externally financed through Section 106 payments or similar, Witney would have to compete with other parts of the county for OCC funding to improve these services.

8.4.12 The provision of bus priority lanes within Witney town centre has been considered, but it proved difficult to identify locations where benefits to bus users would outweigh disbenefits to other traffic. Dedicated bus lanes and priority junctions would reduce journey times and assist in achieving increased levels of patronage.

8.4.13 The greatest benefit to bus passengers would accrue from reallocation of kerb space in High Street to place bus stops closer to the High Street shopping area, this has the potential to reduce passenger walking distances. Improved enforcement of parking regulations would also improve bus reliability

8.4.14 Traffic calming along Newland may be perceived as making the bus route unattractive however this is a heavily used premium bus route and numerous benefits will be obtained through the traffic calming scheme. However, as with all the complementary measures, these issues will need to be looked at in detail as the schemes are drawn up in order to ensure that opportunities are taken to make the bus services in the town more attractive and balance this objective with the environmental improvements that are sought. If the proposed traffic signals at Staple Hall can dissuade drivers from using this route then traffic calming may be unnecessary.

8.4.15 Using car parking revenue to reduce congestion by investment in public transport has been considered within large cities but is uncommon in small market towns. The practice is politically unpopular, especially when newly introduced. However if this practice was adopted more local bus services and increased service frequencies could be funded.

Public Transport Recommendations

13. Increase availability of bus stops in the town – once decisions have been made about the best routeings.

14. Consider re-routeing Service 100 and/or 200 via CLR, Market Place and Welch Way.

15. Extend services terminating at Sainsburys via CLR into Cogges Estate.

16. Consider using local town services to maintain a service on Newland if services 100 and/or 200 use CLR. (However the advantages and disadvantages of this approach need to be weighed up).

17. Consider revision of on street parking to allow stops to be sited in more suitable locations (i.e. in the town centre and on Bridge Street)

18. Consider introduction of direct service to Oxford from Madley Park.

19. Consider use of bus priority.

9 Pedestrian and Cycling Facilities

9.1 Introduction

9.1.1 The chosen major scheme for Witney creates opportunities to implement wider transport initiatives by improving town centre accessibility for pedestrians and cyclists. The adequacy of existing pedestrian and cycle links between residential, shopping and business areas was appraised to identify improvements that would potentially encourage modal shift.

9.1.2 The Witney High Street Pedestrian Improvements study made a series of recommendations but did not deal with access from main residential areas by foot. This study examines pedestrian and cycle facilities within the whole study area.

9.2 Existing Problems

9.2.1 The key problems in the study area are summarised below: (More detail is in Section 3).

- Unfriendly pedestrian environment on Bridge Street with limited safe crossing facilities;
- Narrow footways, exacerbated by high peak hour traffic volumes;
- Several key town centre destinations inaccessible by foot from residential areas, in particular Hailey Road and Woodgreen;
- Some discontinuous footways within the town;
- Missing key crossing facilities;
- On-street parking causes hazards, particularly for pedestrians. It obstructs access to footways and reduces visibility when crossing the carriageway.

9.3 Proposed Improvements to the Pedestrian Network

9.3.1 Encouraging Walking: Advice to Local Authorities (DETR) recommends using “The Five Cs” to determine the overall quality of the walking environment.

CONNECTED, COMFORTABLE, CONVENIENT, CONVIVIAL, CONSPICUOUS

9.3.2 These criteria have been used to review the pedestrian network in Witney and form the basis for recommended improvements.

9.3.3 The area has reasonable coverage via pedestrian links, but some improvements are required to enhance the connectivity between the major retail areas in the south and the residential areas further north.

High Street

9.3.4 The town centre is relatively pedestrian-friendly however improvements could be made to the High Street area. High Street has many crossings, including raised platforms and dropped kerbs, but tactile paving could be added to the central pedestrian refuge of these uncontrolled crossings. The dropped kerbing could be paved in a similar way to alert drivers to the facility.

9.3.5 At busy shopping times the number of movements on foot exceeds the number of vehicles passing through the area, and as pavements become overcrowded, pedestrians spill into the carriageway. The WITLUS details measures to improve pedestrian facilities and reduce through traffic in the town centre. These include widening pavements, improving surfaces, signage and crossing points.

9.3.6 The raised footway section of High Street opposite Market Square is inaccessible from the opposite side of the carriageway. Steps are available but these are often blocked by parked vehicles. Markings could be painted onto the carriageway to guarantee access, and whilst they may sometimes be ignored, they should deter most road users. A ramp could also be added to offer access to the mobility-impaired. Creating an access point may require the construction of a crossing which may not be viable due to the location of existing crossings.

9.3.7 There is evidence that parking restrictions are often ignored in the town centre. Parked vehicles were observed close to junctions and on double yellow lines, causing a visual obstruction to pedestrians crossing the carriageway. An area particularly prone to excessive parking demand is Holloway Road due to the nearby college. Road markings should be used to limit the level of parking around junctions as it would enable road users to see moving traffic and thus improve safety.

Pedestrian Facilities – High Street Recommendations

20. Add tactile paving to all uncontrolled crossings.
21. Widen pavements and even surfaces to enhance the pedestrian environment.
22. Paint markings in front of raised section access points.
23. Greater enforcement of parking regulations.

Bridge Street

9.3.8 Some footways here are very narrow and create intimidating pedestrian routes. There is little scope to improve this as restricted space limits opportunities to widen the footway. A pedestrian crossing on Bridge Street would allow both sides of the carriageway to be used and provide a safe crossing point. It would however reduce the capacity of the central crossing point of the River Windrush.

9.3.9 The PV2 value is used to assess whether a crossing is viable by considering the number of vehicles and pedestrians travelling through the area. Previous consultation on a potential Bridge Street crossing faced considerable opposition amidst fears of more congestion, loss of parking bays and an increase in environmental and noise pollution. There is a need for a crossing within the desire line to improve the town's pedestrian facilities. Suggestions from the public included a zebra crossing near the Mill Street / High Street roundabout. Retaining on-street parking provision is imperative in securing support from residents, whilst care must be taken not to block any access points, for example Grangers Place.

Pedestrian Facilities – Bridge Street Recommendations
- **24.** Provide a pedestrian crossing within the existing desire line.
- **25.** Retain parking spaces.

A4095 Woodgreen Hill / Woodstock Road

9.3.10 Downgrading the A4095 to a 'B' route and adding pedestrian crossings would improve facilities for local residents and enhance access to nearby schools.

9.3.11 Currently there is no safe route to the town centre from residential areas to the north of Woodgreen Hill. The pedestrian facilities along here and Woodstock Road could be improved to provide a key link to the town centre. No footway exists on the north side of the carriageway near Staple Hall, and little scope exists to provide one due to the proximity of buildings. Further out, footways are provided along both sides of the carriageway, although they are particularly narrow on the north side. Potential exists to widen the path as there are grass verges on either side.

9.3.12 A crossing point where the footpath ends on the north side would offer a safe crossing route, enabling journeys to be continued on the southern side. The area would be suited to a zebra crossing which offers a quick facility whilst enhancing the route's image once it has been downgraded. Local Transport Note 1/95: The Assessment of Pedestrian Crossings states that zebra crossings are suitable for relatively low crossing flows and no more than moderate traffic flows. The 30mph speed limit here supports this facility, as do other measures proposed for this corridor. It would also limit the time that vehicles have to stop or slow.

9.3.13 A compulsory purchase order was made in August 2006 to allow the construction of a cycle path with a right of way on foot, from a point on the southern boundary of West End adjacent to its junction with Crawley Road and Hailey Road extending southwards to meet the northern most extent of the existing cycle and pedestrian facility across the Windrush Water Meadows.

Pedestrian Facilities – Woodgreen Hill / Woodstock Road Recommendations
- **26.** Downgrade the A4095 to a 'B' road.
- **27.** Widen footways on either side of the carriageway.
- **28.** Provide a crossing on Woodgreen Hill.

A415 Ducklington Lane / Station Lane Junction

9.3.14 At present there is no dedicated pedestrian phase at this signal junction. White studs direct pedestrians across the carriageway but there is no green man on the signal heads. Observations indicate that most pedestrians currently attempt to cross during the inter-green period, which is intimidating, especially for vulnerable pedestrians. The junction experiences peak hour congestion and the introduction of a dedicated all-red pedestrian phase would add further traffic delay.

9.3.15 It is recommended that the traffic-responsive, self-optimising control system 'MOVA' is installed at this junction and that pedestrian stages are incorporated with the vehicle stages. This improves pedestrian facilities at the junction and minimises any reduction in capacity. An extended inter-green is not recommended as it would increase vehicle delay, facilitate driver disobedience and lack the clarity of red / green man displays.

Pedestrian Facilities – A415 Ducklington Lane / Station Lane Recommendations
29. Installation of the 'MOVA' system.
30. Incorporate parallel pedestrian stages in the junction phasing.

Welch Way

9.3.16 Welch Way does not have a footway along its north side between Moor Avenue and Tower Hill. It is possible to construct a narrow footway in place of the grass verge, making the town centre more accessible and removing the need to cross Welch Way. The Marriott's Close scheme proposes transforming Welch Way into a "pedestrian-friendly boulevard".

Pedestrian Facilities – Welch Way Recommendations
31. Installation of the 'MOVA' system.

Pedestrian Signage

9.3.17 It is recommended that pedestrian routes are signed to inform people of the most direct route between key points, including off-road shortcuts. This allows continuity in the signing and directing of pedestrians along safe routes to common destinations such as main shopping areas, principal bus stops, tourist attractions, parks, key buildings and public amenities. Walking routes should be signed along their entirety as no such facilities currently exist from local residential areas to the town centre. It is recommended that signs are located away from vegetation as this could interfere with future maintenance.

Pedestrian Facilities – Signage Recommendations
32. Sign pedestrian routes to common destinations.
33. Incorporate parallel pedestrian stages in the junction phasing.

9.4 Proposed Improvements to the Cycle Network

9.4.1 Requirements for the provision of a safe and attractive cycle network are broadly similar to those for a pedestrian network. Fundamental to the success of a cycling strategy, as stated in the document Cycle Friendly Infrastructure – Guidelines for Planning and Design (IHT) are the following:

- Coherent – form a network which links all trip origins and destinations with continuous and standard routes;
- Direct – routes should avoid detours and delays wherever possible;
- Attractive – lighting, security, noise and integration are important;
- Safe – ensure casualties are minimised and cyclists are not exposed to danger / do not endanger others;
- Comfort – smooth, well-maintained and on gentle gradients.

9.4.2 The guidance adds that isolated and ad-hoc sections of route are of little benefit and may cause additional hazards unless they serve a specific local function. The provision of routes within Witney has been assessed against these criteria.

9.4.3 These schemes are related to current and future development, due to the increasing pressure placed on the local road network and the need to allow people to make realistic modal choices about their journeys.

9.4.4 There is a fairly comprehensive cycle network in Witney, however the routes that exist are not well signed and connectivity is fragmented, thus the required coherent system of routes is not provided. Despite the discontinuous network, journeys can be made on a combination of cycle routes and low traffic flow roads. As new developments are constructed, consistent and continuous cycle facilities in Witney are increasing. The routes currently serve the majority of large trip attractors and main residential areas.

9.4.5 When enhancing pedestrian and cycle facilities along Hailey Road and Woodgreen Hill (a significant route for students travelling to Witney College), care must be taken to ensure that traffic generated by new development does not reduce safety and accessibility.

9.4.6 Scope exists to connect parts of the cycle network, thus creating less disjointed routes. Cycle lanes could be constructed in the following areas: Curbridge Road, Tower Hill, Mill Street, Broad Hill, Hailey Road, West End, Thorney Leys and Witan Way.

9.4.7 Certain routes may have been considered previously, some only at the feasibility stage, for example Thorney Leys. Providing facilities along the named routes would provide a more comprehensive network and allow continuous travel to many areas of the town. It would also provide links to residential areas, particularly those north of the B4022.

9.4.8 It is recommended that a cycleway be introduced on Woodgreen Hill / Woodstock Road to provide a dedicated link to the town for Woodgreen residents. This facility would be suited to the south side of the carriageway due to the grass verge and continuous route from Staple Hall. The existing footway can be widened to provide either an unsegregated or segregated shared-use path. Providing cycle lanes on the highway has been considered but the high traffic volumes and speeds preclude this, whilst the large amount of land off the carriageway enables better provision alongside the existing footways. An off road route would also encourage new and inexperienced cyclists. Hailey Road has similar opportunities to create a cycleway in the existing grass verge.

9.4.9 By utilising the grass verge, the existing footway can be widened allowing a segregated shared-use cycle facility to be created. The desirable width of 4.0 metres (2.0m for each user) may not be achievable along the entire route, although a reduction to 3.0m is considered adequate. The cycle element of the shared facility would require cyclists to ride on the right, thus ensuring that those travelling east are next to the verge and not facing oncoming traffic. It is unlikely that a dedicated cycle facility can be provided along West End due to the nature of the road, parking bays and the irregularity of the existing footway. At significant locations along the corridor, such as the proposed traffic signal junction at Staple Hall, dedicated cycle and pedestrian crossing facilities should be incorporated.

Cycling Recommendations (1)

34. Construct a cycle route on Woodgreen Hill / Woodstock Road.
35. Construct a cycle route on Hailey Road.
36. Explore the feasibility of cycle routes linking existing paths.

9.4.10 Toucan crossings, of which there are currently five in Witney, offer a safe route across the carriageway for both pedestrians and cyclists. The addition of more crossing points throughout the town would improve the cycle network and encourage mode switch, especially along the busier routes.

9.4.11 Witney has limited cycle parking facilities in the town centre. Outside the Post Office in High Street, space exists for seven cycles to be secured by the front wheel, whilst a similar stand exists outside the library on Welch Way. Cycles were seen parked elsewhere along High Street, suggesting that there are inadequate facilities in the town centre, or those that are available are not situated in the most convenient areas.

9.4.12 The construction of the Woodford Mill pedestrian/ cycle route will provide a link with the existing facility across the Windrush Water Meadows and a river crossing. This will increase the potential for sustainable travel among local residents.

Cycling Recommendations (2)

37. Install more toucan crossings on busy routes.
38. Increase cycle parking provision along High Street and outside community facilities.

Signage

9.4.13 Given the intended local nature of Witney's pedestrian routes, there is no need to provide directional signing showing key destinations and likely walk times.

9.4.14 Where signing is provided, for example in Cogges Estate, it is not always clear. There is a problem with vegetation management, as growth must be controlled to maintain clear signing and to ensure shared cycle / footway widths are not reduced. The management of hedgerows and trees is particularly important in areas where footways are narrow.

9.4.15 Recently constructed cycle routes are clearly visible by road markings and signs, for example along Woodford Way. Regional Route 47 starts in Witney and runs through to the Gloucestershire Cotswolds and on to Regional Route 48 and Cirencester. The final route through Witney is yet to be decided but it is recommended that this is signed clearly and includes directional signing and distances when it is completed.

Cycling Recommendations (3)
39. Manage vegetation and location of signs to maintain visibility.
40. Improve the signage of cycleways, especially existing routes.

Summary

9.4.16 Site visits confirmed that the signage of cycle routes, the consistency of provision and route continuity are issues that need to be addressed. Cycleways should be constructed to create a more continuous network and link areas of interest. This would encourage more people to cycle, including those with less confidence. Once the routes are developed, better signing and mapping would also assist in their use.

9.4.17 Cycle parking is available in the town, along the High Street and Welch Way. The racks are very well utilised and site visits have revealed that an increase in facilities may be required. The installation of toucan crossings in Witney would further help the connectivity of routes by creating crossing points for cyclists.

10 Costing of Recommendations

10.1.1 This section provides estimates of the cost of implementing the physical recommendations detailed within the report. These are purely indicative costings, and take no account of external factors such as statutory undertaker diversions or temporary traffic management. In some cases, additional consultation will be required before realistic costs can be provided.

Table 10.1 – Costing of Recommendations (May 2007)

Recommendations		Details / Cost Estimate
Physical Recommendations		
1	Replace Staple Hall Roundabouts with signal arrangement.	At least £100,000. Subject to site inspection.
2	Traffic calm Woodgreen Hill and Newland on approach to Staple Hall.	Approx. £600 per flat-top hump.
3	Add gateway feature on Woodstock Road.	Approx. £2,500.
4	Install MOVA at Ducklington Lane / Station Lane.	New detection and MOVA equipment required and new controller. £50,000.
5	Install MOVA at Oxford Hill / Jubilee Way (CLR scenario only).	New detection and MOVA equipment required and new controller. £50,000.
Road Hierarchy and Signing Recommendations		
6	Downgrade A4095 to B status between Faringdon and Witney.	DfT and Stakeholder consultation cost.
7	Improved directional signing to town centre at Jubilee Way / Woodstock Road.	A 1 sq.m sign and pole is approx. £200.
8	Upgrade Jubilee Way / CLR route to B status	DfT and Stakeholder consultation cost.
9	Town centre and primary route network to be clearly signed from Burford Road, Hailey Road and Oxford Hill.	A 1 sq.m. sign and pole is approx. £200.
Parking Management Recommendations		
10	Introduce an on-street parking charge with loading bays added on High Street. A low tariff (e.g. 20p/hr) should be introduced initially with a maximum daily charge, but this should be revised upwards annually.	TRO is approx. £1000. Supply and install solar powered ticket machine £3,000. Signs approx. £150 each.
11	The charges should also be adopted at the Welch Way, Woolgate Centre, Windrush Leisure Centre, and Witan Way car parks.	Supply and install solar powered ticket machine £3,000. Signs approx. £150 each.
12	Introduce greater enforcement of parking regulations in the town centre.	Consult with police or enforcement company.

Public Transport Recommendations		
13	Increase availability of bus stops in the town centre.	Likely cost dependent upon features and quality required will be around £6000 per stop (with shelter).
14	Consider re-routeing Service 100 and / or 200 via CLR, Market Place and Welch Way.	Subject to consultation with no or minimal cost implication.
15	Extend services terminating at Sainsburys via CLR into Cogges Estate.	Subject to consultation.
16	Use local town services to maintain service on Newland if services 100 and / or 200 use CLR.	Subject to consultation. Will depend on need for additional vehicles (if any) and running costs.
17	Consider revision of on-street parking to allow stops to be sited closer to main shops.	Subject to consultation. Likely cost £6,000 per stop with shelter.
18	Consider introduction of direct service to Oxford from Madley Park.	Subject to consultation. At least two buses needed. Likely initial cost £100,000 per bus. Revenue to be deducted from cost in long term.
19	Consider the use of bus priority	Subject to further investigation.
Pedestrian Facilities – High Street		
20	Add tactile paving to all uncontrolled crossings.	Current cost is about £55 / sq.m.
21	Widen pavements and even surfaces to enhance the pedestrian environment.	Widen pavement with new kerb line - £200 / sq.m. If drainage is affected a full topo (£800) and drainage survey (£1600) will be required.
22	Paint markings in front of raised access points.	£50 per ramp but may be subject to a Min charge / setup of approx. £800.
23	Greater enforcement of parking regulations.	See recommendation 12 above.
Pedestrian Facilities – Bridge Street		
24	Provide a pedestrian crossing within the existing desire line.	New Puffin traffic equipment and traffic controller £30,000 / single crossing, including TRO. A zebra crossing is £3000-5000 + £1000 TRO.
25	Retain residents' parking spaces on Bridge Street.	Issue of permits and enforcement required.
26	Downgrade the A4095 to a 'B' road.	DfT and stakeholder consultation cost. Declassification may involve legal costs.
27	Widen footways on either side of the carriageway.	Widen pavement with new kerb line - £300 / sq.m. If drainage is affected a full topo (£800) and drainage survey (£1600) will be required.
28	Provide a crossing on Woodgreen Hill.	New Puffin traffic equipment and traffic controller £30,000 / single crossing, including TRO. A zebra crossing is £3000-5000 + £1000 TRO.

Pedestrian Facilities – A415 Ducklington Lane/ Station Lane		
29	Installation of the 'MOVA' system.	New detection and MOVA equipment required and new controller, £50,000.
30	Incorporate parallel pedestrian stages in the junction phasing.	Junction redesign, additional civil works & traffic equipment. £15,000 / crossing.
Pedestrian Facilities – Welch Way		
31	Construct a narrow footway on the north side of the carriageway.	Widen pavement with new kerb line, £300 / sq.m. If drainage is affected a full topo (£800) and drainage survey (£1600) will be required.
Pedestrian Facilities – Signage		
32	Sign pedestrian routes to common destinations.	A 1 sq.m sign and pole is approx. £200.
33	Create designated signed routes from local residential centres to the town centre.	A 1 sq.m sign and pole is approx. £200.
Cycling Facilities		
34	Construct a cycle route on Woodgreen Hill / Woodstock Road.	Widen pavement with new kerb line, £300 / sq.m. If drainage is affected a full topo (£800) and drainage survey (£1600) will be required.
35	Construct a cycle route on Hailey Road.	Widen pavement with new kerb line, £300 / sq.m. If drainage is affected a full topo (£800) and drainage survey (£1600) will be required.
36	Explore the feasibility of cycle routes linking existing paths.	Consultation costs.
37	Install more toucan crossings on busy routes.	New Toucan traffic equipment and traffic controller. £30,000 / single crossing.
38	Increase cycle parking provision along High Street and outside community facilities.	Approx. £300 per stand.
39	Manage vegetation and location of signs to maintain visibility.	Routine maintenance costs.
40	Improve the signage of cycleways, especially existing routes.	A 1 sq.m sign and pole is approx. £200.

11 Summary and Conclusions

11.1 **Modelled Complementary Measures**

11.1.1 The projected increases in traffic generated by future developments in Witney will have significant impacts on congestion and on the ease of pedestrian and cycle movements if no action is taken to combat this. Such issues have been present in the Bridge Street / High Street area for many years, increasing the need for effective solutions to be implemented. The overall traffic impacts of major schemes such as the Cogges Link Road or Shores Green slip roads were reported separately in the Traffic Forecasting Report that formed part of the CLR Environmental Impact Assessment. The traffic model from which these forecasts were produced included three specific complementary measures designed to deter traffic from entering sensitive areas of Witney, thus attracting it to the new major scheme. This study has examined these measures, along with a range of other initiatives that will add further benefits to either scheme.

11.1.2 An essential element in creating an effective transport network in Witney will be the CLR, as this was shown in the Forecasting Report to deliver the greatest level of traffic relief to existing sensitive locations, whilst best serving the town's commercial core. The CLR alone provides positive changes towards these objectives; however this study has demonstrated that additional physical measures would encourage greater use of the new link.

11.1.3 The alternative Shores Green slip roads scheme provides fewer benefits in traffic terms, primarily because of its greater distance from the town centre, but also because there are relatively few through trips that can benefit from the improved access to the A40. The scheme has the additional disadvantage of diverting some town centre traffic through the already congested Ducklington Lane / Station Lane junction. The implication of this is that for some drivers, inappropriate routes including the existing Bridge Street crossing remain a more attractive alternative.

11.1.4 By 2026, the greater level of benefit derived from either major scheme will have diminished, although the CLR would still out-perform SGSR in overall traffic terms. The completion of the West End Link between Mill Street and West End would offset this however, and restore similar traffic advantages with CLR to those demonstrated in 2011.

11.1.5 The purpose of this study has been to identify those measures that will add greater value to either major scheme under consideration. The most significant change modelled was the conversion of the Staple Hall roundabouts to a single traffic signal intersection, allowing movement from one direction at a time. This measure will make travel to or through the town via Bridge Street far less attractive, with a switch to the CLR (particularly traffic to and from the north via Jubilee Way) providing a far more desirable route. In the SGSR option, this measure also leads to a substantial reduction in net cost and benefit flows, although the scheme caters poorly for town centre trips in particular.

11.1.6 Additional physical measures along the northern and eastern approaches to Staple Hall would derive further benefit from the CLR, and whilst similar patterns of diversion exist in the SGSR alternative, they are on a considerably lesser scale. The additional benefit of these particular measures will need to be weighed up against the impact on bus services when the complementary measures are taken forward. Improvements to the Ducklington Lane / Station Lane junction are essential in the long term and the implementation of a MOVA traffic signal system here will provide additional overall benefits in the CLR scenario in particular.

11.2 Other Complementary Measures

11.2.1 For the foreseeable future, many journeys in Witney will continue to be made by car, the scale of which will be influenced by on-going management of parking space. An analysis of the 2005 base year traffic model in this study revealed that over 23% of car journeys in Witney are under 2km in length and over 40% are below 5km. These distances mark the thresholds for acceptable walking or cycling distances, and as such illustrate the massive potential that exists to remove unnecessary vehicular journeys from the town. Simply persuading people to change will be largely ineffective, particularly in the long term. Whilst the provision of improved facilities for cyclists or pedestrians will help a little, the fact remains that a significant number of people will continue to drive into Witney if they can continue to park relatively easily. Indeed, this will be more likely if their journey is improved by a new scheme such as the CLR or SGSR. It is therefore essential that measures are introduced to reduce this high number of short-distance road trips currently taking place in Witney.

11.2.2 Central to this will be the introduction of a car park charging regime. Without it, the traffic problems that have characterised the town will continue to threaten any benefits that a new major scheme can bring. Only a relatively small charge need be implemented initially, but it will at least introduce the concept to the town, and encourage short distance travellers in particular to consider their modal choice. Furthermore, evidence suggests that such a move would not force the town's visitors to drive elsewhere as the distance or existing charging (e.g. Oxford) would preclude this.

11.2.3 It is important to realise that whilst the engineering measures proposed in this study will help relieve traffic congestion, the overall volume of traffic on the road network will not reduce as a result of them. The analysis of cost and benefit trips was merely a redistribution of existing highway demand aimed at shifting the traffic burden onto more appropriate routes. More should be done beyond this, starting with a deterrent for short car journeys (parking charges), and supplemented with the promotion of soft measures in support of the major scheme. Well designed road layouts, pedestrian and cycling amenities and crossing points are essential in reducing accidents and encouraging the use of alternative transport. The proposed improvements at the critical Staple Hall and Ducklington Lane / Station Lane junctions will also provide the opportunity to incorporate better facilities for pedestrians and cyclists.

11.2.4 This study has highlighted where potential exists for Witney town centre visitors to travel by alternative means, whilst acknowledging that modal shift cannot be achieved purely by improving facilities. It has also shown that the physical measures proposed can help shift the distribution of traffic away from sensitive areas and thus ease the pressures that currently exist there. This however is only the first step. When promoting behaviour change the benefits of travelling sustainably need to be promoted alongside the negative aspects of car travel. Car use can be discouraged through parking management strategies, as promoted in the Oxfordshire Structure Plan. The introduction of parking charges and / or restrictions will reduce the convenience of car use and allow alternatives to be considered viable.

11.2.5 In addition to achieving widespread acceptance of the benefits of sustainable transport use, additional benefits can also be derived. These include air quality improvements, shorter journey time, reduced congestion, reduced parking problems and greater integration between all travel modes.

Appendix A - Accident Analysis

The following analysis details each accident recorded in the study area over the five-year period 2001-2006.

A415 Ducklington Lane / Thorney Leys / Station Lane Crossroads

Nine accidents were recorded, all resulting in slight injuries.

- One collided with a car at a signalised junction due to the misreading of signals;
- Two turned across the path of a car;
- Two involved rear shunts;
- One cycle pulled out into the path of moving traffic;
- One involved a collision due to a misuse of signals;
- One occurred when a motorcycle hit a pedestrian who had crossed in front of it;
- One involved an emergency vehicle responding to a call and colliding with a car.

A415 Ducklington Lane / Welch Way / Corn Street / Tower Hill Roundabout

Seven accidents took place, all resulting in slight injuries.

- Five pulled out into the path of circulating traffic, one involving a moped and three involving cyclists;
- One occurred as a cyclist fell off ;
- One lost control when entering the roundabout.

A415 Ducklington Lane / Beechgate T-junction

One accident was recorded, when a car failed to stop for stationary traffic causing a rear shunt, resulting in a slight injury.

A415 Ducklington Lane Pelican Crossing

There was one accident when a pedestrian ran out into the path of oncoming traffic, causing a slight injury.

A415 Ducklington Lane / Burwell Drive T-junction

One accident was recorded when a car failed to give way to a motorcycle, causing a collision and slight injuries.

A415 Ducklington Lane / A40 Eastbound Exit Slip Road

Four accidents occurred when cars failed to give way when exiting the slip road, one involving a motorcycle. They all resulted in slight injuries.

A4095 Tower Hill

Two accidents were recorded, one resulting in a serious injury.

- One occurred as a child ran into the path of an oncoming car;
- One vehicle changed lane forcing a motorcyclist into the central reservation resulting in a serious injury.

A4095 Tower Hill / Union Way T-junction

One collision occurred when a car pulled out into the path of another car, resulting in a slight injury.

A4095 Tower Hill / Park Road T-junction

One accident occurred when an HGV overtook a right turning vehicle, resulting in a slight injury.

A4095 Curbridge Road

Five accidents occurred, all resulting in slight injuries.

- A pedestrian stepped into the road and was clipped by a wing mirror of a passing car;
- Two involved rear shunts due to slowing traffic;
- Two accidents occurred at a crossing where cars failed to stop for crossing cyclists.

A4095 Woodstock Road / Woodgreen Hill

Eight accidents were recorded, with one resulting in serious injuries.

- Two pulled out into the path of cars, one leading to a collision with a parked vehicle;
- One pedestrian ran into the path of an oncoming vehicle;
- Two involved a rear shunt;
- One car completed a u-turn into the path of a motorcycle;
- One motorcycle was hit by a turning car whilst overtaking;
- One motorcycle collided with pedestrians alighting from a bus, resulting in serious injuries.

A4095 Woodgreen Hill / New Yatt Road T-junction

Five accidents occurred, with one resulting in serious injuries.

- One hit a crossing pedestrian;
- One collision occurred as a car failed to give way to a motorcycle resulting in serious injury;
- One stopped in the middle of the road before reversing and hitting a vehicle;
- One cyclist failed to give way to a car resulting in a collision;
- One was forced to pull in behind a skip resulting in a hit.

A4095 Woodstock Road / Harvest Way T-junction

One accident was reported when a car veered towards a cyclist, causing the rider to fall off, resulting in slight injuries.

A4095 Burford Road / Tower Hill Mini Roundabout

Two accidents resulting in slight injuries were recorded.

- One car swerved to miss a stationary car, entered the roundabout and left the carriageway without colliding with any vehicles;
- One failed to give way to traffic.

A4095 Curbridge Road / Church View Road T-junction

One accident occurred as a car collided with a parked car, resulting in a slight injury.

A4095 Curbridge Road / Burwell Drive T-junction

One accident occurred when a vehicle pulled out failing to indicate and a collision occurred resulting in slight injuries.

A4095 Bridge Street / High Street / Mill Street Roundabout

Four accidents occurred with one resulting in a serious injury.

- One hit the rear of a motorcycle after failing to give way at the roundabout;
- One involved a rear shunt;
- One lost control, left the carriageway and hit a pedestrian on the footway;
- One hit a pedestrian crossing the road resulting in a serious injury.

A4095 Bridge Street

One accident was reported on Bridge Street during the five year period, when a car collided with the rear of a stationary car, resulting in slight injuries.

A4095 Burford Road / Dark Lane Mini Roundabout

One accident was reported when a driver failed to give way to an oncoming vehicle and a collision occurred resulting in slight injuries.

A4095 / B4022 Staple Hall

Four accidents occurred, all resulting in slight injuries.

- One pedestrian walked into the offside mirror of a moving car;
- One lost control on exiting the roundabout and collided with a low wall;
- One cyclist veered into the path of a car causing a collision;
- One vehicle did not give way and collided with two cars and a motorcycle.

A4095 Curbridge Road / Thorney Leys / Deer Park Road Roundabout

Two accidents were recorded, both resulting in slight injuries.

- One involved a car colliding with the rear of a stationary bus;
- One failed to give way and collided with a motorcycle.

A4095 Burford Road / Moor Avenue T-junction

One accident occurred when a car turned across the path of another vehicle before colliding with a parked car, resulting in slight injuries.

A4095 Burford Road

One accident occurred, when a car collided with a pedestrian, resulting in slight injuries.

B4022 Newland

Five accidents occurred, with one resulting in serious injuries and one causing a fatality.

- A fatal accident occurred when a pedestrian stepped out into the path of an oncoming vehicle and then falling into the path of a second vehicle;
- An emergency vehicle on call collided with a car attempting to turn right;
- One car pulled out into the path of a motorcycle causing a serious injury;
- One failed to stop at a zebra crossing and collided with a cyclist;
- One rear shunt occurred at a zebra crossing.

B4022 Newland / Newland Mill T-junction

Two accidents were recorded, both resulting from failure to give way from the minor arm. Slight injuries were sustained at both incidents.

B4022 Oxford Hill

Four accidents were recorded, all resulting in slight injuries.

- One vehicle left the carriageway following a puncture, causing a cyclist to swerve;
- One collided after pulling out from a lay-by;
- One car hit a cyclist when passing by;
- One accident occurred as a car attempted to u-turn in the path of a vehicle.

B4022 Oxford Hill / Judds Close T-junction

One accident occurred when a motorcyclist lost control and travelled straight over the junction into a wall, resulting in a serious injury.

B4022 Oxford Hill / A40 Eastbound Entry Slip Road

Four accidents were reported, with two resulting in serious injuries.

- A motorcyclist lost control on a bend resulting in a serious injury;
- One carried out a u-turn into the path of a motorcyclist resulting in a serious injury;
- One collided with an emergency vehicle due to faulty turn signals;
- One turned across the path of an oncoming car.

B4022 Oxford Hill / Cogges Hill Road / Jubilee Way Signals

Two accidents were recorded, both resulting in slight injuries.

- One occurred when a vehicle carried on through a red light and hit an oncoming car;
- One occurred when a vehicle turned across the path of a car.

B4022 West End

Slight injuries were sustained at two reported accidents.

- An emergency vehicle on call hit a stationary car on a bend;
- One collided with a motorcycle due to obscured visibility.

B4022 West End / West End Industrial Estate Access

Two collisions were recorded, both occurring when cyclists passed into the path of moving vehicles. Slight injuries were sustained at both accidents.

B4022 West End / Hailey Road / Crawley Road Mini Roundabout

One accident occurred resulting in serious injury when a motorcyclist lost control and came off the vehicle.

B4022 Hailey Road

Three accidents occurred, one resulting in serious injuries.

- One involved a motorcyclist hitting the rear of a car and being thrown onto the road;
- One vehicle pulled forward into the path of a motorcycle resulting in a serious injury;
- One head on collision occurred due to a driver falling asleep.

B4022 Hailey Road / Downhill Lane

One accident occurred when a car collided with the rear of a refuse truck resulting in a serious injury.

B4022 Hailey Road / Farmers Close T-junction

One accident was recorded as a pedestrian ran into the path of oncoming traffic. This resulted in slight injuries.

B4047 Burford Road

Three accidents occurred, with one resulting in a serious injury.

- One failed to give way resulting in a collision;
- One was hit from behind into the path of another car;
- One involved an ambulance attempting to turn and colliding with a motorcyclist resulting in a serious injury.

B4047 Burford Road / Dry Lane T-junction

Four accidents were reported, with three resulting in serious injuries.

- One turned into the path of a motorcyclist resulting in a serious injury;
- Two failed to give way and collided with another car, one resulting in a serious injury;
- One misjudged the speed of an oncoming car and passed in front of it resulting in a serious injury.

B4047 Burford Road / Downs Road T-junction

Two incidents were recorded and both resulted in slight injuries.

- One went through red lights, collided with a moving car and then with a parked car;
- One turned into the path of another vehicle.

B4047 Burford Road / Windrush Valley Road T-junction

A serious injury was sustained as a car turned across the path of a motorcyclist.

B4047 Burford Road / Deer Park Road T-junction

Two accidents were recorded, both resulting in slight injuries.

- One involved a rear shunt;
- One changed lanes into the path of another vehicle.

Thorney Leys / Burwell Meadow T-junction

Three accidents occurred, all resulting in slight injuries.

- Two involved a rear shunt;
- One motorcycle attempted to overtake and collided with an oncoming vehicle.

Thorney Leys / Thorney Leys Spur Road T-junction

Two accidents occurred with slight injuries being sustained at both.

- One involved a rear shunt;
- One involved a collision with the door of a parked car as a pedestrian was alighting.

Thorney Leys / Industrial Park Access T-junction

One collision occurred as a pedestrian ran onto the carriageway, resulting in a serious injury.

Church Green

Five accidents were reported, all resulting in slight injuries.

- Two involved a collision with a cyclist;
- One involved an electric scooter colliding with a pedestrian on the footway;
- One involved a collision with a pedestrian crossing from the nearside;
- One hit the rear of a parked car when completing a u-turn.

High Street

Three accidents occurred, with slight injuries sustained in all three.

- One involved a car hitting the rear of a bicycle;
- One involved a rear shunt;
- One involved a collision with pedestrians.

High Street / Welch Way Mini Roundabout

One accident occurred when a motorcyclist lost control and fell off, sustaining slight injuries.

High Street / Witan Way Multiple Junction

Two accidents were recorded, both involving rear shunts with one pushing the vehicle into the path of stationary vehicles. Both resulted in slight injuries.

Market Square

Two accidents occurred, resulting in slight injuries.

- One vehicle pulled into a lay-by, hitting a pedestrian with its wing mirror;
- One collision occurred between a vehicle and a pedestrian.

Langdale Gate

Three accidents occurred, all resulting in slight injuries.

- One pedestrian stepped into the road and was hit by an oncoming car;
- One failed to give way to a cyclist resulting in a collision;
- One pulled out in front of a motorcycle.

Corn Street

Five accidents were reported, with one resulting in serious injuries.

- One involved a rear shunt on a stationary car;
- Two involved a pedestrian walking in front of a moving vehicle;
- One moved into the path of moving traffic and resulted in a serious injury;
- One involved a collision as a vehicle pulled out into the path of a motorcyclist.

Corn Street / Market Square Mini Roundabout

Three accidents occurred, all resulting in slight injuries.

- Two failed to see a cyclist and hit occurred;
- One parked car began reversing and collided with pedestrians on the footway.

Corn Street / Corn Bar T-junction

Two accidents occurred, with one resulting in serious injuries.

- One occurred as a cyclist crossed the road in front of a vehicle;
- One lost control and mounted the kerb, hit pedestrians and caused serious injuries.

Corn Street / Marlborough Lane Mini Roundabout

Two accidents occurred, one resulting in a serious injury.

- One failed to give way to a pedestrian resulting in a collision;
- One pedestrian ran into the road colliding with a car, resulting in a serious injury.

Corn Street / Lowell Place T-junction

One accident occurred when a driver failed to give way, resulting in a collision. Slight injuries were sustained.

Corn Street / Swingburn Place T-junction

A cyclist rode into an open door of a stationary vehicle, causing slight injuries.

Corn Street / Orkney Place T-junction

One accident occurred when a car collided with the rear of a stationary car, causing a series of rear shunts. Slight injuries were sustained.

Dry Lane

One accident occurred involving a rear shunt on a slowing vehicle, resulting in slight injuries.

Crawley Road

One accident occurred when a motorcyclist attempted to overtake a vehicle turning right and a collision occurred, resulting in slight injuries.

Witan Way

One accident was reported when a vehicle emerged from a private drive and collided with a pedestrian, resulting in slight injuries.

Witan Way / Waitrose Access T-junction

One accident occurred when a car turned too wide from the minor arm and collided with a vehicle waiting to turn into the minor arm, causing minor injuries.

Witan Way / Langdale Gate Roundabout

One accident occurred when a driver failed to give way, causing a collision and pushing the vehicle into a stationary vehicle. This resulted in slight injuries.

Witan Way / St Mary's Mead T-junction

One accident occurred involving a rear shunt and resulting in slight injuries.

Witan Way / Windrush View T-junction

One rear shunt was reported as a driver braked quickly to avoid colliding with a car that had failed to give way. Slight injuries were sustained.

Station Lane

Two accidents occurred along Station Lane, both resulting in slight injuries.

- One rear shunt occurred;
- One cyclist cycled over the access to a private drive and collided with a vehicle.

Station Lane / Avenue Three T-junction

Three accidents occurred, all resulting in slight injuries.

- One involved a pedestrian crossing in front of traffic;
- One involved a rear shunt into the path of oncoming traffic;
- One involved turning into the path of a cyclist.

Station Lane / Avenue Four T-junction

One accident occurred as a rear shunt resulted in slight injuries.

Station Lane / Kingfisher Drive T-junction

One collision occurred when a cyclist crossed the path of a car resulting in slight injuries.

Welch Way

Six accidents occurred, all resulting in slight injuries.

- A cyclist ignored the red light and hit pedestrians crossing the road;
- Three involved a rear shunt;
- One failed to give way to a cyclist causing a collision;
- One cyclist crossed into the path of a car.

Welch Way / Car Park Access

Three accidents occurred, with one resulting in a serious injury.

- One involved a rear shunt;
- One turned through a line of stationary traffic hitting a cyclist travelling on the nearside resulting in a serious injury;
- One involved pulling out into the path of a moped.

Welch Way / Moor Avenue T-junction

One incident occurred when a car turned into the path of a cyclist, causing slight injuries to the rider.

Welch Way / Moorland Road T-junction

Three accidents occurred, with one causing serious injuries.

- One involved a collision between a car and cyclist, causing serious injuries to the rider;
- Two involved collisions when emerging from the minor junction.

Welch Way / Holloway Road T-junction

One accident occurred when a car crossed into the path of a cyclist, resulting in slight injuries.

Burwell Drive

Two accidents occurred, resulting in slight injuries.

- One lost control and left the carriageway before hitting a house;
- One hit an oncoming vehicle.

Burwell Drive / Burwell Meadow T-junction

One accident occurred when a car turned into the path of an oncoming car resulting in slight injuries.

Burwell Drive / Burwell Court T-junction

One collision occurred involving a collision between a car and a cyclist, resulting in slight injuries.

New Yatt Road / Farmers Close T-junction

One accident occurred as a car failed to give way, resulting in slight injuries.

New Yatt Road / Vanner Road T-junction

One accident occurred as a pedestrian crossed in front of a vehicle and a collision occurred. Slight injuries were recorded.

Cogges Hill Road / Shops T-junction

One accident occurred when a driver failed to see a car and crossed into its path, causing a collision and resulting in slight injuries.

Cogges Hill Road / Stanton Harcourt Road T-junction

One accident occurred as a driver lost control, left the carriageway and hit a tree, sustaining slight injuries.

Holloway Road / College Access T-junction

Two accidents occurred, both resulting in slight injuries.

- One pulled out into the path of an oncoming vehicle as a result of poor visibility;
- One collided with a pedestrian as a result of an obstructed view.

Moor Avenue / Moorland Road T-junction

One accident occurred when a car cut a corner whilst manoeuvring and hit a cyclist, resulting in slight injuries.

Crawley Road

One accident occurred when a vehicle collided with pedestrians as it rolled out of a private drive, resulting in slight injuries to the pedestrians.

Other Accident Statistics

Table A1 shows the percentage of accidents caused at each type of junction or along links.

Table A1 – Number of Accidents by Type of Location

	Number of Accidents	Percentage
Crossroads	11	6.1%
T-junction / staggered	76	42.0%
Roundabout	9	5.0%
Mini-Roundabout	16	8.8%
Multiple Junction	3	1.7%
Highway Link	66	36.5%
Total	**181**	**100%**

Overall Accident Statistics

Table A2 below shows there is no real trend in the number of accidents occurring annually. The largest number was reported in 2005, the fewest recorded during 2004.

Table A2 – Witney Study Area Accidents by Year, 2001 – 2006

	2001 (From 1st July)	2002	2003	2004	2005	2006 (up to 30th June)
Accidents	16	37	40	29	41	18

Table A3 shows that approximately 71% of accidents within the study area occurred when the road surface was dry indicating that the surface texture is of a reasonable quality but also suggesting there may be inadequate grip on some road surfaces.

Table A3 – Witney Study Area Accidents by Conditions, 2001 – 2006

	Number	Percentage
Dry	128	70.7%
Wet/Damp	46	25.4%
Frost/Ice	6	3.3%
Snow	1	0.6%
Total	**181**	**100%**

Approximately 77% of accidents occurred during daylight hours, suggesting that lighting is adequate. Of those recorded during darkness, over half were on A and B roads in the town.

Table A4 – Witney Study Area Accidents by Lightness, 2001 – 2006

	Number	Percentage
Light	139	76.8%
Dark	42	23.2%

Of the 181 accidents recorded, 115 occurred at junctions, where the proportion resulting in serious injuries was slightly higher. This is unusual as traffic speeds are normally higher between junctions. An explanation could be the high number of people who failed to give way or entered junctions at speed.

Table A5 – Witney Study Area Accident Severity by Location Type, 2001 – 2006

	Total Accidents	No. of Fatal Accidents	No. of Serious Accidents	No. of Slight Accidents	Proportion of Serious Accidents
At Junctions	115	0	16	103	13.9%
Between Junctions	66	1	6	55	10.6%

Table A6 shows the types of vehicle involved in each accident, with almost all incidents involving a motor vehicle of some type. Motorcycles were involved in approximately 14% of accidents, with almost half resulting in serious injuries to the riders. Vulnerable road users, i.e. pedestrians and cyclists, were collectively involved in over 35% of accidents.

Table A6 – Witney Study Area Accidents by Vehicle Type

	Number	Percentage
Motor Vehicles	178	98.3%
Motorcycles	25	13.8%
Bicycles	31	17.1%
Pedestrians	34	18.8%

Table A7 gives a description of the type and number of accidents that occurred at or between junctions. Although for some accidents more than one description may be relevant (e.g. turning right and subsequently losing control), only the primary factor has been included to avoid double counting.

Table A7 – Witney Study Area Accident Type, 2001 – 2006

Accident	At Junctions	%	Between Junctions	%
Rear shunts	17	14.8	15	22.7
Pulling out into the path of traffic	16	13.9	8	12.1
Failure to give way	20	17.4	3	4.5
Pedestrian crossing	5	4.3	17	25.8
Turning across the path of a vehicle	17	14.8	1	1.5
Cyclist collision	7	6.1	8	12.1
Loss of Control	12	10.4	1	1.5
Collision with an emergency vehicle	2	1.7	3	4.5
Collision during a u-turn	1	0.9	3	4.5
Collision with a stationary object	2	1.7	1	1.5
Misuse of signals	2	1.7	0	0.0
Stopping and reversing	2	1.7	0	0.0
Misreading of signals	1	0.9	0	0.0
Falling off of a bicycle	1	0.9	0	0.0
Pedestrian collision	1	0.9	0	0.0
Other collision	9	7.8	6	9.1
Total	**115**	**99.9**	**66**	**99.8**