

Stroud District Council
Market Town Regeneration
Car Parking Survey - Dursley

April 2005

Halcrow Group Limited

FINAL REPORT

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Contents Amendment Record

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1 Introduction

1.1 *Background*

1.1.1 Stroud District Council appointed Halcrow to undertake surveys and provide advice in relation to parking in the two market towns of Berkeley and Dursley. This followed car parking studies for Nailsworth, Stonehouse and Wotton-under-Edge in 2003. A copy of the study brief is in Appendix A.

1.1.2 Following discussions it was agreed that it would avoid confusions by reporting on the towns separately. This report deals with Dursley.

1.1.3 Dursley is situated in the administrative district of Stroud in the county of Gloucestershire. It is 15 miles south of the City of Gloucester and 25 miles north of Bristol. Cheltenham is 23 miles to the north-east and Bath is 28 miles to the south-east. The nearest airport is Bristol Lulsgate which is around 35 miles away.

1.1.4 Dursley nestles amidst beautiful scenery on the edge of the Cotswold escarpment Area of Outstanding Natural Beauty, above the Vale of Berkeley and the River Severn. Gaining borough status in 1471, Dursley was once the market centre for the whole Vale of Berkeley, also having a significant role in the local wool industry. The town is surrounded by an impressive backdrop of ancient beechwoods and the Cotswold Way passes through the town.

1.1.5 In the central area the pedestrianised Parsonage Street is the main shopping street with the Library close by and the Leisure Centre and main car parking facilities just to the north. Other smaller facilities are located to the east and west of the central area. A plan showing the car parking provision in Dursley is in Section 3.

1.1.6 No parking charges are made.

1.1.7 It is stressed that this is a study of the existing car parking facilities in the centre of Dursley, as defined in the brief. However, the Rackfield Car Park site is identified for redevelopment. The conclusions in this report are based on the present day situation but any subsequent recommendations appertaining to this site and its immediate area will not be included.

1.2 *Structure of Report*

- Section 1 is the introduction;
- Section 2 describes the objectives of the study;
- Section 3 contains the existing parking provision;
- Section 4 sets out the survey methodology;
- Section 5 has the survey results;

- Section 6 makes a comparison with an Off-street survey held in 2002;
- Section 7 contains the car parking audit;
- Section 8 has a summary of the results with conclusions for individual sites and the overall conclusions;
- Section 9 puts forward recommendations;
- The Appendices are under a separate cover enabling them to be observed alongside this report.

2 Study Objectives

- 2.1 Establish the current usage of the existing parking provision in each town centre, including duration of stay and peak accumulation in car parks.
- 2.2 Identify any spare capacity in the defined parking areas.
- 2.3 Provide information on the extent of unofficial or illegal parking in the immediately adjacent areas;
- 2.4 Highlight any potential capacity problems and recommend any possible solutions.
- 2.5 Consider the design, layout and safety of existing parking areas, with particular reference to the potential to increase capacity.

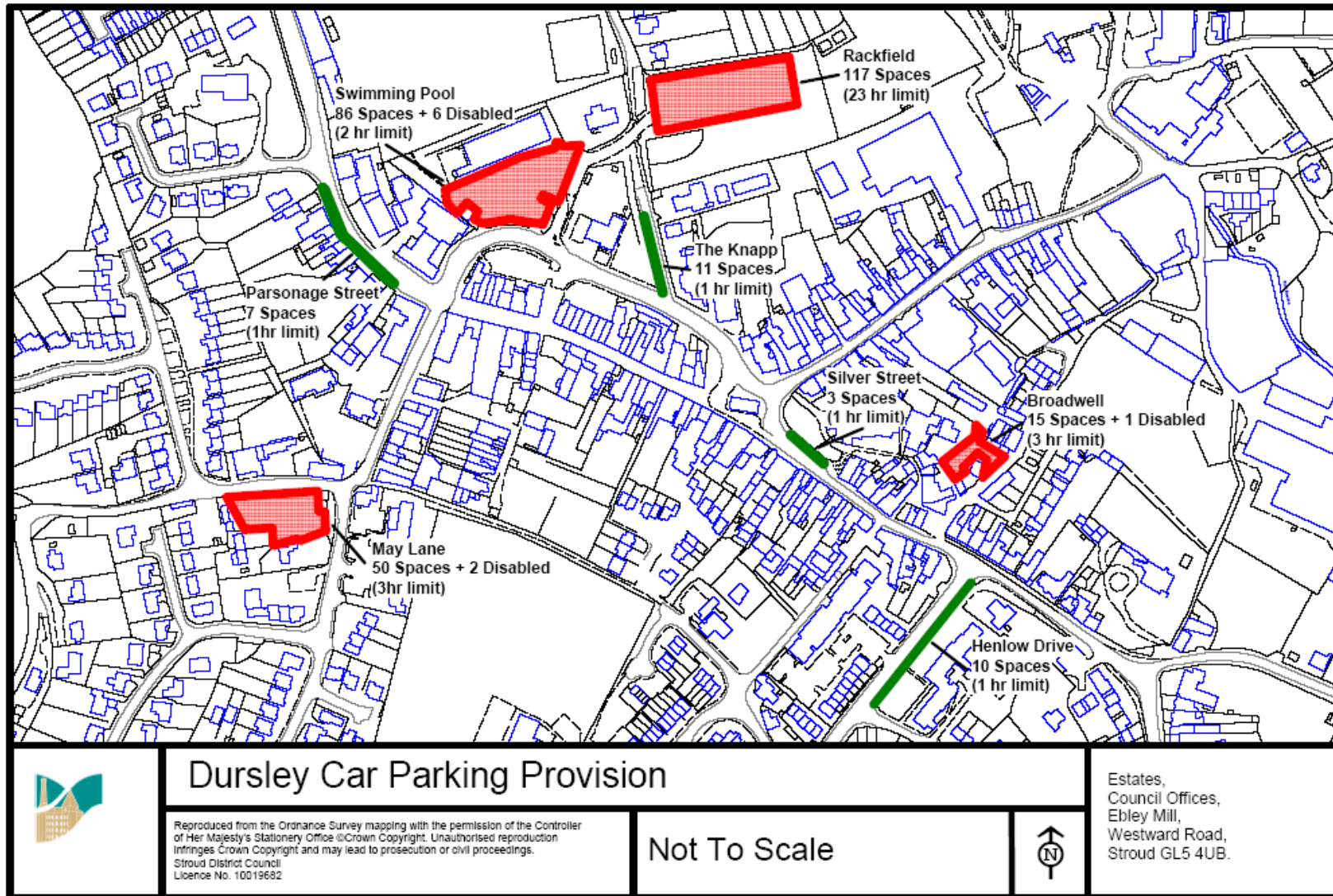
3 Existing Parking Provision

- 3.1 In the area immediate to the town centre there are 4 off-street car parks, 4 on-street sites plus a small on street area dedicated for disable parking. The pedestrianised part of Parsonage Street is the main shopping street. Most of the on-street parking is restricted by double yellow lines. Table 3.1 below gives the parking locations, ownership, total size, spaces reserved for disabled users and the parking restriction. The sizes of the on-street sites are approximate. For convenience the on-street location described in the brief as “Off Castle Street, Adjacent to the College” has been named “The Knapp”.

Table 3.1 Existing Parking Provision

Location	Owner	Type	Total Spaces	Disabled	Restrictions
May Lane	SDC	Off Street	52	2	3 hr (no return within 1hr)
Swimming Pool	SDC	Off Street	92	6	2 hr (no return within 1hr)
Rackfield	SDC	Off Street	117	0	23 hr
Broadwell	SDC	Off Street	15	1	3 hr (no return within 1hr)
Total Spaces			276	9	
Castle Street	GCC	Dedicated	3	3	Disabled Users Only
Parsonage Street	GCC	On Street	7	0	2 hr (no return within 1hr)
Henlow Drive	GCC	On Street	10	0	2 hr (no return within 1hr)
Silver Street	GCC	On Street	3	0	2 hr (no return within 1hr)
The Knapp	GCC	On Street	11	0	2 hr (no return within 1hr)
Total Spaces			34	3	

- 3.2 The locations are shown on the plan opposite and in Appendix A.
- 3.3 There are no parking charges and policing occurs two random days per week.



	<h3>Dursley Car Parking Provision</h3>		Estates, Council Offices, Ebley Mill, Westward Road, Stroud GL5 4UB.
	Reproduced from the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationary Office ©Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Stroud District Council Licence No. 10019682	<h3>Not To Scale</h3>	

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4 Survey Methodology

- 4.1 The survey method was based on a vehicle registration numbers survey gathered by surveyors patrolling car parking areas at regular intervals or by surveyors at entry/exits of car parks. Partial vehicle registration numbers were taken, providing sufficient confidence for individuality without vehicle owners being traceable. The data collected was analysed using the specialised computer software package MicroMatch, widely used in this type of survey. The analysis included car parking occupancy levels, duration and turnover reflecting those made in the previous surveys (as requested in the brief) in Nailsworth, Stonehouse and Wotton-under-Edge. Estimates of spare capacity were made, areas encountering over-capacity highlighted and where possible solutions recommended.
- 4.2 Discussions were held with the client to finalise the surveys required, e.g. the time interval for survey observations and a detailed survey design drawn up by Halcrow staff. Surveyors were employed from a register of traffic enumerators maintained by Halcrow at its Gloucester office.
- 4.3 For the Rackfield Car Park “Ins” and “Outs” were recorded, the Swimming Pool was patrolled every 30 minutes and the remaining sites patrolled every 15 minutes, listed in Table 4.1 below.

Table 4.1 Parking Locations and Survey Methods

Parking Location	Type	Total Spaces	Survey Method
May Lane	Off Street	52	Patrol every 15 minutes
Swimming Pool	Off Street	92	Patrol every 30 minutes
Rackfield	Off Street	117	Entry and Exit
Broadwell	Off Street	15	Patrol every 15 minutes
Castle Street	Dedicated	3	Patrol every 15 minutes
Parsonage Street	On Street	7	Patrol every 15 minutes
Henlow Drive	On Street	10	Patrol every 15 minutes
Silver Street	On Street	3	Patrol every 15 minutes
The Knapp	On Street	11	Patrol every 15 minutes

- 4.4 With the client's approval the surveys were conducted over 12 hours (0700-1900hrs) on Friday 11th and Saturday 19th March 2005. Illegal parking and other relevant incidents at or adjacent to the survey locations were noted.
- 4.5 The term “Short Stay” was defined as a parking area restricted to a maximum stay of 4 hours. The remaining areas were termed “Long Stay” parking.
- 4.6 For each parking area, “Turnover” was the average figure for the number of times a parking space was used over the total survey period, calculated by dividing the total number of vehicles observed by the number of spaces.

- 4.7 From the car park Occupancy results a “general maximum occupancy” was assessed and the continuous length of time that it occurred noted. The average number parked over this period was expressed as a percentage of the car park capacity thus providing a gauge for car park usage and conversely a spare capacity value. The term “minimum spare capacity” indicated the worst possible situation in terms of the number of spaces available.
- 4.8 The theoretical capacity for a parking area was the total number of spaces available. An allowance for operational movements, e.g. cars searching for a space, caused a reduction in the theoretical capacity and manoeuvring into a space was termed as the practical capacity or “full” to allow for operational movements. The practical capacity was assessed as 85% of the theoretical capacity. Exceeding the practical capacity would probably cause drivers to “tour” the area searching for a parking space. In the case of parking areas spread thinly over a district, “touring” will increase the traffic volumes in the town centre.
- 4.9 A highway engineer with experience in car park layout design inspected the car parking areas and made general observations about the existing layouts and conditions. Where relevant the comments were expanded focusing upon car park design, layout and safety improvements.
- 4.10 **Limitations of Methodology**
- 4.10.1 The results were a snap-shot of a Friday and a Saturday in March 2005 and no account was made for day to day and seasonal variations.
- 4.10.2 Data collection by patrolling beats every 15 or 30 minutes was agreed as the most logical and cost efficient means of counting. However this did not capture all short-term parking, e.g. the shopping stop that lasted less than 5 minutes. Consequently the true “average stay” was probably slightly lower than calculated and similarly true turnover rate was slightly higher than calculated.
- 4.10.3 For simplicity, the practical capacity mentioned in section 4.8 above was assessed at 85% of the theoretical capacity and applied generally. This proportion could vary from 50 to 125% from site to site depending on the car park layout, size, ease of access and egress, ease of circulation, marked or unmarked spaces and the parking discipline of drivers (particularly relevant to On-street parking).

5 Survey Results

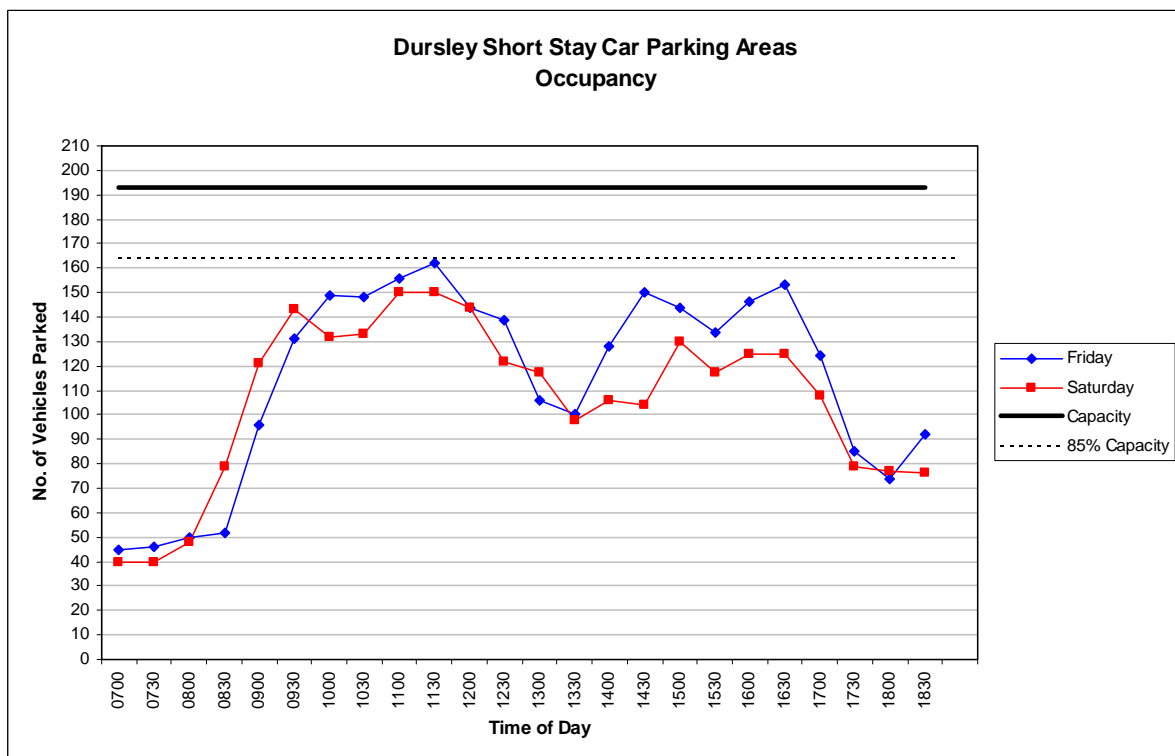
- 5.1 The survey work was carried out on Friday 11th March and Saturday 19th March 2005 and no problems were encountered by the surveyors. Friday's weather was dry and cloudy with a cold west wind. Saturday's weather started with fog, clearing by about 1030hrs, followed by cloudy conditions until 1500hrs leaving the rest of the day sunny.
- 5.2 The computer suite, "Micromatch" was used to analyse the data and the resultant table for each site on each day placed in Appendix B. From these tables graphs were constructed for the accumulation of the numbers parked with the parking capacity, and the duration stay and put into Appendix C.
- 5.3 From the above results "turnover", an average figure for the number of times a parking space was used over the survey day (12 hours) was calculated.
- 5.4 From the car park Occupancy results a "general maximum occupancy" was assessed and the continuous length of time that it occurred noted. The maximum occupancy was expressed as a percentage of the car park capacity thus providing a gauge for car park usage, see Table 5.1 below, and conversely spare capacity.

Table 5.1 Average Stay, Turnover and "General Maximum Capacity"

Location	Survey Day	Spaces	Total vehicles	Average Stay	Turnover	General Maximum Occupancy	
		No.	No.	hrs	Rate/12hr	Time Period	%cap
May Lane	Fri	52	351	0.90	6.8	1545-1630hrs	86
	Sat		251	1.04	4.8	0830-1115hrs	65
Swimming Pool	Fri	92	877	0.82	9.5	1100-1230hrs	91
	Sat		669	1.00	7.3	1130-1200hrs	95
Rackfield	Fri	117	241	2.78	2.1	1000-1245hrs	82
	Sat		213	2.07	1.8	0945-1145hrs	50
Broadwell	Fri	15	63	1.41	4.2	1145-1215hrs	87
	Sat		48	2.32	3.2	1430-1530hrs	100
Castle Street Disabled Users	Fri	3	41	0.51	13.7	1000-1230hrs 1330-1530hrs	100
	Sat		36	0.48	12.0	0900-1145hrs 1315-1400hrs	100
Parsonage Street	Fri	7	89	0.60	12.7	Various	100
	Sat		83	0.55	11.9	Various	100
Henlow Street	Fri	10	99	0.84	9.9	Various	100
	Sat		58	1.47	5.8	Various	100
Silver Street	Fri	3	45	0.58	15.0	Various	100
	Sat		58	0.46	19.3	Various	100
The Knapp	Fri	11	88	0.86	8.0	1015-1145hrs 1400-1415hrs 1615-1700hrs	90
	Sat		67	1.03	6.1	1100-1315hrs	90

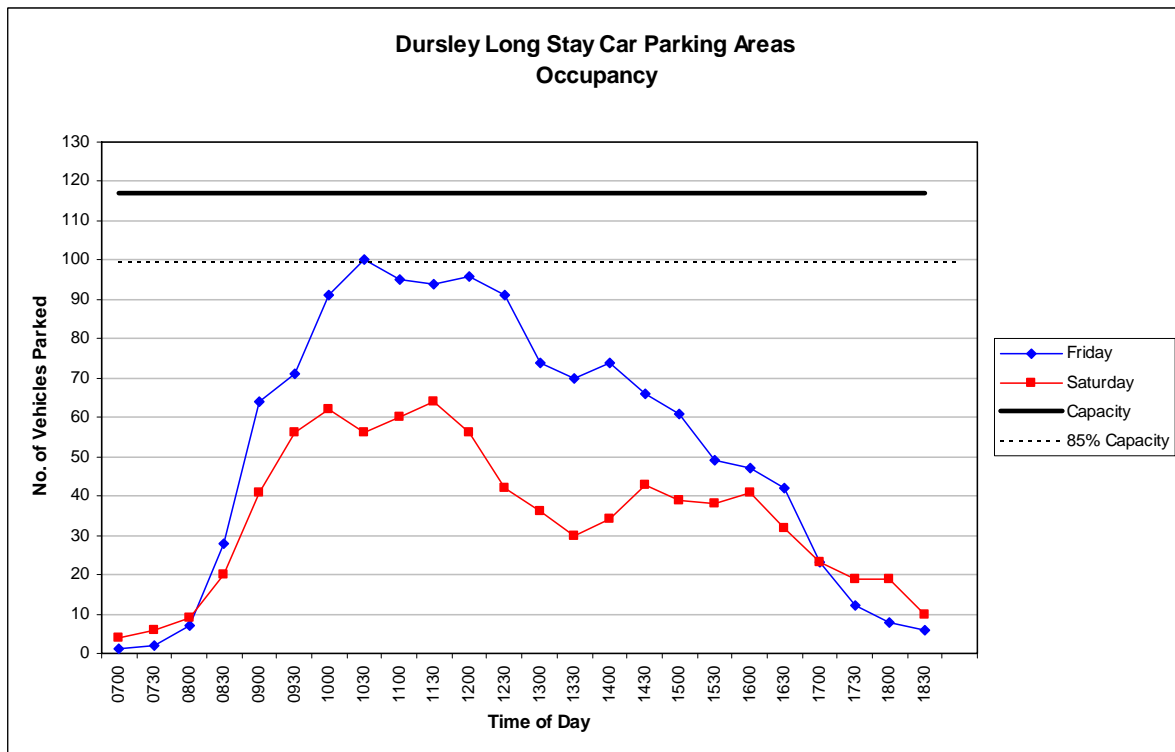
- 5.5 A minimum spare capacity was assessed by applying the “% Maximum Occupancy” to the “Spaces” in Table 5.1. For this assessment it was considered appropriate to include the Castle Street area dedicated to disabled users.
- 5.6 During Friday the On-street minimum spare capacity was assessed at 1 space all day, although this increased in the afternoon. Similarly the Off-street parking minimum spare capacity was 38 spaces. This gave the total minimum spare capacity as 39 spaces, 13% of the total available spaces in the survey brief. With the total quantity of 310 spaces and allowing for operational movement this level of spare capacity indicated that the practical capacity was reached at times during the morning period.
- 5.7 On the Saturday On-street the minimum spare capacity was assessed at 1 space all day, although this increased in the afternoon. Similarly the Off-street spare capacity was 97 spaces all day. This gave the total minimum spare capacity as 98 spaces, 32% of the total available spaces in the survey brief.
- 5.8 The existing random policing checks appeared to have sufficient impact upon the length time cars were parked. In the Rackfield Car Park, limited to 23 hour waiting, the car park was virtually empty at the start of each survey day, showing that there was little or no abuse of the permitted parking period.
- 5.9 The numbers parked and capacities for the short stay parking areas were accumulated and shown in Figure 5.1 below.

Figure 5.1 – Dursley Short Stay Parking



5.10 **Rackfield Car Park** was the only designated Long Stay parking area in the brief and shown in Figure 5.2 below.

Figure 5.2 – Dursley Long Stay Parking



5.11 No comments were received by the survey staff to the effect that their presence was causing drivers to obey the parking restrictions.

5.12 **On-Street Parking – Restricted**

5.12.1 The on-street parking around the central area of the town was limited to 2 hours with the return prohibited within 1 hour. On both survey days the average parking duration, or stay, was less than one hour at all sites except in **Henlow Drive** on the Saturday where the average stay was 1.5 hours.

5.12.2 **Silver Street**, with its capacity of 3 had highest turnover, 15 – 19 vehicles per space for the survey day, and a corresponding low average stay of about half an hour.

5.12.3 **Parsonage Street**, with 7 spaces, was short term parking having an average stay of just under 40 minutes and a turnover of 12 vehicles per space was at capacity at various times on both days.

- 5.12.4 There was a little abuse of the limited waiting restriction and Table 5.2 below shows the number of vehicles exceeding the limited parking time.

Table 5.2 No. of Vehicles exceeding the waiting restrictions

Location	Survey Day	Total No. of Vehicles	Duration – No. of vehicles			Longest Duration
			Between 2 & 3hrs	Between 3 & 4hrs	> 4hrs	
Parsonage Street	Fri	89	2	1	1	4.5 hrs
	Sat	83	4	1	0	3.25 hrs
Henlow Drive	Fri	99	7	4	2	7.25 hrs
	Sat	58	7	6	2	12 hrs
Silver Street	Fri	45	0	0	0	2 hrs
	Sat	58	0	0	0	1.45
The Knapp	Fri	88	7	3	2	8.5hrs
	Sat	67	7	5	3	10 hrs

- 5.12.5 Given the above it was evident that the On-street limited waiting areas were generally well used with very little or no spare capacity for most of the mornings.

5.13 Off-Street Parking

- 5.13.1 **May Lane Car Park** with a 3 hour waiting limit reached 86% capacity for about an hour later in the afternoon on the Friday, although 85% capacity was reached briefly at about 1100hrs. On the Saturday the level of 65% capacity was achieved for most of the morning.
- 5.13.2 **The Swimming Pool Car Park**, restricted to 2 hours waiting, was well used as short stay. During Friday frequent queues of vehicles were observed leaving the Car Park causing problems for those wishing to circulate the short stay car park in search of a space. On these occasions the circulating vehicle usually diverted to the adjoining Rackfield Car Park.
- 5.13.3 **Rackfield Car Park**, permitting up to 23 hours waiting served a dual purpose as the intended long term parking and as the overspill for the short stay Swimming Pool Car Park. On the Friday the car park approached its capacity between 1000 and 1245hrs but the number of vacant spaces increased as the day went on. During the Saturday survey the car park only reached 50% capacity during the morning.
- 5.13.4 The small **Broadwell Car Park** with a 3 hour waiting limit reached 87% capacity for about 30 minutes around midday on the Friday and 100% capacity for about one hour during Saturday afternoon.

6 Comparison with 2002 Survey

- 6.1 The 2002 survey of Off-street locations was carried out between 0800 and 1900hrs on Friday 12th and 0900 and 1600hrs on Saturday 13th September. To make comparisons the survey periods must be the same because any long term parking exceeding the survey period will affect the average duration result. Thus the data from the 2005 survey had to be re-analysed to match the survey periods of the 2002 survey. The client requested that the number of spaces in the Swimming Pool Car Park stated in the 2002 survey report should read “92”, not “79” with the consequential changes to the report.
- 6.2 It must be emphasised that this section does not include On-street parking and thus must not be considered as overall parking in Dursley.
- 6.3 Sometime after the 2002 survey the Castle Street Car Park site became host to the temporary library.
- 6.4 As the Castle Street Car Park no longer exists, two comparisons have been made. Initially a comparison providing an overall view on Off-street parking based on a 2002 scenario including the Castle Street Car Park. Secondly a comparison showing the overall upon the remaining car parks based on a 2005 scenario excluding the Castle Street Car Park.
- 6.5 The comparison used the same format as in Section 5 above. The estimates of spare capacity only apply to Off-street parking. Please note that no estimates of other effects, e.g. changes in population, employment or shopping demands, in the period 2002 to 2005 have been made.
- 6.6 **2002 Scenario – with Castle Street Car Park**
- 6.6.1 This Scenario showed the effect of the loss of Castle Street Car Park upon the overall Off-street parking. The results from each survey were set out in Tables 6.1 and 6.2 below.

Table 6.1. Friday 13th September 2002 and Friday 11th March 2005

Location	Year	Spaces	Total vehicles	Average Stay	Turnover	General Maximum Occupancy	
		No.	No.	hrs	Rate/”day”	Time Period	%cap
Castle Street Car Park	2002	31	330	0.89	10.6	1100-1630hrs	100
	2005	Car park no longer exists					
May Lane	2002	52	408	0.88	7.8	1100-1200hrs	86
	2005	52	342	0.90	6.6	1545-1630hrs	86
Swimming Pool	2002	92	971	0.70	10.6	0930-1200hrs	60
	2005	92	846	0.82	9.2	1100-1230hrs	91
Rackfield	2002	117	219	3.07	1.9	0930-1200hrs	74
	2005	117	235	2.71	2.0	1000-1245hrs	82
Broadwell	2002	15	87	1.71	5.8	0900-1100hrs 1630-1900hrs	100
	2005	15	63	1.41	6.2	1145-1215hrs	87
Totals	2002	307	2015	1.07	6.6		
	2005	276	1486	1.16	5.4		

Table 6.2. Saturday 14th September 2002 and Saturday 19th March 2005

Location	Year	Spaces	Total Vehicles	Average Stay	Turnover	General Maximum Occupancy	
		No.	No.	hrs	Rate/"day"	Time Period	%cap
Castle Street Car Park	2002	31	256	0.82	8.3	0930-1300	100
	2005	Car park no longer exists					
May Lane	2002	52	204	0.90	3.9	1030-1130hrs	75
	2005	52	181	0.85	3.5	0900-1115hrs	65
Swimming Pool	2002	92	256	0.82	2.8	1100-1200hrs	64
	2005	92	505	0.94	5.5	1130-1200hrs	88
Rackfield	2002	117	175	1.73	1.5	1100-1200hrs	50
	2005	117	139	1.39	1.2	0945-1145hrs	50
Broadwell	2002	15	47	2.02	3.1	0900-1200hrs	100
	2005	15	34	1.71	2.3	1430-1530hrs	100
Totals	2002	307	938	1.07	3.1		
	2005	276	865	0.94	3.1		

6.6.2 The loss of Castle Street Car Park resulted in a net overall loss of 31 (10%) spaces for Off-street parking.

6.6.3 The total number of vehicles using the car parks decreased between 2002 and 2005 by 26% on the Fridays and 8% on the Saturdays.

6.6.4 Comparing Fridays, the Off-street parking minimum spare capacity all day fell from 73 spaces (24%) in 2002 to 38 spaces (14%) in 2005. Allowing for operational movements within the car parks the level of spare capacity in 2005 indicates that the Off-street parking capacity in Dursley was approaching the practical capacity during the morning period in 2005.

6.6.5 Comparing Saturdays, Off-street parking minimum spare capacity all day was similar with 105 spaces (34%) in 2002 and 87 spaces (32%) in 2005.

6.7 2005 Scenario – Without Castle Street Car Park

6.7.1 This scenario looks at the effect upon the remaining Off-street car parks due to the removal of Castle Street Car Park. The results from each survey were set out in Tables 6.3 and 6.4 overleaf.

Table 6.3. Friday 13th September 2002 and Friday 11th March 2005

Location	Year	Spaces	Total vehicles	Average Stay	Turnover	General Maximum Occupancy	
		No.	No.	hrs	Rate/"day"	Time Period	%cap
May Lane	2002	52	408	0.88	7.8	1100-1200hrs	86
	2005	52	342	0.90	6.6	1545-1630hrs	86
Swimming Pool	2002	92	971	0.70	10.6	0930-1200hrs	60
	2005	92	846	0.82	9.2	1100-1230hrs	91
Rackfield	2002	117	219	3.07	1.9	0930-1200hrs	74
	2005	117	235	2.71	2.0	1000-1245hrs	82
Broadwell	2002	15	87	1.71	5.8	0900-1100hrs 1630-1900hrs	100
	2005	15	63	1.41	6.2	1145-1215hrs	87
Totals	2002	276	1685	1.10	6.1		
	2005	276	1486	1.16	5.4		

Table 6.4. Saturday 14th September 2002 and Saturday 19th March 2005

Location	Year	Spaces	Total Vehicles	Average Stay	Turnover	General Maximum Occupancy	
		No.	No.	hrs	Rate/"day"	Time Period	%cap
May Lane	2002	52	204	0.90	3.9	1030-1130hrs	75
	2005	52	181	0.85	3.5	0900-1115hrs	65
Swimming Pool	2002	79	256	0.82	2.8	1100-1200hrs	64
	2005	92	505	0.94	5.5	1130-1200hrs	88
Rackfield	2002	117	175	1.73	1.5	1100-1200hrs	50
	2005	117	139	1.39	1.2	0945-1145hrs	50
Broadwell	2002	15	47	2.02	3.1	0900-1200hrs	100
	2005	15	34	1.71	2.3	1430-1530hrs	100
Totals	2002	276	682	1.16	2.5		
	2005	276	865	0.94	3.1		

- 6.7.2 In this comparison, with the results from the Castle Street removed, the overall number of spaces was unchanged 276.
- 6.7.3 Between 2002 and 2005 the total number of vehicles using the car parks decreased by 12% on the Fridays but increased by 27% on the Saturdays.
- 6.7.4 The minimum spare capacities for individual car parks and the totals for 2005 were obviously the same and only the totals for 2002 changed due to the removal of the Castle Street Car Park results, which had a General Maximum Occupancy of 100%. On Fridays, the Off-street parking minimum spare capacity all day fell from 73 spaces (26%) in 2002 to 38 spaces (14%) in 2005 and the Saturdays were similar with 105 spaces (38%) and 87 spaces (32%) respectively.

6.7.5 To illustrate the overall effect upon the remaining car parks the Occupancies, number of vehicles parked (excluding those at the Castle Street Car Park in 2002), were accumulated for the Fridays and Saturdays, see Figures 6.1 and 6.2 below. Allowing for the apparent time slip on the Friday figure each case showed an increase in Occupancy over the day.

Figure 6.1

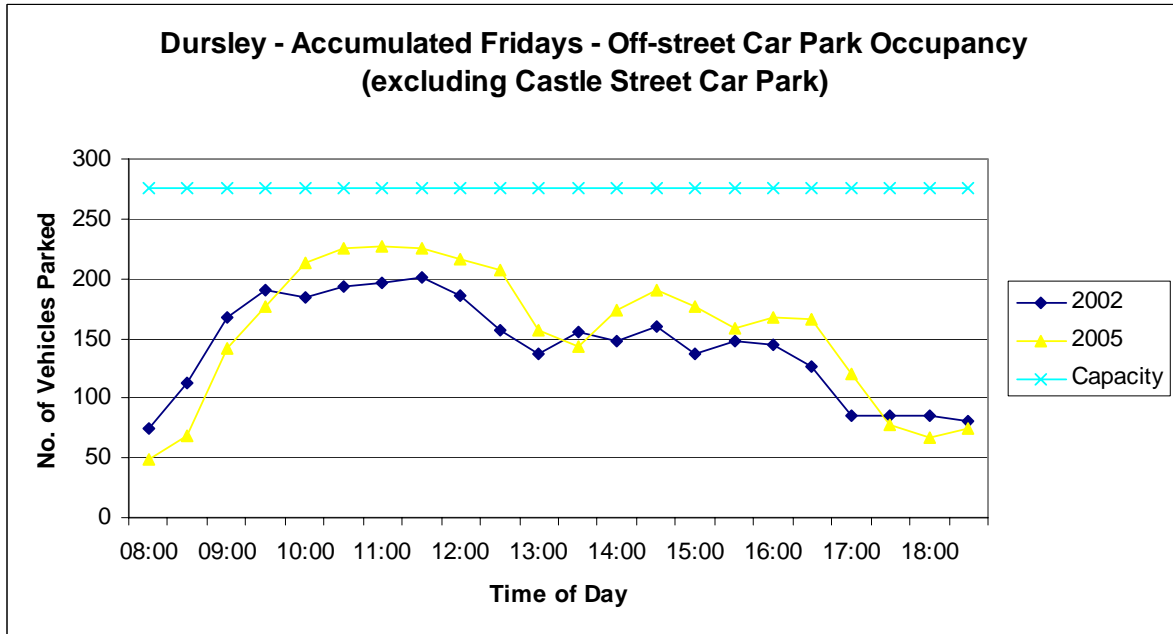
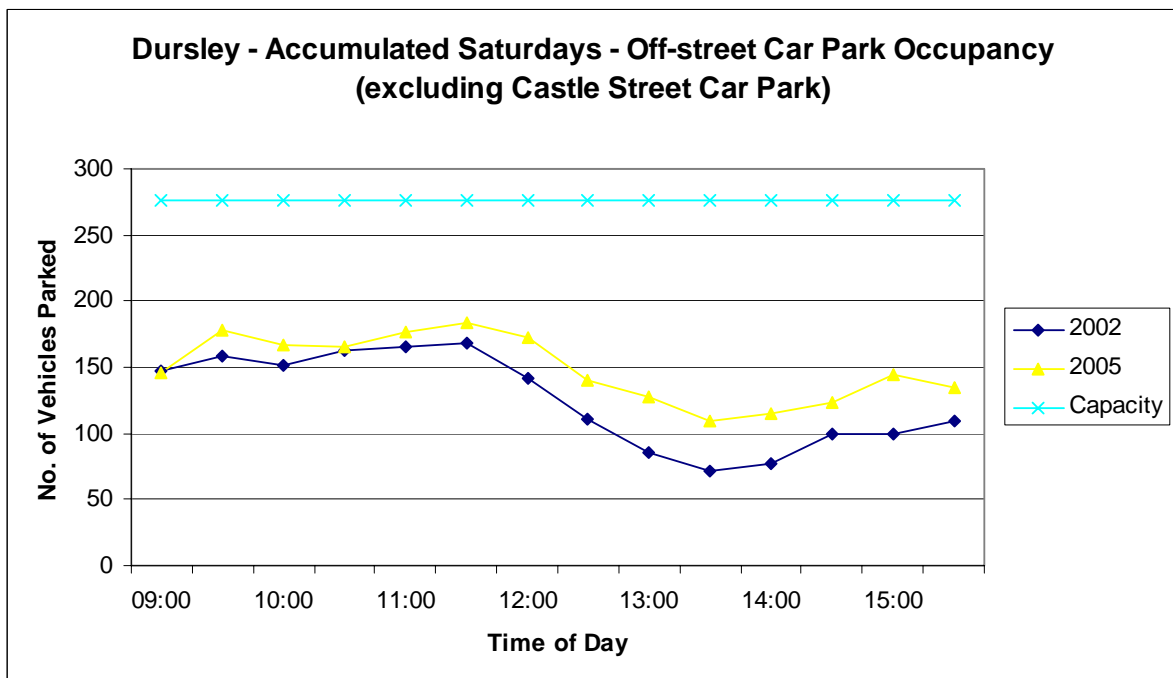


Figure 6.2



6.8 **Conclusions**

- 6.8.1 The removal of Castle Street Car Park saw an overall loss of 31 spaces in Off-street parking between 2002 and 2005 and the latest survey showed the existing capacity meeting any peak demands.
- 6.8.2 Overall the weekday (Fridays) parking demand fell, shown by the decrease in the total number of vehicles observed in both comparisons, and the average stay increased by about 5%.
- 6.8.3 The Saturday parking demands rose and the average stay decreased by about 8%.
- 6.8.4 Generally, the loss of the Castle Street Car Park was successfully accommodated by the remaining car parks although, allowing for operation movements, the existing levels of parking are approaching capacity.

7 Car Park Audit

- 7.1 Audits of the individual car parks and off-street parking have been carried out as part of a detailed investigation of the existing parking provision in the towns. These audits focused on aspects of the design, layout and safety of the car parks.
- 7.2 The information provided by these audits was assessed by an experienced highway engineer and a 'health check' produced for each car park. The checks highlight any inadequacies in the design, layout, safety and other aspects of the car parks and provide a list of improvements necessary to enhance parking in these car parks and the towns in general.
- 7.3 The 'health checks' also serve to point out other specific problems especially as regards the provision of pedestrian and disabled facilities, safety and security, accessibility, and others. These 'health check' for the individual car parks are presented in Appendix D.
- 7.4 On-Street Parking**
- 7.4.1 In **Castle Street**, the 3 spaces were dedicated for disabled users only, located near to a telephone kiosk and immediately adjacent to the shopping street.
- 7.4.2 Current on-street parking is the secondary feature in the town but is equally heavily used. The layout of on-street parking was satisfactory in terms of space utilisation, but in one location, **Silver Street**, leaves a lot to be desired in terms of quality of provision and in another in terms of through traffic flow.
- 7.4.3 The small area of on-street parking on B4066 **Silver Street** appears to be in high demand to such an extent that more than the appropriate number of cars is sometimes parked there. This in turn causes an obstruction to through flowing vehicles, compounded when local deliveries are being made to the shops on the opposite side of the road. This has the affect of obscuring visibility for pedestrians wishing to cross the main road and had the potential to cause accidents. It may be appropriate to reconsider if this area can be utilised better or if physical alterations can be made to the kerbing/footway to regulate the number of vehicles parking. The area around the Market Place, adjacent to this location, may be acceptable for providing additional or alternative parking provision for Silver Street.

- 7.4.4 Parking on **The Knapp (South)** to the east of the swimming pool car park is less organised and could benefit from repairs to the surfacing, improvement in lighting and re-application of the road markings. The footway has low kerbing and vehicles mount the footway to turn around, a danger to pedestrians and cyclists. It may therefore be appropriate to further investigate a turning head at the end of the road.
- 7.4.5 **The Knapp (South)** has been part of an investigation for a proposed footway/cycle route between Dursley Town Centre and Cam Station but the uncertain effects from the redevelopment of the old engineering works caused the suspension of these investigations.



Silver Street



The Knapp

- 7.4.6 On **Parsonage Street** and **Henlow Drive** the existing on-street parking works well but need to have the appropriate road markings refreshed.



Henlow Drive



Parsonage Street

7.5 Off-Street Parking

- 7.5.1 There are approximately 279 off-street car parking spaces in Dursley (including the just-off-street) including 12 spaces provided for disabled users. This is better than the recommended minimum of 4% of total allocated as disabled spaces.
- 7.5.2 Vehicular access and egress to off-street parking in Dursley is on the whole satisfactory, although the signage to the smaller car parks is in need of improvement.



May Lane



Broadwell

- 7.5.3 **May Lane Car Park** was in good condition with the added feature of segregated vehicle access and egress. Two vehicles parking in an area with no markings at the top or western end were not interfering with circulating traffic showing two extra spaces could be added to the existing layout.
- 7.5.4 **Broadwell Car Park**, accessed off Water Street, was rather secluded with barely adequate lighting which raised personal safety and security issues. Safety and security concerns may affect usage in the winter months when periods of natural light decrease. This small car park also gave access to private and commercial premises and had no potential for expansion. To encourage its use would need to have lighting, pedestrian, cyclist and disabled user needs significantly improved.
- 7.5.5 Drivers leaving the **Swimming Pool** and **Rackfield Car Parks** frequently join a queue to access the A4135 road. It was observed that the operation of the signalled pedestrian crossing in Castle Street created opportunities for the egress of up to 3 right-turning vehicles per signal cycle from the two car parks. The junction and the joint access road require further study with a view to improving the exit from the car parks, possibly by replacing the existing priority junction onto the A4135 with traffic signal control. The new junction could incorporate the existing signalled pedestrian crossing.



Swimming Pool



Rackfield

- 7.5.6 When the **Swimming Pool Car Park** was nearly full the existing shared access off the A4135 proved to be less than satisfactory and consideration should be

given to investigating alternative arrangements within the available land. During the site visit it was raining and a lot of surface water was in the car park to the inconvenience of pedestrians.

- 7.5.7 The direct access to the **Rackfield** long stay facility did have its route segregated from the circulatory lane within the short stay by concrete bollards but this was not immediately easy to appreciate and users travelled through the short stay to get to the overflow car park. There was no footway between the Rackfield and the Swimming Pool Car Parks, causing pedestrians to walk on the roadway.

7.6 General Comments

- 7.6.1 The general condition of the car parks is satisfactory in terms of access, surface condition and markings. The layouts of the car parks are also generally good.
- 7.6.2 Disabled facilities in and around the town centre streets were observed to be acceptable, bolstered by the dedicated provision for three vehicles to the rear of Barclays Bank, Castle Street.
- 7.6.3 On the whole there are adequate provisions for cyclists in the town with bespoke street furniture providing ample locations for securing cycles in the Town Centre.
- 7.6.4 There are limited provision for pedestrians and cyclists in the smaller off street car parks. In many cases there are no dropped kerbs or ramps, and the existing condition of the footways and kerbing does little to provide for acceptable desire lines. It is appreciated that the ongoing development works in the town are a temporary situation.

8 Conclusions

Note: It is acknowledged that some of the Conclusions may not be within the District Council powers.

8.1 The following table summarises the survey results with individual conclusions

Location	Summary	Conclusions
May Lane Car Park	<ul style="list-style-type: none"> • Waiting Limited to 3 hours • The maximum utilisation was 86% for about an hour during the Friday afternoon • 75% of all users parked for less than an hour on the Friday, 71% on the Saturday • Long Stay parking accounted for 0.2% of all users on the Monday and 5% on the Saturday • In good condition, well signed separate access and egress • Has reserved spaces for disabled users • Only one lighting unit – additional units required • No markings at the west end of car park and vehicles parked there without hindrance to other users. 	<ul style="list-style-type: none"> • This car park is in good condition • Additional lighting would improve security. • Two extra spaces could be marked at the west end.
Swimming Pool Car Park	<ul style="list-style-type: none"> • Waiting limited to 2 hours • The maximum utilisation was over 90% for about an hour during the late morning on both days • 86% of all users parked for less than an hour on the Friday, 77% on the Saturday • Long Stay parking accounted for 0.1% of all users on the Friday and 1% on the Saturday • In very good condition with a separate external access for pedestrians from the pedestrian crossing in 	<ul style="list-style-type: none"> • Circulating vehicles obstructed by queue of vehicles leaving the site. • Improve the access road by better utilisation of the space between car park and the Fire Station • General condition of car park is good

	<p>Castle Street.</p> <ul style="list-style-type: none"> • Has reserved spaces for disabled users • Potential to improve the short access road onto Castle Street. • Surface water drainage could be improved 	
Rackfield Car Park	<ul style="list-style-type: none"> • Waiting limited to 23 hours • The only public Long Stay car park • The maximum utilisation was just over 80% for about 2 hours during the late morning on Friday and 50% over a similar period on the Saturday • Long Stay parking accounted for 30% of all users on the Friday and 17% on the Saturday • Acted as a Short Stay overflow for Swimming Pool Car Park • About 45% of all users parked for less than an hour • No footpath access from the Swimming Pool car park • The entrance to car park is crossed by a footpath from The Knapp with no demarcation. • Access road to Castle Street shared with Swimming Pool car park • The lighting is inadequate • Road markings need renewing. 	<ul style="list-style-type: none"> • Access and egress is satisfactory • No pedestrian facility connecting to the Swimming Pool car park. • The footpath from The Knapp not sufficiently marked where it crosses the access into the car park • The lighting should be improved • General condition of car park is good
Broadwell Car Park	<ul style="list-style-type: none"> • Waiting limited to 3 hours • The maximum utilisation was 87% for about 30 minutes around midday on the Friday and 100% for an hour during Saturday afternoon • Long Stay parking accounted for 5% of all users on the Friday and 23% on the Saturday • Of the Short Stay parking 	<ul style="list-style-type: none"> • The secluded location gave rise to personal safety issues • The lighting should be improved • Advanced signage needs improvement • General condition of car park is good.

	<p>about 55% of all users parked for less than hour</p> <ul style="list-style-type: none"> • Inadequate provision for disabled users • Secluded location – personal safety issues • The lighting is inadequate • Advanced signage requires improvement, especially at the junction with Silver Street where there is poor forward visibility. 	
<p>On Street Parking - Restricted</p>	<ul style="list-style-type: none"> • The occupancy was virtually at capacity during the morning. • Of all users about 85% parked for 1 hour or less. • Of all users about 70% parked for less than 30 minutes • Long Stay parking (over 4 hours) accounted for about 2% of all users • Good facilities very close to the town centre for disabled users at Castle Street. • Generally, the road markings in need of attention. • High parking demand Silver Street (3 spaces) caused problems to the through flow of traffic • Local deliveries in Silver Street caused problems to the through flow of traffic • The above problems caused problems for pedestrians wishing to cross Silver Street. • In The Knapp, off Castle Street, the footways had low kerbs being over-run by vehicles. Road surfacing in poor condition. 	<ul style="list-style-type: none"> • Generally well used with little or no spare capacity in the mornings. • Good facilities for disabled users at Castle Street • The parking situation in Silver Street caused problems to the through flow of traffic and to pedestrians trying to cross the road. • The Knapp, off Castle Street, required maintenance.

8.2 Overall Conclusions

8.2.1 The town centre attracted a large demand for short term parking and the parking capacity met the present day requirements.

- 8.2.2 The short term parking desire was well within the periods of limited waiting restrictions and resulted in very little abuse. Although the presence of survey staff may have had some influence no relevant comments were heard by the survey teams.
- 8.2.3 On-street parking within the town as a whole was seen to be well organised and presented no problems for the free flow of traffic, save perhaps the three spaces on Silver Street. It was observed however that there may be potential for introducing additional or alternative parking provision around the Market Place adjacent to this location.
- 8.2.4 The On-street parking was short-term with an average parking duration of less than 1 hour with the exception of Henlow Hill on the Saturday.
- 8.2.5 Other pedestrian facilities in terms of dropped kerbs, footways, crossing points in relation to street parking were found to be adequate.
- 8.2.6 For Off-street parking, external pedestrian and disabled accesses are adequate on the whole, with separated facilities to the Swimming Pool short stay car park. However there is limited or no internal provision and improvements may be required.
- 8.2.7 Lighting conditions within the smaller car parks were found to be barely adequate. This may potentially place the safety and security of the users at risk and would discourage the use of these parks outside of daylight hours.
- 8.2.8 The general condition of the car parks in this town was found to be adequate, although advanced signage to Broadwell car park needs to be improved.
- 8.2.9 The capacity of May Lane Car Park could be increased by marking two additional spaces to the existing layout.
- 8.2.10 Off-street parking surveys in 2002 and 2005 showed that the present day parking had coped with the loss of the Castle Street car park. However any further loss in the total number of spaces could cause car parks to reach full or over capacity.
- 8.2.11 The following conclusions about the Rackfields and Swimming Pool Car Parks are based on the survey findings and no account is made of the impending redevelopment of the Rackfields Car Park
- Rackfields is the only public Long Stay car park.
 - Rackfieds acts as the overspill for the Swimming Pool car park
 - No pedestrian footway connecting the two car parks.
 - Problems for vehicles entering Castle Street frequently causes queuing that obstructs those wishing to circulate the short stay Swimming Pool Car Park. The obstructed drivers transfer to the long stay Rackfield Car Park.

9 Recommendations

Note: It is acknowledged that some of the Recommendations may not be within the District Council's powers.

- 9.1 Due to the impending redevelopment of Rackfield Car Park it is considered irrelevant to put forward any recommendations based on the present day situation for this and the neighbouring Swimming Pool Car Park site.
- 9.2 Re-new the road markings for the On-street parking facilities.
- 9.3 As a safety measure investigate the feasibility of new kerb alignment in Silver Street restricting the parking to only three cars.
- 9.4 Assess the feasibility of creating 2 more spaces at the May Lane Car park.
- 9.5 Investigate improvement in signage and lighting for the off-street parking, including the introduction of advanced signage to Broadwell Car Park.